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TRAFFIC CRASH INJURIES AND DISABILITIES: THE BURDEN ON INDIAN SOCIETY

SaveLIFE FOUNDATION
IMPROVING ROAD SAFETY AND EMERGENCY CARE ACROSS INDIA

TRAFFIC CRASH INJURIES AND DISABILITIES: THE BURDEN ON INDIAN SOCIETY

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FOREWORD

Road crash deaths in India, which are the highest in the world, are a burden on its demographic dividend and have a tangible impact on poverty. The disproportionate impact can be gauged by the fact that with only 1 percent of world's vehicles, India accounts for 11 percent of all crash related deaths or expressed different, a crash death happening every four minutes. Crashes on India's roads claim the lives of about 150,000 people and disable at least an additional 750,000 each year, large share of which are pedestrians and cyclists, mainly representing working age adults from the poorer strata of society.

Traffic literature has confirmed that road crash injuries and deaths have a profound long-term impact on income growth and welfare loss that further constrains the human capacity in emerging economies. A previous macroeconomic study by the World Bank on road safety indicated that reducing road traffic injuries in half could translate into an additional 15 to 22 percent of GDP per capita income growth over 24 years. This means in practice that, for a country like India, failing to meet the UN Sustainable Development Goal target to halving road deaths by 2020—this is, the cost of inaction—accrues to about 2 - 3 percent points in unrealized per capita GDP growth for low- and middle-income countries. More recent work carried out by the India Ministry of Road Transport and Highways (MoRTH) have presented figures that crash costs may be equivalent to 3.14 percent of the national GDP.

The impact of road injuries on economic productivity tells us only part of the story. Aside from their direct impact on

the income growth of a country, road traffic injuries also cause individual and social welfare losses that cannot be ignored. The poor in particular are largely vulnerable to the impact of road crashes. In a country like India, pedestrians, bicyclists and motorcyclists who mostly represent the poor income strata of the society also happen to have the least safety protection in the event of a traffic crash. They account for more than half the total road crash deaths. And among those unfortunate ones who are involved in a crash do not have adequate access to medical and social safety net and the burden of the crash is borne not only by the victim but by their entire households and immediate family. Such financial consequences of road traffic crashes and its impact on the poor makes this an impediment towards achieving World Bank's goal of shared prosperity for the bottom 40 percent of the society.

While policymakers across sectors increasingly recognize road traffic injuries as a socioeconomic burden, there is limited evidence available in India which have purposely quantified the burden of road traffic injuries to the different demographics of the society. The present survey-based study commissioned by the World Bank and implemented by Save LIFE Foundation – a national NGO focused on road safety – presents a novel and unique perspective into this data gap. The results from the study showcase links between poverty, gender, and road user-type by analyzing primary data collected from four states in India – Uttar Pradesh, Bihar, Tamil Nadu and Maharashtra. The novelty of the analysis is, for the first time in India, the disproportionate financial impact due to road crash crashes faced by low income households has been quantified along with providing insights into interactions of road crash victims and their families with systems, process and institutions like the police, insurance companies, and medical system.

Most importantly, this work reaffirms the importance of looking at road safety as a cross-cutting development issue for India. The emphasis being on improving India's crash reporting system, post-crash emergency care and protocols, and a proactive insurance and compensation scheme aimed at providing financial relief to the vulnerable sections of the society. Achieving a sustained reduction in road traffic injuries would be a significant milestone for India's socioeconomic development, with far-reaching benefits for economic growth, wellbeing, and public health. While this is the beginning of the journey, such research and findings would arm policymakers with the knowledge and data they need to design solutions that benefit the poor, create resilient economies, and save millions of lives.

Junaid Kamal Ahmad
Country Director, India
World Bank

EXECUTIVE SUMMARY

CHAPTER 1

ROAD CRASH STATISTICS

GLOBAL

- Globally, road crashes kill 1.35 million people and injure 50 million people every year; or more than 3000 persons every day.
- Road Traffic Injuries (RTIs) are the 8th leading cause of death globally and leading cause of death among children and young adults aged 5-29.
- There is ample evidence to suggest that RTIs affect the working age population most severely

INDIA

- India tops the world in road crash deaths (WHO, 2018), with more than 400 fatalities per day.
- India has 1% of the world's vehicles but accounts for 11% of all road accident deaths and 6% of total road crashes (MoRTH, 2018)
- In the last decade alone, road crashes have killed 1.3 million and injured over 5 million in India.

Road crashes endanger the lives and livelihoods of millions of road users globally and in India (see Box 1). Owing to the epidemic of road crashes, in 2010, the United Nations General Assembly proclaimed 2011 – 2020 as the "Decade of Action for Road Safety" and the Sustainable Development Goals (SDGs) included two important targets on road safety. The risk of a road crash in low-income countries is three times higher than compared to that in high-income countries. Not only does it lead to untold and unaccounted for suffering and loss for victims and their families, but also, it drains the GDP of countries by claiming millions of economically productive young lives. The World Bank estimates the total cost of Road Traffic Injuries (RTIs) at $172 billion (INR 12.9 lakh crore) for the year 2016. While it is recognized that RTIs affect the developed and developing world in different ways, it also impacts poor households and disadvantaged sections of the population within developing countries differently.

World Bank commissioned a survey-based assessment study in association with the Save LIFE Foundation (SLF) to determine such differential impacts more objectively in India.

This study aims to capture the socioeconomic realities and nuances of road crashes at the sub-national level in India. It seeks to document inter-linkages between poverty, inequalities, road users, and road crash outcomes by analyzing data from four States in India, i.e., Uttar Pradesh, Bihar ,Tamil Nadu and Maharashtra. The four states have been selected on the basis of several criteria including demographic and geographical representation, magnitude of fatality burden and socio-economic parameters such as economic growth, poverty rate and social welfare. One state from each of the four geographical zones of the country were selected which cumulatively represents about one third of

EXECUTIVE SUMMARY

total road crash deaths in the country. In terms of economic parameters, Maharashtra and Tamil Nadu are selected to represent High Capacity States (HCS) whereas Bihar and Uttar Pradesh are selected to represent Low Capacity States (LCS). The study quantifies the differential financial impact of RTIs on poor disadvantaged households by comparing a test sample of victims and their family members from Low-Income Households (LIH, i.e., the bottom 40% of the population by per capita income) with a control sample of High Income Households (HIH, i.e., the top 10% of the population in terms of per capita income). It also reveals the gendered and psychological impact of crashes, a subject that has been hitherto unacknowledged in previous studies. It sheds light on the interactions of road crash victims and their families with systems, processes and institutions such as the police, insurance companies and the medical care system at large. Further, this study also captures the level of understanding and awareness of truck drivers on the recently passed Motor Vehicles (Amendment) Act, 2019 and on insurance and compensation in the event of a crash. The study reveals that social hierarchies and realities like class, gender and geographical location largely determine road crash outcomes and the severity of their impact in India. It highlights the nature and extent of the disproportionate impact of road crashes in terms of fatalities and serious injuries among poor and rich households. It elaborates on how socioeconomic inequalities affect households and in turn contribute to widening that gap.

A multi-stage purposive sampling method was used to select the target respondents for this study. The key target groups include road crash victims/their family members who had undergone a serious injury or fatal crash, and truck drivers involved in a crash in the last 15 years (from January 2005 - July 2019). Both exploratory and descriptive research was included. While the quantitative surveys covered over 2400 interviews with LIH, HIH and truck drivers, the qualitative part of the study included 3 Focus Group Discussions (FGDs) with women in Bihar and Uttar Pradesh and 8 in-depth interviews with adolescents.

Some of the **key findings** of the report are :

- Overall, the post-crash impact was more severe for **LIH in Low Capacity States compared to HIH in High Capacity States.**

- **The incidence of fatality post-crash is higher among victims from LIH than HIH.** As high as 44% of the households in rural areas reported at least one death after a road crash compared to 11.6% of households in urban areas. Similarly, LIH reported twice the numbers of deaths post-crash vis-à-vis HIH. Victims from LIH and rural areas are also twice more likely to suffer a disability after a crash than their HIH counterparts.

- **The socio-economic burden of road crashes is disproportionately borne by poor households.** The decline in total household income was sharper among LIH (75%) than HIH (54%). The severe impact of decline in income was highest among LIH in rural areas (56%) compared to LIH in urban areas (29.5%) and HIH rural (39.5%), and cases where victims died as well as where victims were males.

- **The ability to cope with financial distress post crash was better for HIH than LIH.** LIH were three times more likely to seek financial help than HIH. Debt rates were also almost three times higher among LIH compared to HIH. In addition to financial distress, poor households experience a deterioration in their quality

of life accompanied by psychological suffering and emotional distress.

- **Within households, women bear the brunt of caregiving activities post-crash, leading to a double burden of labour and mental load and exacerbated inequality of opportunities in returning to livelihoods and income generating tasks.**

- **Inequality in insurance coverage and delay in accessing compensation mars the quick recovery process for LIHs.** Insurance coverage was significantly higher among HIH and households in urban areas vis-à-vis LIH and urban areas.

- **Information asymmetry and poor awareness of legal compensation among LIH compounds their distress.** Only less than a quarter of the LIH victims were aware of the compensation process and insurance clauses; just a handful of the victims availed of government compensation/ex gratia.

- **Low rates of insurance coverage and poor awareness related to legal compensation processes among truck drivers.** Only a fifth and two-fifths of truck drivers surveyed were covered under medical insurance and life insurance respectively at the time of the crash. Overall, two-thirds of truck drivers were not aware of third-party liability insurance. None of the drivers had applied/benefited from cashless treatment at the hospitals, Solatium Fund for hit and run case or ex-gratia schemes.

The above findings of the report highlight the need for immediate improvements in crash reporting, post-crash emergency care and protocols, insurance and compensation systems. It presents an opportunity for development agencies working in the sector to prioritise their targets and budgets, and for policymakers and respective State Governments to mandate a complete policy overhaul of the existing system and implement sustainable, solution oriented, inclusive measures to improve their performance on road safety. The report provides related recommendations for policy reform under six key areas as follows:

1. Need for effective institutional mechanisms and awareness building.

There is a need to improve VRU safety especially for LIH in rural areas, who are most at risk in road crashes. There is also a need for the State Governments to ensure greater sensitisation and awareness among stakeholders, especially the police who are often reluctant to file FIRs.

2. Institutionalise post-crash emergency care and make health infrastructure & coverage more accessible & inclusive.

The Central Government should urgently implement the cashless treatment scheme under Section 162(2) of Motor Vehicle (Amendment) Act, 2019, reducing Out-of-Pocket-Expenses for LIH, increasing health insurance coverage and extending its scope to address post-crash disability and mental health effects.

3. Provide a Social Security Net for crash victims from LIH through State Support.

The Central and State Governments should introduce

vocational and educational support for victims and their families through community programmes and special schemes for jobs, skilling &education. Comprehensive rehabilitation support also needs to be extended to crash victims especially those with post-crash disabilities.

4. Create an accessible legal framework for availing insurance and compensation for road crash victims.

The Central Government should create schemes to increase insurance coverage and penetration for LIH. Insurance agencies should broaden the scope of insurance policies by including rehabilitation and recovery of crash victims. Since most compensation payments take time to process, under Section 164A of MVAA 2019, the Central Government must make provisions to provide interim compensation to crash victims to provide for immediate relief. The comprehensive coverage of MCTAP needs to be ensured through better mechanisms for effective coordination.

5. Recognize the gendered impact of road crashes and address it through participative governance & special schemes for women

Central and State Governments should incentivize employment opportunities for women affected by road crashes. Steps could include: encouraging small businesses in work from home set up, providing low-interest loans and emergency cash transfers to post-crash turned female-headed households. Women from households who have lost the breadwinners in road crashes should also be automatically enrolled in the State Government's employment database.

6. Strengthen post-crash support for children and young adults through state support.

State Governments should implement progressive provisions on child road safety under Sections 194B, 129 and 199A of the Motor Vehicles (Amendment) Act, 2019, framing a rigorous policy on child road safety and provide support for children and adolescents affected by road crashes. The State Government should ensure a minimum of three month moratorium on school fees for children impacted by road crashes from LIH.

The report provides detailed recommendations for strengthening institutional agencies to respond to the needs of VRUs and associated households. It lays out suggestions for States to strengthen their institutional capacities, to respond better to the challenges presented by road crashes and improve their performance, and to create efficient mechanisms for LIH to get access to legal and insurance-based compensation after a crash to mitigate their financial burden. These recommendations, if implemented, have the potential to significantly improve the lives of vulnerable road users and to create far-reaching positive road safety outcomes.

This study was initiated during the Covid-19 national lockdown period and has its limitations: it is limited to four States; it covers the financial impact on households for just the treatment period; it does not cover minor injury cases and their impact. It focuses on highlighting the differences in the short-term and long-term, direct and indirect impacts of road crashes on the victims and their households by comparing those having meagre resources and capacities to respond to a road crash (Low Income Households)

with those having comparatively more resources and social capital to mitigate a sudden crisis (High Income Households).Additionally, this report was conceptualised as a sub-national study to understand the impact of road crashes from the perspective of specific demographics. Central and State governments to build on this by initiating studies at a more granular level (municipality, census tract or ward levels) to assess the impact of crashes. In addition, the analysis is based on self-reported data from victims and their family members, and as such may be susceptible to associated potential biases, although care has been taken to mitigate this wherever possible. The data has been validated by asking respondents different questions at different points of time and cross-verifying and triangulating the information provided by them through other qualitative methods (that use other data sources such as insurance service providers data, and data from other similar studies etc). Efforts were made to weed out any biases that might have crept into the data thorough quality checks and statistical data validation exercises. Due to the pandemic, the methodology also had to be revised by adopting a mix of face-to-face and telephonic interviews (with shorter questionnaires), and this may somewhat effect as well. It also needs to be stated that this is not a longitudinal study (i.e., looking at long-term impacts of road crashes). As such, this study could be a precursor to follow-on studies on road crash related disabilities to holistically assess its long-term impacts on victims and their households (that are done routinely worldwide). Nevertheless, a baseline mapping of road users via such state-specific assessments can help inform the choice, design, and sequencing of alternative policy options, which in turn can improve the lives of millions of road users in India.

We acknowledge the work being carried out by the Ministry of Road Transport and Highways (MORTH) to improve overall road safety in the country. The Ministry's annual report on 'Road Accidents in India' is a valuable and rich resource for policy makers and researchers alike that provides detailed and comprehensive data on the causes, patterns, types and inter-state and global comparisons of road crashes in the country. Working across the 4Es of road safety, Engineering, Enforcement, Education and Emergency care; the Ministry is undertaking various initiatives that demonstrate its global commitment to reducing road crash fatalities by at least 50% by 2030. One such commendable initiative is the Integrated Road Accidents Database (IRAD) Project under World Bank Assistance that will help capture information in a more unified and holistic manner to facilitate formulation and execution of targeted programs.

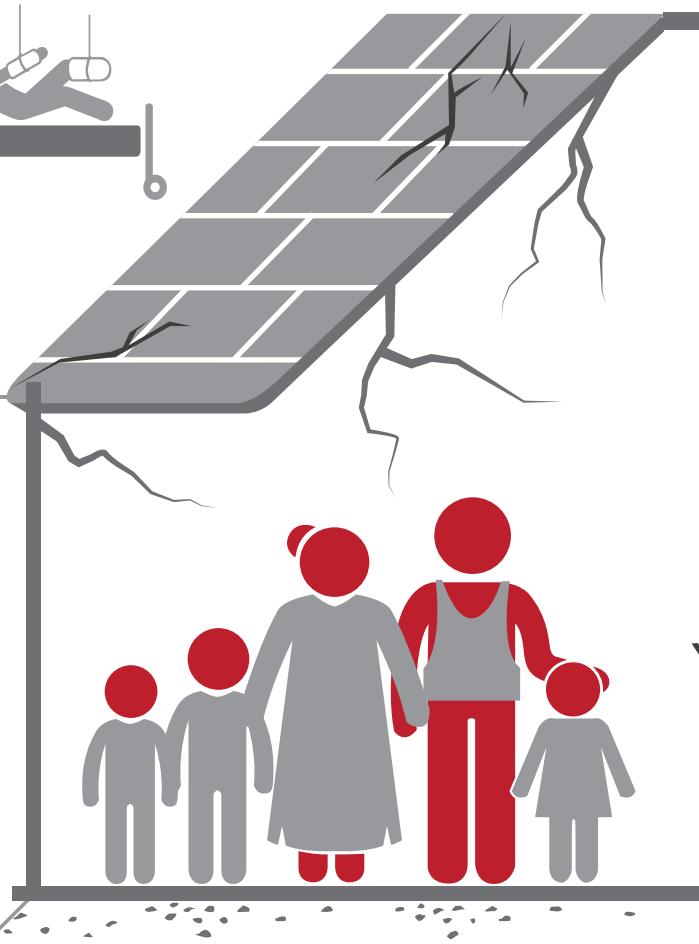
The robust framework created by MoRTH for operationalising the MVAA, 2019 will go a long way in empowering states to strengthen their electronic enforcement and monitoring systems, automate and integrate all road safety databases through digitisation, provide speedier assistance to road crash victims, strengthen public transport and improve road user behaviour. We hope that the recommendations offered in this report would also help evolve the subordinate legislation/rules under the MVAA, 2019 to truly make it more inclusive and effective.

OVERALL KEY FINDINGS

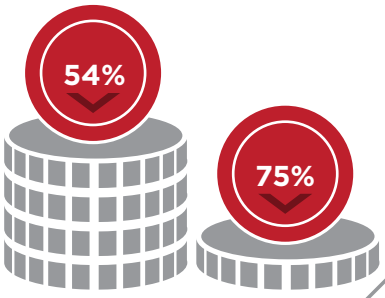
1 **Overall, the post-crash impact was more severe for LIH in** Low Capacity States compared to HIH in High Capacity States.

LIH > HIH

2 **The incidence of fatality post-crash is higher among victims from LIH than HIH.** As high as 44% of the households in rural areas reported at least one death after a road crash compared to 11.6% of households in urban areas. Similarly, LIH reported over twice the numbers of deaths post-crash vis-à-vis HIH. The risk of a victim undergoing disability after an crash was two times more likely among LIH in rural areas.



3 **The socio-economic burden of road crashes is disproportionately borne by poor households.** Decline in total household income was sharper among LIH (75%) than HIH (54%). The severe impact of decline in income was highest among LIH in rural areas (56%) compared to LIH in urban areas (29.5%) and HIH rural (39.5%).



4 **The ability to cope with financial distress post-crash was better for HIH than LIH.** LIH were three times more likely to seek financial help than HIH. Debt rates were also almost three times higher among LIH compared to HIH after the crash.

5 **In addition to financial distress, poor households experience a deterioration in their quality of life accompanied with psychological suffering and emotional distress.**

6 **Within households, it is women who bear the brunt of caregiving activities, leading to a double burden of labour and mental load, exacerbated inequalities of opportunities in returning to livelihoods and income generating tasks.**

7 **Inequality in insurance coverage and delay in accessing compensation further mars the quick recovery process among LIH households.** Insurance coverage was significantly higher among HIH and households in urban areas vis-à-vis LIH urban areas.

8 **Information asymmetry and poor awareness on legal compensation among LIH:** Only less than a quarter of the LIH victims were aware of the compensation process and insurance clauses. Only a handful of the victims availed government compensation/ex gratia.

9 **Low rates of insurance coverage and poor awareness related to legal compensation processes among truck drivers:** Overall, 2/3rd of the respondent truck drivers did not file an FIR after the crash. Only 40% of the truck drivers were covered under life insurance and 18% under medical insurance at the time of the crash. Overall, 2/3rd of the truck drivers were not aware of third-party liability insurance. None of the drivers said that they had applied/benefited from cashless treatment at the hospital, solatium fund for hit and run case or ex-gratia schemes.

INTRODUCTION

CHAPTER 2

As the world navigates through the COVID-19 pandemic, the road crash pandemic continues to fester the socio-economic landscape in India. India tops the world in road crash deaths and injuries. It has 1% of the world's vehicles but accounts for 11% of all road crash deaths, witnessing 53 road crashes every hour; killing 1 person every 4 minutes. In the last decade, 1.3 million (13 lakh) people have died and another 5 million (50 lakh) have been injured on Indian roads. Furthermore, 76.2% of people who are killed in road crashes are in their prime working-age, i.e. 18 – 45 years (MoRTH, 2018).

Globally, Road Traffic Injuries (RTIs) are the eighth leading cause of death (WHO, 2018). However, the road crash fatality rate is three times higher in low-income countries compared to high-income countries and statistics from India further reinforce this global trend. There is a distinct correlation between socio-economic status and road use patterns in Low- and Middle-Income Countries (LMIC)[1] like India - "Poor people are more likely to be involved in a road traffic crash" (GRSP, 2018).

In a country like India, where vulnerable road users are forced to share space with other less vulnerable road users, the income level of an individual has a direct bearing on the mode of transport used. This in turn further determines the level of risk faced by a particular road user. For instance, daily wage workers and workers employed as casual laborers and/or in informal activities are more prone to be defined as VRUs compared to workers engaged in regular activities.[2] It is no coincidence, then, that it is often the poor, especially male road-users of working age, that constitute the category of Vulnerable Road Users (VRUs)[3] in India. VRUs bear a disproportionately large burden of road crashes and account for more than half of all road crash deaths and serious injuries in the country (WHO, 2018).

RTIs have a profound long-term impact on income growth and welfare loss which further constrains the human capacity in emerging economies. The 2019 World Bank report "Guide for Road Safety Opportunities and Challenges: Low- and Middle-Income Countries Country Profiles" puts the road crash and serious injury cost estimate at 7.5% of India's GDP i.e. INR 12.9 lakh crore ($166.43 billion) for the year 2016, which is more than twice the figure cited by the Government of India, i.e., 3% of GDP (Planning Commission, 2011), or INR 4.3 lakh crore ($58.19 billion). A recent study commissioned by the Ministry of Road Transport and Highways (MoRTH) estimates the socio-economic costs of road crashes at INR 1,47,114 crores in India i.e. equivalent to 0.77% of nation's GDP.[4] Considering the under reporting phenomenon and using the crash ratios for MoRTH crash numbers, the same study estimates the crash costs at INR 5,96,820 crores i.e. equivalent to 3.14%. At the individual level, road crash injuries and deaths impose a severe financial burden. They push entire (non-poor) households into poverty and the already poor into debt.

2.1 CURRENT ROAD SAFETY POLICY FRAMEWORK IN INDIA

The Motor Vehicle Act, 1988 has been the primary legislation governing road safety scenario in India for over 30 years till 2019. Over years, the Motor Vehicle Act became outdated and had limited impact. Even though it covers many aspects like licensing, registration of vehicles, setting standards for heavy motor vehicles, penalties for traffic offences etc, yet it was silent on some key issues like child road safety, or the safety of pedestrians and non-motorised users. Also, the lack of a centralised licensing system and proper standards for mandatory driver training had resulted in various ill practices like a person holding multiple licenses from different states. The fines levied under the Act were also not rationalised. There was a need for an overhaul of the transport sector and for a policy framework that would focus on improving road safety in the country.

Keeping in mind the need to bring about progressive changes through provisions like cashless treatment of road crash victims, electronic enforcement and monitoring and a higher deterrent against committing traffic offences, the Motor Vehicles (Amendment) Act, 2019 was introduced in Parliament on 9th August, 2016 and was passed after three years of public mobilisation and political advocacy.

On 1st September 2019, the Motor Vehicles (Amendment) Act, 2019 came into effect nationally, with the objective to create an enabling framework to improve road safety in India. The Act consists of a total of 93 Amendments including several provisions such as a scheme for cashless treatment of road crash victims, state involvement in making rules for movement of non- motorised transport, provisions for safety of children during commute, electronic monitoring and enforcement, and liability on road engineers and authorities for faulty road design and engineering. These provisions can substantially reduce road crash fatalities and alleviate the economic burden of road crashes in the country.

1. Lower-middle-income economies are those in which 2019 GNI per capita was between $1,036 and $4,045.
2. Definitions have been drawn from Employment-Unemployment Rounds of the NSSO
3. VRUs are defined as pedestrians, cyclists, two-wheeler users and other non-motorized transport users.
4. Socio-Economic Cost of Road Accidents in India" (September, 2020) DIMTS Ltd. in association with TRIPP-IIT Delhi, MoRTH

INTRODUCTION

The Act empowers the road users by providing certain key rights, including:

1. RIGHT TO LIFE

- **Protection of Good Samaritans from any Criminal or Civil Liability :**Section 134A protects a Good Samaritan from any civil or criminal action while providing emergency medical care or any sort of assistance to a road crash victim.

- **Timely medical assistance/cashless treatment to road crash victims.** The Centre has been given power to make schemes for helping road crash victims under the following sections: Section 162 (1) directs insurance companies to provide for treatment of all road crash victims including under the Golden Hour. Section 162 (2) gives powers to the Centre to make a scheme for cashless treatment of victims of crashes during golden hour (the first critical hour after a road crash). Additionally, it contains provisions for creation of a fund for such treatment. State Governments can also make rules for the cashless treatment of victims and can augment the coverage for cashless treatment under Section 164D of the Act.

2. RIGHTS OF VULNERABLE ROAD USERS

- The Act has special provisions to protect the rights of vulnerable road users such as pedestrians, cyclists, rickshaw pullers, hand drawn cart users, and animal drawn cart users. These road users generally belong to economically weaker sections of society, and face larger exposure to road traffic injury in comparison with motorised transport users. **Section 138(1A)** in the Act empowers States to regulate activities of pedestrians and non-motorised road users in public places.

3. RIGHT TO SAFE ROADS

- **198A** ensures that any designated authority, contractor, consultant or concessionaire responsible for the design or construction or maintenance of safety standards of roads shall comply with design, construction and maintenance standards.

- **Section 215(B)** sets up a **National Road Safety Board** for advising on all matters related to road safety and traffic management.

4. RIGHTS OF CHILDREN TO SAFE COMMUTE

MVAA, 2019 ensures safety of children through addressing key risk factors:

- **Amendment to Section 129 of MVA, 1988** proposes that every child above the age of four years being carried on a motorcycle must wear a helmet.

- **Section 194 B** makes it mandatory for every child to be secured by a **safety belt or a child-restraint system.**

- **Section 199A provides for adult accountability** states

that the guardian of the juvenile or owner of the vehicle shall be liable in case an offence has been committed by a Juvenile under this Act.

5. RIGHT TO SEEK REDRESSAL:

The Act provides right to seek insurance and settlement of claims within a reasonable time frame:

- **Section 149** deals with **settlement of claims by insurance companies and procedures** to be followed. It provides for payment of compensation claim within a period of thirty days after acceptance of the offer by the claimant.

- **Section 164 B** constitutes a **Central Motor Vehicles Crash Fund to provide compulsory insurance cover to all road users** in the country.

The Motor Vehicles (Amendment) Act, 2019 has brought a multi-dimensional change to the road safety landscape in India. From improving access to emergency medical care to improving enforcement measures, the Act has prioritised improving safety of all road users, including the poor and vulnerable.

2.2 ABOUT THE TRAFFIC CRASH INJURY BURDEN ASSESSMENT

India has the third-largest number of poor people with at least 53 million people living in extreme poverty[5]. RTIs further add additional financial stress due to exorbitant health costs, with just medicine related OOPE pushing 38 million people into poverty in 2011-12. (Selvaraj, Farooqui, & Karan, 2018) This study primarily aims to understand the socio-economic and gendered impacts of road crash outcomes on poor households, daily-wage, informal sector workers and its interplay with poverty. The study attempts to measure the economic impact of road crashes on households in four broad ways: direct financial costs of RTIs (the hospital costs, property damage, rehabilitation and other costs with a monetary value), indirect costs of RTIs (loss of quality of life and standard of living, compensation), insurance and compensation-related challenges, and geographic and demographic disparities in terms of habitation (urban vs rural) and gender. Gauging the awareness levels and accessibility of the insurance and compensation systems for road crash victims and their families is an important component of this study.

This is achieved by engaging two categories of respondents - a test sample of 'Bottom 40 per cent of the population' (hereafter referred as 'Low Income Household') and a control sample of 'Top 10 per cent of the population' (hereafter referred as 'High Income Household').

In terms of gender, road crashes impact women (differently) than men. 86% of the total road crash victims are male compared to 14% women (MoRTH, 2018). This complicates the post-crash care scenario in India with the burden of caregiving activities always almost falling on women within households. Thus, through structured FGDs, this study

5.. https://worldpoverty.io/map

captures the lived experiences of women in households that are often pushed into poverty.

This study aims to fill a gap by further exploring the psychological and emotional impacts of road crashes among households which are often invisible and unacknowledged in academic literature and government policy. Mental health is a sensitive subject and plays out in different forms. Determining the psychological well-being post-crash is imperative to estimate the indirect costs associated with road crashes.

Apart from the two key sample groups of Low-Income Households (LIH) and High Income Households (HIH), this study aims to probe into the impact of road crashes on key vulnerable and high-risk individuals. One such category is adolescents aged 14-18 years. India's productive potential is rising: Demographic transitions have led to rising worker-to-dependent ratio which will be a favourable 2.1 by 2050. The number of adolescents grew from 225 million in 2000 to 250 million in 2015 But the vast majority of youth are unemployed or in vulnerable, low paid informal jobs Hence, adolescents were identified to be a key cohort under the study. Their post-crash experiences are captured through structured In-depth Interviews (IDIs).

The other socio-economically marginalized and high-risk road user category is that of truck drivers. Out of the 1.5 lakh people killed in road crashes in the country every year, over 15,000 road crash victims are truck and lorry drivers alone, comprising 10% of the total deaths (MoRTH, 2018). In terms of vehicle category, trucks and lorries are involved in over 57,000 crashes in the country (MoRTH, 2018). Despite this, 93% of the truck drivers do not get any social security benefits such as provident fund, pension, life insurance, gratuity, etc. (SaveLIFE Foundation, 2020). Poor road safety outcomes and lack of institutional support intensify the challenges faced by truck drivers, especially in the post-COVID-19 world.

The World Bank commissioned this study in association with SaveLIFE Foundation (SLF) to determine the differential impacts of road crashes more objectively in India. Though originally the study study was developed as "an analytical approach used to assess the distributional, poverty-related and social impacts of policy reforms on various stakeholder groups" (World Bank, 2016)[6], this study can be treated as a baseline assessment study to document the variation in impact of road crash outcomes on low- income and high-income households. Once the policy framework established under Motor Vehicles (Amendment) Act, 2019 is implemented, mid-term and end-term assessment studies can be undertaken to understand the impact of the interventions.

For this study, SLF further commissioned the survey to a Social and Market Research company, Marketing and Development Research Associates (MDRA) to assist in designing survey instruments and guidelines for qualitative research, administer telephonic and face to face surveys as well as conduct Focus Group Discussions (FGDs) and In-Depth Interviews (IDIs) for the Study; and prepare an analytical report based on outcomes of the survey

2.3 OBJECTIVES OF THE STUDY

The objective of the study is to analyze the socio-economic impacts of road crashes on vulnerable individuals and households below the poverty line, estimate collective economics losses resulting from gaps in the existing

6. http://documents1.worldbank.org/curated/en/701191479977368846/pdf/110453-REVISED-PUBLIC-PSIAAR.pdf

architecture, and inform the regulatory framework across high and low capacity states from a poverty and social impact perspective.

The specific sub-objectives of the study are :

1. To assess the distributional impact of road fatalities and crashes on the poor, specifically the LIH. The study tests whether poor road safety outcomes disproportionately affect poor families and individuals leading to exacerbated pre-existing inequalities. It also looks at outcomes in HCS and LCS and attempts to capture differences in outcomes.

2. To assess the psychological and emotional impact of road crashes and fatalities on road crash victims and their families and how they cope with it.

3. To assess the gendered impact of road crashes among poor and rich families.

4. To assess the impact of road crash fatalities and crashes on vulnerable individuals like adolescents (14-18 years).

5. To assess the extent of awareness on compensation and insurance and other provisions and reforms brought in through the Motor Vehicles Amendment Act, 2019 among high risk and marginalized road user category of Truck Drivers.

6. To map the procedural, legal, and social hurdles faced in claiming insurance and compensation money by road crash victims/families.

Through this assessment, we aim to generate ex-ante empirical evidence to identify and shape broad priority areas, including sectors and policy initiatives needed to create an enabling framework to support poor and marginalized households that bear the brunt of road traffic injuries. We do so by proposing a series of cost-effective policies and reforms that will focus on mitigation of the adverse impact of road traffic injuries. We hope to initiate a meaningful dialogue on the distributional impact of road crashes in India and to offer constructive measures to alleviate the cost burden on poor, vulnerable and high-risk groups of road users and their families.

RESEARCH METHODOLOGY, SAMPLE DESIGN & SAMPLE COVERAGE

CHAPTER 3

3.1 RESEARCH METHODOLOGY

This study utilizes qualitative and quantitative methodologies for estimating the economic and social impact of road crash outcomes. Using purposive sampling, a multi-pronged approach was adopted to assess the impact of road traffic injuries and fatalities on victims.

Based on the objectives of the study, the research methodology is divided into two phases:

PHASE-I: EXPLORATORY RESEARCH

A) DESK RESEARCH

Desk research was undertaken to review the various provisions in MVAA 2019 regarding road safety provisions and compensation to road crash victims. During this stage, various data sets were explored with an effort to create a database that would be most suitable to generate contact details of road crash victims – both from urban and rural areas.

B) PREPARATION OF SURVEY INSTRUMENTS

Draft survey instruments were prepared for each respondent category separately. Survey instruments (questionnaires and guidelines for FGDs and IDIs) were created and later fine-tuned post the feedback from the pilot.

C) PILOT SURVEY

Due to the National Lockdown mandated by the Central

Government due to COVID-19, the pilot survey was conducted telephonically. The sampling design and survey instruments were tested with a small sample of 30 interviews. The pilot survey was carried out from May 7, 2020 -May 13, 2020.

D) POST-PILOT FINE-TUNING OF SURVEY INSTRUMENTS

As part of the revised sampling strategy, more detailed questionnaires were retained for face to face interviews and a slightly shorter version of the questionnaire was used for telephonic surveys. These survey instruments were translated into regional languages to enhance their comprehensibility.

PHASE-II: DESCRIPTIVE RESEARCH

The field survey was conducted between 19th June, 2020 – July 23, 2020. The following stages were covered in this phase of the study:

A) QUANTITATIVE RESEARCH:

The survey was conducted among respondent categories using structured questionnaires administered by experienced investigators. The respondents were approached via two sampling strategies:

Additionally, awareness levels about motor insurance, compensation and other provisions of the Motor Vehicles (Amendment) Act, 2019 (MVAA, 2019) was also tested among truck drivers.

B) QUALITATIVE RESEARCH - FGDs AND IDIs

Qualitative surveys were used to understand the perspective of the victim/victim's family member regarding the impact of fatality/crash on their social condition as well as their emotional health. In-depth interviews were conducted among adolescents (aged 14-18) who have been survivors of a road crash or have lost a family member in a road crash. These interviews were conducted through a mix of video calls and face-to-face interviews.

Similarly, FGDs were conducted among women and men with participants who had either been involved in a road crash or their immediate family member was in a road crash. These FGDs were conducted in Patna (Bihar) and Lucknow (UP) by an experienced researcher and moderator with adequate precautions and adherence to social distancing protocols.

3.2 SAMPLING DESIGN

A multi-stage sampling procedure was adopted to select the target respondents for this study. The first unit of sampling was the State. Looking at the number of crashes during the last 15 years and the geographical location of states, the top 4 states were selected for conducting this survey, i.e. Uttar Pradesh in North India, Maharashtra in West India, Tamil Nadu in South India and Bihar in East India. Additionally, Maharashtra and Tamil Nadu represent High Capacity States (HCS) demonstrating a higher economic growth and better performance in Human Development indicators while Uttar Pradesh and Bihar represent Low Capacity States (LCS) demonstrating a sluggish economy, higher poverty rates and low levels of social and administrative progress.

RESEARCH METHODOLOGY, SAMPLE DESIGN & SAMPLE COVERAGE

In the next stage of sampling, in each of the selected states, 4 districts were selected to find out relevant respondents. These districts were also selected based on the number of crashes and geographical location (diversity) in the state.

The quantitative survey aimed at providing state-level point estimates to key aspects of economic and financial impacts on the families of road crash victims. Hence, at a 95% confidence interval and a 5% margin of error in the sample size was calculated using the following formula -

$$SS = \frac{Z^2 * p*(1-p)}{C^2}$$

where:
Z = Z value (e.g. 1.96 at 95% confidence level)
p = percentage picking a choice expressed as a decimal (since we do not have estimates of the p-value, we have taken it as 0.5 to maximize the sample to avoid any under-sampling)
C = confidence interval, expressed as decimal (e.g., .05 = ±5)

Using the above formula, the population, the number of road crash in each state during 2005-18 and other aspects of the target group, the sample size was calculated for each state.

During the field survey, purposive and snowball sampling was used to select an adequate number of respondents from each state. After identification of respondents, a mix of telephonic and face to face surveys was conducted among road crash victims or their family members.

3.3 SAMPLE COVERAGE

A total number of 2,499 interviews (against the target sample of 2,400) were conducted across 4 states. Category wise, 1647 LIH, 432 HIH and 420 truck drivers were interviewed across 4 states[7]. In addition to the above, 3 FGDs and 8 IDIs were conducted among road crash victims/their family members. The summary table 3A.1 in the annex provides a snapshot of descriptive statistics about the participants. Statistically, a 95% confidence interval and a 5% margin of error in a sample size of 384 is sufficient to conduct multi variate analysis of the data. Thus, statistically each category (LIH, HIH and truck drivers) has an adequate sample size and the comparison between LIH and HIH is justified and stands valid for deriving conclusions. Further, for comparison purposes, the proportion figures have been quoted instead of absolute numbers.

3.4 PROFILE OF LOW INCOME AND HIGH-INCOME HOUSEHOLDS

The study was conducted among low -income and high-income households in 4 selected states across urban and

7. Out of total, 986 (47%) interviews among victims/ family members were conducted through face to face mode while remaining 1093 (53%) interviews were conducted telephonically. All interviews among truck drivers were conducted through face to face mode.

rural areas in 4 zones (East – Bihar, West – Maharashtra, North – Uttar Pradesh, South – Tamil Nadu).

As per the latest estimates (WB, 2015), the world's 73.6 crore (736 million) people are living in extreme poverty (less than US$1.90 a day) with a poverty rate of 10%.

In the case of India (Census of India, 2011) about 21.9 per cent population of India is extremely poor and lives under the poverty line (as per Tendulkar committee). The poverty rate in rural areas is higher (25.7%) than the urban population (13.7%).

Further, 41% of road crashes were recorded in urban areas and 59% in rural areas. The proportion of persons killed in urban areas and rural areas was 34% and 66% respectively

For this study, LIH and HIH were defined based on income and ownership. The upper threshold pre-tax income of a LIH sample was taken as INR 13,450 per month per adult[8]. Similarly, for HIH category, the lower threshold pre-tax income of INR 50,000/- per month per adult was considered.

The Low Income Households' test sample, comprising the bottom 40% of the population was selected keeping in mind standard models of population representation used globally by the United Nations (UN) and World Bank in its poverty related research. UN SDG target 10.1 aims for the income of the bottom 40 percent to be growing faster than the national average by 2030. Progress is measured by the difference between growth in the consumption or income of the bottom 40 percent and growth in the consumption or income of the mean of the population as a whole.

After carefully analyzing the World Inequality Database (that aims to provide open and convenient access to the most extensive available database on the historical evolution of the world distribution of income and wealth, both within countries and between countries), the control sample of HIH was defined as comprising of the top 10% of the population in terms of income. Across the world, the income earned by the top 10 percent is often larger, sometimes much larger, than the share earned by the bottom 40. The ratio of the share of income between the top 10 percent and bottom 40 percent is known as the Palma ratio.

To monitor progress against its goal of boosting shared prosperity, the World Bank tracks growth in the consumption or income of the poorest 40 percent of the population in each country—the bottom 40 percent. Shared prosperity focuses on the poorest 40 percent of the population in each economy (the bottom 40) and is defined as the annualized growth rate of their mean household per capita income or their consumption.

This 40% and 10% population ratio is thus an important and useful development indicator for the World Bank to measure socio-economic impact in any given country, especially developing countries. It helps to juxtapose

8. https://wid.world/country/india/

RESEARCH METHODOLOGY, SAMPLE DESIGN & SAMPLE COVERAGE

various socio-economic realities and highlights the widening gap amongst sections of the population more clearly. It also helps to make the data in this report more globally comparable with other nations.

On comparing the income profile of LIH and HIH categories at a global level while keeping all factors the same (World Inequality Database); LIH population of India that earn a pre-tax income of up to INR 13,500 per month per adult would be among the bottom 19% population globally (refer to Table 3A.2). Similarly, HIH population of India that earn pre-tax Income of INR 50,000 or above would be among the top 42% globally[9].

71% of the LIH respondents were from rural areas, while for HIH, it was opposite as major proportion (82%) were from urban areas (Refer to Table 3A.4). This is very close to the actual distribution of poor population in rural (about 20%) and urban (about 80%) areas in India (as per Census 2011).

Based on income and self-declaration, every 2nd LIH surveyed was found below the poverty line. In each LIH, there were average 5.6 (median value = 5) members while the average size of HIH was 4.8 (median value = 4). Cognizance was taken of the fact that respondents might not disclose their real income during the surveys. To overcome this limitation, the surveyors visited the locality for more than half of the respondents surveyed and verified their range of income through these field visits. In case of telephonic surveys (53% of the total sample), the tallying was done with a verifiable database. Additionally, respondents were asked about their expenses at various levels of the survey and their responses gave a fair indication of their household income. The framing of short pointed questions on whether the household had to borrow money/ sell or mortgage valuables and whether anyone in the family had to quit study/relocate, etc. helped in verifying their income-brackets.

A pre-testing of the methodology was conducted to finetune the approach and to ensure rigrous data collection.

Among the LIH crash victims, 86.2% were male while 13.8% were female. Among HIH crash victims, such a proportion of males and females was 78.7% and 21.3% respectively.

Similarly, age-group wise, about every 2nd road crash victim from LIH was in the 26-45 yrs age bracket, whereas among HIH such proportion was about 64%. Across households, more than half of the all victims (54% for LIH and 64% for HIH belonged to the productive age group of 26-45 years. A probable reason is that most commute/ travel is work related and hence the working age population is more prone to road crashes.

In terms of educational qualification, with ample facilities and resources for the HIH category, they were found to be more educated than the LIH victims. About two-third of HIH victims had at least completed graduation. While among LIH it was opposite, as about two-thirds of victims were educated only up to 12th standard and only one-fourth were either graduate or above. The link between educational qualifications and recovery to work has not been captured/ established directly in this study. Though it can be said that

9. For more details see Annexure.

over 40% of the LIH victims were either unemployed or engaged in the agriculture or informal sector as unskilled labourers before the crash while 83% of the HIH victims were either self-employed or doing business or working in the formal sector as salaried employees. A combination of factors like higher educational levels, family savings to dip into and better social status did facilitate their early transition back to the workforce and previous learning levels. However, disability adds another dimension/layer of analysis that delays the process of resuming work or finding meaningful and well-paid work across households after the crash.

Most of the victims in LIH were engaged as unskilled labour/ farmers in the agriculture sector or shop owner/ petty traders and about 4 out of 10 were engaged in businesses/ self-employed or working as salaried employees. On the other hand, over 8 out of 10 victims in HIH were engaged in businesses/ self-employed or working as salaried employees.

SOCIO-ECONOMIC IMPACTS OF ROAD CRASHES

CHAPTER 4

INTRODUCTION

Road Traffic Injuries (RTIs) in India are closely interlinked with on-ground socioeconomic realities like class, gender and geographical location that often intersect and affect various sections of the population differently. This chapter highlights the disproportionate impact of road crashes among LIH and HIH in the four selected States by capturing the situated hierarchies and lived experiences of respondents, i.e., it discusses the differential impact of crashes among various States, male and female, poor and rich and urban and rural areas. The extent and degree of disproportionate economic impact among LIH and HIH is estimated by determining the direct and indirect costs borne by households after an crash. Direct costs are tangible, paid upfront and include medical expenses, property costs, vehicle costs etc. In contrast, indirect costs are hidden, often difficult to determine and are characterised by a deterioration in the standard of living, loss of productivity/ income etc. The ability to mitigate risks associated with an crash and the capacity to respond to it also varies among poor and rich households. This chapter highlights that differential response among LIH and HIH w.r.t how they meet their financial burden after a crash.

KEY FINDINGS

The key findings of this chapter can be summarised under two broad points of inter-state variations in the impact

of road crashes among LIH and HIH households and the mechanisms used to cope with the sudden financial burden. Inter-state variations also include pointers on urban and rural disparities and how they further deepen the impact on households. The mechanisms to cope with socio-economic burden posed by road crashes highlight the differential abilities of LIH and HIH to deal with it.

INTER-STATE VARIATIONS

1. Decline in total household income was sharper across all States among LIH vis-a-vis HIH. A greater percentage of LIH across States reported borrowing money and selling land/mortgaging family assets to meet their financial expenses vis-à-vis HIH. For instance, In Tamil Nadu, 30% of the respondents from LIH reported selling/mortgaging assets compared to 10% of the respondents from HIH. In Maharashtra, 44% of LIH had to borrow money compared to 8% from HIH.

2. In the event of a crash, LIH are disproportionately affected in both Low Capacity States (LCS) and High Capacity States (HCS). However, the socio-economic impact on LIH in LCS is the most severe.

3. Resilience of households to deal with financial impact of road crashes was however most fragile in Tamil Nadu. The proportion of LIH respondents who stated that they had to sell off or mortgage their assets, take up extra work, and avail for compensation from the insurance company and other parties involved in the crash in order to deal with their financial burden, was highest in Tamil Nadu.

   This could be because Tamil Nadu has the highest pendency of Motor Accident Claims Petition in India. With over one lakh fifty thousand pending cases, Tamil Nadu has almost double the pendency in comparison to the National level pendency[10]. Tamil Nadu also reported the highest number of married road crash respondents[11]. Additionally, the State also had the highest number of CWE respondents among all States (34%). Since it is mostly men getting involved in road crashes (79% of the victims in TN were male), it is highly probable that Tamil Nadu has the highest number of female headed household's post-crash and therefore limited resilience to deal with financial burdens. While the State has performed well on gender reforms and access to maternal healthcare, it still lags behind in female labour force participation rate. On the work front, women have been leaving the labour force in large numbers since 2005 (WB, 2017)[12]. Women have slightly more casual-wage jobs than men in rural areas in the State.

4. Bihar had the lowest average costs borne by LIH across all expenditure heads except Out Of Pocket Expenses (OOPE) on treatment of the victim and amount paid to

10. https://njdg.ecourts.gov.in/njdgnew/?p=main/pend_dashboard
11. 85% of the victims were married at the time of the crash.
12. World Bank (2017). "Tamil Nadu – Gender", July: http://documents1.worldbank.org/curated/en/154201504176664933/pdf/119264-BRI-P157572-Tamil-Nadu-Gender.pdf

other parties involved in the crash. It was the opposite for Tamil Nadu where average costs were higher across most of the heads except for out of pocket expenses on treatment and legal/administrative expenses.

5. Among the LIH, Maharashtra and Tamil Nadu fared better with a higher survivability rate of 75% compared to UP and Bihar that showed a survivability rate of 53%.

6. The household income in HCS declined by 64% after the crash whereas it decreased by 78% among households from LCS.

7. Similarly, while living standards of the household deteriorated by 49% among HCS, it fell by 64% in LCS.

8. There was a wide contrast in proportion of LIH that availed of loans to deal with resulting financial burdens: 48% of LIH from Uttar Pradesh vis-a-vis 15% of the HIH from Tamil Nadu. Further, the ability to obtain a loan from institutional sources also depends on one's socioeconomic status and makes the process of repayment more strenuous for poor households. 27% of the LIH in urban areas and 48% of the LIH in rural areas availed of loans to mitigate the financial crisis. A similar trend was noticed among HIH. 7% of HIH in urban areas and 30% of HIH in rural areas availed of loans, indicating greater financial stress among households in rural areas.

9. The highest expense among LIH on victims' funerals was incurred in Tamil Nadu (Rs 42, 010) while the lowest amount was spent in Uttar Pradesh (Rs 12, 517).

10. Decline in living standards was drastic across all states with Bihar reporting the sharpest decline among LIH (73%) followed by Uttar Pradesh (72%).

11. In terms of the amount arranged to tide over the economic crisis, LIH from Maharashtra managed to raise the highest amounts whereas among HIH, a similar trend was observed in Tamil Nadu.

12. LIH in Uttar Pradesh (over 2.5 lakhs on an average) received the highest compensation from Government schemes at the central and local level followed by Maharashtra (around 1lakh average). The pendency of compensation cases in UP is one of the lowest in the country at 1.80% of total Original Civil Cases in UP[13]. Additionally, there has been extensive digitisation of Courts in India through the eCourts Mission. Most of the Courts including Motor Accident Compensation Tribunals (MACT) are part of the Case Information System (CIS) software under which courts have been provided flexibility to customize cause lists, mechanism for e payment etc. However, there is dearth of data on actual on-ground practices and how much has this system being implemented as district and taluka level.

13. The National Judicial Data Grid was accessed on 29th October 2020 and the pendency rate is calculated till 28th October 2020.

VARIATIONS IN RURAL AND URBAN HOUSEHOLDS

1. The severe impact of decline in income was higher among rural households, and cases where victims died as well as where victims were males.

2. Income decline was the most severe for LIH rural households (56%) compared to LIH urban (29.5%) and HIH rural (39.5%). However, on comparison of the monthly household income and financial losses (expenditure and loss of income) due to road crashes, it was found that the loss among LIH was equivalent to about 7.6 months household income while among HIH it was equivalent to less than 1 month household income (0.84 month)[14]

3. The total average costs (direct and indirect costs combined) borne by HIH (Rs.1,98,042) after the crash was higher than the total costs borne by LIH (Rs.1,52,826).

4. Medical costs constituted a bulk of the total costs of LIH, i.e., Rs. 78,824 (52% of total costs) followed by loss of productivity/loss of income costs, i.e. Rs. 37, 572 (25% of total costs).

5. Across households, 34% of the respondents from urban areas said they had to borrow money after the crash compared to 78% of respondents from rural areas.

6. Expenditure on OOPE in urban areas was higher compared to rural areas across households. Among the LIH in urban areas, OOPE was slightly higher at 66% of the total expense compared to 60% of the total expense among HIH in rural areas.

GENDER DIFFERENTIATED IMPACT

1. LIH respondents stated that in the absence of any steady primary source of income (especially in the case of death of a breadwinner), the women of the household often had to step up and take additional jobs to mitigate the financial burden. Further, the burden of non remunerative caregiving work mostly falls on females within the household after a crash. This is non quantifiable and does not come under the purview of economic activity.

2. Across household categories, the proportion of male Chief Wage Earners (CWE) was higher than female CWE; the number being higher among LIH. 50% of the women from LIH and 55% from HIH were CWE of the household before the crash whereas 81% of the men from LIH and 74% men from HIH were CWE before the crash.

14. Please note MHI was calculated by taking mid points of ranges.

3. 31% of the female members in LIH were severely affected by the decline in household income after the crash compared to 53.5% of the male members. Among HIH, 18.5% of female members of the household were severely affected compared to 26.5% of the male members in the household.

4. The male (dead) victims' contribution to household income was significantly higher than female victims' (more than double) across both categories of households. For instance, among LIH, male (dead) victims contributed to 63.5% of the total monthly household income whereas female victims contributed to 29% of the same.

MECHANISMS TO COPE WITH FINANCIAL BURDEN

1. The financial crisis after an crash was more aggravating for LIH than HIH. Compared to HIH, LIH were three times more likely to seek financial help in order to cope with the financial burden post-crash

2. Higher debt among LIH - About 42% of the LIH respondents reported that their household underwent debt after borrowing money (through both formal and informal sources) to cope with the additional expenses after an crash, compared to 11% of respondents from HIH.

3. 24% of the LIH respondents said they had to sell/ mortgage their assets (land, jewellery) to meet their daily expenses and repay their debt, compared to only 7% of the HIH respondents.

4. About 14% of LIH respondents reported taking up extra work to deal with the situation, compared to 4% of HIH respondents.

5. A higher percentage of respondents from LIH in rural locations opted for a loan (lenders, bank, relatives etc.), sold off/mortgaged their assets and took up extra work to cope with the financial burden than their counterparts in urban areas.

6. While LIH were more dependent on loans and selling off their assets to meet their expenses, they were less likely to receive compensation from insurance companies compared to HIH. Only 14% of the LIH received compensation from insurance companies compared to 24% of HIH respondents. The average amount of compensation received by LIH, i.e., Rs.89,215 was also less than the average amount received as compensation for HIH, i.e., Rs.1,62,562.

7. A higher percentage of respondents from HIH (90%) than that in LIH (70%) relied on their savings to meet their additional expenses post-crash. The amount of savings used to meet related expenses was also higher in the case of HIH (Rs.1,45,401) as compared to LIH (Rs. 92,060)

4.1. DISPROPORTIONATE IMPACT ON VICTIMS' SURVIVAL, EMPLOYMENT STATUS AND INCOME LEVEL

The socioeconomic realities and victim's status in the hierarchy determines his/her chances of survival and speedier recovery. The financial impact of road crashes is often severe especially among LIH and can deeply impact victims and their families in terms of loss of employment and income, decline in productivity and lost opportunities.

One of the most significant findings of this study is that the survival rate post-crash was higher among victims from HIH compared to LIH : around 87.5% of the crash victims from HIH survived compared to 64% of the crash victims from LIH. The vast difference in road crash outcomes among victims from rich and poor households can be attributed to various factors like access to medical treatment immediately after the crash and the ability to afford long-term and effective post-crash care. The nature of the crash, and the risk assessment of the mode of transport used for commuting also influences the chances of survival/death among victims. The findings of this study confirm that the highest proportion of LIH victims from Uttar Pradesh and Bihar were at the time of the crash using a bicycle/ auto rickshaw/ commuting on foot as "VRUs", thereby making them more susceptible to road crash linked mortality and morbidity. States especially LCS need to urgently spend more on VRU friendly infrastructure in rural areas that prioritises their safety. State Governments should select districts with a high VRU crash rate and prioritise their safety through dedicated Annual Action Plans.

SOCIO-ECONOMIC IMPACTS OF ROAD CRASHES

TABLE 4.1: TABLE INDICATING HOUSEHOLD SPLIT OF ROAD CRASH OUTCOMES: LOCATION/HABITATION

Category (State, gender)	Overall							
	Location / habitation							
	Urban		Rural		Total		Urban	
	LIH	HIH	LIH	HIH	LIH	HIH	LIH	HIH
Overall	57.5%	42.5%	93.9%	6.1%	79.2%	20.8%	56.4%	43.6%
Male	60%	40%	95.1%	4.9%	80.9%	19.1%	58.4%	41.6%
Female	50.9%	49.1%	90.5%	9.5%	74.6%	25.4%	50.5%	49.5%
Bihar	54.1%	45.9%	93.8%	6.3%	78.2%	21.8%	51.9%	48.1%
Male	57.6%	42.4%	94.5%	5.5%	79.6%	20.4%	54.8%	45.2%
Female	42.9%	57.1%	91.8%	8.2%	73.9%	26.1%	41.9%	58.1%
Maharashtra	51.8%	48.2%	98.4%	1.6%	78.6%	21.4%	51.5%	48.5%
Male	50.9%	49.1%	98.8%	1.2%	79.7%	20.3%	49.7%	50.3%
Female	54.1%	45.9%	96.6%	3.4%	74.8%	25.2%	57.4%	42.6%
Tamil Nadu	70.7%	29.3%	85.9%	14.1%	79.8%	20.2%	68.8%	31.2%
Male	75.8%	24.2%	88.3%	11.7%	83%	17%	73.8%	26.2%
Female	61.6%	38.4%	82.5%	17.5%	74.9%	25.1%	59.7%	40.3%
Uttar Pradesh	54%	46%	97.4%	2.6%	80.4%	19.6%	53.4%	46.6%
Male	58.5%	41.5%	97.1%	2.9%	81.9%	18.1%	58.5%	41.5%
Female	37.2%	62.8%	98.5%	1.5%	74.8%	25.2%	33.3%	66.7%

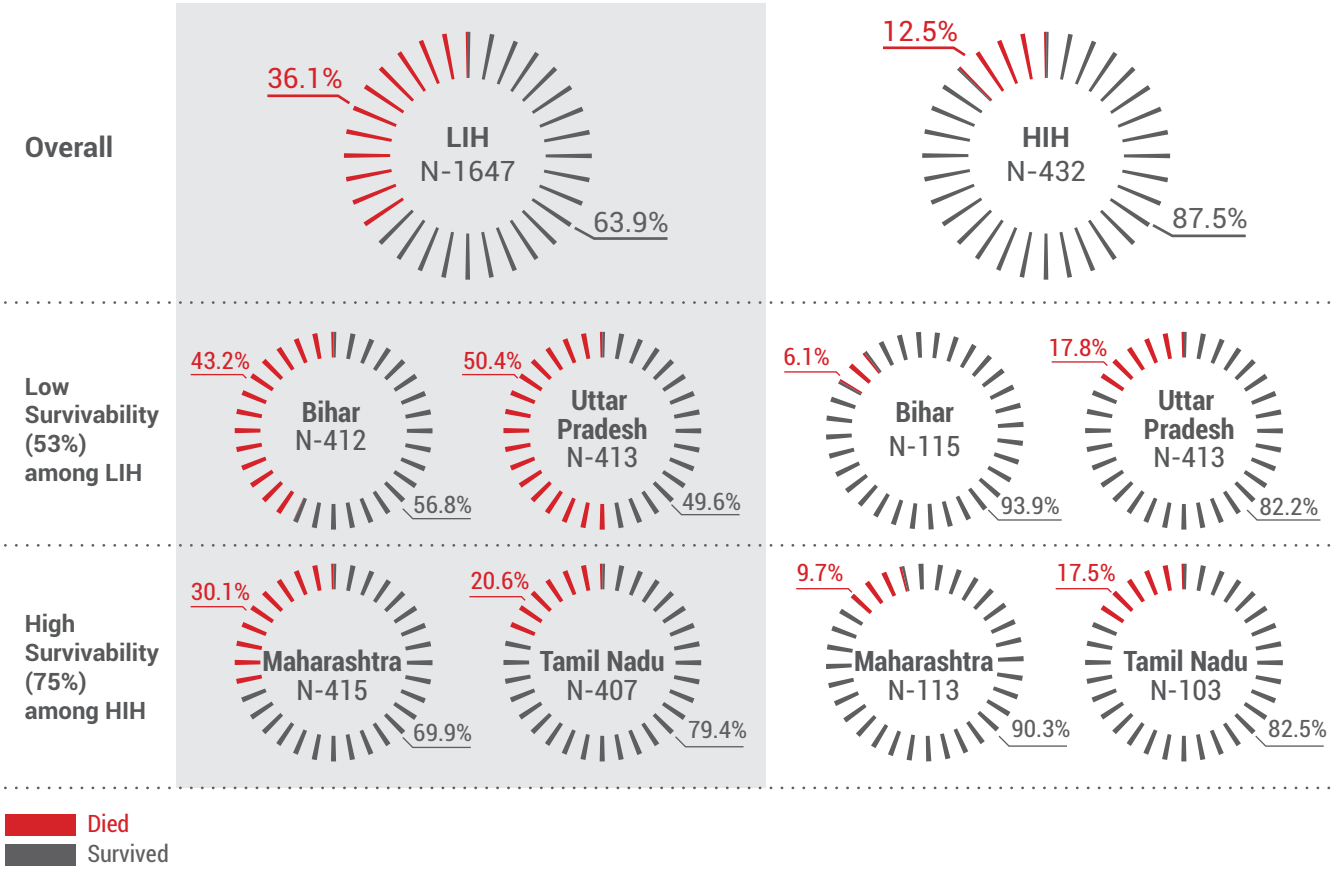
Survived				Died					
Location / habitation				Location / habitation					
Rural		Total		Urban		Rural		Total	
LIH	HIH	LIH	HIH	LIH	HIH	LIH	HIH	LIH	HIH
92%	8%	73.6%	26.4%	66%	34%	96.2%	3.8%	91.7%	8.3%
93.3%	6.7%	75.4%	24.6%	73.8%	26.2%	97.6%	2.4%	94.3%	5.7%
88%	12.%	68.%	32%	52.8%	47.2%	93%	7%	86%	14%
88.9%	11.1%	68.4%	31.6%	77.8%	22.2%	98.2%	1.8%	96.2%	3.8%
91.3%	8.7%	71.7%	28.3%	91.7%	8.3%	98.2%	1.8%	97.5%	2.5%
77.8%	22.2%	55.7%	44.3%	50%	50%	98.3%	1.7%	93.8%	6.3%
97.4%	2.6%	74%	26%	54.2%	45.8%	100%	0%	91.9%	8.1%
98.2%	1.8%	74.9%	25.1%	70%	30%	100%	0%	96.7%	3.3%
92.3%	7.7%	69.9%	30.1%	42.9%	57.1%	100%	0%	82.6%	17.4%
88.1%	11.9%	79.2%	20.8%	93.8%	6.3%	80.2%	19.8%	82.4%	17.6%
88.1%	11.9%	81%	19%	100%	0%	88.7%	11.3%	90.5%	9.5%
88.2%	11.8%	76.3%	23.8%	83.3%	16.7%	66.7%	33.3%	69.2%	30.8%
94.4%	5.6%	71.2%	28.8%	56.4%	43.6%	99.5%	0.5%	92%	8%
94.3%	5.7%	74.5%	25.5%	58.6%	41.4%	99.3%	0.7%	92.3%	7.7%
95%	5%	56.6%	43.4%	50%	50%	100%	0%	91.4%	8.6%

SOCIO-ECONOMIC IMPACTS OF ROAD CRASHES

UP and Bihar are one of the highest populated states and home to the largest proportion of poor in India. Further, both the states are comparatively less developed, and the level of education is also low. Based on several factors like proportion of urban population, literacy rate, poverty rate and per capita net State GDP, Bihar and Uttar Pradesh have been categorised as "Low Capacity States", while Maharashtra and Tamil Nadu have been categorised as "High Capacity States". All these factors contribute to differing levels of vulnerability and survivability of road users in crashes.

Overall, the victim survivability rate[15] in high capacity states (77%) was found to be higher than that in low capacity states (61%). For instance, Uttar Pradesh (UP) registered the highest death rate among LIH. 50% of crash victims

TABLE 4.2: TABLE INDICATING HOUSEHOLD SPLIT OF ROAD CRASH OUTCOMES: VICTIMS WHO SURVIVED/DIED AFTER A ROAD CRASH FROM STATE, HABITATION AND GENDER LENS.



15. Survivability here refers to the ability of a road accident victim to remain alive/continue to live after an the accident. It depends on several factors like timely access to emergency care and the quality of care etc.

from LIH in UP died after the crash compared to 18% of crash victims from HIH. Similarly, in Bihar, 43% of the victims from LIH died after the crash compared to about 6% of the victims from HIH. Among the LIH (refer to Table 4.2), Maharashtra and Tamil Nadu fared better with a higher survivability rate of 75% compared to UP and Bihar that showed a survivability rate of 53%.

Victims from rural areas were more likely to die in an crash while victims from urban areas were more likely to survive an crash. 46% of the LIH victims and 28% of the HIH victims from rural areas died post-crash whereas 87% of the LIH victims and as high as the 91% of the HIH victims from urban areas survived post-crash. The reasons for difference in survival rates of urban and rural crash victims can be explained by the better availability of tertiary care medical facilities and the accessibility (including distance) to emergency care in urban areas. The distribution of qualified health workers is skewed towards urban areas; 77.4% of all qualified workers are in urban areas, even though the urban population accounts for only 31% of the total population. The density of qualified health workers is 22.7 per 10,000 population in urban areas, as compared to 3.0 per 10,000 population in rural areas (WHO South-East Asia Journal of Public Health, 2016).

Due to serious injuries and disabilities accruing from an crash, the surviving victims experience a drastic change in their employment status and income levels. Many victims either lose their pre-crash jobs or face a sharp decline in their income post-crash. Respondents were asked details of the victims' monthly earnings, i.e., pre crash, on resuming work post-crash and present earnings (as on 31st January 2020). Additionally, respondents were asked about the recovery period of victims and the time taken to resume their existing work or find a new job.

Before the crash, 82% of the victims from LIH and 86% of the victims from HIH were earning members of their family (Table 4.3). The proportion of male victims as earning members of the family was higher than female victims. Rural areas had more victims who were earning members of their family compared to urban areas.

Compared to pre-crash income levels, the monthly earnings of victims from LIH remained the same or reduced across all income brackets (refer to table 4.5). Nearly one-third (32%) of the victims from LIH experienced a decrease in their incomes on resuming work after the crash, compared to only one-fifth (22%) of the victims from HIH. 52% of the LIH victims continued to earn the same income compared to 73% of the HIH victims.

Even the proportion of unemployed or non-earning victims from LIH increased significantly after the crash. 18% of the respondents reported that the victim was a non-earning member of the household before the crash which increased to 27% after the crash. This proportion was later reduced to 22% as on 31st Jan 2020. In a sharp contrast to the data on LIH, among HIH, surveyed respondents said that the monthly earnings of victims were not impacted to a great extent, reducing only gradually across all income brackets (refer to Table 4.6). The non-earning members decreased from 14% before the crash to 11% on resuming work after the crash.

This indicates that road crashes cause greater financial shocks and income disruptions among victims from LIH compared to HIH. A plausible explanation for this is better placement in the job market, greater bargaining power and higher social standing enjoyed by victims from HIH. 41.5% of HIH victims were salaried employees whereas another 42% were doing business/were self-employed whereas a

majority of the victims from LIH were either unemployed or working as unskilled labour/farmers in the agriculture sector. Working in the formal organized sector guarantees social security benefits and the extension of the social safety net to fall back upon in the event of a tragedy. Being involved or running a family business also helped the HIH victims dip into their savings reserve to make up for any losses owing to the crash. Moreover, unlike victims from poorer households who are struggling to make ends meet, victims from non-poor households can afford to halt work or take a break till their recovery is complete. This combined with good medical care hastens their recovery after a crash.

The severity of injuries and the quality of post-crash recovery plays a vital role in the rehabilitation of road crash victims. It is pertinent to note that a higher proportion of victims from both categories of households that had undergone any sort of disability received a lower salary/wage on resuming work after the crash compared to what they were earning earlier (refer to Table 4.8). Owing to disability, the decline in the monthly income of victims intensified further across households. Among LIH, the decline of income was 12% sharper for victims who underwent a disability post-crash vis-à-vis victims who did not. Similarly, among HIH, the decline in income was 25% lower than the previous income for victims who underwent any sort of disability compared to victims who did not. This indicates that irrespective of poor or rich households, disability adds another layer of disadvantage among road crash victims and cripples their life choices, putting them at a disadvantage in terms of job prospects and earning a decent income. In the absence of technological advancements, disability intensifies the impact of a road crash both at the individual and household level. 73.6% of the disabled in India are still outside the labour force (ILO,2011).[16] Of these, those with mental disability, disabled women and those in rural areas are most neglected (ILO, 2011). In the event of a road crash, PwD require medical rehabilitation and support services including counselling with regard to any technical assistance, equipment, wheelchairs, artificial limbs and so on which may be required. Additionally, once rehabilitated, PwD require vocational rehabilitation, equal educational and employment opportunities, protective and supportive socio-economic measures and the creation of a barrier-free environment to guarantee their vocational and social integration. PwD also require their legal rights to be determined by appropriate legislation. This can assure protection against discrimination, non-exclusion in social welfare, entrenched rights at the workplace, equal opportunities and accessibility to public places. The quota system that requires a certain percentage of employees to be PwD (followed by European countries and Japan) should be implemented at the State level. Fines may be levied on employers who fail to meet the prescribed quota. Further, States should also create self-employment opportunities for PwD through entrepreneurship drives and special employment schemes. The rights of the PwD arising from a road crash can be furthered within the legislative framework provided by the Rights of Persons with Disabilities Act, 2016 that replaces the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995. The Act defines 21 types of disabilities and also addresses the needs of children with disabilities. Responsibility has been cast upon the state governments to take effective measures to ensure that PwD enjoy their rights equally with others. The progressive provisions of this act like reservation in higher education (not less than 5%), government jobs (not less than 4 %), reservation in allocation of land, poverty alleviation schemes (5% allotment) for people with benchmark disabilities should be effectively implemented by all States.

16. Persons with Disability and The India Labour Market: Challenges and Opportunities' ILO, 2011: https://www.youth4jobs.org/pdf/ilo-study-pwd.pdf

4.2. HABITATION & STATE-BASED VARIATIONS

Road crashes impact the entire household; not just the victim. About three-fourth (75%) of LIH respondents confirmed that their household income declined due to the crash compared to less than six-tenth (57%) of the HIH respondents. The financial impact on the household intensifies due to loss of income of the victim in case of an earning member. A higher proportion of LIH and HIH respondents reported a sharper decline in their household income in case the victim died (79%) compared to cases where the victim survived (72%). Apart from income loss, expenses like out of pocket medical expenditure on treatment of victims including hospitalization, medicine, etc. also aggravates the financial distress among households. The overall OOPE was higher for LIH (62%) than HIH (59%). LIH in urban areas reported a 6% higher OOPE than LIH in rural areas. Similarly, HIH in urban areas reported a 3% higher OOPE than HIH in rural areas.

On the question of borrowing money post-crash, there was a stark difference between LIH and HIH. Respondents from LIH were three times more likely to borrow money and sell/mortgage their family assets to cope with the financial burden post-crash. 42% of the LIH respondents stated they had to borrow money compared to 11% of the HIH respondents. In the absence of institutional and credible sources of financial support and lack of income, LIH were more likely to borrow money from informal sources like relatives/friends after an crash. Banks ask for proper documentation (that most LIH find difficult to produce) and take a longer time to approve loans as opposed to informal sources. Across households, 34% of the respondents from urban areas said they had to borrow money after the crash compared to 78% of respondents from rural areas.

Similarly, 24% of the LIH respondents stated they had to sell/mortgage their family assets like land, jewellery etc to meet their financial expenses, compared to 7% of the respondents from HIH. Compared to urban areas, a higher percentage of LIH in rural locations opted for a loan (lenders, bank, relatives etc.), selling/mortgaging assets and taking up extra work, to cope with the financial burden. LIH in rural areas reported a slightly higher percentage (25%) of selling/mortgaging assets compared to urban areas (21%).

Similarly, 33% of the respondents from LIH said that they had to relocate for treatment either for more than 30 days or permanently after the crash compared to only 13% of the respondents from HIH. Relocation increases the cost of treatment and mounts additional costs on the household. Irrespective of the type of habitation (rural or urban), a higher percentage of LIH respondents said they had relocated after the crash compared to HIH.

Decline in total household income was sharper across all States among LIH vis-a-vis HIH. A greater percentage of LIH across States reported borrowing money and selling land/mortgaging family assets to meet their financial expenses vis-à-vis HIH. For instance, In Tamil Nadu, 30% of the respondents from LIH reported selling/mortgaging assets compared to 10% of the respondents from HIH. In Maharashtra, 44% of LIH had to borrow money compared to 8% from HIH.

SOCIO-ECONOMIC IMPACTS OF ROAD CRASHES

TABLE 4.3: TABLE INDICATING STATE-WISE URBAN-RURAL AND GENDER SPLIT OF FINANCIAL IMPACT ON HOUSEHOLD

Financial impact on the victim household	LIH (N=1647)	HIH (N=432)	LIH (N=1647)		HIH (N=432)		LIH (N=1647)		HIH (N=432)	
	Overall	Overall	Urban	Rural	Urban	Rural	Male	Female	Male	Female
Decline in total income of household	74.8%	57.4%	65.1%	78.8%	55.1%	68.4%	77.4%	58.6%	60.9%	44.6%
OOPE increased due to medical treatment	62%	59.3%	66%	60.3%	59.8%	56.6%	62.1%	61.2%	61.5%	51.1%
Had to sell/ mortgage family assets	23.6%	7.4%	20.7%	24.8%	5.1%	18.4%	24.4%	18.9%	7.4%	7.6%
Had to borrow money (from anyone)	41.6%	11.1%	26.6%	47.8%	7%	30.3%	43%	33%	12.4%	6.50%
Had to relocate for treatment for more than 30 days	17.7%	7.4%	18.5%	17.3%	6.2%	13.2%	18%	15.9%	8.2%	4.3%
Had to sell/ mortgage family assets	15.4%	6%	14.5%	15.8%	4.5%	13.2%	15.5%	15%	6.2%	5.4%

	LIH (N=1647)				HIH (N=432)			
	Bihar	Maharashtra	Tamil Nadu	Uttar Pradesh	Bihar	Maharashtra	Tamil Nadu	Uttar Pradesh
	79.4%	76.9%	59%	83.8%	66.10%	51.30%	47.60%	64.40%
	62.6%	66.3%	53.3%	65.6%	72.2%	59.3%	35.9%	68.3%
	22.8%	17.6%	30%	24.2%	10.4%	4.4%	10.7%	4%
	43%	44.1%	31.2%	47.9%	11.3%	8%	14.6%	10.9%
	24.8%	14%	13.8%	18.2%	17.4%	0.9%	1.9%	8.9%
	24.8%	9.6%	11.1%	16.2%	14.8%	0.9%	1.9%	5.9%

SOCIO-ECONOMIC IMPACTS OF ROAD CRASHES

While LIH were more dependent on loans and selling off assets to meet their expenses, they were less likely to receive compensation from insurance companies compared to HIH. One-fourth of HIH respondents (24%) said that they received compensation of about Rs.1,62,562 from insurance companies (including vehicle/ medical/ life insurance, etc.) whereas only 14% of LIH respondents said they received an average compensation of Rs.89,215. This gap highlights the asymmetry in insurance penetration and reach, and a skewed claims to coverage ratio among the rich and poor.

In terms of severity of decline in household income, every second respondent (50%) from LIH confirmed that their household underwent a severe impact whereas it was every fourth respondent (25%) among HIH who affirmed the same. Additionally, 41% of the respondents from HIH reported no impact on their household income compared to 24% of LIH respondents. Income decline was the most severe for LIH rural households (56%) compared to LIH urban (29.5%) and HIH rural (39.5%).

As part of this study, 61% of the surveyed households in low capacity States (UP, Bihar) and 46% in high capacity States (Maharashtra, TN) belonged to the BPL category. The average monthly household income of LIH in low capacity States (Rs.15,430) was found to be lower than that in high capacity States (Rs.24,702).

Overall, LIH are disproportionately affected in both Low Capacity States (LCS) and High Capacity States (HCS). However, the socio-economic impact on LIH in LCS is the most severe. For instance, the chance of survival of a LIH crash victim from low capacity states was only 53% while that from high capacity states was as high as 75%. Whereas the survivability rate was almost similar in case of HIH crash-victims from both categories of states (87% for victims from high capacity states and 88% for victims from low capacity states).

From the findings of the report its clear that across households, respondents in rural areas had to look at different mechanisms to cope with financial burden, this included borrowing money, taking a loan, selling, mortgaging assets and taking up extra work. The State Governments should ensure better implementation of social security schemes in rural areas to increase the resilience of households to cope with economic burden of road crashes. Additionally only 14% of LIH respondents received state compensation. Anecdotal evidence gathered through FGDs also points at reluctance of police officials to file FIRs in rural areas which further complicates the compensation process for them. State Governments should also address underreporting of crashes.

17. The institutional capacity of states refers to the ability of states to respond to developmental challenges, the strength and resilience to take decisions and effectively implement them for better governance. Institutional capacity is a function of infrastructure, i.e., the better the quality of infrastructure, the higher is the preparedness of the State in meeting sudden challenges. A delay in making decisions also increases the cost and puts the State under greater pressure.
18. Tamil Nadu ranks third in the country with a high score of 67 out of 100 followed closely by Maharashtra with a score of 64 (NITI Aayog's Composite SDG India Index, 2019). This indicates that the States have crossed their half way mark in meeting the SDG targets for 2030. Compared to Tamil Nadu and Maharashtra, Uttar Pradesh scores 55 while Bihar scores 50 on the index. Tamil Nadu also scores the highest on the SDG goal of no poverty.

4.3. INSTITUTIONAL CAPACITY OF STATES [17]

Maharashtra and Tamil Nadu are comparatively more economically advanced and urbanized states of India than the states of Uttar Pradesh and Bihar. The Low Capacity States of Bihar and Uttar Pradesh have historically experienced a sluggish growth rate and have had weak administrative and legal structures. Due to high poverty and a rampant law and order problem, their delivery mechanisms are weak and governance institutions and structures are underdeveloped. In terms of State performance on meeting the SDG goals[18] and on Governance Performance Index (GPI)[19], HCS perform better than LCS.

In the LCS, the development framework has to be Government-led since the private sector is weak and less developed. Expanding its institutional capacity and quality of service is the only way these states can catch up with the developed states. The per capita state GDP, share of urban population, share of adults (age 15+ years), and literacy rate are higher in Maharashtra and Tamil Nadu compared to UP and Bihar. At the same time, Bihar and UP are amongst the highest populated states and home to the largest proportion of poor in India (9.6 Crores). The poverty rates in Bihar (34%) and UP (29%) are significantly higher than the all India poverty rate of 22%. The proportion of poor in urban as well as rural areas of UP and Bihar are comparatively higher than that in Maharashtra and Tamil Nadu. Also, the proportion of qualified health workers per 10,000 population and labour participation rate are comparatively low in Bihar and UP.

When it comes to framework for Road Safety, all four States have a Road Safety Policy with fixed targets[20]. Following a Public Interest Litigation (PIL) in 2012, Supreme Court of India appointed a Committee on Road Safety in 2014 in the case of S. Rajaseekaran Vs. UOI & Ors. W.P. (C) 295 of 2012. The committee was formed to oversee the efforts of Central and State Governments to improve road safety. The Supreme Court Committee on Road Safety (SCCoRS) has been issuing directives to all states to create a standardised policy framework. SCCoRS has directed all States to formulate Road Safety Policies, Annual Action Plans, State Road Safety Councils, establish a Road Safety Fund and a Road Safety Cell.[21,22]

All four States under the purview of this study have constituted Road Safety Cells and Road Safety Councils. They have a Road Safety Fund and Action Plan as well. The Maharashtra Road Safety Cell was created last year and is supervised by the State Transport Commissioner. In Tamil Nadu, the cell has been reconstituted as a Lead Agency to assist the Joint Transport Commissioner (Road Safety)[23]. It comprises of 5 members, i.e., Inspector of Police, Assistant

19. The quality of governance as service delivery is measured using the overall Governance Performance Index (GPI). On the GPI, Tamil Nadu and Maharashtra have consistently featured in the top 10 best performing states whereas Bihar and Uttar Pradesh have held the slot for the worst performing states.
20. http://morth-roadsafety.nic.in/index1.aspx?lsid=492&lev=2&lid=445&langid=1
21. https://transport.uk.gov.in/files/RoadSafetyDocs/24-09-2018.pdf
22. The Supreme Court recently appointed Mr. Justice Abhay Manohar Sapre, former Judge of this Court, as the Chairman of the aforesaid Committee on Road Safety vide Order 14-01-2020.
23. Transport Commissionerate, Government of Tamil Nadu: https://tnsta.gov.in/roadsafety_legalagency.jsp

Engineer, Highways, Office Superintendent, Medical Education, Deputy Director, IRT and Assistant Director, School Education. Besides acting as the Secretariat for the State Road Safety Council, the Cell notifies all the targets for reduction of crashes and draws the Annual Action Plan. Additionally, it manages the State Road Safety Fund and monitors all district level programmes on road safety. Further, the Tamil Nadu State Government under its Road Safety Mission has mandated the creation of Road Safety Cells in Chennai, Madurai and Coimbatore corporations.

In addition to all these functions, Road Safety Cells/Council should also be entrusted with the task to ensure that all States mandatorily publish their targets on road safety annually so that their performance can be measured against these targets. Additionally, their budgets should be reviewed by a relevant authority to maintain transparency and efficiency. Since High Capacity States have higher spending power and more effective institutional mechanisms to implement targets, a multi-level agency should be set up in every State to oversee road safety efforts and guide HCS in drawing out detailed plans.

Tamil Nadu, Maharashtra and Bihar have also seen a decline in road crash deaths over the last 4 quarters (since July 2020) with Tamil Nadu seeing a consistent drop in fatalities over the last 5 years. The state witnessed a 10% decline in road crashes between 2018 and 2019 alone. The State's efforts have been acknowledged by the Centre that has recently awarded it for 'Best Performance in Road Safety' One of the biggest reasons for an over 22% reduction in fatalities in Tamil Nadu between 2016-18 could be attributed to improved post-crash care in the State. Since VRUs are the most at risk especially in LCS, marginal improvement in post-crash emergency care and trauma services can go a long way in saving lives of road crash victims.

If we look at the pendency of Motor Accident Claims Petition (MACP) at national out level, over 8 lakh cases are pending at district and taluka level courts[24]. To put that in perspective, nationally, out of all original civil pending cases, 12.4 percent of the cases are MACP. As far as inter-state variations are concerned, Tamil Nadu has the highest pendency at 28.4% (1,54,847 cases) followed by Maharashtra (9.11%), Bihar (4.66%) and Uttar Pradesh (1.8%).

As far as Road Safety funding in concerned, Maharashtra State Government allocated 50 lakhs for publicity and education of road safety in its Annual Scheme 2019-20[25]. In terms of emergency health facilities, Maharashtra has over 930 ambulances and 23 District Hospitals as of date. The State Government has a State scheme for cashless and

24. https://njdg.ecourts.gov.in/njdgnew/?p=main/pend_dashboard
25. https://plan.maharashtra.gov.in/Sitemap/plan/pdf/Annual%20Secheme%20(Departmentwise)%202019-20.pdf

free treatment in designated hospitals.[26] The Department of Medical Health & Family Welfare, Government of Uttar Pradesh has also issued detailed post-crash Guidelines for strengthening Trauma Care response system in the State through a sectoral approach (Trauma Care Guidelines for Road Traffic Injuries 2018-2025)[27]. The guidelines cover a wide range of topics like pre-hospital care, hospital care, rehabilitative care and establishing trauma centres in the vicinity of National Highways traversing through the State.

Looking at the data from the survey, compared to High Capacity States, a higher proportion of households in low capacity states reported an adverse impact due to crashes. This was indicated by decline in household income, living standard, food consumption, increase in OOPE on medical treatment and rising household debt.

26. https://www.hindustantimes.com/mumbai-news/maharashtra-approves-free-treatment-scheme-for-road-crash victims/story-FDPR09XLfM9eym8rDUq9lI.html
27. http://uphssp.org.in/Tenders/Traumacareguidelines.pdf

TABLE 4.4: TABLE INDICATING SUMMARY OF FINDINGS FOR HIGH AND LOW CAPACITY STATES

Particular	High Capacity States (Overall – LIH and HIH)		Low Capacity States (Overall – LIH and HIH)	
	LIH	HIH	LIH	HIH
N	1038		1041	
Female victims	20%		11%	
BPL households	46%		61%	
Avg. Monthly household income – LIH (INR)	24,702		15,430	
Victims earning members of household before crash	86%		79%	
Victim survived in crash	77%		61%	
	75%	87%	53%	88%
Decline in household income after crash	64%		78%	
	68%	50%	82%	65%
Living standard of household decreased due to crash	49%		64%	
Increase in household OOPE on medical treatment	57%		65%	
Increase in household debt due to crash (borrowed money)	32%		38%	
Food consumption decreased after crash	34%		40%	

4.4. OUT OF POCKET EXPENDITURE (OOPE) AND TIME TAKEN TO GET BACK TO WORK

Direct financial costs are one of the major consequences of road crashes to be borne by victim households. These are tangible and can be quantified. These costs include medical costs, funeral costs, damage costs, rehabilitation costs, property costs and other such costs that have a monetary value. The five direct costs included for discussion in this section are medical costs, property/vehicle costs, legal and administrative costs, funeral costs, compensation cost and other additional costs. Indirect costs associated with crashes are often hidden and constitute a much larger cost burden than direct costs. These include job losses, productivity/income losses, reduced quality of life/decline in standard of living and even psychological impact. The loss in income, especially of a breadwinner of the family can be a crippling cost incurred on the household after a crash.

Overall, the total average costs (direct and indirect combined) borne by victim households was about Rs.1,52,339 for LIH victims. This was lower than the average costs recorded by respondents among HIH, i.e., Rs. 1,98,037. Owing to the high medical costs borne by road crash victims, especially from LIH that further pushes them into poverty and debt, the Centre has proposed a scheme for cashless treatment of road crash victims under Section 162 of the Motor Vehicles (Amendment), Act, 2019. A draft of the scheme suggests a cap of Rs 2.5 lakh for the victim's treatment per crash and designates the National Health Authority as the nodal agency to implement the scheme under Pradhan Mantri Jan Arogya Yojana. Immediately implementing this scheme will help save a lot of lives during the crucial golden hour. Some other States like Delhi, Odisha, Gujarat and Karnataka have also been running their own cashless assistance schemes. Though there is no standardization in terms of the cap offered on the cost of treatment, list of injuries covered and the funds available for the same. However, most State schemes cover treatment up to 48 hours after the crash except Maharashtra which covers treatment up to 72 hours. Under the Maharashtra State scheme, cashless and free treatment is provided up to 1.5 lakh per family per year.

Medical costs constituted a bulk of the total costs of LIH, i.e., Rs. 78,824 (52% of total costs) followed by loss of productivity/loss of income costs, i.e. Rs. 37, 572 (25% of total costs). Property damage is one of the key costs resulting from a road crash and refers to the damage caused to any personal/public property and to the vehicle involved in the crash. LIH incurred a lower property cost (average amount of Rs. 12,752, comprising 8% of the total income) than HIH (average amount of Rs. 28,845, comprising almost 15% of their total costs). The legal and administrative costs reported by LIH were higher compared to HIH. While LIH spent an average amount of Rs. 6,627 (4% of total costs), HIH spent an average amount of Rs. 5,629 (2.8% of the total costs) on legal and administrative costs incurred post-crash. The main heads under legal and administrative costs include police costs, costs of fire services and other emergency services (excluding transportation of casualties to hospital, which is part of medical costs), insurance costs, costs of legal cases resulting from road crashes, and costs of imprisonment etc (Wijnen et al, 2017).There is an urgent need to lower the OOPE for LIH by improving health infrastructure, especially in rural areas, investing in better training of manpower, making post-crash emergency care more accessible and efficient, ensuring more efficient penetration and coverage of LIH under health insurance.

TABLE 4.5: TABLE INDICATING STATE WISE COMPARISON OF AVERAGE COSTS PAID BY VICTIM HOUSEHOLDS

Losses incurred due to the road crash	LIH (Rs.)							
	Gender wise		Habitation wise		State wise			
	Male	Female	Urban	Rural	Bihar	Maharashtra	Tamil Nadu	Uttar Pradesh
N	1420	227	482	1165	412	415	407	413
Total expenditure	155950	131768	136767	159204	1,09,227	1,89,621	1,42,350	1,64,230
Loss of income (victim & family members) during period of treatment	38,259	33,281	39,563	36,749	19,825	48,381	52,399	29,805
Loss of property/ vehicle etc. due to road crash	13,034	10,988	13,463	12,458	6,915	10,863	20,201	13,133
Out of pocket expenses on treatment of victim	81,723	60,689	64,424	84,782	66,659	1,10,029	58,701	79,433
Legal/ administrative/ compensation expenses including police, lawyer, etc.	6,740	5,916	3,694	7,840	4,192	6,512	6,190	9,600
Amount paid to other vehicle/ person involved in crash	2,565	2,160	3,469	2,112	1,033	969	4,857	3,216
Others (hospital visits, loss of belongings, food expenses, travel, etc.)	13,629	18,733	12,154	15,264	10,604	12,867	--	29,042

Losses incurred due to the road crash	HIH (Rs.)							
	Gender wise		Habitation wise		State wise			
	Male	Female	Urban	Rural	Bihar	Maharashtra	Tamil Nadu	Uttar Pradesh
N	**340**	**92**	**356**	**76**	**115**	**113**	**103**	**101**
Total expenditure	**197712**	**236354**	**222992**	**198189**	**1,47,156**	**1,62,907**	**2,49,081**	**2,30,800**
Loss of income (victim & family members) during period of treatment	79,159	61,465	74,316	80,422	68,957	73,885	1,13,340	45,699
Loss of property/ vehicle etc. due to road crash	30,999	20,886	28,681	29,616	28,496	19,331	40,097	28,414
Out of pocket expenses on treatment of victim	64,278	46,424	59,871	63,309	27,083	68,221	74,913	75,110
Legal/ administrative/ compensation expenses including police, lawyer, etc.	5,899	4630	4,391	11,428	6,896	872	11,391	3,634
Amount paid to other vehicle/ person involved in crash	7,233	2949	5,699	9,234	12,224	598	9,340	2,943
Others (hospital visits, loss of belongings, food expenses, travel, etc.)	10,143	100000	50,033	4,180	3,500	--	--	75,000

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The compensation costs[28] made up a minor chunk of the total costs among both LIH and HIH. While LIH paid Rs. 2,509 (1.6% of the total costs) as the average amount to the other party; HIH paid double the amount at Rs. 6,321 (3.2% of total costs). Under the purview of this study, other costs were included to be all other miscellaneous and additional costs incurred by households on travel, hospital visits, food expenses, and other arrangements during the victim's treatment. LIH spent an average amount of Rs. 14,054 (9.2% of total costs) while HIH spent a slightly higher average amount of Rs. 21,375 (10.8% of total costs) on additional costs.

Overall, the average expense incurred on the victim's funeral was Rs.22,242 (16% of the total costs) among LIH whereas the average costs incurred on the victim's funeral among HIH households was 51,498 (23% of total costs), i.e., almost double the LIH costs. The highest expense among LIH on the victim's funeral was incurred in Tamil Nadu (Rs 42, 010) while the lowest amount was spent in Uttar Pradesh (Rs 12, 517). It must be noted that in none of the cases funeral expenses were covered through insurance. Respondents among LIH were either not aware of this or did not claim funeral compensation under insurance.

A mixed-methodology study by Archana Kaushik estimated that on an average (across religious affiliations), about ₹8,000–₹10,000 is the minimum amount spent only on cremation/burial of the deceased[29]. Additionally a large amount of money is spent on death rituals. The study concluded that the "expenditure on death rituals invariably destabilises family budgets, especially among middle- and low-income households." The interim compensation envisaged under Section 164A of the Motor Vehicles (Amendment) Act, 2019 should be implemented to ensure mechanism for quick compensation as direct credit in Aadhar linked bank accounts of the family member.

In terms of indirect costs, LIH incurred a 25% (Rs. 37, 572) loss in their household income owing to the inability to work/loss of employment whereas HIH incurred a loss of 38% (Rs. 75, 391). This made up the most significant cost for HIH followed by OOPE that comprised 30% of their total costs. Costs incurred due to loss of income was highest in Tamil Nadu among both HIH and LIH.

Bihar had the lowest average costs borne by LIH victim across all expenditure heads except out of pocket expenses on treatment of the victim and amount paid to other parties involved in the crash. It was the opposite for Tamil Nadu where average costs were higher across most of the heads except for out of pocket expenses on treatment and legal/ administrative expenses. Property costs were highest among households in Tamil Nadu. Legal and administrative costs were highest among LIH in Uttar Pradesh. Among LIH, highest OOPE related costs were recorded for Maharashtra followed by Uttar Pradesh.

Out of pocket expenditure (OOPE) is the payment made directly by individuals at the point of service where the entire cost of the health good or service is not covered under any financial protection scheme. The out of pocket

28. Compensation costs refer to the amount paid by the victims/their families as compensation to the other party involved in the crash in case the crash happened due to the victim's fault.
29. https://www.epw.in/engage/article/can-you-afford-die-estimates-expenditure-rituals-and-impact-ecology

medical expenditure in India is over 62.4% of the overall cost of healthcare (FICCI-KPMG Report, 2017). This is an indicator of low government investment in healthcare and such expenditure is typically financed by household revenues (71%). The highest percentage of out of pocket health expenditure (52%) is made towards medicines (Rao, Nivedita, 2018, PRS). This is followed by private hospitals (22%), medical and diagnostic labs (10%), patient transportation, and emergency rescue (6%). 72% in rural and 68% in urban areas is spent on buying medicines for non-hospitalised treatment. The private sector provides more than 80% of outpatient care and 60% of inpatient care. Out of the total household expenditure, 45% is spent on outpatient care (including both general and special treatment) as compared to 35% on inpatient care. Due to high out of pocket healthcare expenditure, about 7% population is pushed below the poverty threshold every year (NSSO Survey, 2014).

Under this study, respondents were asked to provide an estimate of their household's medical expenses after the crash. Medical costs cover the entire post-crash expenditure on the victim's treatment. It includes the Out of Pocket Expenditure (OOPE) on hospitalisation costs, costs on medicines and other medical apparatus etc. The findings revealed that on an average, LIH spent a little more than half (52%) of all their income as out of pocket expenses on the victim's treatment (hospitalisation, medicines, care). In terms of the average amount, out of pocket expenses on treatment of LIH victims accounted for Rs.78,824. On the other hand, HIH reported spending 30.5% of their household income, i.e., Rs.60,476 on the victim's post-crash treatment and recovery.

The Central Government should notify and implement the scheme for cashless treatment of road crash victims under Section 162 of the Motor Vehicles (Amendment) Act' 19. The cashless treatment scheme will help in alleviating the OOPE on victim's treatment.

OOPE varies enormously by type of disease, health care provider (public/private), quality of care and geographical region. This study illustrates that OOPE related costs were higher among males than females. Additionally, expenditure on OOPE in urban areas was higher compared to rural areas among both households. Among the LIH in urban areas, OOPE was slightly higher at 66% of the total expense compared to 60% of the total expense among HIH in rural areas. Across both categories of households, a higher proportion of respondents (almost double) reported an increase in their OOPE in case the victim survived. Interestingly, among HIH, the highest OOPE related household costs were recorded in Bihar (72%) and the lowest were recorded in Tamil Nadu (35%).

Not only do LIH spend more on medical costs, victims from LIH also take double the time to recover from their injuries and resume work after an crash compared to victims from HIH. While victims from LIH took about 92 days, i.e. 3 months to resume work, victims from HIH took 43 days, i.e., about 1.5 months to return to their jobs. Similarly, victims from LIH also took nearly double the time to find a new job after the crash compared to victims from HIH. While victims from LIH took 107 days to assume a new job, victims from HIH took 65 days for the same.

4.5. GENDER-DIFFERENTIATED TRENDS AND IMPACTS

While road fatalities continue to be disproportionately higher among male road users, the consequences of a road crash create an unfavourable impact among the female members of a household. It helps us better conceptualise the impact of road crashes on women, especially from poor households in the framework of functioning and capabilities (Sen and Nussbaum). Functionings are 'beings and doings', that is, various states of human beings and activities that a person can undertake. Capabilities are a person's real freedoms or opportunities to achieve functionings. According to the capability approach, functionings and capabilities are constitutive of a person's core being and can be used as the best yardstick to evaluate one's well-being and freedom (Sen, 1992). These beings and doings together hold what makes a life valuable. Road crashes can be conceptualised as a sudden unforeseen assault on capabilities and functionings that curtails the freedom of victims to realise their best optimal potential and live a dignified life. Crashes not only derail the lives of the victims but they also jeopardise the realizations and potential of family members of victims, coercing them into untold misery and suffering.

In case the sole breadwinner of the household expires post-crash or a key earning member suffers serious injuries and hospitalisation, the burden of running the household falls on the shoulders of female members.

Out of the 1724 crash victims identified as earning members of the household by the respondents of this study, 1353 were identified as Chief Wage Earners of the household[30], i.e., almost 79% of all crash victims were the Chief Wage Earners (CWE) of their households. 78% of the LIH victims were CWE whereas 71% of the HIH victims were CWE. Across household categories, the proportion of men reported as the Chief Wage Earners was significantly higher than women, men from LIH being the highest. 50% of the women from LIH and 55% from HIH were CWE of the household before the crash whereas 81% of the men from LIH and 74% men from HIH were CWE before the crash. Uttar Pradesh had the highest number of CWE as victims (80%) from LIH while Maharashtra had the highest CWE as

"He received the salary for that month but for 5-6 months he was on a complete bed rest. All the load fell upon me."

- Female FGD Respondent

30. Chief Wage Earner refers to a person who contributes the maximum to the monthly expenses of the household.

victims from HIH (78%).

The involvement of the CWE in the crash affects the household's financial status adversely, especially among LIH. The severe impact of decline in income was higher among rural households, and cases where victims had died as well as where victims were males. 31% of the female members in LIH were severely affected by the decline in household income after the crash whereas 53.5% of the male members were severely affected by the same. Among HIH, 18.5% of female members of the household were severely affected compared to 26.5% of the male members. Income decline was severe for rural LIH rural (56%) compared to urban HIH (29.5%) and rural HIH (39.5%).

As per survey findings, the contribution of LIH victims (60%) who succumbed to their injuries after the crash to the total household income was a little higher than that of the victims belonging to HIH (57%). State-wise, the highest contribution of victims was reported from LIH in Maharashtra (64%) while the lowest was reported from LIH in Tamil Nadu (56%).

The male (dead) victims' contribution to household income was significantly higher than female victims' (more than double) across both categories of households. For instance, among LIH, male (dead) victims contributed to 63.5% of the total monthly household income whereas female victims contributed to 29% of the same. Similarly, the contribution of victims from rural areas to the total household income was higher than the victims living in urban areas across both household types; the highest being among HIH rural households (69%).

Along with income, the pattern of (surviving) victims' contribution to household income was also examined. Respondents were asked to report the victims' contribution to the household's total income pre-crash, on resuming work after the crash and the current status as on 31st Jan 2020. Among LIH, while victims were contributing 56% of the total household income before the crash, their share was reduced by 10% after the crash with 46% of the surviving victims contributing to total household income on resuming work. With a reduction in monthly income, the contribution to total household income was also reduced among the LIH. An almost similar trend was observed across all the States with Uttar Pradesh registering the sharpest decline.

During the survey, LIH respondents had stated that in case of the victim being the breadwinner of the family, other family members had to shoulder responsibility for the sudden unforeseen expenses. In many cases, they had to arrange for loans from lenders/banks/relatives or sell/mortgage assets like land, jewellery, etc. to manage household expenses. LIH respondents also stated that in the absence of any steady primary source of income, the women of the household often had to step up and take additional jobs to mitigate the financial burden.

Women and labour can be used interchangeably. Women who enter the labour market for remunerative work often

"No, I started doing this (stitching) after the crash as the person, from whom I borrowed money at the time of the crash, started asking for money. I had to take a micro finance loan and since I had to repay it, I had to take up stitching work. I took around Rs.30,000 and with interest gave back around Rs 36,000."

- FGD Respondent

"It was a tough period and hard task. We had to wake up early in the morning. We had to look after the children and provide for the medicines. In fact, we had to do everything all alone"

- FGD Respondent, Patna.

also perform additional household labour in developing countries. Caregiving is an unacknowledged undervalued activity predominantly undertaken by women within households. This includes nursing and looking after the daily needs of an injured person or dependent within the household, cooking for them, administering medicines to them, making their bed, assisting them to clean up etc. In terms of economic value, these activities are non-remunerative in nature and add to the double burden of work for women and also lead to time-poverty.

This section was thus an attempt to highlight the gendered impact of road crashes that is mostly underreported and unacknowledged within research studies and policy making. States need to acknowledge that gender responsive reporting and monitoring is essential to evaluate the impact of road crashes on women. WHO also recommends that "Gender differences in the social and economic consequences of temporary and/or permanent disability resulting from injury have to be taken into account when planning rehabilitation services" (WHO, 2002). To ensure rehabilitation services as well as adequate support to either women road crash victims or families which are left to deal with loss of male breadwinner, gender disaggregated data at state and district level would be imperative to create gender responsive post-road crash safety nets.

4.6. DIFFERENTIAL ABILITY TO COPE/ RESPOND TO A FINANCIAL CRISIS POST-CRASH - LIH VS HIH

Road crashes alter the socio-economic realities of families both in the short and long run. Road crashes chronically lower the Quality of Life (QoL), as measured by pain/ discomfort during usual activities, mobility, self-care, and mental issues. The main cost item related to serious road injuries is loss of opportunities to participate in market production due to disability or sick leave. It includes the loss of productivity and loss in income due to not being able to work. During the study, the loss in income/ productivity and other additional costs were self-reported by the respondents in terms of an average estimate while the standard of living costs were determined based on a qualitative assessment of the responses collected from respondents among both households.

The loss in income was self-reported by respondents on the basis of days of work they had to forsake during treatment/recovery post-crash care. This also includes the income forsaken of the family member/s accompanying the victim to the hospital for treatment or looking after him/ her at home, thus not being able to report to work. In terms of average loss of income reported by the respondents during the period of treatment, including that of the victim and family member(s), the average loss was estimated to be Rs.37,572 for LIH, i.e., 25% of their total costs. While it was estimated to be Rs. 75, 291 for HIH, i.e., 39% of the total costs. It's also important to note that for HIH, loss of income is the biggest component while looking at total costs. OOPE further adds to the burden for both LIH & HIH and drives them into financial distress.

Economic resources, including both cash and noncash income, determine the economic well-being of households. Cash income is the most widely employed measure of household economic well-being, but it excludes considerable amounts of resources received in a noncash form (Smeeding, 1993). These include health care, housing, education, child care, transportation, food, and other subsidies from governments or from other third parties (i.e., employers), and in-kind transfers received from relatives, friends and others in the form of food, clothing and/or shelter (Smeeding, 1993). Standard of living under the purview of this study has been defined as the level of wealth, comfort goods, material goods and necessities required to live a comfortable and fulfilling life; it includes non-cash resources that make a good life.

Nearly two-third (63.5%) of the respondents from LIH said that their family had undergone a deterioration in their living standards after the crash compared to less than three out of ten (29%) respondents from HIH who confirmed the same. An adverse impact on the living standard was confirmed by a higher proportion of respondents in cases where victims had died as well as where victims were male earning members of the family. Bihar reported the sharpest decline in living standards among LIH (73%) followed by Uttar Pradesh (72%). The decline was consistently low across all States for LIH (50% and above). Similarly, among HIH, Bihar again recorded the highest decline in living standards (40%) followed by Tamil Nadu (35%).

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Financial impact on the living standards of poor victims and their families (LIH) is more severe than those for rich victims and their families (HIH). Lack of financial resources leads to poor households making many compromises in terms of food consumption levels and cutting down on everyday items, even essentials to make ends meet. Financial distress affects the quality of life and can lead to health complications, depression, sleeping problems and other health issues among the victim/family. Among LIH, 38.5% of the respondents reported a severe deterioration in their living standards after the crash while among HIH, only 13% of the respondents said the same. Around 69% of the respondents from HIH chose the option "none", i.e., they did not witness any change in their living standards and could comfortably tide over the post-crash situation.

To cope with the excessive financial burden caused due to the crash, various mechanisms are used by victims/their family members to tide over the crisis. Mechanisms such as availing of loans, selling assets or taking up extra additional work by household members, dipping into family savings, etc. are exercised by victims and/or their family members. This section examines such mechanisms and contrasts the differences in which they are used by members of poor and rich households. The findings reveal that compared to HIH, LIH were three times more likely to seek financial help in order to cope with the financial burden post-crash. They took mostly informal loans from close friends/relatives, sold/mortgaged their family assets (land, jewellery, motor-vehicle) to meet their expenses.

About 42% of LIH reported that their household underwent debt after borrowing money (through both formal and informal sources), compared to 11% of respondents from HIH. The average value of loans taken by LIH was Rs. 99,850. Similarly, about one-fourth of the LIH (24%) sold/mortgaged their assets to meet their daily expenses and repay their debt, compared to only 7% of HIH. At the same time, about 14% of LIH reported taking up extra work to deal with the situation, compared to 4% of HIH.

Compared to urban areas, a higher percentage of LIH in rural locations availed a loan, sold/mortgaged their assets and took up extra work, to cope with the financial burden. In the absence of institutional and credible sources of financial support and lack of income, LIH were more likely to borrow money from relatives/friends. Banks usually ask for proper documentation (that most LIH find difficult to produce) and take a longer time to approve loans as opposed to informal sources. 48% of the LIH in Uttar Pradesh availed for a loan to deal with the financial burden while 15% of the HIH from Tamil Nadu did so, exposing a wide contrast between the households. The ability to take a loan from institutional sources also depends on one's socioeconomic status and further makes the process of repayment more strenuous for poor households.

Compared to other states, the highest proportion LIH from Tamil Nadu sold/mortgaged their assets, took on extra work and received compensation from the insurance company as well as other parties involved in the crash to deal with their financial burden. While LIH were more dependent on loans and selling off assets to meet their expenses, they were less likely to receive compensation from insurance companies compared to HIH. One-fourth of HIH (24%) received compensation of about Rs.1,62,562 from insurance companies (including vehicle/ medical/ life insurance, etc.) while only 14% of LIH received an average compensation of Rs.89,215. This gap highlights the asymmetry in insurance penetration and compensation claims by the rich and poor. Though merely increasing insurance coverage is also not enough. There exists

an information asymmetry on awareness of insurance scheme and its benefits, Health insurance coverage in India particularly remains poor because the private health insurance industry is still at a nascent stage, the pool of people who are able and willing to pay for insurance is low, and insurance premiums are high. Further because LIH, especially in rural India, have limited access to healthcare services such as doctors and hospitals, they are less likely to buy health insurance. Additionally, insurance policies need to be made more comprehensive and inclusive by including mental health and rehabilitative care for road crash victims under its scope.

A higher percentage of respondents from HIH said they relied on their savings to meet their additional expenses post-crash. While about 7 out of 10 LIH dipped into their family savings (averaging at Rs.92,065), as high as 9 out of 10 HIH households used their family savings (averaging at Rs.1,45,401) to meet the additional expenses.

In terms of the amount arranged to tide over the economic crisis, LIH from Maharashtra managed to raise the highest amount whereas among HIH, a similar trend was observed in Tamil Nadu. Interestingly, LIH in Uttar Pradesh (over 2.5 lakhs on an average) received the highest compensation from Government schemes at the central and local level followed by Maharashtra (around 1lakh average). The lowest government compensation was received by LIH in Bihar (44,000). LIH in Maharashtra (1.8 lakhs) received the highest compensation from insurance companies followed by Uttar Pradesh (around 1.4 lakhs). HIH in Uttar Pradesh reported the highest compensation amount at around 4 lakhs followed by Bihar (2.3 lakhs).

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TABLE 4.6: TABLE INDICATING MECHANISMS TO COPE WITH FINANCIAL BURDEN - LIH VS HIH

Arrangements to cope-up with the financial burden	LIH [N=1647] Yes % and Average amount (Rs.)								
	Overall	Gender wise		Habitation wise		State wise			
		Male	Female	Urban	Rural	Bihar	Maharashtra	Tamil Nadu	Uttar Pradesh
Arranged a loan (lenders, bank, relatives, etc.)	41.8% Rs.99,850	43.2% Rs.1,01,927	33% Rs.82,880	27.0% Rs. 85,874	47.9% Rs.1,03,107	43.2% Rs. 96,874	44.1% Rs.1,27,421	31.4% Rs. 74,024	48.2% Rs. 93,771
Sold/ mortgage assets (land, jewellery, motor vehicle etc.)	23.7% Rs.98,608	24.4% Rs.1,03,034	19.4% Rs.63,807	21.0% Rs. 51,228	24.8% Rs.1,15,167	22.8% Rs. 1,07,468	17.6% Rs. 1,43,566	30.2% Rs. 49,033	24.2% Rs. 1,18,440
Took on extra work by household members (monthly extra earning)	14.4% Rs.5,475	15.6% Rs.5,359	6.6% Rs.7,200	11.8% Rs. 5,414	15.5% Rs. 5,494	17.2% Rs. 4,201	12.3% Rs. 4,539	19.4% Rs. 7,384	8.7% Rs. 5,125
Compensation from the insurance company (including vehicle/ life insurance, etc.)	14.1% Rs.89,215	13.8% Rs.95,753	16.3% Rs.54,581	16.4% Rs. 99,009	13.2% Rs. 84,190	11.9% Rs. 84,239	7.2% Rs. 1,80,483	29.0% Rs. 53,203	8.7% Rs. 1,37,967
Received compensation under schemes (govt., local authorities, funeral expense, etc.)	8.3% Rs.1,20,478	8.7% Rs.1,27,411	5.7% Rs.54,346	5.4% Rs. 50,981	9.5% Rs. 1,36,757	13.1% Rs. 44,019	4.3% Rs. 1,04,222	5.2% Rs. 45,333	10.7% Rs. 2,56,830
Received compensation from employer	6.0% Rs.52,729	6.3% Rs.54,253	4.0% Rs. 37,667	7.5% Rs. 20,147	5.3% Rs. 71,648	8.7% Rs. 31,414	6.3% Rs. 79,692	5.2% Rs. 50,076	3.6% Rs. 60,867
Dependent was provided job by employer/ govt. (monthly income)	3.2% Rs.7,721	3.3% Rs.7,309	2.2% Rs. 11,600	4.6% Rs. 6,623	2.6% Rs. 8,527	7.3% Rs. 4,957	0.5% Rs. 16,500	2.2% Rs. 11,222	2.7% Rs. 10,800
Received compensation from other party involved in a road crash	9.8% Rs.64,572	9.2% Rs.70,301	13.7% Rs. 40,361	13.3% Rs. 31,007	8.4% Rs. 86,492	10.2% Rs. 19,778	5.3% Rs. 1,69,000	21.6% Rs. 47,852	2.4% Rs. 1,70,100
Spent from family savings	74.7% Rs.92,065	74% Rs.93,818	79.3% Rs. 81,833	87.3% Rs. 94,251	69.5% Rs.90,930	67.0% Rs.70,509	82.2% Rs. 96,487	77.9% Rs.110195	71.9% Rs.87,671

Arrangements to cope-up with the financial burden	HIH [N=432] Yes % and Average amount in (Rs.)								
	Overall	Gender wise		Habitation wise		State wise			
		Male	Female	Urban	Rural	Bihar	Maharashtra	Tamil Nadu	Uttar Pradesh
Arranged a loan (lenders, bank, relatives, etc.)	11.1% Rs. 92,218	12.4% Rs. 92,294	6.5% Rs. 91,683	7.0% Rs. 1,20,004	30.3% Rs. 62,015	11.3% Rs. 30,881	8.0% Rs. 1,34,444	14.6% Rs. 1,15,333	10.9% Rs. 98,636
Sold/ mortgage assets (land, jewellery, motor vehicle etc.)	7.4% Rs. 74,969	7.4% Rs. 81,920	7.6% Rs. 50,143	5.1% Rs. 1,01,444	18.4% Rs. 40,929	10.4% Rs. 19,083	4.4% Rs. 44,000	10.7% Rs. 1,40,909	4.0% Rs. 1,00,000
Took on extra work by household members (monthly extra earning)	3.9% Rs. 18,765	4.1% Rs. 19,214	3.3% Rs. 16,667	0.8% Rs. 16,667	18.4% Rs. 19,214	8.7% Rs. 5,000	0.9% Rs. 20,000	4.9% Rs. 44,800	1.0% Rs. 25,000
Compensation from the insurance company (including vehicle/ life insurance, etc.)	24.1% Rs. 1,62,562	26.2% Rs.1,81,319	16.3% Rs. 51,267	22.8% Rs. 1,89,844	30.3% Rs. 66,478	17.4% Rs. 2,32,450	31.9% Rs. 31,706	25.2% Rs. 89,846	21.8% Rs. 3,99,091
Received compensation under schemes (govt., local authorities, funeral expense, etc.)	2.5% Rs. 55,500	2.9% Rs. 60,900	1.1% Rs. 1,500	1.1% Rs. 25,750	9.2% Rs. 72,500	7.0% Rs. 57,375	0.9% Rs. 1,500	1.0% Rs. 1,00,000	1.0% Rs. 50,000
Received compensation from employer	3.5% Rs. 45,287	4.4% Rs. 45,287		2.2% Rs. 54,388	9.2% Rs. 34,886	7.0% Rs. 25,288	3.5% Rs. 63,000	2.9% Rs. 75,000	
Dependent was provided job by employer/ govt. (monthly income)	2.8% Rs. 11,917	2.9% Rs. 11,900	2.2% Rs. 12,000	0.8% Rs. 22,000	11.8% Rs. 8,556	7.8% Rs. 3,111	0.9% Rs. 15,000	1.0% Rs. 50,000	1.0% Rs. 50,000
Received compensation from other party involved in a road crash	9.7% Rs. 89,786	10.9% Rs. 99,484	5.4% Rs. 18,020	6.5% Rs. 57,222	25.0% Rs. 1,29,205	10.4% Rs. 17,917	5.3% Rs. 1,13,333	20.4% Rs. 1,24,571	3.0% Rs. 86,667
Spent from family savings	91.9% Rs. 1,45,401	90% Rs. 1,53,170	98.9% Rs. 1,19,279	93.8% Rs. 1,44,517	82.9% Rs. 1,50,089	87.8% Rs. 1,25,813	96.5% Rs. 1,32,450	94.2% Rs. 1,87,374	89.1% Rs. 1,37,832

6-POINT POLICY RECOMMENDATIONS:

1. Differentiated Support for VRUs, especially from Rural LIH.

The findings of the study show linkages between VRUs, LIH and road crash outcomes, indicating the need to invest more in VRU friendly infrastructure that prioritises their safety especially in rural areas. State Governments should select districts with a high VRU crash rate and prioritise their safety through dedicated Annual Action Plans.

2. Urgent need to lower the OOPE for LIH.

Out of Pocket Expenses (OOPE) is the most significant direct cost borne by victim families among LIH. The risk of catastrophic expenditure is inversely proportional to increasing income per capita, i.e., it is significantly larger for those belonging to lower-income quartiles than for those belonging to the highest income quartile.

The Central Government needs to urgently notify the scheme for cashless treatment of road crash victims and publicize the Good Samaritan Law in order to save more lives during the critical golden hour. Currently, the Centre has proposed such a scheme under Section 162 of the Motor Vehicles (Amendment), Act, 19. The proposed scheme suggests a cap of Rs 2.5 lakh for the victim's treatment per crash and designates the National Health Authority as the nodal agency to implement the scheme under Pradhan Mantri Jan Arogya Yojana.

The lack of infrastructure at the primary level, lack of awareness on life-saving protocols among local communities and first responders, low doctor-patient ratio and inefficient emergency management increases the costs for post-crash care. There is an urgent need to lower the OOPE for LIH by improving health infrastructure, especially in rural areas, investing in better training of manpower, making post-crash emergency care more accessible and efficient, ensuring more efficient penetration and coverage of LIH under health insurance.[31]

3. Make insurance policies more inclusive by covering for rehabilitation and recovery of road crash victims.

Additionally, insurance schemes should also account for the mental health impact of road crashes on victims and design more progressive policies. Establish a neuro-spinal Rehab centre at the District level for all States. Merely increasing insurance coverage is not enough as not all those who are enrolled know about the scheme or its benefits, not all the poor are covered, and not everyone has access to healthcare. Health insurance coverage in India remains poor because the private health insurance industry is still at a nascent stage, the pool of people who are able and willing to pay for insurance is low, and insurance premiums are high. Further because LIH, especially in rural India, have limited access to healthcare services such as doctors and hospitals, they are less likely to buy health insurance.

4. Better Gender Disaggregated Data.

Gender responsive reporting and monitoring is essential to evaluate the impact of road crashes on women. WHO also recommends that "Gender differences in the social and economic consequences of temporary and/or permanent

31. India ranks 145th among 195 countries on the Global Healthcare Access and Quality Index (HAQ) created by the Global Burden of Disease Index study (Lancet, 2016). While the global average per capita spending on healthcare is $822, the WHO estimates India's per capita health expenditure per year to be $63 that translates to Rs 4,200 (WHO, 2018). Unfortunately, post-accident emergency healthcare is not given the attention or resources it deserves in a country that witnesses over 400 road vtv in a day. Among the poorest households, 90% do not have private or government health insurance. While richer households fare better, coverage among them also remains poor as 67% of urban households lack insurance (NSS, MoSPI, 75th Round Social Consumption in India Survey, July 2017-June 2018).

disability resulting from injury have to be taken into account when planning rehabilitation services" (WHO, 2002). To ensure rehabilitation services as well as adequate support to either women road crash victims or families which are left to deal with loss of male breadwinner, gender disaggregated data at state and district level would be imperative to create gender responsive post-road crash safety nets.

To ensure rehabilitation services as well as adequate support to either women road crash victims or families which are left to deal with loss of male breadwinner, gender disaggregated data at state and district level would be imperative to create gender responsive post-road crash safety nets. This can be achieved by conducting gender-disaggregated rapid surveys with commuters, bus conductors and public transport officials to assess their awareness and perceptions of sexual harassment in urban public spaces.

Additionally, States can also conduct universal accessibility and women's safety audits to assess the quality of urban transport infrastructure (bus and IPT stops, trains stations, terminals and interchanges) using the indicators and service level benchmarks identified by agencies like Safetypin and evaluate gaps. States can also assess the feeder roads/services in providing last mile connectivity.

5. Mandatory publishing of Real-Time Data, Road Safety Targets by every State to ensure Planned, Targeted Spending

It should be made mandatory for all States to publish their targets on road safety annually so that their performance can be measured against these targets. Additionally, their budgets should be reviewed by a relevant authority to maintain transparency and efficiency. Since High Capacity States have higher spending power and more effective institutional mechanisms to implement targets, a multi-level agency should be set up in every State to oversee road safety efforts and guide HCS in drawing out detailed plans.

6. Sensitisation among the media and police for greater reporting on crash cases and filing of FIRs.

Road safety educational programmes need to be enhanced for the education and sensitisation of targeted sections. For instance, the WHO Media Fellowship offers reporters a curriculum to help make their reporting around road crashes more nuanced. A similar model needs to be replicated at State level to ensure in-depth comprehensive and science-based coverage.

High levels of underreporting of crashes and the poor state of post-crash care exacerbates the problem of estimating the cost of road crashes among LMICs (WB, 2020). The invisibility of indirect costs further adds to the difficulty in estimating an accurate and fair compensation amount to be awarded to victims by the court and governments.

GENDERED IMPACT OF ROAD CRASHES

CHAPTER 5

As per the Accidental Deaths and Suicides (ADSI) in India 2019 report, 1,54,732 people were killed and 4,39,262 people were injured in 4,37,396 road crashes in India in 2019. Out of this, 14.31% (22,143) were women. Out of the total 22,143 female victims over 60% women died in rural areas. Similarly, over 60% of the women were also injured in rural areas. The fact that the majority of female road crashes happened in rural areas highlights the exposure to risk on rural roads.

Even though crash victims are predominantly male, 'the impact on household livelihood due to death or injury places significantly more burden on women' (Turner & Fletcher, 2008). This is due to multiple reasons. The burden of care disproportionately falls on the woman which further causes time poverty for women. Additionally, women also have to cope up with 'loss of significant male income'. Considering the nature of Indian society, prevalence of patriarchy and gender-based stereotypes, the need to map the linkages between gender, road safety and poverty is important. Since the majority of male road crash victims also die on rural roads, understanding and addressing the impact of these linkages in rural areas is even more important.

In the context of the current COVID-19 pandemic, the impact of socio-economic vulnerabilities on women has further deteriorated their position at household and state-level. "COVID-19 has led to a sharp rise in unequal burden

of unpaid care work, depletion of household assets, income shocks and liquidity constraints, decline in female labour force participation, and significant impacts on health and nutrition, exacerbated by existing inequities in health access."

Its therefore even more pertinent to understand the impact of road crashes on households from a gender perspective. There has been a data bias towards the male point of view and experience in research generally (Perez, 2019) and this is also true for the issue area of road safety. For a comprehensive perspective on the impact of road crashes on women their 'lived experiences' were documented through female-only focus group discussions. Respondents' perceptions on solutions as well as institutional benefits were also captured.

As part of the study, two focus group discussions were conducted with women. Since both Bihar & UP are one of the poorest states in India, and lag behind Maharashtra & Tamil Nadu in crucial human development outcomes such as health and nutrition, education, food security as well as gender development indices, FGDs were conducted in the capital cities of Uttar Pradesh and Bihar with LIH respondent group. Most of the women were middle aged (in their 30s and 40s) and were mostly housewives. Most of them had experienced the crash of a male member of the family (husband or brother- in- law) and in cases where the victim suffered serious injuries were directly involved in caregiving activities.

"Being a woman, we face a lot of problems. Whether a man meets with an crash or a woman, it is the woman who has to handle everything. From household activities to serving the patient. In case the woman herself is the victim, then the whole house gets disturbed as the men are not able to handle household chores and caregiving."

- FGD Respondent Patna

GENDERED IMPACT OF ROAD CRASHES

FGD participants were probed to discuss various aspects related to the post-crash situation. As per data from the field for the quantitative survey for this study, out of the total sample covered, 85% of road crash victims (deaths and serious injuries) were male.

Being head of households or chief wage earners, men contribute a major share in household earnings. In case of a fatality or serious injury, households not only experience unexpected loss of income, but the responsibility also shifts to the female members of the household. These temporary Female Headed Households (FHH) are more vulnerable and need better social support. These recently turned, FHH experience the sudden shock of income dip and are pushed into further poverty. Following key areas emerged from the FGDs with women:

5.1 FINANCIAL IMPACT OF THE CRASH ON THE HOUSEHOLD

FGD participants shared that their families were not financially strong to bear the additional expenses due to the road crash . Most of the participants agreed that the medical bills created a financial drain which further impacted the economic condition of their household. This was echoed by respondents with the cases of death as well as serious injury.

Due to the loss of regular income and sudden financial shock, households were forced to take formal loans or borrow money from relatives or friends. One participant whose brother eventually died after months of treatment, narrated how and it took them eventually two years to repay the money they had borrowed from relatives and neighbours.

In cases of severe injuries, the financial burden did not end with the discharge of the victim from hospital, rather medical expenses related to victims' recovery continued and included costs related to medicines, recommended food/ diet, transportation for doctor/ hospital visits, doctor consultation fee, etc. The financial shock created by the expenses related to the victims' medical treatment also permeated other spheres of their family life.

Women also found it difficult to arrange the school fee for their children. Some participants also mentioned that initially, they had to arrange money by mortgaging gold jewellery.

> **"We reduced our expenses on unnecessary things such as clothes, going on a vacation or going to parties but we couldn't cut our expenses on daily needs like food and medicines".**
>
> - FGD Respondent Bihar

5.2 SOCIAL IMPACT ON THE HOUSEHOLD

Taking social impact into consideration, participants shared how the crash impacted their social life. The experiences were different for women who reported a road crash death. For example, one of the respondents mentioned that her sister in law moved to her parents' house after the death of her husband in a road crash. This was to provide better education to the children. In fact, a lot of women spoke about the support they received from their maternal house in terms of monetary support as well as load-sharing.

The crash also impacted children's education. Since there wasn't enough money to pay school fees, in many cases children had to either delay school admission or had to completely drop out of school.

When the elder brother died, the younger brother had to pay for regular household expenses despite his income being low. He had two daughters, so he had to ask one of his daughters to drop out of school due to the financial crisis.

- FGD Respondent, Lucknow

Changes in the food, clothes and lifestyle choices were reported by most of the participants during discussion. Their households had to compromise on food choices as well as other discretionary expenses related to entertainment, celebrating festivals etc.

5.3 DIRECT IMPACT OF ROAD CRASH ON WOMEN

One of the biggest impacts which women reported is "time poverty[32]". Respondents reported spending most of their time on caregiving activities and household chores. Some of the respondents had to also take up a job as well and that led to further time poverty.

"Husband got injured and then the entire burden fell upon my shoulders. I can never forget that time. My husband used to feel irritated with me post the crash. So, I had to raise my kids look after their education and well-being, on my own"

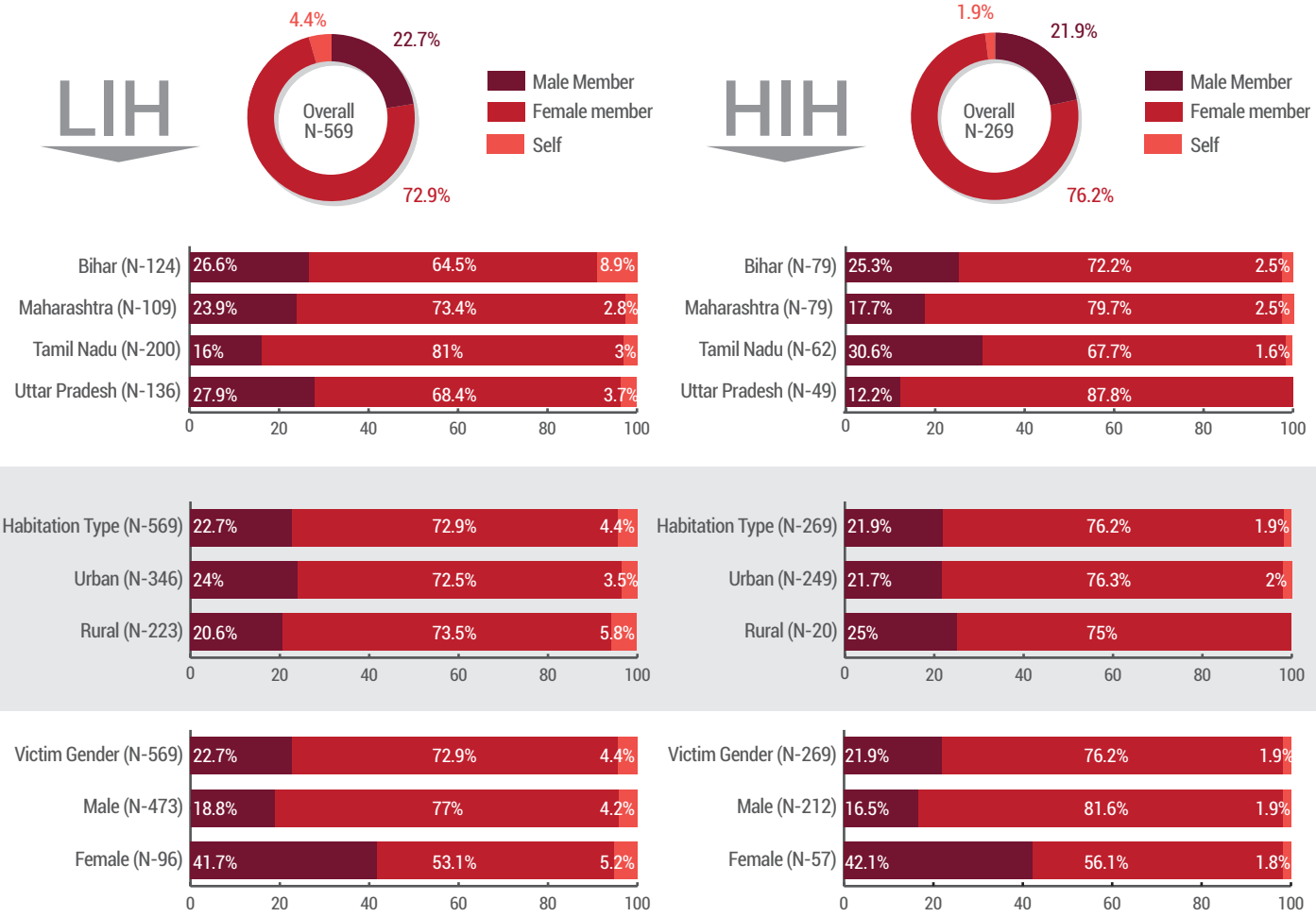
- FGD Respondent, Bihar

32. Time Poverty is defined as working long hours and having no choice to do otherwise. An individual is time poor if he/she is working long hours and is also monetary poor, or would fall into monetary poverty if he/she were to reduce his/her working hours below a given time poverty line.https://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-4961

GENDERED IMPACT OF ROAD CRASHES

This was further validated through the quantitative survey. The role of family members for caregiving activities was examined. Overall, across both the categories (LIH & HIH), at-least 7 out of 10 respondents mentioned that the female member of the household took care of the victim, cooked all the meals in the household and took care of the daily needs of the victim and the rest of the household.

TABLE 5.1: VICTIM CARE BY FAMILY MEMBERS – OVERALL | [N, LIH=569, HIH-269, ALL FIGURES IN PERCENT]



Even for outside chores like buying medicines and taking the victim to doctor, there wasn't a huge gap between men and women sharing responsibilities. Across LIH and HIH respondent groups approximately 40% respondents mentioned that women took care of these aspects as well.

The second fundamental impact was on women's physical and mental health. Many respondents mentioned facing a variety of health issues for which they sought continuous medical advice and medication.

The third area of impact for women was their capacity to access institutional support. A few respondents mentioned that they wanted to seek compensation, however, amidst conflicting priorities, the perceptions and the barriers to access the system and seek compensation seemed insurmountable. This sentiment was echoed by participants in both UP and Bihar.

M: Have you received any compensation from the government's side or any other insurance amount?

R: NO. (emphasis original) After the crash, it was very difficult for us to decide who to look after - the husband who is injured, or our children or whether to pursue the offending party at fault.

- FGD Respondent Lucknow

6-POINT POLICY RECOMMENDATIONS

1. Emergency cash transfers to vulneable female headed households:

As part of PM Garib Kalyan Yojana the Government has already implemented the "Unconditional Emergency Cash Transfer" (UECT) to women during the current COVID-19 crisis. (IWWAGE, 2020) The state governments can use a similar framework of UECT to give Aadhar linked DBT to recently turned FHHs. More vulnerable FHHs should be prioritised. The time frame of the emergency cash transfer should be standardised.

2. Monetary schemes for low interest loans:

During the FGD, many participants suggested schemes for low interest or no interest loans to support regular household expenses. The women suggested that the low interest loan should be easily accessible without much paperwork.

3. Provide Schemes to incentivize work from home small business. Enrol women who have lost the breadwinner of their families in a road into the employment database to facilitate their job search.

State Governments can also float schemes to support these women in running small home businesses. NITI Aayog also recommended this strategy to mitigate the declining female labour force participation rates in India. It has proposed to increase women's employment by encouraging entrepreneurship among women. (Niti Aayog, 2019). Women participants also reiterated this. They suggested simple business models like packaging,baking, pickle making as something that would help them monetarily without leaving the house. Women also preferred a model where they could earn daily or weekly income instead of monthly payments.

4. Ensuring quality of care at the hospital.

Many respondents spoke about authorities with mistrust. A few participants suggested that there should be a mechanism to ensure quality of care at hospitals and that the treatment of the road crash victims should be made free in government and private hospitals, especially for poor families. They further suggested that awareness on these rights should be raised amongst the general public. Since most of the women who either die or are injured in road crashes are in rural areas, Accredited Social Health Activists (ASHA) workers[33] can be trained to provide information on various government schemes for road crash victims and their families.

5. Foster Women's Participation in Local Road Safety Governance Frameworks.

Women's participation in planning and decision making at local road safety governance frameworks including State Road Safety Council and District Road Safety Committee should be ensured. Adequate female representation shall

33. ASHA workers are the government's recognised health workers who are usually the first point of contact in rural India, where there is often limited or no direct access to healthcare facilities.

not only ensure Gender responsive monitoring, reporting and budgeting, but will also create opportunities for women to be trained for various roles including as paramedics, backend operators for electronic enforcement architecture and other systems which will be created to ensure road safety.

6. Standardisation of Compensation for Non-Working Women.

The MACT has often taken a very conservative view on compensation for "house-wives". In Sher Singh vs. Raghubir Singh (2004), the Tribunal assessed the dependency of the family on the housewife at as low as Rs. 600 per month. The Tribunal concluded that the 'services rendered by the deceased woman could be replaced by hiring a servant at the salary of Rs. 600/- per month.' This logic is highly fallacious. The unpaid work done by women in households cannot be quantified by comparing it to the work done by a domestic help. This approach to compute the compensation by relying upon the minimum wages payable to a skilled worker has also been criticised by various members of Judiciary. In Arun Kumar Agarwal vs. National Insurance Company (2006), the Supreme Court also stated, "It is not possible to quantify any amount in lieu of the services rendered by the wife/mother to the family. The term `services' is required to be given a broad meaning and must be construed by taking into account the loss of personal care and attention given by the deceased to her children as a mother and to her husband as a wife. The Bombay High Court in the case of Rambhau & Ors Vs The Oriental Insurance Co & Ors (2007), in its judgment dated 17th September 2020 directed Oriental Insurance to pay Rs. 8,22,000/- along with interest at the rate of 6% per annum as compensation for the woman's death. The Court while computing the amount considered various factors such as loss of love and affection, funeral expenses, household work and other such factors. Therefore in light of the subjective interpretation, it is of utmost importance that the Central Government issues guidelines to set a definite criteria for determination of compensation payable to the dependents of a non-earning housewife/mother to remove subjectivities and ensure that family members or the disabled women (in case of serious injuries) receive appropriate compensation.

7. Set-up/Strengthen Safety Response Cell in coordination with the police and health departments to respond to victims of sexual exploitation and harassment.

MoRTH can also incentivize select states to create a network of CSOs and service providers who can work with the State Road Safety Cells to strengthen preventive approaches.

PSYCHOLOGICAL AND SOCIAL IMPACT OF ROAD CRASHES

CHAPTER 6

Road Crash deaths and serious injuries have diverse impacts on the victims and their families. While many studies have documented the impact of road crash outcomes on victims, the impact of the crash at the household level is an understudied area. Death of a family member due to a road crash can have serious social and mental health impact on the rest of the family. Serious injuries on the other hand, impacts the quality of life of the whole household including the victim. This chapter examines the psychological, health and associated impact of mortality and morbidity due to road crashes.

KEY FINDINGS

- 50% of LIH and 1/4th of HIH category respondents stated "depression" among their family members due to the impact of the road crash; this was higher in cases where fatalities were reported.
- Impact on sleeping pattern was found among around three-fourth (72.8%) of poor category (LIH) respondents while among richer counterparts (HIH), it was about six-tenth (60.7%).
- A significant difference was found in the proportion of LIH (64%) and HIH (29%) respondents that have confirmed that their living standard has deteriorated since the crash.
- Over 1/3rd of LIH respondents (38%) stated that members of their families suffered from health

complications after the crash, while it was about 21% for HIH category.

- Among those who survived road crashes, three out of ten (29.5%) victims from poor families (LIH) suffered disability, while among the victims from rich families (HIH) the percentage was 7.7%

- Among those who returned to previous occupation, LIH victims took 92 days while HIH victims took 43 days. And to find a new job, LIH victims took 107 days and HIH victims took 65 days.

- Pre- crash, about 6.6 percent of LIH victims were unemployed, while such proportion was increased by about 11 percent and accounted for 18% on resuming work after the crash.

- In terms of impact on household, compared to HIH category (27%), a significant proportion of LIH respondents (43.9%) confirmed change in working patten of family after crash.

The financial impact of road crashes on LIH respondents is disproportionate and more severe in comparison to road crash impact on HIH respondents. A broad overview of the responses on various aspects of psychological, emotional and social impact suggests that poor families suffer more. Out of the total sample, about 42 percent victims shared their first-hand experience while 58 percent respondents were family members who responded on behalf of family members as well as the whole household.

6.1. MENTAL HEALTH ISSUES AMONGST THE HOUSEHOLD

In order to understand the impact of road crashes on the mental health of victims and their family members, respondents were asked about mental health of household members. A direct question about anyone in their family suffering from depression[34] was asked.

Overall, close to half (48.5%) of LIH respondents stated that their family members suffered from depression due to the impact of the road crash, while about one-fourth (26.2%) HIH respondents stated the same.

The respondents from Bihar & Uttar Pradesh reported a higher percentage than Maharashtra and Tamil Nadu. Further in the LIH category, a higher proportion of respondents (75%) stated depression in their family where the victim had died compared to where the victim sustained serious injuries (43.2%).

Similarly, in cases amongst LIH families where the road crash victim was an earning member of the family, depression was reported by 50% of the respondents. However, in the case of HIH respondents the proportions were 30 percent. This again demonstrates that depression could be more related to financial impacts on the family due to crashes.

Further, overall, over one-third of LIH respondents (38%) stated that members of their families suffered from health

34. The respondents were asked to self-evaluate their mental health and therefore undiagnosed cases, where respondents 'felt' depressed were also considered. Further the questionnaires were translated in Hindi and other vernacular languages and the respondents were asked if they felt "low or sad without any reason"

complications, while such proportion of respondents was about 21 percent for HIH category. Category-wise, two trends were observed amongst both LIH and HIH category respondents: respondents reported more adverse impact in cases of death and compared to non-earning members, more complications were reported when road crash victims were earning members of the family.

Motor vehicle crashes can result in 'significant post-traumatic psychiatric morbidity'. The psychological impact of road crashes is an understudied area and the data on the subject is extremely fragmented or non-existent. Academic and other institutions should analyse the trends for psychological distress due to road crashes in India. The Ministry of Health and Family Welfare should also update the National Mental Health Policy (NMHP) notified in 2014. NMHP acknowledges the linkage between poverty and mental health however it does not categorise crash victims as "Vulnerable Population". The state government should also ensure implementation of NMHP right from Primary Health Care level.

6.2. DIP IN NUTRITION AMONGST HOUSEHOLD MEMBERS

With respect to change in dietary habits/ food intake, about 44 percent respondents in LIH category stated that there was a negative change in the dietary habits of the household members after the crash. Compared to LIH category, such impact was lower amongst HIH respondents where one-fourth of respondents (24.3%) confirmed the same.

During Focus Group Discussions, respondents also mentioned that after the crash certain food items were prescribed to the victims, however due to lack of financial resources, they could not afford the same over a long time. Ensuring better nutritional intake for victims impacted the nutritional intake of children since they were not able to provide them with certain food categories like dairy and animal protein.

6.3. IMPACT ON LIVING STANDARD OF VICTIMS' HOUSEHOLD

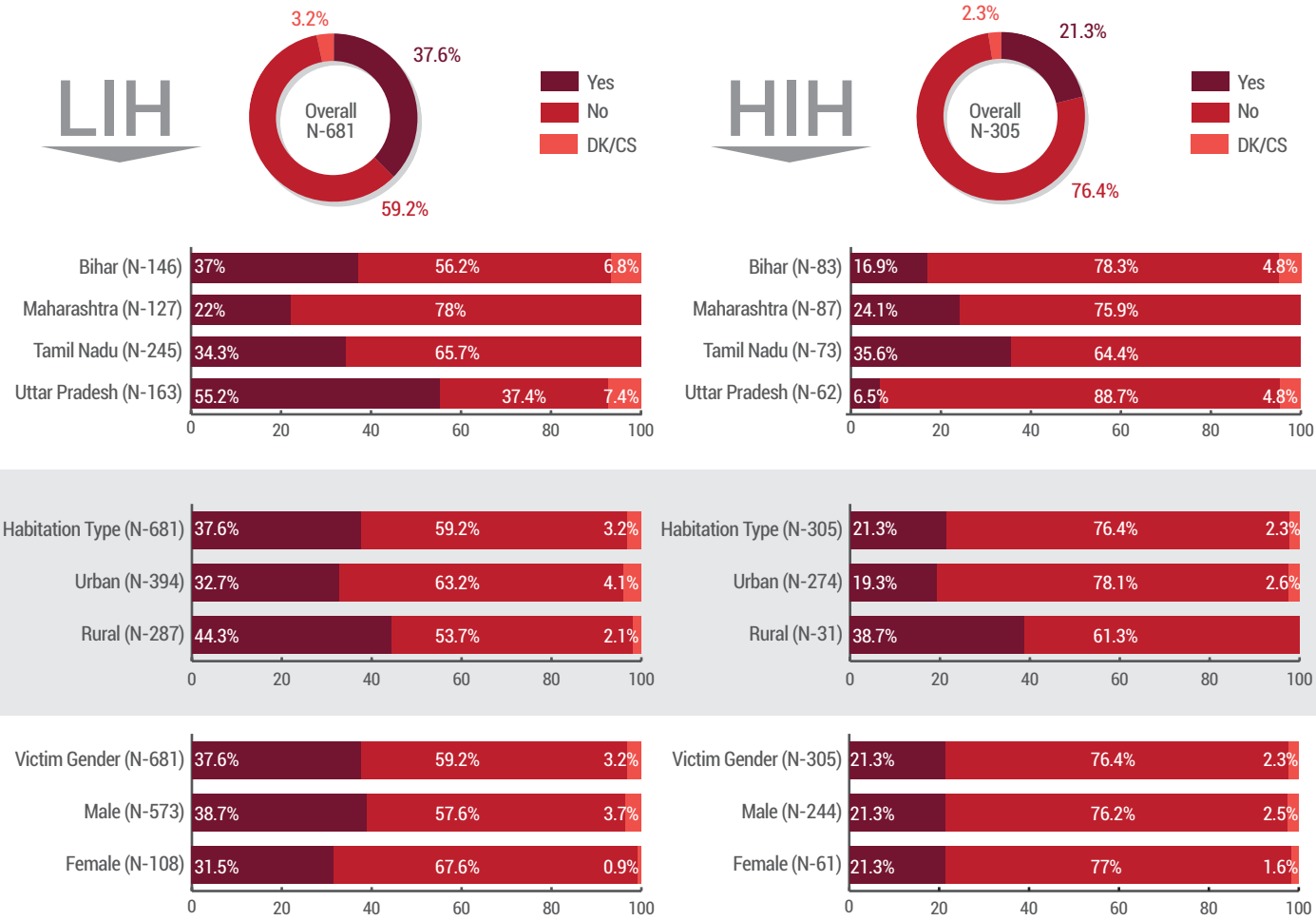
Road crash outcomes and their consequences affect victims and their families both in short and long term. This includes wage loss, loss of employment, financial hardships, reduced quality of life and negative impact on the functioning of the whole family. During the survey, respondents were probed about the social impact of road crashes.

A significant difference was found in the proportion of LIH and HIH respondents reporting decline in their living standards.

While close to two-third (63.5%) of poor families (LIH) reported decline in living standard, less than three out of ten (29.4%) rich families (HIH) have faced such consequences.

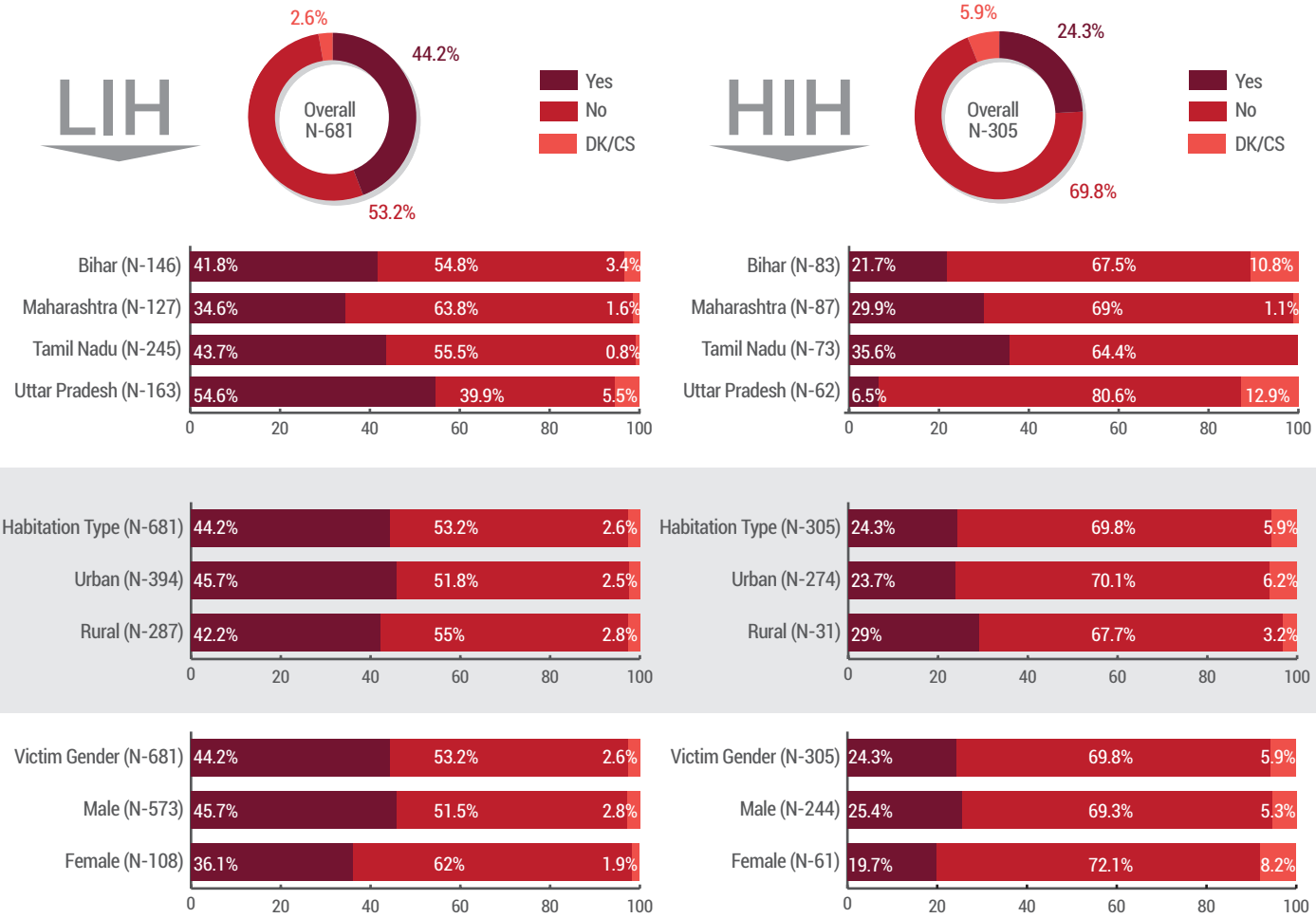
The impact on living standard was confirmed by a higher proportion of respondents where road crash victims died as well as where victims were male earning members of the family. In order to understand the severity of impact on the household, respondents were asked to rate the level of impact on 3-point scale i.e. 'Severe', 'Moderate' and 'None'. The proportion of those who said there was a severe decrease in living standard were almost three times (38.5%) more in poor families. Further, compared to male respondents, more female respondents have confirmed the same.

TABLE 6.1: TABLE INDICATING STATE- WISE, HABITATION- WISE, AND GENDER- WISE DETAILS ON WHETHER HOUSEHOLD MEMBERS/ VICTIM DEVELOPED HEALTH ISSUES DUE TO ROAD CRASH [ALL FIGURES IN PERCENT]



PSYCHOLOGICAL AND SOCIAL IMPACT OF ROAD CRASHES

TABLE 6.2: TABLE INDICATING STATE-WISE, HABITATION- WISE, AND GENDER- WISE DETAILS ON WHETHER THE FOOD CONSUMPTION OF HOUSEHOLD MEMBERS OF THE VICTIM HAS DECREASED



6.4. DISABILITY DUE TO ROAD CRASH

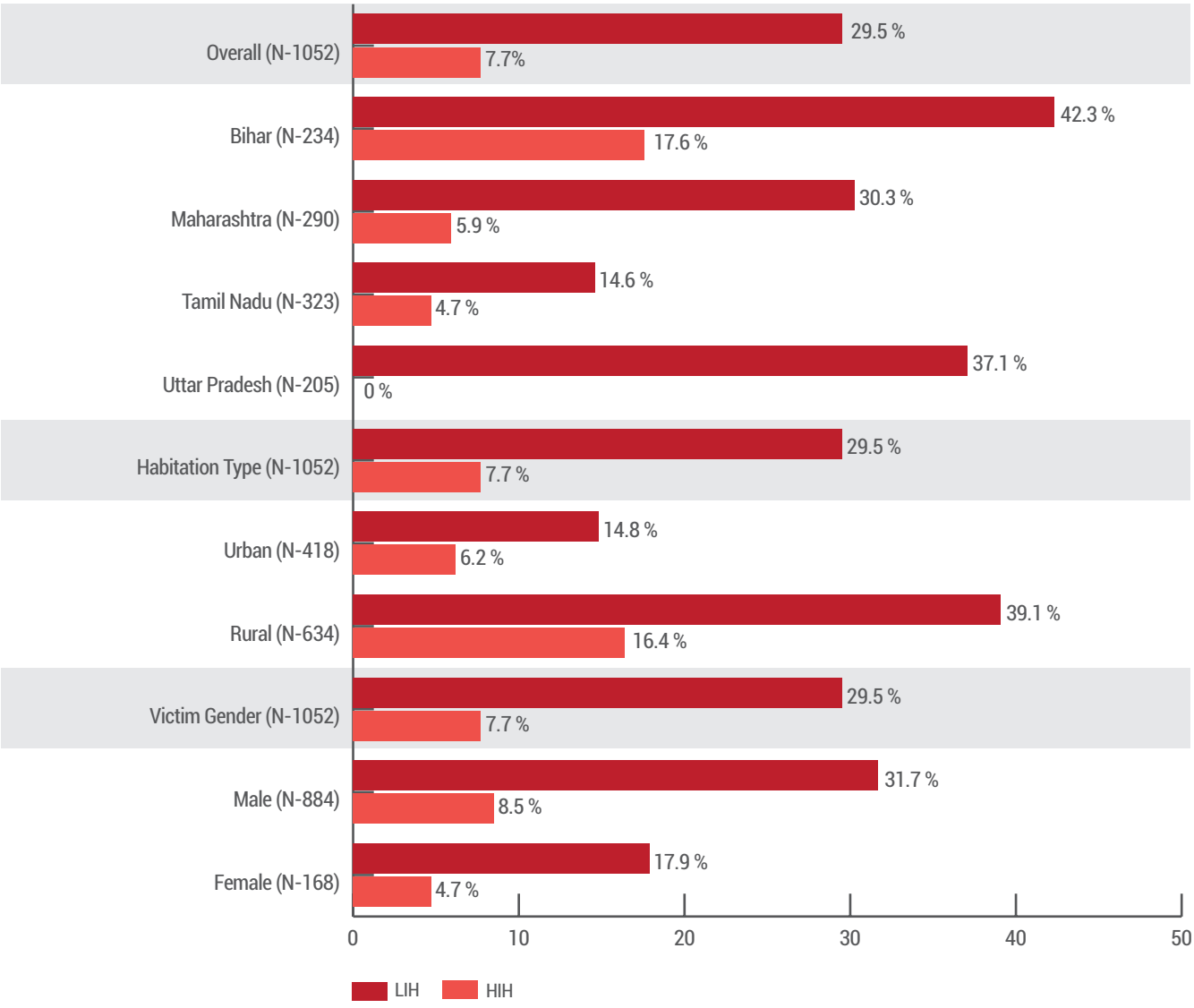
This section of the report looks at the social impact of road crashes on households and specifically focuses on cases of serious injuries. This part of the survey was conducted amongst the respondents who reported to have either survived the road crash themselves or family members who were speaking on behalf of a victim who suffered serious injuries.

Among those who survived the road crash, about three out of ten (29.5%) respondents from poor families (LIH) reported undergoing disability. Amongst (HIH respondents 7.7% reported disability. The vulnerability of poor families was four times higher than those from rich families probably due to the lack of safe mode of transport at the time of crash.

Amongst the LIH category, proportion of victims that have undergone any sort of disability was higher in rural areas (39%) compared to urban areas (15%). Almost the same trend was seen for the HIH category as well.

PSYCHOLOGICAL AND SOCIAL IMPACT OF ROAD CRASHES

TABLE 6.3: TABLE INDICATING THE STATE- WISE, HABITATION- WISE, AND GENDER- WISE DETAILS ON WHETHER THE VICTIM WAS AFFLICTED WITH A DISABILITY



The respondents who reported disability were further probed the severity of disability, type of disability and the need for assistance. Respondents were asked if the road crash victims have undergone any sort of disability required on-going mobility assistance i.e. wheelchair, walking frames etc. Overall, about 6 out of 10 respondents in LIH (64%) and HIH (62%) category require on-going mobility assistance.

Among the respondents (N=339) that reported victim disability a follow up question was asked to ascertain the severity of the disability. About four out of ten (39%) LIH respondents stated that road crash victims suffered from serious disabilities while among HIH category, such proportion was about one in five (20.7%).

In the LIH category, Bihar has the highest proportion of victims that have undergone serious/permanent disability (45.5%), followed by Maharashtra and Uttar Pradesh. Gender wise, a higher proportion of male victims (51%) suffered from serious/permanent disability than female victims (33%). For cases where victims had sustained serious disability (N=121), respondents were further asked about the type of disability. Overall, about two-third of LIH victims survived amputation of a limb followed by brain injury (22%).

According to 2011 census, nearly 50% of the disability burden is borne by one of the five States namely Uttar Pradesh (15.5%), Maharashtra (11.05%), Bihar (8.69%), Andhra Pradesh (8.45%), and West Bengal (7.52%)[35]. Bihar government also launched Bihar State Disability Pension Scheme to cover those persons with disabilities who are not covered under the Indira Gandhi National Disability Pension Scheme (IGNDPS). Additionally Bihar Government has also launched, Mukhyamantri Viklang Shashaktikaran Yojna – "SAMBAL- An Integrated Scheme for PwDs", to protect & promote the rights of PwDs. SAMBAL was approved in 2012 and has three major components to empower PwDs - Educational Rehabilitation, Economic Rehabilitation and Social Rehabilitation.

6.5. PROCESS OF REHABILITATION OF THE VICTIM

This section analyses the rehabilitation process of the victims back into their pre-crash social and work life. This section covers aspects such as return to previous occupation, days taken for recovery, change in occupation etc.

All the respondents who reported that they themselves or the victim survived the road crashes were further probed on whether they/ victim could return to the previous occupation/ educational institution after the crash. Overall, three-fourth of LIH respondents and 90% of HIH respondents confirmed that the victims returned to their previous occupation/ educational institution after the crash.

35. Censuse 2011, MoSPI: https://censusindia.gov.in/census_and_you/disabled_population.aspx

Gender-wise, compared to men, less proportion of women victims returned to their previous profession after the crash. Profession wise, about one-fourth of LIH students could not return to studies after the crash.

Respondents (N=1142) were asked a follow up question about the average time they had taken to return to the previous occupation. Among LIH category, the average time taken to rejoin the previous occupation was about 92 days (about 3 months) whereas it was 43 days (about 1.5 months) amongst HIH category.

Amongst HIH category the average number of days it took to return to work is significantly less (nearly less than half in most of the cases). This is a direct indicator of disproportionate impact of road crashes on LIH category. State-wise, the highest time was taken by LIH victims of Bihar and HIH victims of Uttar Pradesh to return back to their previous occupation. Comparatively, lowest time was taken by victims of Tamil Nadu across both the categories.

Habitation wise, urban victims took less time than rural victims to return to the previous occupation after the crash. Similarly, gender-wise, men victims took a longer time to return to the previous occupation than women victims.

Those respondents who informed that crash victims could not return to their previous occupation (N=288) were further explored if the victims could find a new job. The time taken to find the job after the crash was also captured. Out of total, about 36 percent of respondents confirmed that victims of their household found a job. Further those victims that have found a new job (N=104) were further asked about the time they had taken to find a new job. Overall, on an average LIH category victim took about 107 days to find a new job from the day of the crash whereas it was about 65 days in case of HIH victims.

This marked disparity between the two categories indicates that victims in the LIH category faced more difficulty in getting a new job post-crash. This might be also because of better social integration and support systems available for the HIH category.

6.6. CHANGES IN EMPLOYMENT STATUS

The comparison of the victims' employment status at three different times – a) pre-crash, b) on resuming work after the crash and c) current (as on 31st Jan 2020) was also done. Respondents were asked to mention the occupation of victims during these phases.

Pre- crash, about 6.6 percent of victims were unemployed, while such proportion increased by about 11 percent and

accounted for 18 percent on resuming work after the crash. Further, this proportion reduced to 14.4 percent as on 31st Jun 2020. This increase in unemployment could be understood due to injuries and disabilities among victims after crashes.

Among LIH category, the highest proportion of victims were salaried employees' pre-crash (33.5%), on resuming work after crash this reduced (28.3%), whereas a slight increase was observed in the current scenario to 33 percent (as on 31st Jan 2020). A similar trend was observed in occupations like agriculture labourer/ farmer and petty trader/ shop owners.

A decline was observed in sectors like farming and skilled and unskilled manual labour. This indicates that the labour-intensive jobs are more difficult to resume post-crash simply due to the injuries, disabilities, and nature of the job where more physical strength is required, which resulted in more unemployment.

6.7. OCCUPATIONAL IMPACT AT THE HOUSEHOLD LEVEL

Respondents were also probed on factors such as a change in working pattern of household members, additional jobs taken by household members and dropping out of school due to financial constraints.
Compared to the HIH category (27%), a significant difference was observed among the LIH category where a higher proportion of respondents (43.9%) stated that the working pattern of household members changed due to road crash. While about 14 % of LIH respondents acknowledged that someone in their household had to take up additional jobs/ shifts because of a road crash, a smaller 4% of HIH respondents acknowledged the same regarding their families. In cases where the victim had died due to an crash, more respondents confirmed the same.

Further, as high as one in five (20%) respondents of LIH category have mentioned that someone in their household had to give up education due to the crash. Again, such a proportion of respondents among the HIH category was only 5 percent. In cases where the crash victim was male and the earning member of the family, a higher proportion of respondents had to give up education.

In rural habitations, such changes were more prevalent than in urban habitations, amongst both the categories (LIH and HIH).

PSYCHOLOGICAL AND SOCIAL IMPACT OF ROAD CRASHES

6-POINT POLICY RECOMMENDATIONS:

1. Integrating Road Crash Victims as a special category in Social Security Schemes.

Policymakers need to acknowledge the interplay between road crashes and various social hierarchies of class, gender, location that intersect to render certain disadvantaged groups more vulnerable to the shocks of crashes. The spatial context and lived experiences of poor households makes it harder for them to respond to the harsh impact of road crashes, pushing them into a vicious cycle of debt and suffering. Therefore, all existing social security schemes should recognize victims of road crashes as a special category that needs Government support at various levels.

2. Comprehensive Rehabilitation Support.

Injury caused by crashes is the 3rd largest cause of disability. According to a report by NIMHANS, 'nearly 100% of the severely injured, 50% of the moderately injured and 10-20% of the mildly injured will have lifelong disabilities'. In India there are multiple structural, social and economic barriers to accessing Rehabilitation. The Central and State Ministers of Social Welfare and Empowerment should create comprehensive programmes for rehabilitation of crash victims. Similarly, District Road Safety Committees should also maintain a database of people in each district who should receive such care and support them through community based programmes.

3. Mental Health Support

Motor vehicle crashes can result in 'significant post-traumatic psychiatric morbidity'. The psychological impact of road crashes is an understudied area and the data on the subject is extremely fragmented or non-existent. Academic and other institutions should analyse the trends for psychological distress due to road crashes in India. The Ministry of Health and Family Welfare should also update the National Mental Health Policy (NMHP) notified in 2014. NMHP acknowledges the linkage between poverty and mental health however it does not categorise crash victims as "Vulnerable Population". The state government should also ensure implementation of NMHP right from Primary Health Care level. State Governments should also conduct awareness drives on already existing schemes like – 'KIRAN 24x7 Mental Health Rehabilitation Helpline. Most importantly, mental health of road crash victims should be covered under health insurance.

4. Access to Upskilling and Jobs.

The National Skill Development Corporation (NSDC) can undertake a special programme to upskill crash victims from rural areas. The programme can set up specific

targets of skilling 1 million people for the next 5 years and so on.

Most rural poor are injured in road crashes, this is also validated by the 2011 census data as 71% of India's 26.8 million Persons with Disability (PwD) live in rural India. Out of the total population of PwD, about 15 million are male and 11.8 million, female. Poor households have a lesser ability to respond to road crashes and find it difficult to mitigate their financial burden in the event of an unforeseen emergency. Since the impact is more severe on LIH than HIH. Ministry of Social Welfare and Empowerment, Ministry of Small and Medium Enterprises, Ministry of Skill Development and Ministry of Agriculture should create priority programs for upskilling of PwD in rural areas and also create specific programs for female PwD in rural areas.

5. Support to Continue Education.

Throughout FGDs and IDIs many respondents stated the impact of crash on Education with many male respondents having to leave education to support the household financially. Ministry of Education should create specific schemes to ensure children from households that have been impacted due to road crashes can continue their education.

Indian Training Institutes (ITIs) impart skills in various vocational trades to meet the skilled manpower requirements in the country. An automatic enrolment policy should be created at the district level for road crash victims or their family members who had to dropout of schools or forsake education owing to a road crash.

6. Improving access to emergency medical care.

There is a need to publicize emergency numbers and create more awareness around it. 112 has been declared a pan-India emergency helpline number for immediate assistance services for police, fire, health and women. People in rural areas have poor access to medical facilities. Primary Care and Secondary Care infrastructure and resources in rural areas are inadequate to provide proper care to victims of road crashes. The Central and State Governments should ensure placement of adequate number of Basic Life Support (BLS) and (ALS) ambulances with life support equipment, and a trained paramedic. Each district should be equipped with a secondary trauma care facility with infrastructure and resources for initial evaluation, resuscitation, stabilization and initiation of transfer to a higher-level trauma care facility.

IMPACT OF ROAD CRASHES ON ADOLESCENTS

CHAPTER 7

The most common cause of death among children is unintentional injury, and the most common cause of unintentional injury is related to road crashes[36]. Children in India are exposed to the risk of road crashes on multiple occasions while commuting to schools- in private vehicles, in public transport vehicles, and as pedestrians. In 2018, 23 school children died when their school bus fell into a deep gorge in Nurpur in Himachal Pradesh. A similar crash occurred on 5th August 2019, where 10 children were killed when their school bus fell into a gorge in Tehri Garhwal

Since 2008, over 55,000 children have lost their lives in road crashes in India and a large majority of these are adolescents. Every day around 42 children including 31 adolescents die in road crashes in India with a 10% contribution to the total road crash deaths. Most of these deaths happen near schools and colleges.

To understand the qualitative aspects of the financial, social and psychological impact of road fatalities/ injuries on adolescents, In-Depth Interviews (IDI) were conducted with adolescents.

IDIs were conducted among adolescents (aged between 14-18 years) across Uttar Pradesh, Bihar, Tamil Nadu, and Maharashtra. Overall 8 adolescents were selected and interviewed. Respondents were probed on different aspects of the crash and its impact on them as an individual as well as the impact on their household.

7.1. IMPACT ON ADOLESCENTS AS INDIVIDUALS

Road Crashes devastate families. Other than financially draining the family and tearing apart the familial fabric, road crashes also take a toll on the mental health of family members. Many studies have pointed out that "Psychiatric symptoms and disorder are frequent after road crash injury. Post-traumatic symptoms are common and disabling." (Mayou R., et al., 1993). Most of the respondents spoke about the emotional impact of road crashes on them and their families. In this chapter, we attempt to highlight some key areas of impact.

One of the IDI's respondents, Shivam (name changed), was just 12 years old when his teenage brother who was riding a bicycle was killed in a road crash near their house in 2016. As per Shivam, his brother was lying on the road for 30 minutes before he was taken to the hospital. Even though the Police were there, they waited for his mother to arrive and arrange transport. Throughout the interview, he often used the words "sadness", "emptiness" to describe his feelings after his brother's death.

> **"An uncle (neighbour) … took me along with him and on the way, he told me, 'Imagine you never had any brother'."**
>
> - IDI Respondent, Uttar Pradesh

> **"I used to keep thinking about my mom's crash. I found it difficult to concentrate on anything else. Like when I used to sit down to study...I would see flashes of that day and its aftermath. "**
>
> - IDI Respondent Maharashtra

Like Pinky, (name changed) most of the respondents also spoke about the impact of the crash on their education. For many respondents, the impact was both direct and indirect. Pinky was not able to find time to study since she played the role of primary caregiver for her injured mother as well as she cooked for the whole family. These additional responsibilities meant she had less 'study time'. She was also not able to 'focus' while studying and that impacted her education as well.

36. https://mhrd.gov.in/sites/upload_files/mhrd/files/statistics-new/ESAG-2018.pdf

Another respondent from Tamil Nadu mentioned that since his father couldn't take off from work, and they needed the money, he missed his school twice every week for a month till his mother recuperated.

The other aspect in which education got affected was due to non-payment or late submission of school fees. A couple of respondents mentioned that due to their dire financial situation, their parents couldn't pay school fees on time. One respondent even mentioned how the school penalized him by asking him to stand outside the examination hall, since his parents couldn't pay the school fee on time and as a result, he had to drop a year.

M:Were there any changes in the time you spent with friends?

R: Like we used to play with our friends; so, it all stopped completely. I have not played cricket for almost 4 years now.

- IDI Respondent, UP

7.2. IMPACT ON SOCIAL LIFE OF ADOLESCENTS

After analyzing the respondent transcripts, another common area of impact that emerged is the impact road crash outcomes have on respondents' social life as well as the time available for playing with friends. Irrespective of the road crash outcome, respondents mentioned that post-crash, either they couldn't find time to go out and play or their friends weren't keen to play with them. Another reason for curtailing time spent outside with friends was to ensure that no unnecessary expenses were incurred.

7.3. IMPACT ON THE HOUSEHOLD AS REPORTED BY ADOLESCENTS

Adolescents were also probed on their understanding of the financial impact the crash had on their family. While most of them were unaware of the exact costs incurred, they spoke about the impact on their lifestyle as well as the social impact of the crash on the household.

Respondents narrated different ways in which the crash impact ed their quality of life. Since their family had to incur expenses on treatment, they were forced to reduce

the quantity and quality of food consumed. This was narrated by different respondents and it affected their food consumption as well as the food consumption of the family.

> **"I stopped buying clothes. Mother asked me to stop as we had to cut down on our expenses. I felt bad, I never thought I would have to see such days."**
> **"My mother always stored extra provisions. However, she stopped buying extra provisions. We had to give more fruits and vegetables to father, but we were not able to do that, it took more time for his recovery.)**
>
> - IDI Respondent, Tamil Nadu

Respondents also spoke about the compromises they had to make. For some, it manifested in less money for buying clothes. For others, it manifested more acutely. One respondent narrated how he had to leave school due to the financial situation at home

> **R: I left school in the 9th standard.**
>
> **M: Why? You did not like school?**
>
> **R: I liked it. But I did not go due to the financial situation in the house.**
>
> - IDI Respondent Maharashtra

Many respondents articulated the characteristics of intra-family dynamics after the crash with the use of words like "sadness", "strange" and "fear". Concerning dynamics with the rest of the community, most of the respondents had positive experiences barring a couple who spoke about hesitant relatives.

Additionally, most of the female adolescent respondents conveyed how they had to support the household with cooking and other caregiving activities. This meant that

they had less time for studies or leisure activities.

Two respondents, one from UP and one from Tamil Nadu, also spoke about the apathy of government stakeholders. The respondent from UP spoke about how the police failed to take his brother to the hospital or call the ambulance. His brother had to wait at the crash site for 30 minutes before being taken to hospital.

The respondent from Tamil Nadu spoke about the lack of care received at Government Hospital and how her father's treatment was delayed since the hospital waited for the police case to be registered.

> **They (Government Hospital) were not treating him (her father) and they said that (police)case has to be filed. Only after that, they will treat him. He was bleeding ... In such a case, they have all the facilities but still they didn't treat my father. They gave me cotton and asked me to clean the blood. I didn't like it at all.**
>
> - IDI Respondent from Tamil Nadu

Even though other respondents did not have such experience, many mentioned that their families moved to a private hospital to receive better quality of care. This has also been validated by the quantitative survey. 69.8% of the LIH respondents were not attended immediately at the hospital, in comparison, only 37.9% of HIH respondents were not attended to immediately.

6-POINT POLICY RECOMMENDATIONS:

1. Enactment and Implementation of Child Road Safety provisions in MVAA, 2019

MVAA, 2019 has provisions for mandating the use of Child Helmets, Child Restraints and also penalizes juvenile driving. These sections should be notified by the Central Government under the Central Motor Vehicle Rules and the State Governments should ensure that effective implementation. The Enforcement agencies should also ensure enforcement of child safety provisions.

2. Educational Institute based Support System.

Children and adolescents who are impacted by a road crash directly or indirectly should be provided support from the State. Since the main institution of interaction for them are schools, the education department can ensure access to qualified child therapists. Since road crashes impact nutritional intake of household members, the State

Government can also create a better mechanism to monitor their calorie intake and ensure they get adequate nutrition through the School Mid-Day Meal Scheme.

3 Support for Payment of School Fees for Children from Vulnerable Families.

In the IDIs, adolescents mentioned that financial constraints due to road crash led to either late admission or dropping out of school completely to support their family financially. This was stressed more by male adolescent participants. The State Government should ensure that children from vulnerable families don't have to leave school due to financial constraints. Since almost 80% of adolescents who die in road crashes are male, the Government should ensure that this policy is gender neutral.

4. Ensuring Safe School Zones

Considering around 9% of all road crashes in India are reported near schools and colleges it's imperative to ensure that all road owning agencies ensure that children and adolescents are safe while commuting on roads. Urban Local Bodies (ULB) and Rural Local Bodies (RLB) in villages should create safe school zones by slowing down vehicles by design and improving infrastructure by providing walkable pavements, safe crossings etc. The Union Government should also prescribe standards for this under Section 198A of MVAA, 2019.

5. Enacting Rules on Safe Transport to School

Governments should address safety issue faced by children while commuting to school by making rules regarding school buses, vans, auto rickshaws and other means of transport, for safe transportation of school children.

In 2018, over 4500 children died in road crash deaths in the 4 surveyed states out of which over half the deaths happened in UP. Rules around school transport should be formulated by State Governments to help safeguard children. Standardization of rules for all school transport including personally organized transport will ensure that children coming from poor families don't have to be in overcrowded personally organized transport to cut costs. This is important since parents around 70% of parent respondents from Mumbai, Chennai and Lucknow admitted that their children travel in overcrowded personally organized vehicles. (SaveLIFE, 2019)

6. Issuance of Child Road Safety Policy.

State Governments as part of their State Road Safety Policy, Annual Action Plan and Road Safety Fund should prioritize road safety for children and adolescents. The State Government should standardize rules for safety of children by issuing a child road safety policy. They should highlight information for parents and guardians in local languages. Concrete measures should be budgeted and made part of State Road Safety Annual Action Plan.

OUTCOMES OF THE INSURANCE & LEGAL COMPENSATION PROCESS

CHAPTER 8

Legal[37] and insurance-based[38] compensation can be considered as an instrument of social policy and one of the tools to provide a social safety net for those involved in a road crash. However, in India insurance coverage is quite low and as a consequence, RTI victims frequently do not receive adequate compensation. Long procedural delays are another common cause of insurance-related problems.

Even though MVAA, 2019 mandates the compulsory requirement of third-party, no-fault insurance, a high percentage of vehicles are still not insured. In many instances, payments are made only after lengthy judicial processes, and not when the funds are needed for medical and other costs. Even in cases where vehicles are properly insured, compensation payments are commensurately low and usually insufficient to cover medical treatment and other personal costs.

Therefore, as part of this Study, an evaluation of the effectiveness of the legal and insurance compensation framework has been mapped by capturing experiences of LIH, HIH victims and truck drivers. Truck drivers have a unique trait as a road user- they constitute one of the biggest victim categories as well as offending category road users. They often undertake long arduous and unsafe journeys on Indian roads and still have abysmal social security conditions and low insurance coverage. The lack of

awareness of the compensation process makes it difficult for them to file claims and receive adequate compensation in the event of a road crash.

FINDINGS

1. Overall, the insurance coverage of HIHs (in terms of the motor vehicle, medical, life insurance) was higher compared to LIHs at the time of the crash.

- Motor vehicle insurance - 43% of vehicles from LIH and 65% vehicles from HIH covered.
- Medical insurance - 1/5th of LIH victims and 1/3rd HIH victims were covered under medical insurance.
- Life insurance - As high as 3/4th of HIH victims were covered under life insurance at the time of crash whereas LIH victims accounted for only 18%.

2. Similarly, a higher proportion of HIH victims/family members availed insurance (motor vehicle, medical, life insurance) compared to the LIHs.

- Motor vehicle insurance - About 14% of LIH and 31% of HIH victims/household members availed motor insurance compensation after the crash.
- Medical insurance - 7.5% of LIH and 17% HIH victims availed medical insurance.
- Life insurance - slightly higher for HIH at 4.2% compared to 3.8% among LIH.

3. About 11% of LIH and 8% of HIH victims/family members availed compensation under ex-gratia. Among those that availed compensation under ex-gratia (N=219), just over half of the LIH victims (52%) and one-fourth (25%) of HIH victims received the eligible compensation.

4. 70% of respondents of LIH and 63% of HIH were not aware of compensation clauses and schemes in the event of a road crash.

5. Only 21 % of the LIH in urban areas availed motor third party insurance , whereas 31.7% of the HIH residing in urban areas availed motor vehicle insurance. However, this proportion is still larger than the proportion of LIH that availed compensation in rural areas. Only 11% of the LIH availed motor vehicle insurance compensation, whereas 25% of HIH availed motor vehicle insurance compensation.

6. Time taken for receiving compensation from motor vehicle, medical, and life insurance was higher for urban areas than for rural areas for both LIH & HIH. The only exception was motor vehicle insurance, where high income

37. Legal Compensation is the amount payable by the owner of the motor vehicle or the authorised insurer, or the Central Government (in hit and run motor accident cases), in case of death or grievous hurt due to accident arising out of the use of motor vehicles. Such amount is payable to the legal heirs ,or nominee, or the victim, as the case may be. Legal compensation for road accidents involving motor vehicles is adjudicated by MACT as established under the Motor Vehicles Act, 1988. Appeal lies in the High Court and then the Supreme Court.
38. Insurance-based Compensation is defined as the amount paid by an insurance company to the insured person to cover for the bodily injuries, deaths, or property damage caused by a road crash.

urban households received compensation sooner than high income rural households.

7. A mere 6.1% of the LIH in rural areas availed medical insurance compensation, whereas 26.3% of the HIH residing in rural areas availed medical insurance compensation.

8. Over half of the respondents in LIH and HIH categories (56%) said that they had not filed any case under MACT after the crash. 38% of the LIH respondents stated that they did not feel the need to file a case under MACT followed by those who did not want to be involved in legal hassles (31%)

9. Overall, 2/3rd of the respondent truck drivers did not file an FIR after the crash. It was highest in Bihar (95%) and lowest in Tamil Nadu (56%).

10. Over 9 out of 10 surveyed truck drivers had motor vehicle insurance at the time of the crash: 47% were covered under comprehensive insurance & 25% under third party liability insurance.

11. Only 40% of the truck drivers were covered under life insurance and 18% under medical insurance at the time of the crash.

12. Overall, 2/3rd of the truck drivers were not aware of third-party liability insurance.

13. None of the drivers said that they had applied/benefited from cashless treatment at the hospital, solatium fund for hit and run case or ex-gratia schemes.

PART A: HOUSEHOLD LEVEL

8.1: INSURANCE AND COMPENSATION AMONG LIH AND HIH

The following section discusses the variations in insurance claims among LIH and HIH further filtered by gender, geography and habitation.

Overall, insurance coverage (life, vehicle, medical) is lower for LIH victims compared to victims from HIH[39]. 7 out of 10 victims from LIH are not covered under any insurance policy. Further, the coverage is higher among urban households vis-à-vis rural households for all insurance policy types. More male victims are covered under insurance policies as opposed to female victims irrespective of LIH or HIH; the contrast being the sharpest in the case of life insurance policy where there is a 10% difference among male and female victims.

39. The question on insurance coverage was covered in the telephonic surveys. The N for coverage and availed, received compensation is different and thus they cannot be compared.

In general, there is a huge difference in the proportion of victims from LIH and HIH covered under a life insurance policy. While three-fourth of HIH victims (77%) were covered under life insurance at the time of the crash, only 17.5% of the LIH victims were covered under the same. 38% of the victims in Bihar were covered under life insurance, followed by Maharashtra (18%) and Tamil Nadu (8%) (Table 8A.2).

The coverage for medical insurance is almost double for rich households compared to poor households. The coverage of medical insurance among LIH was as low as 7% in Uttar Pradesh and 8% in Maharashtra (Table 8A.3).

57% of the respondents from LIH said that the victims were not covered under motor vehicle insurance compared to 35% of the respondents from HIH[40]. Even though third-party insurance coverage has been made compulsory for all motorized vehicles (except State and Central Government vehicles) under Section 146 of the MVAA, 19, the numbers across both types of households reveal a gap in motor vehicle insurance penetration and reach; that gap being wider for victims from LIH.

Nearly 58% of the LIH respondents stated that the victim's vehicle was insured under Third Party Liability Insurance while 28% mentioned that it was insured under Comprehensive Insurance cover[41]. Among LIH, Bihar reported the highest proportion of victim vehicles covered under insurance (63%) compared to Uttar Pradesh that recorded the lowest proportion of vehicle insurance coverage (25%) (Table 8A.4). However, among the HIH, 8 out of 10 respondents in Maharashtra stated that the victim vehicle was insured at the time of the crash, followed by two-thirds in Uttar Pradesh (Table 8A.4). Further, a majority of the LIH victims were covered under third party insurance (58%) while another 28% were covered under comprehensive insurance (Table 8A.5).

It is important to note that victims that had their vehicles insured were mostly educated till the graduate or postgraduate level. This indicates the role that literacy plays in insurance coverage. Lack of formal education disincentivizes the poor from availing any sort of insurance due to the strenuous paperwork and procedures involved therein.

Since more victims from LIH use two-wheelers to commute, the burden falls disproportionately on them after an crash, more so if they are unlikely to be covered by insurance. In terms of vehicle usage (refer to Table 5A.1), the respondents revealed that about 65% of victims were using motorized two-wheelers at the time of the crash while 11% of them were commuting by cars. 48% of those riding two-wheelers at the time of the crash were not covered under vehicle

40. Motor vehicle insurance being an essential instrument that covers policyholders in case of financial losses due to crash or related damages. The two major types of motor vehicle insurance are Comprehensive Insurance Policy and Third Part Liability or Limited Insurance. The policy premium for Comprehensive Insurance covers both third party liabilities and one's damages, injuries and losses to any vehicles, passengers and other property.

41. Comprehensive vehicle insurance is more expensive than third party insurance because it covers a wide gamut of damages.

insurance whereas 59% of those using cars were insured under motor vehicle insurance.

In general, due to lack of awareness, excessive documentation, delay in receiving payments/compensation, and several other factors, people tend not to claim insurance compensation after an crash. As per our survey findings, the proportion of claims to coverage under various insurance instruments including a motor vehicle, medical and life insurance remains low, more so for LIH.

There is a need to increase the insurance coverage by increasing accessibility and affordability of insurance products to poor households.

Receiving a fair and adequate amount as compensation under the policy, based on the merits of the case, is an undeniable and unquestionable right that the victims possess. However, among the respondents who confirmed that they/the victim had filed for insurance (N=361), about 35% of the respondents from LIH and 40% from HIH said they had received less than the promised amount as compensation. Further, respondents from LIH in Bihar said that they almost took over a year on an average to receive the compensation amount under motor vehicle insurance (Table 8.1).

8.2: AWARENESS OF INSURANCE AND COMPENSATION AFTER THE CRASH AND MAPPING OF COMPENSATION PROCESS UNDER MACT

Overall, 7 out of 10 (70%) respondents from LIH and 63% from HIH stated that they were not aware of any compensation clauses and schemes run by the Indian Government[42]. This is a major gap in terms of accessing these schemes. In the absence of concrete information , LIH miss out on their chances of availing these schemes. As low as 11% of LIH victims and 8% HIH victims/family members availed compensation under ex-gratia (Table 8.20). The low rates could be indicative of low awareness levels amongst LIH about these schemes and highlight the need to conduct strategic awareness programmes for these households. Among those that availed compensation under ex-gratia (N=219), just over half of the LIH victims (52%) and one-fourth (25%) of HIH victims received the eligible compensation.

In terms of time taken, LIH victims received their compensation in about 13.7 months while HIH victims received it in about 20.1 months. The delay in receiving

42. The Government takes responsibility for certain instances of road accidents and offers compensation to the kin of victims by establishing a fund at the central or state level. For instance, under the MVAA, 19, those killed in a hit-and-run cases qualify for government compensation.

Ex-gratia compensation is given mostly by the Government (State or Central) or local authorities in some instances in the event of a crash. It is given to the victims/their families in case the victim either dies in the crash or survives with severe injuries. Ex-gratia is majorly provided to those victims who are not financially capable of bearing the expense in the near future, i.e., if the victim survives with any sort of disability and cannot resume work. Or if a family loses their sole bread earner in a crash. Regarding payment, ex gratia is done voluntarily from a sense of moral obligation rather than the giver recognizing any liability or legal obligation or requirement.

government compensation makes it difficult for LIH households to recover their losses and pay for the immediate costs. HIH are usually not dependent on the compensation money for their survival and are financially prepared for follow-ups and court procedures. They can often afford lawyers and are in no hurry to receive the amount. This is not the case for LIH households where waiting for more than a year to receive the eligible compensation can jeopardize livelihood and survival chances.

The delay in disbursing compensation often frustrates the very purpose of seeking redress. However, from 2009, at the instance of Justice J R Midha of the Delhi High Court and subsequently approved by the Supreme Court of India, various reforms have been introduced in the scheme of adjudication of motor crash claims.

The modified Procedure[43] that is now in force, has created a better implementation mechanism for motor crash compensation law and claimants can get compensation within 120 days of the crash. The Supreme Court of India further directed all States to implement the Claims Tribunal Agreed Procedure vide order dated 13th May 2016 in the case of Jai Prakash Vs. M/S. National Insurance Co. SLP (C) No 11801-11804/2005. In this case, the Hon'ble Supreme Court directed that the Claims Tribunal Agreed Procedure be implemented through the Motor Crash Claims Tribunals in coordination with the Legal Service Authorities as well as the Director General of Police of the respective States.

The Delhi High Court further modified the Claims Tribunal Agreed Procedure vide order dated 12th December 2014. Post which, the Supreme Court directed all States to implement the Modified Claims Tribunal Agreed Procedure (MCTAP) vide order dated 06th November 2017 in the case of Jai Prakash Vs. M/S. National Insurance Co.

The Delhi High Court also formulated the Motor Accident Claims Annuity Deposit Scheme (MACAD Scheme) vide order dated 01st May 2018, for ensuring receipt of compensation in the safe hands of victims & kin of victims and for disbursement of compensation amount. The Delhi High Court then directed 21 banks to appoint a nodal officer for implementation of MACAD Scheme, vide order dated 07th December 2018.

The Delhi High Court further modified the Claims Tribunal Agreed Procedure vide order dated 07th December 2018. The Supreme Court in its judgment dated 05th March 2019 in the case of M.R. Krishna Murthi vs. The New India Assurance Co. Ltd., SLP (C) No 31521-31522 of 2017, noted that "there was no proper implementation of the Claims Tribunal Agreed Procedure by the Claims Tribunals at all India level in terms of the directions of the Supreme Court"

43. TThe Claims Tribunal Agreed Procedure was formulated vide order dated 21st December 2009 in the case of Rajesh Tyagi v. Jaibir Singh, IV (2010) ACC 859. As per the Procedure, motor accident claims resulting in death and/or injuries, are settled in a time bound manner within 90 to 120 days. The Procedure which came into effect on 2nd April 2010 provided the following:
Investigation by Police and DAR: The police to carry out complete investigation and submit a Detailed Accident Report (DAR) to MACT within 30 days of the accident.
Computation by Insurance Company: The Insurance Company to compute the compensation within 30 days thereafter and inform the Tribunal. Acceptance of Claim: If the amount offered by the Insurance Company is fair and acceptable to the claimant, it shall be paid within 30 days. Award by Tribunal: If the offer is not acceptable or the Tribunal finds that the offer is not fair, the Tribunal shall pass an award within 30 days.

Thus the claimant shall get the award amount within 90 to 120 days of the accident.

OUTCOMES OF THE INSURANCE & LEGAL COMPENSATION PROCESS

in Jai Prakash Vs. M/S. National Insurance Co. (Supra). The Supreme Court further directed the following:

- NALSA should take up the matter and monitor the same in coordination and co-operation with the various High Courts.
- The State Judicial Academies should sensitize the Presiding Officers of Claims Tribunal, Senior Police Officers of the State Police as well as Insurance Company for implementation of the Claims Tribunal Agreed Procedure.
- The Supreme Court also directed the Claims Tribunals in the entire country to implement MACAD Scheme contained in the order dated 07th December, 2018 and directed the twenty one banks to implement the same on all India basis.

However the implementation has been debatable. During the survey, respondents were asked if they knew about the MACT, whether they had filed a case and their experience through the process etc. Over half of the respondents in LIH and HIH categories (56%) said that they had not filed any case under MACT after the crash. However, one-fourth of respondents from LIH and one-fifth of the respondents from HIH stated otherwise. Almost, 6 out of 10 respondents from LIH had not filed a case under MACT across all states except Tamil Nadu, where such a proportion was nearly 40%.

Further, (in table 8A.7) the proportion of LIH respondents who had filed cases under MACT was significantly higher (about 3 times) for road crashes where victims had died (44%) compared to cases where victims had survived (13.5%).

An open- ended unaided question was asked to understand the reasons for not filing cases under MACT. 38% of the LIH respondents stated that they did not feel the need to file a case under MACT followed by those who did not want to be involved in legal hassles (31%). 11% said they had a lack of knowledge about FIR and legal proceedings while 8% mentioned their inability to afford a lawyer/fee to file a case with MACT. The LIH respondents also mentioned that immediately after the crash, they were in a rush to manage monetary help required for medical expenses and thus could not even think of filing a case. Similarly, over half of the HIH respondents did not want to get into legal hassles, followed by those who did not feel the need to file a case (31%). Around 6% of the respondents said they had settled the case outside the court.

The High Court of Judicature at Madras in its recent

Judgment dated 23rd September 2020 in the case of Manager Vs. Shanmugam & Anr (C.M.A.No.2854 of 2016) further stated that, *"The MCTAP directed to be implemented by the Hon'ble Supreme Court ...has not taken off in Tamil Nadu. No systemic change appears to have been brought about by the online platform by establishment of any specific procedure... There is no pre-litigation exercise by making use of the online facility initiated by the concerned authorities/ parties. As observed by this Hon'ble Court in the order dated 16.03.2020, the Insurance Companies still await the filing of claims before the Tribunal and the trial and adjudication still takes considerable length of time."*

These findings point at the systematic intervention required by State Legal Service Authorities to support the LIH to navigate the legal system. The Supreme Court in a Civil Appeal No. 2476-2477 of 2019 had also directed that NALSA should NALSA should monitor the adoption of MCTAP in coordination and cooperation with various High Courts. Even the Delhi High Court in its initial order had felt that the DSLSA could play a significant role in the settlement of crash cases. Thus, it had directed the Police, in FAO 842/2003 titled "Rajesh Tyagi & Ors. Vs. Jaibir Singh & Ors.", that it would place a copy of the Accident Information Report along with the FIR not only before the Motor Accident Claims Tribunals but also before the DSLSA so that DSLSA can intervene whenever settlement was getting difficult and legal aid is being provided in the cases where it is required. This role should be taken up by all State Legal Service Authorities specifically prioritising victims from LIH.

OUTCOMES OF THE INSURANCE & LEGAL COMPENSATION PROCESS

TABLE 8.1: INSURANCE AND COMPENSATION OVERVIEW: CLAIMS FILED AND COMPENSATION RECEIVED

MOTOR VEHICLE INSURANCE COMPENSATION

Category (State, habitation, gender)	LIH			HIH		
	Availed [N=1647]	Received eligible compensation [N=229]	Avg. time taken (months) [N=148]	Availed [N=432]	Received eligible compensation [N=132]	Avg. time taken (months) [N=79]
Overall	13.9%	64.6%	7	30.6%	59.8%	7.3
Bihar	10.7%	59.1%	12.6	21.7%	48%	17.6
Maharashtra	9.2%	55.3%	10.5	38.1%	76.7%	3.1
Tamil Nadu	28.5%	75.9%	3.9	32%	66.7%	6.4
Uttar Pradesh	7.5%	41.9%	11.1	30.7%	38.7%	10.3
Habitation Type	13.9%	64.6%	7	30.6%	59.8%	7.3
Urban	21%	64.4%	7.1	31.7%	54.9%	6.9
Rural	11%	64.8%	6.9	25%	89.5%	8.9
Victim Gender	13.9%	64.6%	7	30.6%	59.8%	7.3
Male	13.5%	63%	7.6	32.6%	58.6%	8.1
Female	16.3%	73%	4.2	22.8%	66.7%	3.4

MEDICAL INSURANCE COMPENSATION

Category (State, habitation, gender)	LIH			HIH		
	Availed [N=1647]	Received eligible compensation [N=229]	Avg. time taken (months) [N=148]	Availed [N=432]	Received eligible compensation [N=132]	Avg. time taken (months) [N=79]
Overall	7.5%	79%	2.5	16.9%	74%	2.7
Bihar	8.7%	69.4%	2.8	20.9%	45.8%	2.6
Maharashtra	2.4%	70%	3.4	19.5%	81.8%	2.4
Tamil Nadu	17.4%	88.7%	2.2	16.5%	94.1%	2.4
Uttar Pradesh	1.7%	42.9%	3.7	9.9%	90%	4
Habitation Type	7.5%	79%	2.5	16.9%	74%	2.7
Urban	11%	83%	2.8	14.9%	66%	2.8
Rural	6.1%	76.1%	2.2	26.3%	95%	2.5
Victim Gender	7.5%	79%	2.5	16.9%	74%	2.7
Male	7.7%	78.2%	2.5	19.4%	72.7%	2.8
Female	6.2%	85.7%	2.4	7.6%	85.7%	2

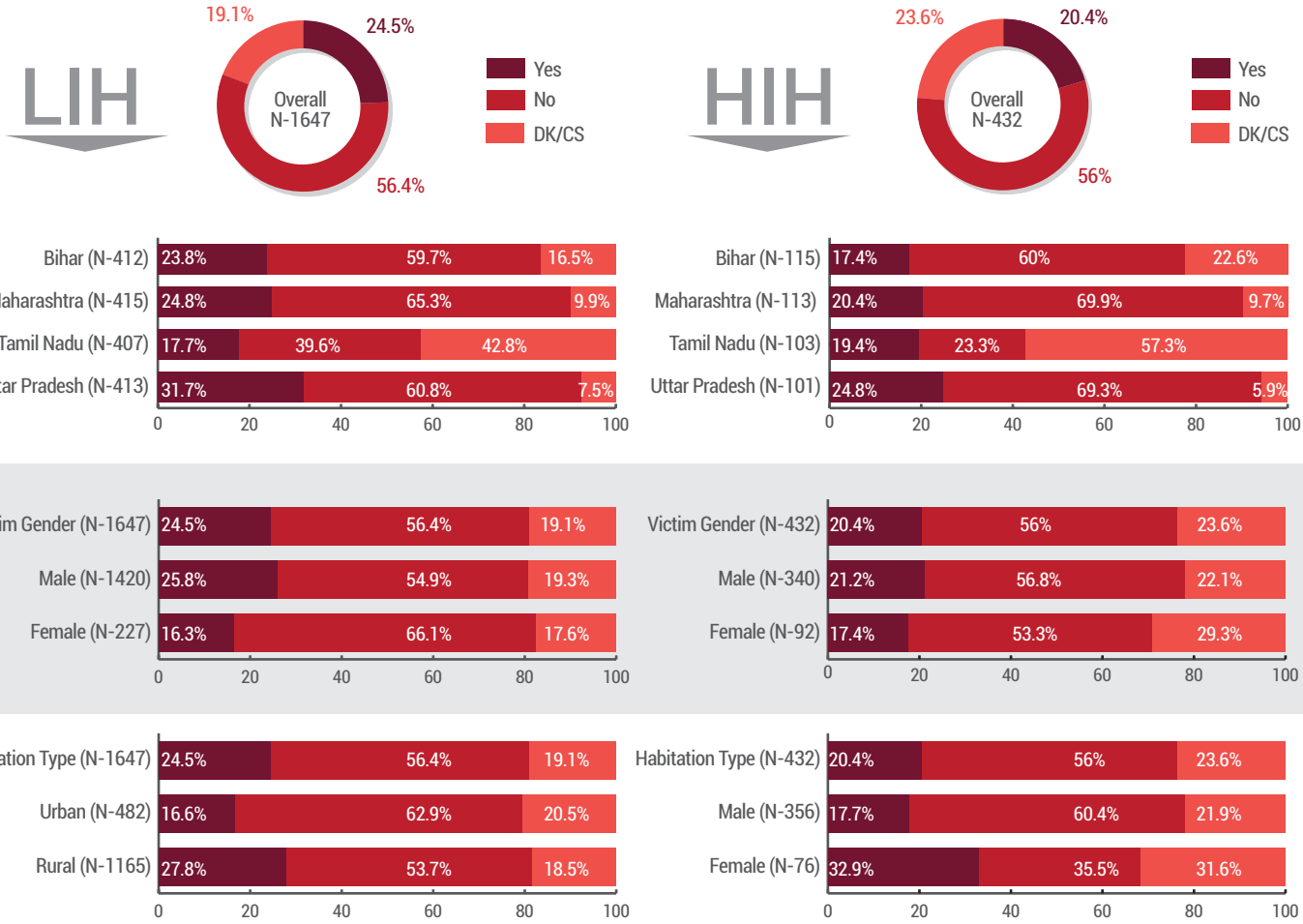
LIFE INSURANCE COMPENSATION

Category (State, habitation, gender)	LIH			HIH		
	Availed [N=1647]	Received eligible compensation [N=229]	Avg. time taken (months) [N=148]	Availed [N=432]	Received eligible compensation [N=132]	Avg. time taken (months) [N=79]
Overall	3.8%	77.4%	4.2	4.2%	77.8%	5.3
Bihar	4.1%	76.5%	4.5	4.3%	100%	4.4
Maharashtra	2.7%	81.8%	4.1	--	--	--
Tamil Nadu	2.5%	40%	3.8	1.9%	50%	5
Uttar Pradesh	5.8%	91.7%	4.1	10.9%	72.7%	5.9
Habitation Type	3.8%	77.4%	4.2	4.2%	77.80%	5.3
Urban	2.3%	81.8%	5.1	3.9%	78.6%	5.6
Rural	4.4%	76.5%	4	5.3%	75%	4.3
Victim Gender	3.8%	77.4%	4.2	4.2%	77.8%	5.3
Male	4.2%	79.7%	4.1	5.3%	77.80%	5.3
Female	1.3%	33.3%	6	--	--	--

OUTCOMES OF THE INSURANCE & LEGAL COMPENSATION PROCESS

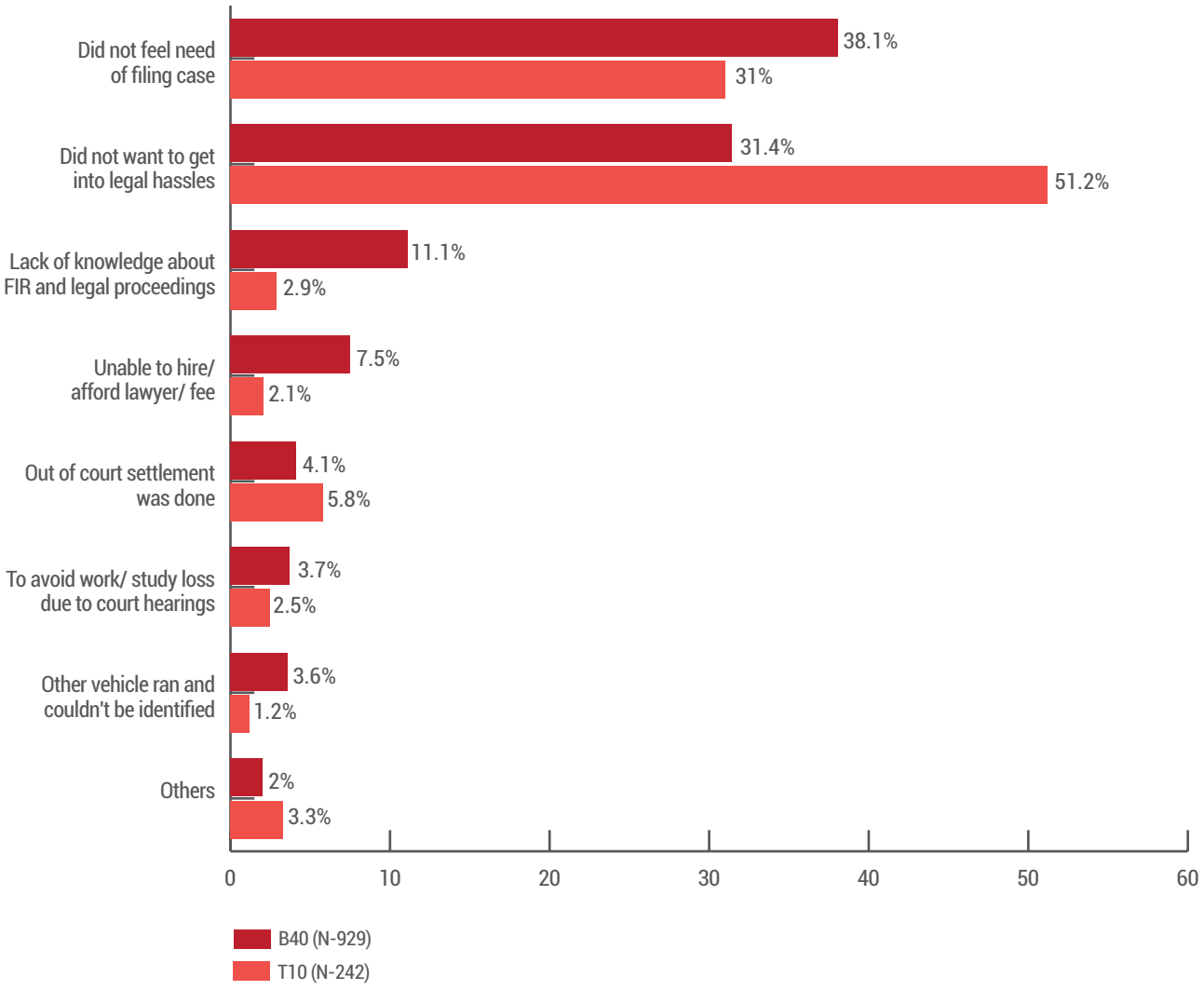
TABLE 8.2: STATE-WISE SPLIT: VICTIM/NOMINEE FACED DIFFICULTIES IN ACCESSING COMPENSATION

TABLE 8.3: FILED CASE IN MACT AFTER THE ROAD CRASH



OUTCOMES OF THE INSURANCE & LEGAL COMPENSATION PROCESS

FIG 8.1: REASONS FOR NOT FILING CASE WITH MACT [OPEN-ENDED, ALL FIGURES IN PERCENT]



To address the issue of legal and procedural hassles, the Supreme Court in its judgment dated 05th March 2019 in the case of M.R. Krishna Murthi vs. The New India Assurance Co. Ltd., (Civil Appeal No. 2476-2477 of 2019) further recommended that *"the Government (should) examine the feasibility of setting up the Motor Accident Mediation Authority (MAMA) in every district by making necessary amendments in the Motor Vehicles Act itself."*

PART B: TRUCK DRIVERS

Truck drivers form the backbone of the economy, controlling 67% of India's freight and logistics sector (Road Transport Year Book 2015-16). Out of the 1.5 lakh people killed in road crashes in the country, 15,000 of the total (10%) road crash victims are truck and lorry drivers (MoRTH, 2018). In terms of vehicle category, trucks and lorries are involved in over 57,000 crashes (MoRTH, 2018). It is not surprising then that 61.5% of the truck drivers feel unsafe driving on roads (SaveLIFE Foundation, 2020). The living conditions of truck drivers are abysmal with no standardization in wages, lack of social security and incentives to complete a trip on time. 53% of the truck drivers earn a meagre income of Rs.10,000-Rs.20,000 per month. 93% of truck drivers do not get any social security benefits such as provident fund, pension, health insurance, life insurance, gratuity, etc (SaveLIFE Foundation, 2020). Three-fourth of the fleet owners have confirmed that their trucks were involved in road crashes and listed "getting insurance claim for vehicle repair" as among the top 5 challenges they face when their trucks are involved in crashes (SaveLIFE Foundation, 2020).

Out of the 420 respondent truck drivers surveyed as part of this study, 58% of them stated that they were involved in road crashes where they had sustained injuries. In Maharashtra, 96% of the respondents had been injured in a road crash whereas the proportion was less than 50% among the other three surveyed States. Among the respondents who said that they had experienced injuries in the crash (N=244), about 50% of them were severely injured while the other half (50%) had sustained minor injuries. Nearly 47% of the respondents stated that they were admitted to a hospital for treatment.

One of the biggest challenges in claiming compensation after an crash for truck drivers has been the under-reporting of the crash and non- filing of FIRs. Overall, about two-thirds (66%) of truck drivers hadn't filed an FIR after the crash. State wise (refer to Table 5A.11), only 2.5% of the truck drivers from Bihar reported filing an FIR after the crash, followed by Uttar Pradesh (27%), Maharashtra (42%) and Tamil Nadu (44%).

The most significant and concerning finding of this study is that despite having a high rate of crashes and sustaining injuries, none of the respondent truck drivers had applied/benefited from any Government run scheme for compensation after the road crash. They had neither laid claim to or benefited from any Government scheme like

cashless treatment at hospitals, solatium fund for hit-and-run cases, or any other ex-gratia schemes at the central or state level.

8.3 PERSONAL INJURY INSURANCE AND COVERAGE AT THE TIME OF THE CRASH

The process of claiming insurance is fraught with challenges for vulnerable groups like truck drivers who often hail from LIH and disadvantaged sections of society. Truck drivers from Maharashtra stated they had to go through certain hassles during the claim proceedings and received late approval for their claims filed. Overall, more than half the truck drivers (54.5%) said that they were not covered under any sort of personal injury insurance[44], whereas nearly 40% were covered under life insurance and 18% under medical insurance.

Over 8 out of 10 respondents (87%) in Tamil Nadu had filed a claim for insurance for personal injuries while in Bihar, such a proportion was as low as 13.5%. It must be noted that while the coverage of personal injury insurance was highest in Bihar, the proportion of claims was lowest, whereas for Tamil Nadu it was directly proportional.

8.4 AWARENESS REGARDING "INSURANCE OF MOTOR VEHICLE AGAINST THIRD PARTY RISKS" AND OTHER RELATED ASPECTS

According to MVAA 2019, it is compulsory for drivers to have third-party insurance in order to get coverage for their own liability and the damage caused to the third party w.r.t bodily injury/death or vehicle. It is important to note that despite the Government bringing in progressive changes in the MVAA, 19 listed above, about two-third of the respondents were not aware/somewhat aware of third-party liability insurance, while about one-third stated otherwise (refer to Table 5A.19). Only 36% of the truck drivers said they were fully aware of the fact that third party insurance had been made mandatory under the MVAA, 19.

Interestingly, awareness about third-party liability insurance was directly related to the driving experience of the respondents, i.e., respondents with more driving experience seemed to be more aware of it. Also, those drivers who had experienced a crash seemed to be more aware (49%) of the clause than those who had not (13%). At the State level, less than one-fifth of truck drivers were aware of third-party liability insurance except for Maharashtra where nearly 8 out of 10 truck drivers were aware of it.

44. Personal accident insurance is a policy that can reimburse medical costs, provide compensation in case of disability or death caused by accidents, depending upon the nature of the disability.

There remains a confusion and misunderstanding among truck drivers on the definition of third party insurance and what it includes. Nearly two-third of the respondents said that third party insurance covers the other party involved in the crash, followed by nearly 13% who said that the insured gets compensation as cover while 8% said that the insuree can claim compensation on death, severe injury and damaged vehicle. In terms of the nature and scope of coverage under third party insurance, 7 out of 10 respondents mentioned that it covers for death, injury, and property damage. Similarly, almost 27% stated that it covers only property damage, while 25% stated it included only for injury/disability. Only 4% of the respondents thought that it included only death under its purview.

About one-third of the respondents stated that they were 'not aware' of the compensation process, including time limitation for filing the case before the Claims Tribunal and deputation of an officer by the insurer for settlement of the claim. Almost, a similar proportion of respondents were not aware of the inclusion of khalasi or attendant under third party insurance coverage under MVAA, 2019.

This lack of awareness across respondent categories has emerged as a trend throughout the study. Information asymmetry and poor literacy levels often deter the poor from filing claims. Even if the claims are filed, the proportion of compensation received is not adequate and the delays in awarding compensation make the process unfavourable. Government schemes are also not well publicized among the poor and do not offer immediate relief after a road crash.

OUTCOMES OF THE INSURANCE & LEGAL COMPENSATION PROCESS

TABLE 8.4: AWARENESS OF MOTOR THIRD PARTY LIABILITY INSURANCE-RELATED ASPECTS AT STATE

CATEGORY	Bihar (N=101)		
	NA	SA	FA
The purchase of Motor Third party liability insurance is compulsory and you may be fined by the Police if vehicle is uninsured	2%	79.2%	18.8%
If the vehicle UNINSURED, you/ owner may be personally liable to pay for injuries caused to others if you are at fault for crash	3%	69.3%	27.7%
Motor Third Party liability insurance provides compensation to other people for their injuries if the crash is your fault	2%	71.3%	26.7%
Motor Third Party liability insurance does not provide compensation for injuries you incur if the crash is your fault	5%	69.3%	25.7%
If someone else is a fault for an crash & you incur injuries, you may be able to claim compensation from the insurer the vehicle is insured with	5%	72.3%	22.8%
The compensation you are eligible to receive may be reduced if you breach a traffic law	5%	66.3%	28.7%
Along with driver, truck attendant (khalasi) is also covered for benefits under third party insurance under MVAA, 2019	20.8%	63.4%	15.8%
The time limitation for filing of cases for compensation for injuries before the Claims Tribunal is 6 months from the date of the crash	10.9%	64.4%	24.8%
In case of road crash, insurance company is liable to designate an officer to help you with the process of settlement of your claim	11.9%	71.3%	16.8%

Maharashtra (N=113)			Tamil Nadu (N=100)			Uttar Pradesh (N=106)		
NA	SA	FA	NA	SA	FA	NA	SA	FA
5.3%	15%	79.6%	53%	53%	31%	33%	40.6%	26.4%
9.7%	31.9%	58.4%	50%	50%	33%	31.1%	31.1%	37.7%
13.3%	19.5%	67.3%	26%	26%	55%	30.2%	34.9%	34.9%
13.3%	27.4%	59.3%	46%	46%	38%	47.2%	34.9%	17.9%
9.7%	35.4%	54.9%	54%	54%	30%	28.3%	43.4%	28.3%
17.7%	26.5%	55.8%	26%	26%	47%	35.8%	40.6%	23.6%
17.7%	31%	51.3%	50%	50%	33%	43.4%	36.8%	19.8%
23%	37.2%	39.8%	55%	55%	28%	45.3%	35.8%	18.9%
27.4%	24.8%	47.8%	45%	45%	38%	55.7%	29.2%	15.1%

OUTCOMES OF THE INSURANCE & LEGAL COMPENSATION PROCESS

6- POINT POLICY RECOMMENDATIONS

1. Comprehensive Implementation of MCTAP

A Director level official should be appointed by MoRTH for ensuring compliance with all Supreme Court & High Court judgments including but not limited to judgment on MCTAP. Further, an advisory should be sent to JS Centre-State Coordination for implementation of these judgments. The Supreme Court in its judgment dated 05th March 2019 in the case of M.R. Krishna Murthi vs. The New India Assurance Co. Ltd., SLP (C) No 31521-31522 of 2017, noted that there was no proper implementation of the Claims Tribunal Agreed Procedure by the Claims Tribunals at all India level. Even though the Supreme Court directed NALSA to ensure implementation in coordination and cooperation with various High Courts, yet, the implementation has been weak. The National Road Safety Board, which will be created under the Motor Vehicles Amendment Act, 2019, can be the main coordinating agency to ensure proper implementation of the MCTAP.

2. Issuance of Notification under MVAA,2019 to standardise protocol between MACT, Police and Insurance Company

For effective and efficient implementation of online DAR is important to ensure no delay in compensation being awarded to claimants. The standardization of this process will ensure that all crash documents, vehicular records, compliance with statutory provisions in regard to use of vehicles, details of victims, family members and other aspects are shared with the tribunal as quickly and efficiently as possible. The notification should also direct the use of Crime and Criminal Tracking Network and Systems (CCTNS) by Police as well as Tribunals as the formal electronic to share files and information including FIRs and DARs.

3. Mechanism for Interim Compensation

The MVAA,2019 also mandates a Motor Vehicle Accident Fund to be set up by the Central Government (Section 164B) for giving interim compensation to victims of road crashes under Section 164 A. The Central Government can also establish a Motor Accidents Mediation Authority (MAMA) in every district to provide fixed interim compensation as direct credit to Aadhaar linked bank accounts. MAMA can also take over pre-litigation procedures from MACT.

The Union Govt must fix an amount that can be transferred immediately as interim compensation pending adjudication of the compensation claim. The recommended range of amount is INR 2-5 lakhs in case of death and INR 50,000 for injury.

4. Ensuring coordination between MAMA, State Road Safety Council (SRSC), and State Legal Services Authority (SLSA)

An effective institutional mechanism needs to be put in place to ensure smooth coordination between the relevant agencies. Appointment of a 3-member team at

the State level could include officials from the Health, Law and Transport departments respectively. MVAA,19 has brought in certain progressive changes in the insurance and compensation process to make it more victim-friendly. The Act has simplified the claims process to benefit the claimants by reducing the litigation period, which currently runs into years. To further increase coordination and ensure real-time monitoring of implementation, the Central Government should create a policy framework to ensure efficient coordination between MAMA, SRSC and SLSA.

5. Increasing Awareness about MCTAP and other Compensation Schemes

This can be achieved through the Government mandating General Insurance Corporation (GIC) to set up a dedicated helpline number for LIH. Other insurance companies can contribute to this and the number can be linked to the hospital database of LIH.

Information asymmetry and poor literacy levels often deter the poor from filing claims. Even if the claims are filed, the proportion of compensation received is not adequate and the delays in awarding compensation make the process unfavourable. Government schemes are also not well publicized among the poor and do not offer immediate relief after a road crash.

6. Inserting Technology to ensure Insurance Coverage

Inserting technology to increase accessibility and affordability of insurance products to poor households should be incentivised. Government should encourage companies to create low-price, micro- insurance products with LIH in mind. For example, Medical insurance provides coverage only for hospitalization, pre-specified ailments and crashes, for a pre-specified amount while health insurance provides a comprehensive coverage against hospitalization expenses, pre-hospitalization and post-hospitalization expenses and ambulance charges. An insurance product designed to ensure pay-out on losing "one-month of work due to ill-health" would help create an interim-safety net for the entire household. Also IRDA should ensure that insurance agencies create mechanisms for simple claim settlement.

INTERACTIONS WITH INSTITUTIONS

CHAPTER 9

According to the WHO, 50% road crashes victims die in the first 15 minutes and the rest can be saved by providing basic life support during the "Golden Hour". It therefore becomes imperative to provide proper initial care to road crash victims within the first hour of the crash. During the survey, respondents were probed about their interaction with key stakeholders, i.e. Police and health workers.

Overall (combining LIH and HIH categories), among the victims that survived, 55 percent were admitted in hospital for more than a day, while 13 percent were discharged within 24 hours. Out of those who did not survive, 15 percent died at the scene, 7 percent died on the way to hospital, 9 percent died within 30 days from the crash.

KEY FINDINGS

1. Almost all victims of HIH category (98%) were transferred to hospital while among LIH category 89 percent; 1/3rd of victims transferred in ambulances.

2. 2/3rd of LIH victims and 8 out of 10 HIH victims were admitted to hospital for treatment. Further, the average time any LIH victim stayed in hospital was nearly 20 days whereas it was approximately 10 days for HIH category.

3. Reporting of crashes to police was higher among LIH respondents (54%) compared to HIH category respondents (43%).

4. Almost half of LIH respondents (48%) filed FIR while 41% of HIH respondents did the same. Compared to survival cases, the proportion of FIR filing was significantly higher (over 2 times) when a road crash victim died.

9.1. INTERACTIONS WITH THE MEDICAL SYSTEM

Majority of the victims were transferred to hospital. Almost all victims of HIH category (98%) were transferred to a hospital while amongst LIH category 89 percent were transferred to a hospital.

Overall, in the majority of the cases victims were shifted through private vehicles followed by ambulances and public vehicles such as auto/ taxi etc. State-wise, in case of Tamil Nadu, highest proportion of victims were transferred to hospital in ambulances while lowest in Bihar.

With a mandate to reduce the mortality and morbidity of trauma patients in Tamil Nadu, the State Government launched "Tamil Nadu Accident and Emergency care Initiative (TAEI)" programme in 2016 to improve emergency medical services in trauma cases.[45]

Further, victims that were transferred through ambulance were asked about the response time. Overall (combining LIH and HIH categories), it was found that ambulances did not arrive at the crash location within 15 minutes in 55 percent cases while it took more than half an hour in about 14 percent cases.

However, state-wise, more than half of respondents of Tamil Nadu said that the ambulance arrived at the crash location within 15 minutes.

Across states, a higher proportion of victims were taken to private hospitals compared to government hospitals. On deeper analysis, it was observed that cases where victims survived in road crashes, mostly were taken to private hospitals (LIH-67%, HIH-87%); while the cases where victims died (immediately or later on), most were transferred to government hospitals (LIH-55%, HIH-56%). An inclination towards private hospitals amongst both categories could be due to the perception of better emergency facilities, even when private hospitals can be more expensive, especially for the LIH category.

Overall, compared to the LIH category, a higher proportion of HIH category victims were admitted to any hospital. Among LIH category, nearly two-third of victims were admitted to hospital while among HIH category four out of five victims were admitted.

The percentage of victims that were admitted to hospital among HIH category was higher than LIH category in both

45. https://www.dropbox.com/sh/mnahgopoj4bcw1g/AACz_FcdzK2VMdIbjv0ewIuFa?dl=0&preview=TAEI+Manual+2018+09+10.pdf

urban and rural areas. A significant difference was observed in LIH (66%) and HIH (84%) category in rural areas. On further enquiry, it was found that the average time any LIH victim stayed in hospital was nearly 20 days whereas it was approximately 10 days for HIH category.

Among both the categories (LIH and HIH), almost half of the respondents reported that the victims were not attended by the hospital staff (doctor/ nurse) immediately on reaching the hospital.In Tamil Nadu, 12 percent LIH respondents said that it took more than half an hour for the hospital staff to attend to the victim. Similarly, one-fourth of HIH respondents of Bihar mentioned that hospital staff took more than half an hour to attend the victim after reaching the hospital.

9. 2. PREVALENCE OF DISCRIMINATORY PRACTICES IN THE MEDICAL SYSTEM

Overall, nearly 7 percent of respondents mentioned that they had faced discrimination/ prejudice by the hospital officials/ staff among both LIH and HIH categories. The highest proportion of Bihar respondents from both LIH (13.2%) and HIH (21.9%) categories experienced discrimination by the hospital staff, which was comparatively higher than other states. Further, respondents that have faced discrimination/ prejudice at hospitals were asked an open-ended question regarding types of discrimination they have faced. The most prevalent form of discrimination/ prejudice by the hospital staff among LIH category was not attending victims immediately by hospital staff on reaching hospital (69.8%) followed by the cases where victims were even denied admission in hospital (13.2%).While HIH category respondents reported that the hospital staff made excuses to treat the victim and asked to take them to other hospitals (55.2%).

9.3. INTERACTIONS WITH POLICE SYSTEM

To understand the victims' / family members' experience with the police and legal system, they were explored on aspects such as FIR filing, adherence to road safety laws, assistance by police officials etc.

As per the Motor Vehicles Act 1988 and the Motor vehicles (Amendment) Act, 2019 wearing a helmet for motorized two-wheeler users and seatbelt for motorized four-wheeler users is compulsory. In order to understand usage of safety devices while riding/ driving, respondents were asked if the victims were wearing such protective devices.

Overall, the proportion of victims that wore helmet or seatbelt at the time of crash was lower among LIH compared to HIH category. Among LIH, one-third of victims were wearing helmets while only 5 percent were wearing seatbelts at the

time of crash. In the HIH category about half of the victims were wearing helmets while about one-fifth were wearing seatbelts. Compared to urban areas, it was observed that seatbelt/ helmet usage was more prevalent in rural areas which was almost twice the urban areas.

Respondents were probed on whether they had intimated the crash to the police. Overall, case reporting to the police was found higher among LIH respondents compared to HIH respondents.

Over half of the respondents from the LIH category (54%) reported the road crash to the police whereas, 43% of HIH respondents reported crashes to the police.

Also, overall (both LIH & HIH), more than 8 out of 10 respondents reported the crash to the police where the victim had died while in case of serious injuries about one-third of road crashes were reported to the police.

Additionally, respondents were asked if FIR of the crash was filed. Overall, close to half of LIH respondents had not filed the FIR of the crash while over 50 percent amongst HIH category respondents did not file the FIR.Also, overall, three-fourth of LIH respondents filed FIR where the victim had died. Similarly, 90% of HIH respondents filed FIR in case of road crash death.

Those respondents who admitted to not filing the FIR were asked an open-ended unaided question to know the possible reasons for the same. 46 percent LIH respondents said they did not feel the need of filing FIR followed by one-fourth of respondents that did not want to get into legal hassle and 8 percent respondents that were afraid of police harassment. Few others mentioned that they were afraid of police asking for bribes (3.6%) and few mentioned police declining to file the FIR (2.3%).

Similarly, half of the HIH respondents did not file the FIR saying they did not want to get into legal hassle followed by one-third that mentioned they did not feel the need for the same.

"After hitting us, he hit the pedal. We could barely note the vehicle registration number. The policeman asked us for the vehicle registration number for filing the FIR"

- Male FGD Participant, Lucknow

INTERACTION WITH INSTITUTIONS

During FGDs, many respondents mentioned that since the crash was a hit and run case and the vehicle could not be identified or they could not note the vehicle number, therefore the FIR couldn't be filed, since the police wanted to know the offender. Also, many female respondents admitted to not being aware of the process and the need for filing FIR.

Respondents that filed FIR (N=970) were further asked if police officials were helpful/ cooperative during the FIR process. Overall, about 18.3 percent respondents of LIH category stated that police were not helpful/ cooperating with them while among HIH category it was about 11.7 percent. State-wise, over one-third LIH respondents of Bihar and close to one-fourth LIH respondents of Uttar Pradesh stated that they were not assisted by police during the FIR process. In the HIH category, one-third respondents of Bihar and 18 percent of Maharashtra did not receive police assistance during the FIR process.

6-POINT POLICY RECOMMENDATIONS

1. Sensitization and Training of Police on rights of Road Crash Victims and other Road Users.

Police Officials at the level of Investigation Officer and above should be trained and sensitized on the rights of bystanders, road crash victims and their family members. The police should not entangle road users in procedural hassles. Many FGD participants also mentioned police reluctance in filing FIRs in Hit and Run cases. Police should be trained to support road crash victims and their families. Since police is one of the key stakeholders in terms of enforcing rules under MVAA, 19, good practices of certain States can be standardised across the country and made a norm. For instance, the DGP's 'Fortnightly Crime Review Meeting' should also include a review of Road Crash Cases in the State.

2. Raising Awareness and reducing Information Barriers.

The Government should also raise awareness amongst poor and uneducated households on their rights as road user as well as in case of a road crash. In case of an crash the State Government should provide advice during the MACT claim process. Insurance agencies and IRDAI should also reach people through BTL activities to reduce information barriers.

3. Additional Support to vulnerable people, including women under Proposed Cashless Treatment Scheme under Section 162 of MVAA,2019

Many respondents in FGDs and IDIs stated that they didn't receive proper medical care at the hospital. While the Ministry of Road Transport and Highways (MoRTH) and National Health Agency will operationalize the Cashless crash scheme, the State Government should create Grievance Redressal Mechanism to ensure healthcare service providers in the State don't deny treatments to victims.

4. Setting Clear Roles and Responsibilities for District Road Safety Committees

All State Governments have created a District Road Safety Committee under Section 215(3) of the Motor Vehicles Act, 1988. This was done in 2018 under the instructions of the Supreme Court Committee on Road Safety under Writ Petition (Civil) No. 295 of 2012. However, the roles and responsibilities of the District Road Safety Committee is not standardized. Their roles and responsibilities should be measurable, reportable and verifiable. The Action Taken Reports should be submitted digitally to the State and the Central Government.

5. Grievance Redressal Mechanism

There should be a grievance redressal helpline number for all cases of medical negligence. The number should be managed by the State Health Services and the helpline number should be publicised at all hospitals.

6. Ensuring Coordination between different stakeholders.

The proposed National Road Safety Board (NRSB) under Section215(B) of the MVAA, 2019 should be constituted immediately to ensure coordination between different stakeholders. A strong, independent and technically competent NRSB would also serve as primary centre for ensuring data analysis and data driven policy changes. NRSB can also supervise and monitor efforts of all State Governments to achieve various road safety related indicators as well as create mechanisms to engage with road users throughout the country.

The Officiating Secretary of the State Road Safety Authority/Board should be entrusted with the responsibility to maintain coordination among all relevant stakeholders. The appointment of a specific member from NRSB at the National level can be done for the same.

WAY FORWARD

CHAPTER 10

This report presents a rigorous analysis on the socio-economic impact of RTIs on poor households and disadvantaged sections amongst road users in India. It highlights the significant differences in the short-term and long-term; direct and indirect impacts of crashes on victims and their households by comparing among Low Income and High Income Households. Key findings indicate that children and adolescents are particularly at risk, as are truck drivers due to their long commutes; women bear a greater and disproportionate burden of road crashes. Outcomes are also significantly different for households in Low Capacity States vis-à-vis households in High Capacity States and urban areas. As such, government interventions may need to focus more on LIH from rural areas and Low Capacity States, who are more severely affected It needs to be stated that this is not a longitudinal study. A follow up study would enhance the value of the perspectives offered here and would help in capturing the overall impact of crashes better. Globally, disability has been studied over longer periods of time and it is important to conduct more studies in the future to assess its holistic impact.

Favourable signs of Government Action have emerged with the recent enactment of the Motor Vehicles (Amendment) Act, 2019 and the rules being framed under it by MoRTH. If implemented fully and urgently by all states, the proposed changes could pave the way for a positive turnaround of the road safety situation in India. Under relevant MVAA 2019 provisions, this report suggests that government support systems need to be created and social safety nets extended to poor households to mitigate their financial burden and cope with the sudden fallout of a road crash. The legal system needs to be sensitised towards the predicament of

poor victims and their families in the event of a crash and the rights of road crash victims to commensurate and timely compensation needs to be institutionalised. In addition, emergency medical care needs to be improvised and strengthened to ensure greater chances of survival among VRUs/LIH victims. The gendered impact of road crashes needs to be acknowledged: women's participation in road safety reforms should be increased and special state-run programmes and schemes need to be implemented at the state level to provide them immediate relief.

The report emphasises the need to tailor road safety initiatives according to the socio-economic status of road users, as RTIs in India especially affect VRUs, most of whom are poor. It identifies key areas needing immediate improvements and provides some key policy recommendations for the central and state Governments for alleviating RTI-related suffering of VRUs, adolescents and women. These policy reforms have been grouped under the following six key themes:

I. **Enhance effectiveness of institutional mechanisms and awareness building**

II. **Institutionalise post-crash emergency care and make health infrastructure & coverage more accessible & inclusive**

III. **Provide Social Security nets for crash victims from LIH**

IV. **Create an accessible legal framework for availing insurance and compensation by road crash victims**

V. **Address the disproportionate gender impact of RTIs through participative governance & special schemes for women**

VI. **Strengthen post-crash support for children and young adults through state support**

Improving road safety performance at the national and state level calls for a long-term vision, an integrated framework and sustained efforts from all stakeholders. Implementing the six thematic recommendations above in a sustainable way will require strengthening of institutions, ensuring inter-agency coordination, sanctioning dedicated budgets, and building the institutional capacity of states, especially low capacity states.

This report provides a template to assess and inform reforms based on actual ground situation. This template could be used by Central and State Governments to embed the methodology used in the study to help policy makers evolve customized road safety policies and action plans. Similar or adapted assessmentstudies could be replicated in more states with differential capacities (perhaps under the proposed MoRTH's State Support Scheme for Road Safety) to highlight gaps and areas of regulatory reform. This can be more effective and beneficial for undertaking targeted efforts and focused interventions.

WAY FORWARD

Below is a quick snapshot of policy implications/recommendations along six broad themes:

THEME ONE: Enhance effectiveness of institutional mechanisms and awareness building

1. DIFFERENTIATED SUPPORT FOR VRUS, ESPECIALLY FROM RURAL LIH

The interlinkages between VRUs, LIH and road crash outcomes, indicate the need to invest more in VRU friendly infrastructure that prioritizes their safety especially in rural areas. State Governments should select districts with a high VRU crash rate and prioritize their safety through dedicated Annual Action Plans.

The findings of this study reveal that 83% of LIH victims were VRUs. Further, income decline was most severe for LIH rural households (56%) compared to LIH urban (29.5%) and HIH rural (39.5%).

2. MANDATORY PUBLISHING OF ROAD SAFETY TARGETS BY EVERY STATE AND PLANNED, TARGETED SPENDING BY HIGH CAPACITY STATES (HCS)

It should be made mandatory for all States to publish their targets on road safety annually so that their performance can be measured against these targets. Additionally, their budgets should be reviewed by a relevant authority to maintain transparency and efficiency. Since High Capacity States have higher spending power and more effective institutional mechanisms to implement targets, a multi-level agency should be set up in every State to oversee road safety efforts and guide HCS in drawing out detailed plans.

3. SENSITISATION AMONG THE MEDIA FOR GREATER REPORTING ON CRASH CASES

Road safety educational programmes need to be enhanced for the education and sensitisation of targeted sections. For instance, the WHO Media Fellowship offers reporters a curriculum to help make their reporting around road crashes more nuanced. A similar model needs to be replicated at State level to ensure in-depth comprehensive and science-based coverage.

4. SENSITIZATION AND TRAINING OF POLICE ON RIGHTS OF ROAD CRASH VICTIMS AND OTHER ROAD USERS

Police Officials at the level of Investigation Officer and above should be trained and sensitized on the rights of bystanders, road crash victims and their family members.

Police should be trained to support road crash victims and their families. Since police is one of the key stakeholders in terms of enforcing rules under MVAA, 19, good practices of certain States can be standardised across the country and made a norm. For instance, the DGP led fortnightly crime reviews can be made a routine practice across States to ensure better training of police

The police should not entangle road users in procedural hassles. About 18.3% respondents of LIH category and 11.7% from HIH category stated that police were not helpful/cooperating with them. Many FGD participants also mentioned police reluctance in filing FIRs in Hit and Run cases.

5. SETTING CLEAR ROLES AND RESPONSIBILITIES FOR DISTRICT ROAD SAFETY COMMITTEES

All State Governments have created a District Road Safety Committee under Section 215(3) of the Motor Vehicles Act, 1988. This was done in 2018 under the instructions of the Supreme Court Committee on Road Safety under Writ Petition (Civil) No. 295 of 2012. However, the roles and responsibilities of the District Road Safety Committee is not standardized. Their roles and responsibilities should be measurabWWle, reportable and verifiable. The Action Taken Reports should be submitted digitally to the State and the Central Government.

6. ENSURING COORDINATION BETWEEN DIFFERENT STAKEHOLDERS

The Officiating Secretary of the State Road Safety Authority/Board shall be entrusted with the responsibility to maintain coordination among all relevant stakeholders. The appointment of a specific member from NRSB at the National level can be done for the same.The proposed National Road Safety Board (NRSB) under Section215(B) of the MVAA, 2019 should be constituted to ensure coordination between different stakeholders. A strong, independent and technically competent NRSB would also serve as primary centre for ensuring data analysis and data driven policy changes. NRSB can also supervise and monitor efforts of all State Governments to achieve various road safety related indicators as well as create mechanisms to engage with road users throughout the country.

7. RAISING AWARENESS AND REDUCING INFORMATION BARRIERS.

The Government should raise awareness amongst poor and uneducated households on their rights as road users as well as planning their next steps in case of a road crash. For instance, State Governments should create awareness of cashless treatment schemes, emergency numbers and other support schemes being run for crash victims. They should also provide advice during the MACT claim process. Insurance agencies and IRDA should also reach people through BTL activities to reduce information barriers.

70% of respondents of LIH and 63% of HIH were not aware of compensation clauses and schemes in the event of a road crash.

THEME TWO: Institutionalize post-crash emergency care and make health infrastructure & coverage more accessible & inclusive

8. URGENT NEED TO LOWER THE OOPE FOR LIH

The lack of infrastructure at the primary level, lack of awareness on life-saving protocols among local communities and first responders, low coverage and inadequate compensation, low doctor-patient ratio and inefficient emergency management increases the costs for post-crash care. There is an urgent need to lower the OOPE for LIH by improving health infrastructure, especially in rural areas, investing in better training of manpower, making post-crash emergency care more accessible and efficient, ensuring more efficient penetration and coverage of LIH under health insurance.

The risk of catastrophic expenditure is inversely proportional to increasing income per capita, i.e., it is significantly larger for those belonging to lower-income quartiles than for those belonging to the highest income quartile. Out of Pocket Expenses (OOPE) was the most significant direct cost borne by victim families among LIH. The overall OOPE was higher for LIH (62%) than HIH (59%). LIH spent a little more than half (52%) of all their income (Rs.78,824) as OOPE on the victim's treatment (hospitalisation, medicines, care) compared to HIH that spent 30.5% of their household income, i.e., Rs.60,476 on the victim's post-crash treatment and recovery. A mere 6.1% of the LIH in rural areas availed medical insurance compensation, whereas 26.3% of the HIH residing in rural areas availed medical insurance compensation.

9. STATES NEED TO URGENTLY IMPLEMENT THE SCHEME FOR CASHLESS TREATMENT OF ROAD CRASH VICTIMS AND PUBLICIZE THE GOOD SAMARITAN LAW

In order to save more lives during the critical golden hour. Currently, the Centre has floated such a scheme for cashless treatment of road crash victims under Section 162 of the Motor Vehicles (Amendment), Act, 2019. The proposed scheme suggests a cap of Rs 2.5 lakh for the victim's treatment per crash and designates the National Health Authority as the nodal agency to implement the scheme under Pradhan Mantri Jan Arogya Yojana.

None of the truck drivers surveyed said that they had applied/benefited from cashless treatment at the hospital, or ex-gratia schemes. Across states, a higher proportion of victims were taken to private hospitals compared to government hospitals which can prove to be more expensive, especially for LIH.

WAY FORWARD

10. ADDITIONAL SUPPORT TO VULNERABLE PEOPLE, INCLUDING WOMEN UNDER PROPOSED CASHLESS TREATMENT SCHEME UNDER SECTION 162 OF MVAA,2019

Many respondents in FGDs and IDIs stated that they didn't receive proper medical care at the hospital. While the Ministry of Road Transport and Highways (MoRTH) and National Health Agency will operationalize the Cashless crash scheme, the State Government should create Grievance Redressal Mechanism to ensure healthcare service providers in the State don't deny treatments to victims.

During the FGD, women participants mentioned the need for cashless treatment of road crash victims in all government and private hospitals, especially for poor families.

11. ENSURING QUALITY OF CARE AT THE HOSPITAL

Many respondents spoke about authorities with mistrust. A few participants suggested that there should be a mechanism to ensure quality of care at hospitals and awareness on these rights should be raised amongst the general public. The quality of care can be ensured for every patient by observing scientific protocols and safe best practices, reducing waiting time and unnecessary delays, being responsive to patient needs, avoiding waste and following equitable and non-discriminatory standards.Hospitals should establish measurable benchmarks to monitor outcomes and follow up on these standards and practices. Since most of the women who either die or are injured in road crashes are in rural areas, Accredited Social Health Activists (ASHAs) can be entrusted with the task of spreading awareness on the rights of patients, information about government run health schemes and ensuring that victims get proper rehabilitation and after-care post an crash.

12. MAKE INSURANCE POLICIES MORE INCLUSIVE BY COVERING FOR REHABILITATION AND RECOVERY OF ROAD CRASH VICTIMS. ADDITIONALLY, INSURANCE SCHEMES SHOULD ALSO ACCOUNT FOR THE MENTAL HEALTH IMPACT OF ROAD CRASHES ON VICTIMS AND DESIGN MORE PROGRESSIVE POLICIES. ESTABLISH A NEURO-SPINAL REHAB CENTRE AT THE DISTRICT LEVEL FOR ALL STATES.

Merely increasing insurance coverage is not enough as not all those who are enrolled know about the scheme or its benefits, not all the poor are covered, and not everyone has access to healthcare. Health insurance coverage in India remains poor because the private health insurance industry is still at a nascent stage, the pool of people who are able and willing to pay for insurance is low, and insurance premiums are high. Further because LIH, especially in rural India, have limited access to healthcare services such as doctors and hospitals, they are less likely to buy health insurance.

13. MENTAL HEALTH SUPPORT

Motor vehicle crashes can result in 'significant post-traumatic psychiatric morbidity'. The psychological impact of road crashes is an understudied area and the data on the subject is extremely fragmented or non-existent. Academic and other institutions should analyse the trends for psychological distress due to road crashes in India.The Ministry of Health and Family Welfare should also update the National Mental Health Policy (NMHP) notified in 2014. NMHP acknowledges the linkage between poverty and mental health however it does not categorise crash victims as "Vulnerable Population". The state government should also ensure implementation of NMHP right from Primary Health Care level. State Governments should also conduct awareness drives on already existing schemes like – 'KIRAN 24x7 Mental Health Rehabilitation Helpline. Most importantly, mental health of road crash victims should be covered under health insurance.

The police should not entangle road users in procedural hassles. About 18.3% respondents of LIH category and 11.7% from HIH category stated that police were not helpful/cooperating with them. Many FGD participants also mentioned police reluctance in filing FIRs in Hit and Run cases.

14. IMPROVING ACCESS TO EMERGENCY MEDICAL CARE. THERE IS A NEED TO PUBLICIZE EMERGENCY NUMBERS AND CREATE MORE AWARENESS AROUND IT. 112 HAS BEEN DECLARED A PAN-INDIA EMERGENCY HELP LINE NUMBER for immediate assistance services for police, fire, health and women.

People in rural areas have poor access to medical facilities. Primary Care and Secondary Care infrastructure and resources in rural areas are inadequate to provide proper care to victims of road crashes. The Central and State Governments should ensure placement of adequate numbers of Basic Life Support (BLS) and (ALS) ambulances with life support equipment, and a trained paramedic. Each district should be equipped with a secondary trauma care facility with infrastructure and resources for initial evaluation, resuscitation, stabilization and initiation of transfer to a higher-level trauma care facility.

15. GRIEVANCE REDRESSAL MECHANISM:

There should be a grievance redressal helpline number at all hospitals to be published and managed by the State Health Services for aggrieved victims and their families to complaint and be heard. This will ensure hospitals act with responsibility.

Nearly 7% of the respondents mentioned that they had faced discrimination/ prejudice by the hospital officials/staff among both LIH and HIH categories.The types of discrimination included victims being denied admission and not attending to the victims immendiately on arrival at the hospital.

THEME THREE: Provide a social security net for crash victims from LIH through state support

16. INTEGRATING ROAD CRASH VICTIMS AS A SPECIAL CATEGORY IN SOCIAL SECURITY SCHEMES

Policymakers need to acknowledge the interplay between road crashes and various social hierarchies of class, gender, location that intersect to render certain disadvantaged groups more vulnerable to the shocks of crashes. The spatial context and lived experiences of poor households makes it harder for them to respond to the harsh impact of road crashes, pushing them into a vicious cycle of debt and suffering. Therefore, all existing social security schemes should recognize victims of road crashes as a special category that needs Government support as various levels.

17. COMPREHENSIVE REHABILITATION SUPPORT. A REHAB FACILITY SHOULD BE SET UP IN EVERY DISTRICT.

Injury caused by crashes is the 3rd largest cause of Disability. According to a report by NIMHANS, 'nearly 100% of the severely injured, 50% of the moderately injured and 10-20% of the mildly injured will have lifelong disabilities'.

In India, there are multiple structural, social and economic barriers to accessing Rehabilitation. The Central and State Ministers of Social Welfare and Empowerment should create comprehensive programmes for rehabilitation of crash victims. Similarly, District Road Safety Committees should also maintain a database of people in each district who should receive such care and support them through community based programmes.

Among those who survived the road crash, about three out of ten (29.5%) respondents from poor families (LIH) reported undergoing disability. Further, about 6 out of 10 respondents in LIH (64%) and HIH (62%) category required on-going mobility assistance. In terms of time taken to resume work after an crash, the result was more severe for HIH than LIH. Among the LIH, the average time taken to rejoin the previous occupation was about 92 days (about 3 months) whereas it was 43 days (about 1.5 months) amongst HIH category. Overall, LIH category victims took about 107 days to find a new job from the day of the crash whereas it was about 65 days in case of HIH victims.

18. ACCESS TO UPSKILLING AND JOBS.

The National Skill Development Corporation (NSDC) can undertake a special programme to upskill crash victims from rural areas. The programme can set up specific targets of skilling 1 million people for the next 5 years and so on. The NSDC can tie up with other NGOs for this purpose.

Most rural poor are injured in road crashes, this is also validated by the 2011 census data as 71% of India's 26.8 million Persons with Disability (PwD) live in rural India. Out of the total population of PwD, about 15 million are male and 11.8 million, female. Poor households have a lesser ability to respond to road crashes and find it difficult to mitigate their financial burden in the event of an unforeseen emergency. Since the impact is more severe on LIH than HIH, the Ministry of Social Welfare and Empowerment, Ministry of Small and Medium Enterprises, Ministry of Skill Development and Ministry of Agriculture should create priority programs for upskilling of PwD in rural areas and also create specific programs for female PwD in rural areas.

19. SUPPORT TO CONTINUE EDUCATION.

Throughout FGDs and IDIs many respondents stated the impact of crashes on Education with many male respondents having to leave education to support the household financially.The Ministry of Education should create specific schemes to ensure children from households that have been impacted due to road crashes can continue their education.

Indian Industrial Institutes (ITIs) impart skills in various vocational trades to meet the skilled manpower requirements in the country. An automatic enrolment policy should be created at the district level for road crash victims or their family members who had to drop out of schools or forsake education owing to a road crash.

As high as one in five (20%) respondents of LIH category have mentioned that someone in their household had to give up education due to the crash. Such a proportion of respondents among the HIH category was only 5 percent.

THEME FOUR: Create an accessible legal framework for road crash victims to avail insurance and compensation

20. COMPREHENSIVE IMPLEMENTATION OF MCTAP

A Director level official should be appointed by MoRTH for ensuring compliance with all Supreme Court & High Court judgments including but not limited to judgment on MCTAP. Further, an advisory should be sent to JS Centre-State Coordination for implementation of these judgments. The Supreme Court in its judgment dated 05th March 2019 in the case of M.R. Krishna Murthi vs. The New India Assurance Co. Ltd., SLP (C) No 31521-31522 of 2017, noted that there was no proper implementation of the Claims Tribunal Agreed Procedure by the Claims Tribunals at all India level. Even though the Supreme Court directed NALSA to ensure implementation in coordination and cooperation with various High Courts, yet, the implementation has been weak. The National Road Safety Board, which will be created under the Motor Vehicles Amendment Act, 2019, can be the main coordinating agency to ensure proper implementation of the MCTAP.

21. ISSUANCE OF NOTIFICATION UNDER SECTION 164C OF THE MVAA, 2019 TO STANDARDIZE PROTOCOLS BETWEEN MACT, POLICE AND INSURANCE COMPANY

For effective and efficient implementation of online DAR is important to ensure no delay in compensation being awarded to claimants. The standardization of this process will ensure that all crash documents, vehicular records, compliance with statutory provisions in regard to use of vehicles, details of victims, family members and other aspects are shared with the tribunal as quickly and efficiently as possible. The notification should also direct the use of Crime and Criminal Tracking Network and Systems (CCTNS) by Police as well as Tribunals as the formal electronic to share files and information including FIRs and DARs

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23. MECHANISM FOR INTERIM COMPENSATION

Interim compensation becomes crucial for the survival of poor households in the event of an crash. The MVAA,2019 mandates a Motor Vehicle Accident Fund to be set up by the Central Government (Section 164B) for giving immediate relief to victims of road crashes under Section 164 A. The Central Government can also establish a Motor Accidents Mediation Authority (MAMA) in every district to provide fixed interim compensation as direct credit to Aadhaar linked bank accounts. MAMA can also take over pre-litigation procedures from MACT. The Union Govt must fix an amount that can be transferred immediately as interim compensation pending adjudication of the compensation claim. The recommended range of amount is INR 2-5 lakhs in case of death and INR 50,000 for injury.

23% of the victims/nominees had to attend court for claiming compensation. 13% of the respondents said they faced hurdles/difficulties in accessing the money. 25% of the respondents surveyed took more than 6 months to receive any financial help/relief. Additionally, the time taken for receiving compensation from motor vehicle, medical, and life insurance was higher for urban areas than for rural areas for both LIH & HIH.

24. INCREASING AWARENESS ABOUT MCTAP AND OTHER COMPENSATION SCHEMES

Information asymmetry and poor literacy levels often deter the poor from filing claims. Even if the claims are filed, the proportion of compensation received is not adequate and the delays in awarding compensation make the process unfavourable. Government schemes are also not well publicized among the poor and do not offer immediate relief after a road crash. This can be achieved through the Government mandating General Insurance Corporation (GIC) to set up a dedicated helpline number for LIH. Other insurance companies can contribute to this and the number can be linked to the hospital database of LIH.

70% of respondents of LIH and 63% of HIH were not aware of compensation clauses and schemes in the event of a road crash.

25. INSERTING TECHNOLOGY TO ENSURE INSURANCE COVERAGE:

Inserting technology to increase accessibility and affordability of insurance products to poor households should be incentivised. Government should encourage companies to create low-price, micro- insurance products with LIH in mind. For example, Medical insurance provides coverage only for hospitalization, pre-specified ailments and crashes, for a pre-specified amount while health insurance provides a comprehensive coverage against hospitalization expenses, pre-hospitalization and post-hospitalization expenses and ambulance charges. An insurance product designed to ensure pay-out on losing "one-month of work due to ill-health" would help create an interim-safety net for the entire household. Also IRDA should ensure that insurance agencies create mechanisms for simple claim settlement.

Overall, the insurance coverage of HIHs (in terms of the motor vehicle, medical, life insurance) was higher compared to LIHs at the time of the crash.

THEME FIVE: Address the disproportionate gender impact of RTIs through participative governance & special schemes for women

26. BETTER GENDER DISAGGREGATED DATA

Gender responsive reporting and monitoring is essential to evaluate the impact of road crashes on women.[46] WHO also recommends that "Gender differences in the social and economic consequences of temporary and/or permanent disability resulting from injury have to be taken into account when planning rehabilitation services" (WHO, 2002). To ensure rehabilitation services as well as adequate support to either women road crash victims or families which are left to deal with loss of male breadwinner, gender disaggregated data at state and district level would be imperative to create gender responsive post-road crash safety nets.

The risk of catastrophic expenditure is inversely proportional to increasing income per capita, i.e., it is significantly larger for those belonging to lower-income quartiles than for those belonging to the highest income quartile. Out of Pocket Expenses (OOPE) was the most significant direct cost borne by victim families among LIH. The overall OOPE was higher for LIH (62%) than HIH (59%). LIH spent a little more than half (52%) of all their income (Rs.78,824) as OOPE on the victim's treatment (hospitalisation, medicines, care) compared to HIH that spent 30.5% of their household income, i.e., Rs.60,476 on the victim's post-crash treatment and recovery. A mere 6.1% of the LIH in rural areas availed medical insurance compensation, whereas 26.3% of the HIH residing in rural areas availed medical insurance compensation.

27. EMERGENCY CASH TRANSFERS TO VULNERABLE FEMALE HEADED HOUSEHOLDS

As part of PM Garib Kalyan Yojana the Government has already implemented the "Unconditional Emergency Cash Transfer" (UECT) to women during the current COVID-19 crisis. (IWWAGE, 2020) The state governments can use a similar framework of UECT to give Aadhar linked DBT to recently turned FHHs. More vulnerable FHHs should be prioritised. The time frame of the emergency cash transfer should be standardised.

Across household categories, the proportion of male Chief Wage Earners (CWE) was higher than female CWE; the number being higher among LIH. 50% of the women from LIH and 55% from HIH were CWE of the household before the crash whereas 81% of the men from LIH and 74% men from HIH were CWE before the crash. 31% of the female members in LIH were severely affected by the decline in household income after the crash compared to 53.5% of the male members.

46. Findings from a 2011 Gallup Poll surveying 143 countries showed that there is a worldwide gap between the sense of safety felt by men and by women, and that this gap was more pronounced in high and middle-income countries where physical safety has increased with economic and social development. Similarly, a 2014 study in the United States found that many people changed their behaviour as a result of harassment: 47% of women and 32% of men started constantly assessing their surroundings, and 31% of women opted to go out in a group or with another person instead of alone.

WAY FORWARD

28. MONETARY SCHEMES FOR LOW INTEREST LOANS:

During the FGD, many participants suggested schemes for low interest or no interest loans to support regular household expenses. The women suggested that the low interest loan should be easily accessible without much paperwork.

29. SCHEMES TO INCENTIVIZE WORK FROM HOME SMALL BUSINESS. WOMEN WHO HAVE LOST THE BREADWINNER OF THEIR FAMILY IN A ROAD CRASH SHOULD BE ENROLLED INTO THE EMPLOYMENT DATABASE TO MAKE THEIR JOB SEARCH EASIER.

State Governments can float schemes to support these women in running small home businesses. Niti Aayog also recommended this strategy to mitigate the declining female labour force participation rates in India. It has proposed to increase women's employment by encouraging entrepreneurship among women. (Niti Aayog, 2019). Women participants also reiterated this. They suggested simple business models like packaging, baking, pickle making as something that would help them monetarily without leaving the house. Women also preferred a model where they could earn daily or weekly income instead of monthly payments.

Besides caregiving, LIH respondents stated that in the absence of any steady primary source of income (especially in the case of death of a breadwinner), the women of the household often had to step up and take additional jobs to mitigate the financial burden. Across households, 40% of the women participants reported a change in their working patterns while around 11% said they took up extra work after the crash.

30. WOMEN'S PARTICIPATION IN LOCAL ROAD SAFETY GOVERNANCE FRAMEWORKS.

Women's participation in planning and decision making at local road safety governance frameworks including State Road Safety Council and District Road Safety Committee should be ensured. Adequate female representation shall not only ensure Gender responsive monitoring, reporting and budgeting, but will also create opportunities for women to be trained for various roles including as paramedics, backend operators for electronic enforcement architecture and other systems which will be created to ensure road safety.

31. STANDARDISATION OF COMPENSATION FOR NON-WORKING WOMEN

The MACT has often taken a very conservative view on compensation for "house-wives". In Sher Singh vs. Raghubir Singh (2004), the Tribunal assessed the dependency of the family on the housewife at as low as Rs. 600 per month. The Tribunal concluded that the 'services rendered by the deceased woman could be replaced by hiring a servant at the salary of Rs. 600/- per month.' This logic is highly fallacious. The unpaid work done by women in households cannot be quantified by comparing it to the work done by a domestic help. This approach to compute the compensation by relying upon the minimum wages payable to a skilled worker has also been criticised by various members of Judiciary. In Arun Kumar Agarwal vs. National Insurance Company (2006), the Supreme Court also stated, "It is not possible to quantify any amount in lieu of the services rendered by the wife/mother to the family… the term `services' is required to be given a broad meaning and must be construed by taking into account the loss of personal care and attention given by the deceased to her children as a mother and to her husband as a wife. The Bombay High Court in the case of Rambhau & Ors Vs The Oriental Insurance Co & Ors (2007), in its judgment dated 17th September 2020 directed Oriental Insurance to pay Rs. 8,22,000/- along with interest at the rate of 6% per annum as compensation for the woman's death. The Court while computing the amount considered various factors such as loss of love and affection, funeral expenses, household work and other such factors. Therefore in light of the subjective interpretation, it is of utmost importance that the Central Government issues guidelines to set a definite criteria for determination of compensation payable to the dependents of a non-earning housewife/mother to remove subjectivities and ensure that family members or the disabled women (in case of serious injuries) receive appropriate compensation.

THEME SIX: Strengthen post-crash support for children and young adults through state support

32. ENACTMENT AND IMPLEMENTATION OF CHILD ROAD SAFETY PROVISIONS IN MVAA, 2019

MVAA, 2019 has provisions for mandating the use of Child Helmets, Child Restraints and also penalizes juvenile driving. These sections should be notified by the Central Government under the Central Motor Vehicle Rules and the State Governments should ensure that effective implementation. The Enforcement agencies should also ensure enforcement of child safety provisions.

33. EDUCATIONAL INSTITUTE BASED SUPPORT SYSTEM. CHILDREN AND ADOLESCENTS WHO ARE IMPACTED BY A ROAD CRASH DIRECTLY OR INDIRECTLY SHOULD BE PROVIDED SUPPORT FROM THE STATE.

Since the main institution of interaction for them are schools, the education department can ensure access to qualified child therapists. Since road crashes impact nutritional intake of household members, the State Government can also create a better mechanism to monitor their calorie intake and ensure they get adequate nutrition through the School Mid-Day Meal Scheme.

34. SUPPORT FOR PAYMENT OF SCHOOL FEES FOR CHILDREN FROM VULNERABLE FAMILIES.

In the IDIs, adolescents mentioned that financial constraints due to road crashes led to either late admission or dropping out of school completely to support their family financially. This was stressed more by male adolescent participants. The State Government should ensure this by enacting a moratorium on payment of school fees for at least 3 months so that the children from vulnerable families don't have to leave school due to financial constraints. Since almost 80% of adolescents who die in road crashes are male, the Government should ensure that this policy is gender neutral.

35. ENSURING SAFE SCHOOL ZONES

Considering around 9% of all road crashes in India are reported near schools and colleges it's imperative to ensure that all road owning agencies ensure that children and adolescents are safe while commuting on roads. Urban Local Bodies (ULB) and Rural Local Bodies (RLB) in villages should create safe school zones by slowing down vehicles by design and improving infrastructure by providing walkable pavements, safe crossings etc. The Union Government should also prescribe standards for this under Section 198A of MVAA, 2019.

36. ENACTING RULES ON SAFE TRANSPORT TO SCHOOL

Governments should address safety issue faced by children while commuting to school by making rules regarding school buses, vans, auto rickshaws and other means of transport, for safe transportation of school children.

In 2018, over 4500 children died in road crash deaths in the 4 surveyed states out of which over half the deaths happened in UP. Rules around school transport should be formulated by State Governments to help safeguard children. Standardization of rules for all school transport including personally organized transport will ensure that children coming from poor families don't have to be in overcrowded personally organized transport to cut costs. This is important since parents around 70% of parent respondents from Mumbai, Chennai and Lucknow admitted that their children travel in overcrowded personally organized vehicles. (SaveLIFE, 2019)

37. ISSUANCE OF CHILD ROAD SAFETY POLICY

State Governments as part of their State Road Safety Policy, Annual Action Plan and Road Safety Fund should prioritize road safety for children and adolescents. The State Government should standardize rules for safety of children by issuing a child road safety policy. They should highlight information for parents and guardians in local languages. Concrete measures should be budgeted and made part of the State Road Safety Annual Action Plan..

ANNEXURE & APPENDIX

ANNEXURE 3A

3A.1: TABLE INDICATING A SNAPSHOT OF DESCRIPTIVE STATISTICS ABOUT THE PARTICIPANTS.

Particulars	Bihar	Maharashtra	Tamil Nadu	Uttar Pradesh	Total
Participants (#, %) in HIH	"115, (26.6)"	"113, (26.2)"	"103, (23.8)"	"101, (23.4)"	"432, (100)"
Average monthly household income for HIH (INR)	2,99,130	2,01,106	2,04,612	2,32,673	2,35,417
Participants (#, %) in LIH	"412, (25.0)"	"415, (25.2)"	"407, (24.7)"	"413, (25.1)"	"1647, (100)"
Average monthly household income for LIH (INR)	15,637	17,422	32,125	15,224	20,058
Participants (#, %) as truck drivers	"101, (24.0)"	"113, (26.9)"	"100, (23.8)"	"106, (25.2)"	"420, (100)"
Average monthly income from driving profession for truck drivers (INR)	20,743	17,013	27,850	15,991	20,232
% of female victims	13.9	16.5	22.7	8.4	15.3
% of victims below 18 years	5.3	1.9	0.2	3.9	2.8
% of victims over 60 years	4.2	6.4	2.4	4.3	4.3
#, % with major crash injury	"(342), 64.9"	"(392), 74.2"	"(408), 80.0"	"(288), 56.0"	"(1430), 68.8"
#, % crash deaths	"(185), 35.1"	"(136), 25.8"	"(102), 20.0"	"(226), 44.0"	"(649), 31.2"
#, % fully recovered after injury	"(218), 63.7"	"(296), 75.5"	"(311), 76.2"	"(203), 70.5"	"(1028), 71.9"
#, % recovered with some disability	"(118), 34.5"	"(94), 24.0"	"(51), 12.5"	"(76), 26.4"	"(339), 23.7"
#, % have long term mobility disability	"(76), 64.4"	"(56), 59.6"	"(39), 76.5"	"(44), 57.9"	"(215), 63.4"
% of victims residing in urban areas	39.3	42.4	40.2	39.3	40.3
% of victims who were chief wage earner	"138, (26.2)"	"107, (20.3)"	"179, (35.1)"	"161, (31.3)"	"585, (28.1)"
% of victims as pedestrians/cyclists	22.6	10	10.6	18.9	15.5
% of victims as riding a motorcycle	55.2	81.1	62.4	61.7	65.1
% of victims in a passenger car	9.9	5.7	24.5	10.7	12.6
% of victims in other modes (autos, buses, trucks)	12.3	3.2	2.5	8.8	6.7
% of victims where crash happened on (Expressway & NH)	21.4	14.5	12.6	24.9	17.8
% of victims where crash happened on (SH, City/ district/ municipality roads)	66.8	77.1	85.8	59.6	73.5
% of victims where crash happened on rural roads (Village roads)	11.8	8.4	1.6	15.6	8.6
% of victims who died at scene	19.5	16.3	4.3	21.4	15.4
% of victims where crash FIR was filed	40	41.3	60.6	45.1	46.7
% of victims who received medical treatment / transferred to hospital	83.5	93.8	96.9	89.5	90.9
Average estimated medical cost (INR)	58,023	1,01,081	61,976	78,584	75,011
% of victims who received any financial compensation/ relief within 6 months	67.4	83.3	90	48.1	75.4

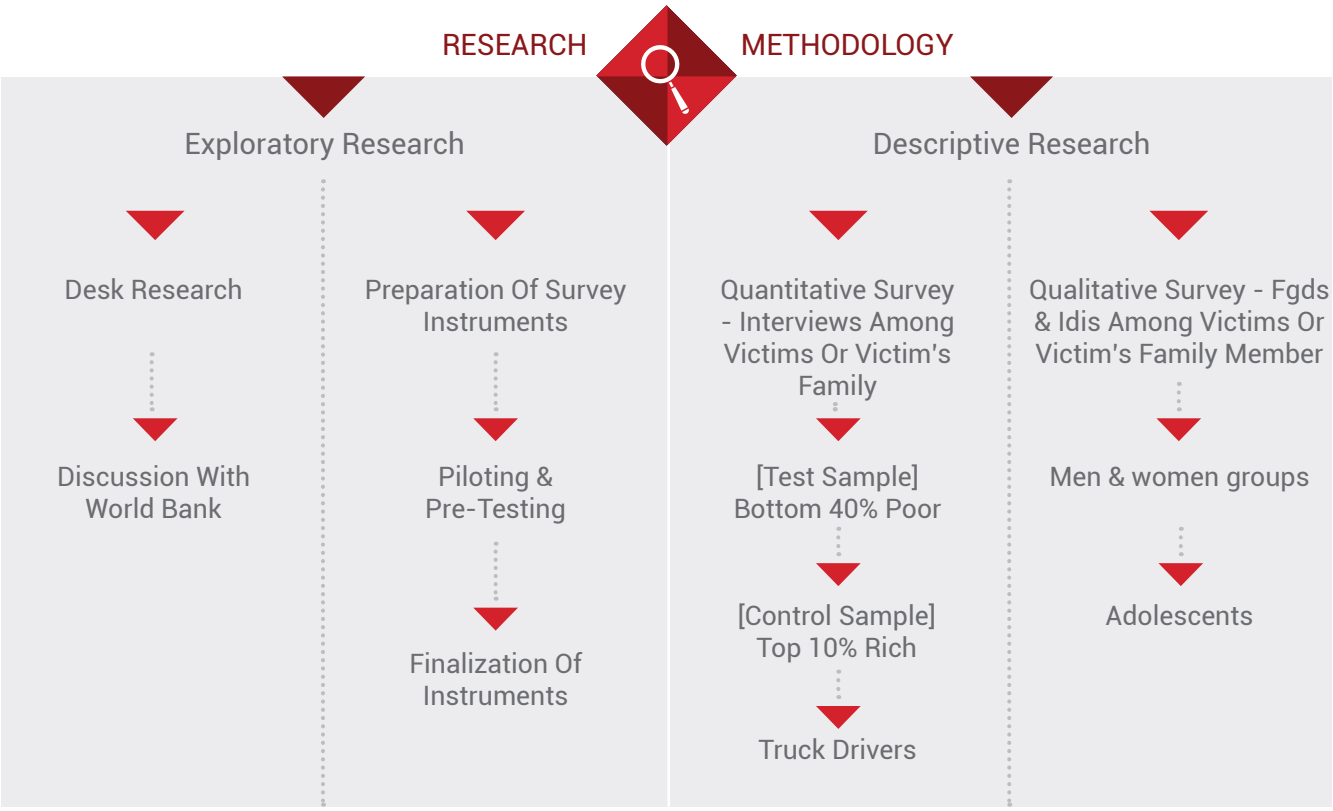
ANNEXURE 3A

3A.2: TABLE INDICATING INCOME LEVELS FOR (LIH) AND (HIH) IN INDIA AND GLOBALLY

S.N.	Country	Pre-tax income of INR 13,500 per adult per month	Pre-tax income of INR 50,000 per adult per month
1	India	Bottom 40%	Top 10%
2	World	Bottom 19%	Top 42%

[United Nations Sustainable Development Goals 10.1; World Inequality Database]

3A.3: FIGURE INDICATING AN OVERVIEW OF THE RESEARCH METHODOLOGY



3A.4: TABLE INDICATING THE STATE- WISE LIST OF SAMPLE SIZE

S.N.	States	Districts	No. of road crashes in India (2005-2018)	Appropriate Sample Size (Calculated)	Achieved State-wise Sample Size
1	Bihar	Begusarai, Gaya, Muzaffarpur, Patna	1,24,176	383	527
2	Maharashtra	"Mumbai, Nagpur, Pune, Solapur"	8,74,647	384	528
3	Tamil Nadu	Chennai, Coimbatore, Madurai, Tiruchirappalli	8,90,640	384	516
4	Uttar Pradesh	Agra, Lucknow, Meerut, Varanasi	4,11,791	384	514

3A.5: TABLE INDICATING THE SAMPLE SIZE FOR QUANTITATIVE SURVEY

Sample Size for Quantitative Survey					
S.N.	State	Victim/ Victim's Family members (LIH Test Sample)	Victim/ Victim's Family members (HIH Control Sample)	Truck Drivers	Grand Total
1	Bihar	412	115	101	628
2	Maharashtra	415	113	113	641
3	Tamil Nadu	407	103	100	610
4	Uttar Pradesh	413	101	106	620
	Total	1647	432	420	2499

ANNEXURE 4A

4A.1: TABLE INDICATING THE CHANGE IN THE MONTHLY INCOME OF VICTIMS ON RESUMING WORK AFTER THE CRASH

	Category (pre-crash, post crash, current)	N	Not earning	Up to Rs. 5,000	Rs. 5,001 to Rs. 10,000	Rs. 10,001 to Rs. 20,000	Rs 20,001 to Rs.30,000	Rs. 30,001 to Rs.50,000	More than Rs.50,000
Change in LIH victim's income	Pre-crash	1052	18.20%	8.70%	24.20%	21.40%	8.30%	9.00%	10.20%
	On resuming work after crash	1052	27.40%	8.90%	22.20%	17.30%	6.10%	8.20%	9.90%
	Current (as on 31 Jan 2020)	1052	22.40%	7.70%	20.10%	22.40%	13.20%	10.00%	4.20%
Change in HIH victim's income	Category (pre-crash, post crash, current)	N	Not earning	Up to Rs.50,000	Rs.50,000 to Rs.1 Lakh	Rs.1 Lakh to Rs.2 Lakh	Rs.2 Lakh to Rs.4 Lakh	More than Rs. 4 Lakh	
	Pre-crash	378	14.00%	30.20%	37.30%	16.10%	1.90%	0.50%	
	On resuming work after crash	378	11.10%	36.80%	34.70%	14.60%	2.40%	0.60%	
	Current (as on 31 Jan 2020)	378	9.00%	24.90%	41.80%	20.60%	3.20%	0.60%	

4A.2: TABLE INDICATING HABITATION- WISE, AND GENDER-WISE DETAILS ON THE DECLINE IN THE VICTIM'S HOUSEHOLD INCOME

Category (Habitation, gender)	LIH				HIH			
	N	Severe	Moderate	None	N	Severe	Moderate	None
Habitation Type	1647	50.40%	25.40%	24.20%	432	24.80%	34.30%	41.00%
Urban	482	37.10%	29.50%	x33.40%	x	21.60%	35.40%	43.00%
Rural	1165	55.90%	23.70%	20.40%	76	39.50%	28.90%	31.60%
Victim Gender	1647	50.40%	25.40%	24.20%	432	24.80%	34.30%	41.00%
Male	1420	53.50%	24.90%	21.60%	340	26.50%	35.90%	37.60%
Female	227	31.30%	28.20%	40.50%	92	18.50%	28.30%	53.30%

4A.3: TABLE INDICATING THE STATE- WISE, HABITATION- WISE AND GENDER- WISE SPLIT OF EARNING STATUS OF VICTIMS (BEFORE CRASH)

Category (State, habitation, gender)	LIH			HIH		
	N	Yes	No	N	Yes	No
Overall	1647	82.10%	17.90%	432	85.90%	14.10%
Bihar	412	76.70%	23.30%	115	87.80%	12.20%
Maharashtra	415	81.70%	18.30%	113	75.20%	24.80%
Tamil Nadu	407	91.90%	8.10%	103	96.10%	3.90%
Uttar Pradesh	413	78.50%	21.50%	101	85.10%	14.90%
Habitation Type	1647	82.10%	17.90%	432	85.90%	14.10%
Urban	482	78.60%	21.40%	356	85.10%	14.90%
Rural	1165	83.60%	16.40%	76	89.50%	10.50%
Victim Gender	1647	82.10%	17.90%	432	85.90%	14.10%
Male	1420	85.60%	14.40%	340	90.30%	9.70%
Female	227	60.80%	39.20%	92	69.60%	30.40%

4A.4: TABLE INDICATING THE IMPACT OF THE VICTIM'S DISABILITY ON SALARY / WAGE

Disability	LIH				HIH			
	N	Yes, almost the same	No, lower than previous	NA	N	Yes, almost the same	No, lower than previous	NA
Overall	1052	51.90%	31.90%	16.20%	378	73.00%	22.00%	5.00%
Underwent disability	310	27.10%	40.30%	32.60%	29	48.30%	44.80%	6.90%
No disability	692	61.60%	28.80%	9.70%	336	75.00%	19.90%	5.10%
DK/CS	50	72.00%	24.00%	4.00%	13	76.90%	23.10%	0.00%

ANNEXURE 4A

4A.5: TABLE INDICATING THE AVERAGE LOSSES DUE TO ROAD CRASH AS WELL AS THE PROPORTION RECOVERED THROUGH INSURANCE

Losses incurred due to road crash	LIH [N=1647]			HIH [N=432]
	Avg. loss of income/ expenditure	% recovered/ to be recovered from insurances	Avg. loss of income/ expenditure	% recovered/ to be recovered from insurances
Total expenditure	Rs.1,52,339	12.60%	Rs.1,98,037	23.70%
Loss of income (victim & family members) during period of treatment	Rs. 37,572	19.70%	Rs.75,391	28.40%
	24.70%		38.10%	
Loss of property/ vehicle etc. due to road crash	Rs. 12,752	9.90%	Rs.28,845	25.20%
	8.40%		14.60%	
Out of pocket expenses on treatment of victim	Rs. 78,824	15.50%	Rs.60,476	30.60%
	51.70%		30.50%	
Legal/ administrative/ compensation expenses including police, lawyer, etc.	Rs. 6,627	5.30%	Rs.5,629	6.60%
	4.30%		2.80%	
Compensation cost to other vehicle/ person involved in crash	Rs. 2,509	2.40%	Rs.6,321)	6.00%
	1.60%		3.20%	
Others	Rs. 14,054	22.80%	Rs.21,375	45.50%
	9.20%		10.80%	

4A.6: TABLE INDICATING THE STATE- WISE DETAILS THE PROPORTION OF LOSSES THAT HAVE BEEN RECOVERED/ARE DUE TO BE RECOVERED FROM INSURANCE

Type of losses incurred due to road crash	Proportion Recovered							
	LIH				HIH			
	Bihar	Maharashtra	Tamil Nadu	Uttar Pradesh	Bihar	Maharashtra	Tamil Nadu	Uttar Pradesh
N	412	415	407	413	115	113	103	101
Overall recovery	11.00%	8.00%	22.30%	8.10%	25.40%	15.30%	27.90%	14.80%
Loss of income (victim & family members) during period of treatment	13.10%	10.40%	47.20%	8.40%	29.40%	18.50%	52.00%	14.10%
Loss of property/ vehicle etc. due to road crash	7.80%	4.90%	20.20%	6.80%	20.40%	22.80%	30.20%	28.30%
Out of pocket expenses on treatment of victim	10.70%	8.80%	34.90%	8.00%	21.80%	32.40%	45.70%	23.30%
Legal/ administrative/ compensation expenses including police, lawyer, etc.	5.60%	2.60%	6.10%	6.90%	10.20%	1.10%	7.10%	8.10%
Compensation cost to other vehicle/ person involved in crash	4.10%	0.90%	3.10%	1.50%	14.20%	2.10%	4.30%	2.50%
Others	24.90%	20.70%	--	16.70%	56.50%	--	--	12.50%

ANNEXURE 4A

4A.7: TABLE INDICATING THE STATE- WISE DETAILS ON THE AVERAGE EXPENSES INCURRED ON THE FUNERAL OF THE CRASH VICTIM

State	LIH		HIH	
	N	Avg.	N	Avg.
Overall	595	Rs.22,242	54	Rs.51,498
Bihar	178	Rs.28,490	7	Rs.89,071
Maharashtra	125	Rs.16,244	11	Rs.71,182
Tamil Nadu	84	Rs.42,010	18	Rs.61,722
Uttar Pradesh	208	Rs.12,517	18	Rs.14,633

4A.8: TABLE INDICATING THE CORRELATION BETWEEN THE EARNING STATUS OF THE VICTIM AND THE DECLINE IN STANDARD OF LIVING OF THE HOUSEHOLD

Living standard has decreased	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Impact of crash	1647	63.50%	35.20%	1.30%	432	29.40%	68.50%	2.10%
Survived	1052	58.60%	40.30%	1.10%	378	28.60%	69.00%	2.40%
Died	595	72.30%	26.20%	1.50%	54	35.20%	64.80%	0.00%
Earning status of Victim	1647	63.50%	35.20%	1.30%	432	29.40%	68.50%	2.10%
Earning member	1353	66.90%	32.00%	1.10%	371	32.90%	65.20%	1.90%
Non-earning member	294	48.00%	50.00%	2.00%	61	8.20%	88.50%	3.30%

4A.9: TABLE INDICATING STATE- WISE RESPONSES ON WHETHER THE LIVING STANDARD OF THE HOUSEHOLD DETERIORATED AFTER THE CRASH

State	LIH				HIH			
	Total	Yes	No	DK/CS	Total	Yes	No	DK/CS
Overall	1647	63.50%	35.20%	1.30%	432	29.40%	68.50%	2.10%
Bihar	412	73.30%	25.70%	1.00%	115	40.00%	53.00%	7.00%
Maharashtra	415	49.40%	50.60%	--	113	24.80%	75.20%	--
Tamil Nadu	407	59.00%	39.60%	1.50%	103	35.00%	65.00%	--
Uttar Pradesh	413	72.40%	24.90%	2.70%	101	16.80%	82.20%	1.00%

4A.10: TABLE INDICATING THE HABITATION, GENDER, AND STATE PROFILE OF VICTIMS WHO WERE CHIEF WAGE EARNERS

Category (Habitation, gender)	LIH			HIH		
	N	Yes	No	N	Yes	No
Habitation Type	1353	77.80%	22.20%	371	70.60%	29.40%
Urban	379	75.20%	24.80%	303	70.60%	29.40%
Rural	974	78.90%	21.10%	68	70.60%	29.40%
Victim Gender	1353	77.80%	22.20%	371	70.60%	29.40%
Male	1215	81.00%	19.00%	307	73.90%	26.10%
Female	138	50.00%	50.00%	64	54.70%	45.30%
Overall	1353	77.80%	22.20%	371	70.60%	29.40%
Bihar	316	74.10%	25.90%	101	66.30%	33.70%
Maharashtra	339	79.40%	20.60%	85	77.60%	22.40%
Tamil Nadu	374	77.50%	22.50%	99	71.70%	28.30%
Uttar Pradesh	324	80.20%	19.80%	86	67.40%	32.60%

4A.11: TABLE INDICATING THE HABITATION- WISE AND GENDER- WISE SPLIT FOR AVERAGE MONTHLY CONTRIBUTION OF THE DECEASED VICTIMS TO THE TOTAL HOUSEHOLD INCOME

	Category (habitation, gender)	N	Not earning	Up to Rs. 5,000	Rs. 5,001 to Rs. 10,000	Rs. 10,001 to Rs. 20,000	Rs. 20,001 to Rs. 30,000	More than Rs.30,000
LIH	Habitation Type	595	17.30%	22.70%	27.70%	20.80%	5.70%	5.70%
	Urban	64	28.10%	10.90%	17.20%	20.30%	15.60%	7.80%
	Rural	531	16.00%	24.10%	29.00%	20.90%	4.50%	5.50%
	Victim Gender	595	17.30%	22.70%	27.70%	20.80%	5.70%	5.70%
	Male	536	13.60%	22.80%	29.90%	21.80%	6.20%	5.80%
	Female	59	50.80%	22.00%	8.50%	11.90%	1.70%	5.10%
HIH	Category (habitation, gender)	N	Not earning	Up to Rs.50,000	Rs.50,000 to Rs.1 Lakh	More than Rs.1 Lakh		
	Habitation Type	54	14.80%	59.30%	16.70%	9.30%		
	Urban	33	21.20%	51.50%	15.20%	12.20%		
	Rural	21	4.80%	71.40%	19.00%	4.80%		
	Victim Gender	54	14.80%	59.30%	16.70%	9.30%		
	Male	47	6.40%	63.80%	19.10%	10.70%		
	Female	7	71.40%	28.60%	--	--		

ANNEXURE 4A

4A.12: TABLE INDICATING THE GENDER- WISE DETAILS ON THE CHANGE IN MONTHLY CONTRIBUTION TO HOUSEHOLD INCOME POST CRASH

	Category (pre- crash, post-crash, current)	N	Not earning	Up to Rs. 5,000	Rs. 5,001 to Rs. 10,000	Rs. 10,001 to Rs. 20,000	Rs. 20,001 to Rs. 30,000	Rs. 30,001 to Rs. 50,000	More than Rs.50,000
LIH	Pre-crash_ Victim Gender	1052	18.20%	8.70%	24.20%	21.40%	8.30%	9.00%	10.20%
	Male	884	14.90%	8.40%	26.70%	23.90%	8.80%	8.00%	9.30%
	Female	168	35.10%	10.70%	11.30%	8.30%	5.40%	14.30%	14.90%
	On resuming work after crash_Victim Gender	1052	27.40%	8.90%	22.20%	17.30%	6.10%	8.20%	9.90%
	Male	884	24.30%	9.40%	24.50%	19.20%	6.30%	7.40%	8.80%
	Female	168	43.50%	6.50%	10.10%	7.10%	4.80%	12.50%	15.50%
	Current (as on 31 Jan 2020) _Victim Gender	1052	22.40%	7.70%	20.10%	22.40%	13.20%	10.00%	4.20%
	Male	884	19.30%	8.00%	22.10%	24.50%	12.30%	9.30%	4.40%
	Female	168	38.70%	6.00%	9.50%	11.30%	17.90%	13.70%	3.00%
HIH	Category (pre- crash, post- crash, current)	N	Not earning	Up to Rs.50,000	Rs.50,000 to Rs.1 Lakh	Rs.1 Lakh to Rs.2 Lakh	Rs.2 Lakh to Rs.4 Lakh	More than Rs. 4 Lakh	
	Pre-crash	378	14.00%	30.20%	37.30%	16.10%	1.90%	0.50%	
	Male	293	10.20%	30.70%	39.90%	16.00%	2.40%	0.70%	
	Female	85	27.10%	28.20%	28.20%	16.50%	0.00%	0.00%	
	On resuming work after crash	378	11.10%	36.80%	34.70%	14.60%	2.40%	0.60%	
	Male	293	6.10%	38.20%	37.50%	14.30%	3.10%	0.60%	
	Female	85	28.20%	31.80%	24.70%	15.30%	0.00%	0.00%	
	Current (as on 31 Jan 2020)	378	9.00%	24.90%	41.80%	20.60%	3.20%	0.60%	
	Male	293	4.40%	24.90%	44.00%	21.80%	4.10%	0.60%	
	Female	85	24.70%	24.70%	34.10%	16.50%	0.00%	0.00%	

4A.13: TABLE INDICATING STATE-WISE RESPONSES ON THE MAJOR INVESTMENT ON VICTIMS THAT COULD NOT BE RECOVERED DUE TO THE ROAD CRASH

State	LIH			HIH		
	N	Yes	Avg. Investment	N	Yes	Avg. Investment
Overall	1647	5.90%	Rs.43,036	432	6.70%	Rs.80,172
Bihar	412	10.00%	Rs.32,488	115	10.40%	Rs.27,083
Maharashtra	415	3.90%	Rs.52,156	113	1.80%	Rs.1,55,000
Tamil Nadu	407	3.70%	Rs.37,800	103	3.90%	Rs.2,58,750
Uttar Pradesh	413	6.10%	Rs.57,640	101	10.90%	Rs.59,545

4A.14: TABLE INDICATING A SUMMARY OF DEMOGRAPHIC AND POVERTY PROFILE OF STATES

		High Capacity States		Low Capacity States	
Particular		Maharashtra	Tamil Nadu	Bihar	Uttar Pradesh
Population - 2011					
Total population (in crore)		11.2	7.2	10.4	20
Urban share		45%	48%	11%	22%
Share of adults (age 15+)		75%	76%	63%	63%
Education – 2011					
Literacy rate		83%	80%	64%	70%
Poverty and inequality – 2012					
Poor (in crores)		2	0.9	3.6	6
Poverty rate (BPL)	All	17%	12%	34%	29%
	Rural	24%	16%	34%	30%
	Urban	9%	7%	31%	26%
Income and growth – 2018					
Net State Domestic Product at Current Prices (in INR crore)		21,39,378	13,15,577	4,45,942	12,24,672
Per Capita Net State Domestic Product at Current Prices (in INR)		1,76,102	1,71,583	38,631	55,456
		(Mean = 1,73,842)		(Mean = 47,043)	
Jobs - 2012					
Labour force participation rate		58%	60%	45%	53%
Workers by wage-type	Self-employed	47%	32%	53%	64%
	Salaried	27%	26%	6%	11%
	Casual wage	27%	43%	42%	25%
Health workforce - 2012					
Qualified health workers per 10,000 population		16.8	12.5	1.5	7.8

[Source: Census of India, World Bank and WHO]

ANNEXURE 6A

6A.1: TABLE INDICATING WHETHER THE VICTIM/ HOUSEHOLD MEMBERS SUFFERED FROM DEPRESSION DUE TO THE ROAD CRASH

Category (Habitation, gender, state, crash outcome on victim, earning status of victim)	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Habitation Type	681	48.50%	48.80%	2.80%	305	26.20%	72.50%	1.30%
Urban	394	40.10%	57.60%	2.30%	274	23.70%	74.80%	1.50%
Rural	287	59.90%	36.60%	3.50%	31	48.40%	51.60%	0.00%
Victim Gender	681	48.50%	48.80%	2.80%	305	26.20%	72.50%	1.30%
Male	573	51.10%	45.90%	3.00%	244	27.50%	71.30%	1.20%
Female	108	34.30%	63.90%	1.90%	61	21.30%	77.00%	1.60%
Overall	681	48.50%	48.80%	2.80%	305	26.20%	72.50%	1.30%
Bihar	146	52.70%	45.20%	2.10%	83	33.70%	61.40%	4.80%
Maharashtra	127	40.20%	59.10%	0.80%	87	3.40%	96.60%	--
Tamil Nadu	245	40.80%	58.40%	0.80%	73	50.70%	49.30%	--
Uttar Pradesh	163	62.60%	29.40%	8.00%	62	19.40%	80.60%	--
Overall	681	48.50%	48.80%	2.80%	305	26.20%	72.50%	1.30%
Survived	569	43.20%	53.60%	3.20%	269	23.00%	75.50%	1.50%
Died	112	75.00%	24.10%	0.90%	36	50.00%	50.00%	0.00%
Overall	681	48.50%	48.80%	2.80%	305	26.20%	72.50%	1.30%
Earning member	551	50.30%	46.80%	2.90%	263	30.00%	68.80%	1.10%
Non-earning member	130	40.80%	56.90%	2.30%	42	2.40%	95.20%	2.40%

6A.2: TABLE INDICATING THE SEVERITY OF DEPRESSION BETWEEN LIH AND HIH

Outcome of crash on victim	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Overall	681	48.50%	48.80%	2.80%	305	26.20%	72.50%	1.30%
Survived	569	43.20%	53.60%	3.20%	269	23.00%	75.50%	1.50%
Died	112	75.00%	24.10%	0.90%	36	50.00%	50.00%	0.00%

6A.3: TABLE INDICATING HABITATION- WISE, GENDER- WISE AND STATE- WISE DATA ON WHETHER THE VICTIM/ HOUSEHOLD MEMBER WITH MENTAL AILMENT REQUIRED FORMAL MEDICAL CONSULTATION

Category (Habitation gender, state)	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Habitation Type	256	70.70%	27.30%	2.00%	65	78.50%	21.50%	--
Urban	129	68.20%	28.70%	3.10%	53	73.60%	26.40%	--
Rural	127	73.20%	26.00%	0.80%	12	100.00%	--	--
Victim Gender	256	70.70%	27.30%	2.00%	65	78.50%	21.50%	--
Male	222	72.50%	26.10%	1.40%	52	82.70%	17.30%	--
Female	34	58.80%	35.30%	5.90%	13	61.50%	38.50%	--
Overall	256	70.70%	27.30%	2.00%	65	78.50%	21.50%	--
Bihar	54	64.80%	33.30%	1.90%	14	42.90%	57.10%	--
Maharashtra	28	85.70%	10.70%	3.60%	21	100.00%	--	--
Tamil Nadu	84	70.20%	28.60%	1.20%	26	76.90%	23.10%	--
Uttar Pradesh	90	70.00%	27.80%	2.20%	4	100.00%	--	--

6A.4: TABLE INDICATING THE STATE- WISE, HABITATION- WISE AND GENDER- WISE RESPONSES ON WHETHER THERE IS A CHANGE IN THE SLEEPING PATTERN OF HOUSEHOLD MEMBERS

Category (State, habitation, gender)	LIH				HIH			
	N	Yes, difficulty in sleeping	Sometimes, difficulty in sleeping	No, sleep well	N	Yes, difficulty in sleeping	Sometimes, difficulty in sleeping	No, sleep well
Overall	681	34.50%	38.30%	27.20%	305	16.70%	43.90%	39.30%
Bihar	146	30.10%	43.20%	26.70%	83	18.10%	66.30%	15.70%
Maharashtra	127	24.40%	36.20%	39.40%	87	6.90%	44.80%	48.30%
Tamil Nadu	245	32.70%	42.40%	24.90%	73	38.40%	35.60%	26.00%
Uttar Pradesh	163	49.10%	29.40%	21.50%	62	3.20%	22.60%	74.20%
Habitation Type	681	34.50%	38.30%	27.20%	305	16.70%	43.90%	39.30%
Urban	394	35.50%	32.50%	32.00%	274	15.70%	43.80%	40.50%
Rural	287	33.10%	46.30%	20.60%	31	25.80%	45.20%	29.00%
Victim Gender	681	34.50%	38.30%	27.20%	305	16.70%	43.90%	39.30%
Male	573	35.60%	37.70%	26.70%	244	16.40%	44.70%	38.90%
Female	108	28.70%	41.70%	29.60%	61	18.00%	41.00%	41.00%

ANNEXURE 6A

6A.5: TABLE INDICATING THE RESPONSES ON WHETHER THE LIVING STANDARD OF HOUSEHOLD DECREASED DUE TO THE CRASH

Category (crash impact on victim, earning status of victim, state, habitation, gender)	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Impact of crash	1647	63.50%	35.20%	1.30%	432	29.40%	68.50%	2.10%
Survived	1052	58.60%	40.30%	1.10%	378	28.60%	69.00%	2.40%
Died	595	72.30%	26.20%	1.50%	54	35.20%	64.80%	0.00%
Earning status of Victim	1647	63.50%	35.20%	1.30%	432	29.40%	68.50%	2.10%
Earning member	1353	66.90%	32.00%	1.10%	371	32.90%	65.20%	1.90%
Non-earning member	294	48.00%	50.00%	2.00%	61	8.20%	88.50%	3.30%
Overall	1647	63.50%	35.20%	1.30%	432	29.40%	68.50%	2.10%
Bihar	412	73.30%	25.70%	1.00%	115	40.00%	53.00%	7.00%
Maharashtra	415	49.40%	50.60%	--	113	24.80%	75.20%	--
Tamil Nadu	407	59.00%	39.60%	1.50%	103	35.00%	65.00%	--
Uttar Pradesh	413	72.40%	24.90%	2.70%	101	16.80%	82.20%	1.00%
Habitation Type	1647	63.50%	35.20%	1.30%	432	29.40%	68.50%	2.10%
Urban	482	50.40%	46.90%	2.70%	356	28.70%	69.10%	2.20%
Rural	1165	68.90%	30.40%	0.70%	76	32.90%	65.80%	1.30%
Victim Gender	1647	63.50%	35.20%	1.30%	432	29.40%	68.50%	2.10%
Male	1420	64.60%	34.00%	1.30%	340	31.20%	66.50%	2.40%
Female	227	56.40%	42.70%	0.90%	92	22.80%	76.10%	1.10%

6A.6: TABLE INDICATING THE HABITATION- WISE, GENDER- WISE, AND STATE- WISE RESPONSES ON WHETHER VICTIMS REQUIRED MOBILITY ASSISTANCE

Victims required mobility assistance	LIH		HIH	
	N	Yes	N	Yes
Habitation Type	310	63.50%	29	62.10%
Urban	62	82.30%	20	55.00%
Rural	248	58.90%	9	77.80%
Victim Gender	310	63.50%	29	62.10%
Male	280	63.90%	25	68.00%
Female	30	60.00%	4	25.00%
Overall	310	63.50%	29	62.10%
Bihar	99	62.60%	19	73.70%
Maharashtra	88	61.40%	6	33.30%
Tamil Nadu	47	78.70%	4	50.00%
Uttar Pradesh	76	57.90%	--	--

6A.7: TABLE INDICATING THE HABITATION- WISE, GENDER- WISE, AND STATE- WISE RESPONSES ON THE TYPE OF PERMANENT DISABILITY

Category (Habitation, gender, state)	LIH						HIH		
	N	Para/ Quadriplegia	Acquired Brain Injury	Amputation of a limb	Severe burns	Other	N	Acquired Brain Injury	Amputation of a limb
Habitation Type	121	8.30%	22.30%	65.30%	2.50%	1.70%	6	50.00%	50.00%
Urban	21	14.30%	28.60%	47.60%	9.50%	0.00%	5	60.00%	40.00%
Rural	100	7.00%	21.00%	69.00%	1.00%	2.00%	1	0.00%	100.00%
Victim Gender	121	8.30%	22.30%	65.30%	2.50%	1.70%	6	50.00%	50.00%
Male	113	8.00%	21.20%	66.40%	2.70%	1.80%	5	60.00%	40.00%
Female	8	12.50%	37.50%	50.00%	0.00%	0.00%	1	0.00%	100.00%
Overall	121	8.30%	22.30%	65.30%	2.50%	1.70%	6	50.00%	50.00%
Bihar	45	8.90%	11.10%	71.10%	6.70%	2.20%	4	25.00%	75.00%
Maharashtra	37	5.40%	21.60%	73.00%	--	--	2	100.00%	--
Tamil Nadu	14	21.40%	57.10%	21.40%	--	--	--	--	--
Uttar Pradesh	25	4.00%	24.00%	68.00%	--	4.00%	--	--	--

ANNEXURE 6A

6A.8: TABLE INDICATING HABITATION- WISE, GENDER- WISE, AND STATE- WISE RESPONSES ON WHETHER THE VICTIM RETURNED TO PREVIOUS OCCUPATION/SCHOOL AFTER THE CRASH

Category (Habitation, gender, state)	LIH			HIH		
	N	Yes	No	N	Yes	No
Habitation Type	1052	75.70%	24.30%	378	91.50%	8.50%
Urban	418	84.90%	15.10%	323	91.30%	8.70%
Rural	634	69.60%	30.40%	55	92.70%	7.30%
Victim Gender	1052	75.70%	24.30%	378	91.50%	8.50%
Male	884	76.50%	23.50%	293	93.20%	6.80%
Female	168	71.40%	28.60%	85	85.90%	14.10%
Overall	1052	75.70%	24.30%	378	91.50%	8.50%
Bihar	234	67.10%	32.90%	108	89.80%	10.20%
Maharashtra	290	66.90%	33.10%	102	85.30%	14.70%
Tamil Nadu	323	92.00%	8.00%	85	97.60%	2.40%
Uttar Pradesh	205	72.20%	27.80%	83	95.20%	4.80%

6A.9: TABLE INDICATING STATE- WISE, HABITATION- WISE, AND GENDER- WISE RESPONSES ON AVERAGE NUMBER OF DAYS THAT THE VICTIM TOOK TO RETURN TO PREVIOUS OCCUPATION/SCHOOL

Category (State, habitation, gender)	LIH		HIH	
	N	Avg. days	N	Avg. days
Overall	796	92	346	43
Bihar	157	134	97	46
Maharashtra	194	122	87	45
Tamil Nadu	297	33	83	25
Uttar Pradesh	148	129	79	56
Habitation Type	796	92	346	43
Urban	355	58	295	43
Rural	441	121	51	45
Victim Gender	796	92	346	43
Male	676	101	273	45
Female	120	45	73	36

ANNEXURE 6A

6A.10: TABLE INDICATING HABITATION- WISE, GENDER- WISE, AND STATE- WISE RESPONSES ON AVERAGE NUMBER OF DAYS THAT THE VICTIM TOOK TO FIND A NEW JOB FROM THE DAY OF CRASH

Category (Habitation, gender, state)	LIH		HIH	
	N	Avg. days	N	Avg. days
Habitation Type	91	107	13	65
Urban	36	63	11	69
Rural	55	135	2	43
Victim Gender	91	107	13	65
Male	75	119	10	79
Female	16	47	3	18
Overall	91	107	13	65
Bihar	28	40	4	29
Maharashtra	20	189	8	84
Tamil Nadu	21	120	1	60
Uttar Pradesh	22	105	--	--

6A.11: TABLE INDICATING STATE- WISE, HABITATION- WISE, AND GENDER- WISE RESPONSES ON THE SEVERITY OF DISABILITY

Category (State, habitation, gender)	LIH				HIH			
	N	Serious disability	Partial disability	Temporary disability	N	Serious disability	Partial disability	Temporary disability
Overall	310	39.00%	39.70%	21.30%	29	20.70%	58.60%	20.70%
Bihar	99	45.50%	29.30%	25.30%	19	21.10%	63.20%	15.80%
Maharashtra	88	42.00%	55.70%	2.30%	6	33.30%	50.00%	16.70%
Tamil Nadu	47	29.80%	19.10%	51.10%	4	--	50.00%	50.00%
Uttar Pradesh	76	32.90%	47.40%	19.70%	--	--	--	--
Habitation Type	310	39.00%	39.70%	21.30%	29	20.70%	58.60%	20.70%
Urban	62	33.90%	43.50%	22.60%	20	25.00%	60.00%	15.00%
Rural	248	40.30%	38.70%	21.00%	9	11.10%	55.60%	33.30%
Victim Gender	310	39.00%	39.70%	21.30%	29	20.70%	58.60%	20.70%
Male	280	40.40%	38.60%	21.10%	25	20.00%	64.00%	16.00%
Female	30	26.70%	50.00%	23.30%	4	25.00%	25.00%	50.00%

6A.12: TABLE INDICATING THE CHANGE IN THE OCCUPATION OF VICTIMS FOR LIH

Change in the occupation of victim (LIH)	N	Unemployed	Housewife	Agriculture Laborer/ Farmer	Laborer/ skilled worker/ unskilled worker	Petty trader/ shop owner	Businessmen/ self-employed	Salaried employee (Pvt/ Govt)	Student	Retired
Pre crash- Habitation split	1052	6.70%	3.60%	11.50%	20.40%	9.10%	7.30%	33.50%	7.30%	0.60%
Urban	418	8.40%	4.30%	1.90%	17.00%	10.30%	10.30%	39.50%	7.70%	0.70%
Rural	634	5.50%	3.20%	17.80%	22.70%	8.40%	5.40%	29.50%	7.10%	0.50%
Pre crash- Victim Gender	1052	6.70%	3.60%	11.50%	20.40%	9.10%	7.30%	33.50%	7.30%	0.60%
Male	884	7.00%	0.00%	12.50%	21.80%	9.80%	7.70%	33.60%	7.20%	0.50%
Female	168	4.80%	22.60%	6.60%	13.70%	5.40%	5.40%	32.70%	7.70%	1.20%
On resuming work after crash	1052	17.80%	3.70%	10.30%	17.40%	8.70%	8.20%	28.30%	5.10%	0.70%
Urban	418	11.70%	4.30%	1.40%	17.40%	10.50%	11.50%	35.90%	6.20%	1.00%
Rural	634	21.80%	3.30%	16.10%	17.30%	7.40%	6.00%	23.30%	4.40%	0.50%
On resuming work after crash-Victim Gender	1052	17.80%	3.70%	10.30%	17.40%	8.70%	8.20%	28.30%	5.10%	0.70%
Male	884	18.80%	0.00%	11.20%	18.80%	9.20%	8.30%	28.50%	4.80%	0.60%
Female	168	12.50%	23.20%	5.40%	9.50%	6.00%	7.70%	27.40%	7.10%	1.20%
Current (as on 31 Jan 2020)- Habitation	1052	14.40%	3.50%	11.30%	16.60%	9.10%	7.90%	33.00%	3.40%	0.80%
Urban	418	8.10%	3.80%	1.90%	16.80%	9.80%	11.00%	43.50%	3.80%	1.20%
Rural	634	18.50%	3.30%	17.50%	16.60%	8.70%	5.80%	26.00%	3.20%	0.50%
Current (as on 31 Jan 2020)- Victim Gender	1052	14.40%	3.50%	11.30%	16.60%	9.10%	7.90%	33.00%	3.40%	0.80%
Male	884	14.90%	0.00%	12.40%	17.90%	9.70%	8.10%	33.00%	3.20%	0.70%
Female	168	11.30%	22.00%	5.40%	10.10%	6.00%	6.50%	32.70%	4.80%	1.20%

6A.13: TABLE INDICATING THE CHANGE IN THE OCCUPATION OF VICTIMS FOR HIH

Change in occupation of victim (Pre crash)	N	Unemployed	Housewife	Farmer	Businessmen / self-employed	Salaried employee (Pvt/ Govt)	Student	Others
Pre crash-Habitation	378	4.20%	2.90%	1.30%	42.30%	41.50%	6.60%	1.10%
Urban	323	4.60%	2.50%	1.20%	44.30%	39.60%	6.80%	0.90%
Rural	55	1.80%	5.50%	1.80%	30.90%	52.70%	5.50%	1.80%
Pre crash-Victim Gender	378	4.20%	2.90%	1.30%	42.30%	41.50%	6.60%	1.10%
Male	293	4.10%	0.00%	1.70%	48.10%	39.20%	5.80%	1.00%
Female	85	4.70%	12.90%	0.00%	22.40%	49.40%	9.40%	1.20%
On resuming work after crash-Habitation	378	3.40%	3.20%	1.10%	45.00%	42.10%	4.00%	1.40%
Urban	323	2.80%	2.80%	1.20%	47.10%	41.20%	4.00%	0.90%
Rural	55	7.30%	5.50%	0.00%	32.70%	47.30%	3.60%	3.60%
On resuming work after crash-Victim Gender	378	3.40%	3.20%	1.10%	45.00%	42.10%	4.00%	1.40%
Male	293	3.40%	0.00%	1.40%	51.50%	40.30%	2.40%	1.00%
Female	85	3.50%	14.10%	0.00%	22.40%	48.20%	9.40%	2.40%
Current (as on 31 Jan 2020)-Habitation	378	2.60%	2.90%	1.30%	46.60%	42.30%	2.90%	1.40%
Urban	323	2.20%	2.80%	0.90%	48.90%	40.90%	3.10%	1.20%
Rural	55	5.50%	3.60%	3.60%	32.70%	50.90%	1.80%	1.80%
Current (as on 31 Jan 2020)-Victim Gender	378	2.60%	2.90%	1.30%	46.60%	42.30%	2.90%	1.40%
Male	293	2.00%	0.00%	1.40%	53.20%	39.90%	2.00%	1.40%
Female	85	4.70%	12.90%	1.20%	23.50%	50.60%	5.90%	1.20%

ANNEXURE 6A

6A.14: TABLE INDICATING THE STATE- WISE, HABITATION- WISE, AND GENDER- WISE DETAILS OF THE OCCUPATIONAL IMPACT ON HOUSEHOLDS DUE TO THE CRASH

Category (state, habitation, gender)	Change in working pattern of household members		Someone in household had to take up additional jobs/shifts		Someone in household had to give up study	
	LIH [N=1647]	HIH [N=432]	LIH [N=1647]	HIH [N=432]	LIH [N=1647]	HIH [N=432]
Overall	43.90%	26.60%	14.20%	3.90%	20.00%	4.90%
Bihar	43.40%	33.00%	16.50%	8.70%	30.60%	11.30%
Maharashtra	42.70%	23.00%	12.30%	0.90%	9.90%	--
Tamil Nadu	43.20%	35.00%	19.40%	4.90%	13.30%	3.90%
Uttar Pradesh	46.20%	14.90%	8.70%	1.00%	26.40%	4.00%
Habitation Type	43.90%	26.60%	14.20%	3.90%	20.00%	4.90%
Urban	36.90%	25.00%	11.20%	0.80%	11.60%	2.20%
Rural	46.80%	34.20%	15.50%	18.40%	23.50%	17.10%
Victim Gender	43.90%	26.60%	14.20%	3.90%	20.00%	4.90%
Male	44.40%	25.90%	15.40%	4.10%	20.80%	5.90%
Female	40.50%	29.30%	6.60%	3.30%	15.00%	1.10%

ANNEXURE 8A

8A.1: TABLE INDICATING THE TYPE OF VEHICLE USED BY THE VICTIM, WHICH WAS INVOLVED IN CRASH

State	N	M2W	Car	Bicycle	3W	Pedestrian	Others
LIH							
Overall	1647	64.90%	7.40%	6.20%	3.70%	12.20%	5.60%
Bihar	412	51.90%	3.20%	10.20%	8.00%	18.20%	8.50%
Maharashtra	415	79.50%	4.30%	2.90%	1.20%	9.20%	2.90%
Tamil Nadu	407	66.10%	17.20%	3.40%	1.20%	8.40%	3.70%
Uttar Pradesh	413	62.00%	5.10%	8.20%	4.40%	13.10%	7.30%
HIH							
Overall	432	66.00%	25.90%	0.90%	2.10%	3.70%	1.30%
Bihar	115	67.00%	23.50%	1.70%	4.30%	--	3.50%
Maharashtra	113	86.70%	9.70%	0.90%	0.90%	1.80%	--
Tamil Nadu	103	47.60%	44.70%	--	1.00%	5.80%	1.00%
Uttar Pradesh	101	60.40%	27.70%	1.00%	2.00%	7.90%	1.00%

8A.2: TABLE INDICATING THE STATE- WISE AND HABITATION-WISE DETAILS ON LIFE INSURANCE COVERAGE OF THE VICTIM

Category (state,habitation, gender)	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Total	681	17.50%	76.70%	5.90%	305	77.40%	22.30%	0.30%
Bihar	146	38.40%	54.80%	6.80%	83	85.50%	14.50%	--
Maharashtra	127	18.10%	77.20%	4.70%	87	87.40%	12.60%	--
Tamil Nadu	245	8.20%	90.60%	1.20%	73	50.70%	49.30%	--
Uttar Pradesh	163	12.30%	74.80%	12.90%	62	83.90%	14.50%	1.60%
Habitation Type	681	17.50%	76.70%	5.90%	305	77.40%	22.30%	0.30%
Urban	394	19.50%	74.10%	6.30%	274	81.40%	18.20%	0.40%
Rural	287	14.60%	80.10%	5.20%	31	41.90%	58.10%	--
Victim Gender	681	17.50%	76.70%	5.90%	305	77.40%	22.30%	0.30%
Male	573	19.20%	74.50%	6.30%	244	79.10%	20.50%	0.40%
Female	108	8.30%	88.00%	3.70%	61	70.50%	29.50%	--

ANNEXURE 8A

8A.3: TABLE INDICATING THE STATE- WISE AND HABITATION-WISE DETAILS ON MEDICAL INSURANCE COVERAGE OF THE VICTIM

Category (State, habitation, gender)	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Overall	681	20.90%	69.90%	9.30%	305	33.80%	61.60%	4.60%
Bihar	146	28.80%	54.10%	17.10%	83	22.90%	68.70%	8.40%
Maharashtra	127	7.90%	85.80%	6.30%	87	49.40%	50.60%	--
Tamil Nadu	245	32.20%	66.90%	0.80%	73	30.10%	67.10%	2.70%
Uttar Pradesh	163	6.70%	76.10%	17.20%	62	30.60%	61.30%	8.10%
Habitation Type	681	20.90%	69.90%	9.30%	305	33.80%	61.60%	4.60%
Urban	394	21.60%	69.00%	9.40%	274	33.60%	63.10%	3.30%
Rural	287	19.90%	71.10%	9.10%	31	35.50%	48.40%	16.10%
Victim Gender	681	20.90%	69.90%	9.30%	305	33.80%	61.60%	4.60%
Male	573	21.80%	68.60%	9.60%	244	36.10%	59.40%	4.50%
Female	108	15.70%	76.90%	7.40%	61	24.60%	70.50%	4.90%

8A.4: TABLE INDICATING THE STATE- WISE AND HABITATION- WISE DETAILS ON VEHICLE INSURANCE COVERAGE OF THE VICTIM'S VEHICLE

Category (State, habitation)	LIH					HIH				
	N	Yes	No	DK/CS	NA	N	Yes	No	DK/CS	NA
Overall	681	42.90%	33.80%	12.30%	11.00%	305	64.90%	23.60%	7.90%	3.60%
Bihar	146	63.00%	18.50%	6.20%	12.30%	83	61.40%	16.90%	20.50%	1.20%
Maharashtra	127	48.00%	38.60%	5.50%	7.90%	87	81.60%	16.10%	1.10%	1.10%
Tamil Nadu	245	40.00%	44.50%	6.50%	9.00%	73	47.90%	43.80%	4.10%	4.10%
Uttar Pradesh	163	25.20%	27.60%	31.90%	15.30%	62	66.10%	19.40%	4.80%	9.70%
Habitation Type	681	42.90%	33.80%	12.30%	11.00%	305	64.90%	23.60%	7.90%	3.60%
Urban	394	48.20%	31.00%	11.70%	9.10%	274	67.90%	21.20%	7.70%	3.30%
Rural	287	35.50%	37.60%	13.20%	13.60%	31	38.70%	45.20%	9.70%	6.50%

8A.5: TABLE INDICATING STATE- WISE DETAILS ON THE TYPE OF MOTOR VEHICLE INSURANCE FOR VICTIM'S VEHICLE

State	LIH				HIH			
	N	Third party insurance (Liability)	Comprehensive insurance	DK/CS	N	Third party insurance (Liability)	Comprehensive insurance	DK/CS
Overall	292	57.90%	28.40%	13.70%	198	49.00%	39.40%	11.60%
Bihar	92	54.30%	39.10%	6.50%	51	23.50%	58.80%	17.60%
Maharashtra	61	60.70%	14.80%	24.60%	71	69.00%	26.80%	4.20%
Tamil Nadu	98	64.30%	33.70%	2.00%	35	37.10%	57.10%	5.70%
Uttar Pradesh	41	46.30%	12.20%	41.50%	41	56.10%	22.00%	22.00%

8A.6: TABLE INDICATING HABITATION- WISE, GENDER, WISE AND STATE- WISE RESPONSES ON WHETHER THE VICTIM/NOMINEE HAD TO ATTEND COURT FOR COMPENSATION

Visited court for compensation	LIH					HIH				
	N	Yes	No	NA	DK/CS	N	Yes	No	NA	DK/CS
Habitation Type	1647	24.70%	56.90%	13.60%	4.80%	432	17.80%	62.70%	14.40%	5.10%
Urban	482	17.00%	60.40%	16.80%	5.80%	356	15.20%	64.00%	15.70%	5.10%
Rural	1165	27.90%	55.50%	12.30%	4.40%	76	30.30%	56.60%	7.90%	5.30%
Victim Gender	1647	24.70%	56.90%	13.60%	4.80%	432	17.80%	62.70%	14.40%	5.10%
Male	1420	25.80%	56.30%	13.30%	4.60%	340	19.40%	60.00%	15.00%	5.60%
Female	227	18.10%	60.80%	15.40%	5.70%	92	12.00%	72.80%	12.00%	3.30%
Overall	1647	24.70%	56.90%	13.60%	4.80%	432	17.80%	62.70%	14.40%	5.10%
Bihar	412	21.40%	54.60%	17.20%	6.80%	115	14.80%	56.50%	12.20%	16.50%
Maharashtra	415	24.10%	56.10%	17.80%	1.90%	113	15.00%	57.50%	26.50%	0.90%
Tamil Nadu	407	20.90%	66.10%	11.50%	1.50%	103	15.50%	76.70%	6.80%	1.00%
Uttar Pradesh	413	32.40%	50.80%	7.70%	9.00%	101	26.70%	61.40%	10.90%	1.00%

ANNEXURE 8A

8A.7: TABLE INDICATING THE RESPONSES ON WHETHER THE VICTIM/ HOUSEHOLD MEMBERS FILED CASES IN MACT

Impact of crash on victim	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
	1647	24.50%	56.40%	19.10%	432	20.40%	56.00%	23.60%
Survived	1052	13.50%	67.20%	19.30%	348	17.70%	60.80%	21.40%
Died	595	44.00%	37.30%	18.70%	54	38.90%	22.20%	38.90%

8A.8: TABLE INDICATING THE STATE- WISE RESPONSES ON THE STATUS OF THE CASE IN MACT

State	LIH		HIH	
	N	On-going	N	On-going
Overall	404	50.20%	88	35.20%
Bihar	98	59.20%	20	45.00%
Maharashtra	103	45.60%	23	13.00%
Tamil Nadu	72	47.20%	20	45.00%
Uttar Pradesh	131	48.90%	25	40.00%

8A.9: TABLE INDICATING THE STATE- WISE RESPONSES ON WHETHER VICTIM/HOUSEHOLD MEMBERS VISITED MACT FOR HEARING

State	LIH		HIH	
	N	Yes	N	Yes
Overall	404	79.20%	88	71.60%
Bihar	98	71.40%	20	55.00%
Maharashtra	103	74.80%	23	60.90%
Tamil Nadu	72	79.20%	20	70.00%
Uttar Pradesh	131	88.50%	25	96.00%

8A.10: TABLE INDICATING THE STATE- WISE RESPONSES ON WHETHER VICTIM/FAMILY MEMBERS SPENT ON LITIGATION

State	LIH		HIH	
	N	Yes	N	Yes
Overall	99	55.60%	50	64.00%
Bihar	36	63.90%	11	63.60%
Maharashtra	16	68.80%	13	15.40%
Tamil Nadu	31	29.00%	10	80.00%
Uttar Pradesh	16	75.00%	16	93.80%

8A.11: TABLE INDICATING THE VEHICLE SIZE, EDUCATION LEVELS, AND STATE-WISE DETAILS OF TRUCK DRIVERS WHO FILED AN FIR

Size of vehicle	N	Yes	No	DK/CS
Overall	244	32.80%	66.40%	0.80%
Medium Motor Vehicle (B/w 7.5-12 tons)	117	29.10%	70.10%	0.90%
Heavy Motor Vehicle (Exceed 12 tons)	112	32.10%	67.00%	0.90%
Trailer	15	66.70%	33.30%	
Education level	N	Yes	No	DK/CS
Overall	244	32.80%	66.40%	0.80%
Illiterate or Educated till 5th Class	34	50.00%	50.00%	
Middle school (up to Class 8th)	74	33.80%	63.50%	2.70%
Secondary school (up to Class 10th)	83	31.30%	68.70%	
Senior secondary school (up to Class 12th) & above	53	22.60%	77.40%	
State	N	Yes	No	DK/CS
Overall	244	32.80%	66.40%	0.80%
Bihar	40	2.50%	95.00%	2.50%
Maharashtra	108	41.70%	58.30%	--
Tamil Nadu	48	43.80%	56.30%	--
Uttar Pradesh	48	27.10%	70.80%	2.10%

ANNEXURE 8A

8A.12: TABLE INDICATING THE EDUCATIONAL LEVELS OF TRUCK DRIVERS WHO FILED AN INSURANCE CLAIM

Education vs. filed claim for insurance	N	Yes	No
Overall	221	45.20%	54.80%
Illiterate	5	40.00%	60.00%
Did not complete primary education	3		100.00%
Primary school (up to Class 5th)	23	52.20%	47.80%
Middle school (up to Class 8th)	64	51.60%	48.40%
Secondary school (up to Class 10th)	76	44.70%	55.30%
Senior secondary school (up to Class 12th)	33	24.20%	75.80%
Diploma	4	75.00%	25.00%
Graduate/college and above	13	61.50%	38.50%

8A.13: TABLE INDICATING THE STATE- WISE INSURANCE AMOUNT RECEIVED BY TRUCK DRIVERS/ FLEET OWNERS

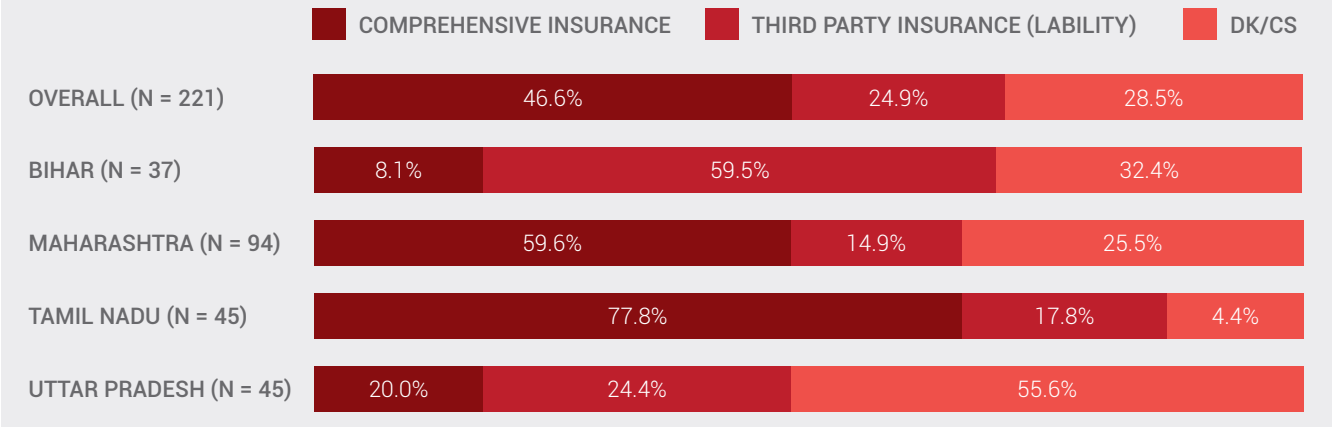
State	Claim amount
Overall (N=63)	Rs.66,524
Tamil Nadu	Rs.97,069
Bihar	Rs.50,000
Maharashtra	Rs.40,182
Uttar Pradesh	--

8A.14: TABLE INDICATING THE STATE- WISE PERSONAL INJURY INSURANCE COVERAGE OF TRUCK DRIVER AT THE TIME OF THE CRASH

[Multiple Responses]

State	N	None	Life Insurance	Medical Insurance
Overall	244	54.50%	40.20%	18.00%
Bihar	40	27.50%	70.00%	22.50%
Maharashtra	108	51.90%	40.70%	20.40%
Tamil Nadu	48	68.80%	25.00%	25.00%
Uttar Pradesh	48	68.80%	29.20%	2.10%

8A.15: FIGURE INDICATING TYPE OF INSURANCE COVERAGE AMONG TRUCK DRIVERS



8A.16: TABLE INDICATING THE IMPACT OF THE MVAA ON COMPLIANCE WITH VEHICLE INSURANCE REQUIREMENTS AT STATE LEVEL
[Figures in percent]

State	N	Yes, Definitely	Yes, to some extent	Not at all
Overall	420	36.40%	56.40%	7.10%
Bihar	101	15.80%	80.20%	4.00%
Maharashtra	113	38.10%	49.60%	12.40%
Tamil Nadu	100	57.00%	41.00%	2.00%
Uttar Pradesh	106	34.90%	55.70%	9.40%

8A.17: TABLE INDICATING THE AWARENESS LEVELS ON THIRD PARTY LIABILITY INSURANCE WITH RESPECT TO CRASH EXPERIENCE AND DRIVING EXPERIENCE

Crash experience vs. awareness of Third party liability insurance	N	Yes	No	DK/ CS
Overall	420	34.00%	40.70%	25.20%
Yes	244	49.20%	31.60%	19.30%
No	176	13.10%	53.40%	33.50%
Driving experience vs. awareness of Third party liability insurance	**N**	**Yes**	**No**	**DK/CS**
Overall	420	34.00%	40.70%	25.20%
More than 10 yrs.	136	49.30%	30.90%	19.90%
6-10 yrs.	144	46.50%	33.30%	20.10%
2-5 yrs.	134	11.90%	56.70%	31.30%
Less than 2 yrs.	6	0.00%	83.30%	16.70%

ANNEXURE 8A

8A.18: TABLE INDICATING THE TRUCK DRIVER'S AWARENESS LEVELS ABOUT COVERAGE UNDER THIRD PARTY INSURANCE

State	N	All of these	Only Property Damage	Only Injury/ Disability	Only Death
Overall	143	69.90%	27.30%	25.20%	4.20%
Bihar	20	95.00%	5.00%	5.00%	5.00%
Maharashtra	88	56.80%	39.80%	38.60%	5.70%
Tamil Nadu	17	94.10%	--	5.90%	--
Uttar Pradesh	18	83.30%	16.70%	--	--

8A.19: TABLE INDICATING THE AWARENESS ON MOTOR THIRD PARTY LIABILITY INSURANCE OF TRUCK DRIVERS ON VARIOUS ASPECTS

[N=420, All figures in percent]

Aspect related to third party insurance	Not Aware	Somewhat Aware	Fully Aware
The purchase of Motor Third-party liability insurance is compulsory, and you may be fined by the Police if the vehicle is uninsured	22.90%	40.70%	36.40%
If the vehicle you are driving is UNINSURED, you (or the owner) may be personally liable to pay for injuries caused to others if you are at fault	23.10%	41.00%	36.00%
Motor Third Party liability insurance provides compensation to other people for their injuries if the crash is your fault	17.90%	44.30%	37.90%
Motor Third Party liability insurance does not provide compensation for injuries you incur if the crash is your fault	27.60%	41.90%	30.50%
If someone else is at fault for an crash and you incur injuries, you may be able to claim compensation from the insurer the vehicle is insured with	23.80%	45.00%	31.20%
The compensation you are eligible to receive may be reduced if you breach a traffic law	21.20%	44.50%	34.30%
Along with driver, truck attendant (khalasi) is also covered for benefits under third party insurance under MVAA, 2019	32.60%	40.70%	26.70%
The time limitation for filing of cases for compensation for injuries before the Claims Tribunal is 6 months from the date of the crash	33.30%	41.20%	25.50%
In case of road crash, insurance company is liable to designate an officer to help you with the process of settlement of your claim	35.00%	40.20%	24.80%

8A.20: TABLE INDICATING THE STATE- WISE AND GENDER-WISE RESPONSES ON WHETHER VICTIMS OR THE FAMILIES HAVE RECEIVED ELIGIBLE COMPENSATION FROM GOVERNMENT / LOCAL AUTHORITIES

Category (State, gender)	LIH				HIH			
	N	Availed	Received eligible compensation (N=183)	Avg. time taken (months) (N=95)	N	Availed	Received eligible compensation (N=36)	Avg. time taken (months) (N=9)
Overall	1647	11.10%	51.90%	13.7	432	8.30%	25.00%	20.1
Bihar	412	14.60%	50.00%	9	115	18.30%	33.30%	22.6
Maharashtra	415	6.00%	52.00%	11.2	113	2.70%	33.30%	12
Tamil Nadu	407	10.10%	39.00%	9.4	103	7.80%	--	--
Uttar Pradesh	413	13.80%	63.20%	20.4	101	4.00%	25.00%	11
Victim Gender	1647	11.10%	51.90%	13.7	432	8.30%	25.00%	20.1
Male	1420	11.60%	52.10%	14	340	8.80%	26.70%	21.4
Female	227	7.90%	50.00%	11	92	6.50%	16.70%	10

8A.21: TABLE INDICATING THE STATE- WISE AWARENESS LEVELS OF COMPENSATION CLAUSES AND SCHEMES IN THE EVENT OF AN CRASH

State	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Overall	681	22.90%	70.00%	7.00%	305	25.20%	63.30%	11.50%
Bihar	146	32.20%	54.80%	13.00%	83	16.90%	61.40%	21.70%
Maharashtra	127	17.30%	81.10%	1.60%	87	20.70%	74.70%	4.60%
Tamil Nadu	245	31.40%	66.10%	2.40%	73	28.80%	69.90%	1.40%
Uttar Pradesh	163	6.10%	81.00%	12.90%	62	38.70%	41.90%	19.40%

ANNEXURE 9A

9A.1: TABLE INDICATING STATE- WISE DETAILS ON THE MODE OF TRANSPORT USED TO TRANSFER THE VICTIM TO THE HOSPITAL

State	N	Ambulance	Police vehicle	Private vehicle	Public vehicle	Not transferred to hospital	DK/CS
LIH							
Overall	1647	30.60%	6.60%	31.10%	20.70%	7.80%	3.20%
Bihar	412	15.30%	5.30%	32.30%	26.70%	18.90%	1.50%
Maharashtra	415	24.10%	3.90%	48.90%	16.40%	1.70%	5.10%
Tamil Nadu	407	62.20%	2.00%	6.10%	25.80%	3.90%	--
Uttar Pradesh	413	21.30%	15.30%	36.60%	14.30%	6.50%	6.10%
HIH							
Overall	432	33.30%	3.20%	36.10%	25.50%	1.60%	0.20%
Bihar	115	8.70%	7.80%	58.30%	24.30%	0.90%	--
Maharashtra	113	23.90%	0.90%	34.50%	36.30%	3.50%	0.90%
Tamil Nadu	103	79.60%	--	3.90%	16.50%	--	--
Uttar Pradesh	101	24.80%	4.00%	45.50%	23.80%	2.00%	--

9A.2: TABLE INDICATING STATE- WISE DETAILS OF THE REACTION TIME OF THE AMBULANCE TO ARRIVE AT CRASH LOCATION

State	N	Within 15 minutes	16-30 mins	31-45 mins	Beyond 45 mins	DK/CS
LIH						
Overall	504	44.80%	31.30%	9.10%	5.40%	9.30%
Bihar	63	44.40%	19.00%	6.30%	15.90%	14.30%
Maharashtra	100	32.00%	27.00%	7.00%	10.00%	24.00%
Tamil Nadu	253	54.90%	37.20%	7.90%	--	--
Uttar Pradesh	88	30.70%	28.40%	17.00%	8.00%	15.90%
HIH						
Overall	144	45.80%	36.80%	9.00%	4.90%	3.50%
Bihar	10	40.00%	30.00%	--	20.00%	10.00%
Maharashtra	27	22.20%	48.10%	18.50%	7.40%	3.70%
Tamil Nadu	82	56.10%	32.90%	9.80%	1.20%	--
Uttar Pradesh	25	40.00%	40.00%	--	8.00%	12.00%

9A.3: TABLE INDICATING STATE- WISE DETAILS ON THE TYPE OF HOSPITAL THAT THE VICTIM WAS ADMITTED TO

State	LIH			HIH		
	N	Govt	Pvt	N	Govt	Pvt
Overall	681	36.60%	63.40%	305	18.40%	81.60%
Bihar	146	34.20%	65.80%	83	14.50%	85.50%
Maharashtra	127	34.60%	65.40%	87	6.90%	93.10%
Tamil Nadu	245	36.70%	63.30%	73	27.40%	72.60%
Uttar Pradesh	163	39.90%	60.10%	62	29.00%	71.00%

9A.4: TABLE INDICATING THE STATE- WISE, HABITATION- WISE, AND GENDER- WISE PROPORTION OF VICTIMS ADMITTED TO HOSPITALS

Category (State, habitation, gender)	LIH		HIH	
	N	Yes	N	Yes
Overall	1519	68.10%	425	81.60%
Bihar	334	68.30%	114	78.10%
Maharashtra	408	75.70%	109	89.00%
Tamil Nadu	391	68.50%	103	71.80%
Uttar Pradesh	386	59.30%	99	87.90%
Habitation Type	1519	68.10%	425	81.60%
Urban	472	73.30%	350	81.10%
Rural	1047	65.70%	75	84.00%
Victim Gender	1519	68.10%	425	81.60%
Male	1306	68.40%	334	82.90%
Female	213	66.20%	91	76.90%

ANNEXURE 9A

9A.5: TABLE INDICATING STATE-WISE, HABITATION-WISE, AND GENDER-WISE DETAILS ON CRASHES REPORTED TO POLICE

Category (State, habitation, gender)	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Overall	1647	54.30%	43.20%	2.60%	432	43.10%	53.20%	3.70%
Bihar	412	47.80%	48.10%	4.10%	115	28.70%	60.00%	11.30%
Maharashtra	415	48.40%	50.40%	1.20%	113	23.90%	76.10%	--
Tamil Nadu	407	72.00%	27.00%	1.00%	103	70.90%	28.20%	1.00%
Uttar Pradesh	413	49.20%	47.00%	3.90%	101	52.50%	45.50%	2.00%
Habitation Type	1647	54.30%	43.20%	2.60%	432	43.10%	53.20%	3.70%
Urban	482	42.50%	54.80%	2.70%	356	39.00%	57.30%	3.70%
Rural	1165	59.10%	38.40%	2.50%	76	61.80%	34.20%	3.90%
Victim Gender	1647	54.30%	43.20%	2.60%	432	43.10%	53.20%	3.70%
Male	1420	55.10%	42.30%	2.70%	340	43.80%	51.80%	4.40%
Female	227	49.30%	48.90%	1.80%	92	40.20%	58.70%	1.10%

9A.6: TABLE INDICATING STATE- WISE, HABITATION- WISE, AND GENDER- WISE DETAILS ON WHETHER AN FIR WAS FILED AFTER THE CRASH

Category (State, habitation, gender)	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Overall	1647	48.00%	47.70%	4.30%	432	41.40%	50.70%	7.90%
Bihar	412	43.00%	51.50%	5.60%	115	29.60%	58.30%	12.20%
Maharashtra	415	45.80%	52.50%	1.70%	113	24.80%	75.20%	--
Tamil Nadu	407	59.20%	35.90%	4.90%	103	66.00%	15.50%	18.40%
Uttar Pradesh	413	44.30%	50.60%	5.10%	101	48.50%	50.50%	1.00%
Habitation Type	1647	48.00%	47.70%	4.30%	432	41.40%	50.70%	7.90%
Urban	482	37.10%	57.70%	5.20%	356	36.80%	54.80%	8.40%
Rural	1165	52.50%	43.50%	3.90%	76	63.20%	31.60%	5.30%
Victim Gender	1647	48.00%	47.70%	4.30%	432	41.40%	50.70%	7.90%
Male	1420	49.20%	46.50%	4.30%	340	42.10%	50.30%	7.60%
Female	227	41.00%	54.60%	4.40%	92	39.10%	52.20%	8.70%

9A.7: TABLE INDICATING STATE- WISE, HABITATION - WISE, AND GENDER- WISE DETAILS ON WHETHER THE VICTIMS/ HOUSEHOLD MEMBERS RECEIVED ASSISTANCE BY POLICE DURING THE FIR PROCESS

Assistance of police during the FIR process	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Overall	791	78.10%	18.30%	3.50%	179	84.40%	11.70%	3.90%
Bihar	177	56.50%	35.60%	7.90%	34	58.80%	32.40%	8.80%
Maharashtra	190	83.20%	12.10%	4.70%	28	78.60%	17.90%	3.60%
Tamil Nadu	241	92.50%	7.10%	0.40%	68	97.10%	2.90%	--
Uttar Pradesh	183	74.90%	23.00%	2.20%	49	87.80%	6.10%	6.10%
Habitation Type	791	78.10%	18.30%	3.50%	179	84.40%	11.70%	3.90%
Urban	179	92.70%	6.10%	1.10%	131	80.90%	13.70%	5.30%
Rural	612	73.90%	21.90%	4.20%	48	93.80%	6.30%	--
Victim Gender	791	78.10%	18.30%	3.50%	179	84.40%	11.70%	3.90%
Male	698	78.40%	18.20%	3.40%	143	84.60%	11.90%	3.50%
Female	93	76.30%	19.40%	4.30%	36	83.30%	11.10%	5.60%

9A.8: TABLE INDICATING THE STATE- WISE TRENDS IN THE TIME TAKEN TO ATTEND TO THE VICTIM AT HOSPITAL

State	N	Immediately on reaching hospital	Within 10-30 mins	31-60 mins	Beyond 60 mins	DK/ CS
LIH						
Overall	1519	50.00%	32.00%	4.90%	2.00%	11.10%
Bihar	334	58.70%	25.70%	3.90%	4.20%	7.50%
Maharashtra	408	60.30%	27.70%	1.20%	0.70%	10.00%
Tamil Nadu	391	38.10%	48.60%	12.00%	0.50%	0.80%
Uttar Pradesh	386	43.50%	25.10%	2.60%	3.10%	25.60%
HIH						
Overall	425	53.60%	34.60%	4.90%	3.80%	3.10%
Bihar	114	32.50%	40.40%	11.40%	13.20%	2.60%
Maharashtra	109	59.60%	30.30%	3.70%	0.90%	5.50%
Tamil Nadu	103	50.50%	47.60%	1.00%	--	1.00%
Uttar Pradesh	99	74.70%	19.20%	3.00%	--	3.00%

ANNEXURE 9A

9A.9: TABLE INDICATING STATE- WISE TRENDS ON WHETHER ANY DISCRIMINATION/PREJUDICE WAS FACED BY THE HOSPITAL STAFF

State	LIH				HIH			
	N	Yes	No	DK/CS	N	Yes	No	DK/CS
Overall	1519	7.00%	83.50%	9.50%	425	6.80%	87.50%	5.60%
Bihar	334	13.20%	75.40%	11.40%	114	21.90%	64.90%	13.20%
Maharashtra	408	1.50%	92.90%	5.60%	109	0.90%	97.20%	1.80%
Tamil Nadu	391	11.00%	81.80%	7.20%	103	1.00%	97.10%	1.90%
Uttar Pradesh	386	3.40%	82.10%	14.50%	99	2.00%	92.90%	5.10%

9A.10: TABLE INDICATING STATE- WISE RESPONSES ON WHETHER SOMEONE KNOWN WAS WORKING AS FIRST AID STAFF AT MEDICAL FACILITY/ HOSPITAL

State	LIH		HIH	
	N	Yes	N	Yes
Overall	660	28.60%	299	20.70%
Bihar	134	24.60%	83	25.30%
Maharashtra	126	9.50%	83	3.60%
Tamil Nadu	240	55.00%	73	47.90%
Uttar Pradesh	160	7.50%	60	5.00%

9A.11: TABLE INDICATING STATE- WISE RESPONSES ON WHETHER THE VICTIM/ HOUSEHOLD MEMBER WAS HELPED BY SOMEONE KNOWN DURING THE TREATMENT OF THE VICTIM

State	LIH		HIH	
	N	Yes	N	Yes
Overall	188	92.60%	62	79.00%
Bihar	33	87.90%	21	47.60%
Maharashtra	12	83.30%	3	100.00%
Tamil Nadu	131	95.40%	35	100.00%
Uttar Pradesh	12	83.30%	3	33.30%

9A.12: TABLE INDICATING STATE-WISE RESPONSES ON WHETHER ROAD SAFETY PRECAUTIONS WERE TAKEN BY VICTIM DURING THE ROAD CRASH

State	LIH					HIH				
	N	Wearing helmet	Wearing seatbelt	Not wearing helmet/ seatbelt	NA	N	Wearing helmet	Wearing seatbelt	Not wearing helmet/ seatbelt	NA
Overall	1647	36.80%	5.00%	36.10%	22.10%	432	49.10%	20.40%	23.80%	6.70%
Bihar	412	35.20%	3.40%	25.00%	36.40%	115	53.90%	22.60%	17.40%	6.10%
Maharashtra	415	36.10%	2.90%	47.70%	13.30%	113	73.50%	7.10%	15.90%	3.50%
Tamil Nadu	407	32.70%	9.30%	45.00%	13.00%	103	17.50%	27.20%	48.50%	6.80%
Uttar Pradesh	413	43.10%	4.60%	26.60%	25.70%	101	48.50%	25.70%	14.90%	10.90%

ANNEXURE 9A

9A.13: TABLE INDICATING STATE- WISE, HABITATION- WISE, AND GENDER- WISE INFORMATION ON IMPACT OF THE CRASH

Category (State, habitation, gender)	LIH							HIH						
	N	Died at the scene	Died while being transported to hospital	Discharged from hospital within 24 hrs	Hospitalized for more than 1 day	Died in hospital within 30 days from crash	Died after 30 days from the crash	N	Died at the scene	Died while being transported to hospital	Discharged from hospital within 24 hrs	Hospitalized for more than 1 day	Died in hospital within 30 days from crash	Died after 30 days from the crash
Overall	1647	18.40%	8.00%	13.40%	50.50%	8.90%	0.90%	432	4.20%	2.80%	13.40%	74.10%	5.10%	0.50%
Bihar	412	24.30%	7.80%	12.90%	43.90%	10.40%	0.70%	115	2.60%	1.70%	10.40%	83.50%	1.70%	--
Maharashtra	415	19.30%	3.40%	2.90%	67.00%	6.30%	1.20%	113	5.30%	3.50%	5.30%	85.00%	0.90%	--
Tamil Nadu	407	5.40%	5.70%	33.70%	45.70%	8.80%	0.70%	103	--	3.90%	35.00%	47.60%	13.60%	--
Uttar Pradesh	413	24.50%	15.30%	4.60%	45.00%	9.90%	0.70%	101	8.90%	2.00%	4.00%	78.20%	5.00%	2.00%
Habitation Type	1647	18.40%	8.00%	13.40%	50.50%	8.90%	0.90%	432	4.20%	2.80%	13.40%	74.10%	5.10%	0.50%
Urban	482	5.60%	3.70%	22.20%	64.50%	3.70%	0.20%	356	4.80%	2.00%	13.50%	77.20%	2.00%	0.60%
Rural	1165	23.70%	9.80%	9.80%	44.60%	11.00%	1.10%	76	1.30%	6.60%	13.20%	59.20%	19.70%	--
Victim Gender	1647	18.40%	8.00%	13.40%	50.50%	8.90%	0.90%	432	4.20%	2.80%	13.40%	74.10%	5.10%	0.50%
Male	1420	19.20%	8.20%	11.50%	50.70%	9.50%	0.80%	340	4.40%	2.60%	11.50%	74.70%	6.20%	0.60%
Female	227	13.70%	6.60%	25.10%	48.90%	4.80%	0.90%	92	3.30%	3.30%	20.70%	71.70%	1.10%	--

APPENDIX 1: PROPOSED DEFINITION FOR LIH (BOTTOM 40) AND BPL

As per United Nations SDG 10.1 goals, bottom 40 percent of the country's population in terms of income is being monitored.

As per the World Inequality Database (https://wid.world/country/india/), using the income distribution simulator (see fig 1 below) it was estimated that pre-tax annual income of INR 1,61,400 Per Adult is the threshold income of bottom 40% of the population of India. This translates to INR 13,450 per month per adult.

Hence for this survey, this income to be taken as the threshold per capita income for the test sample (to be termed as "bottom-40" henceforth).

All households with per capita (adult) monthly income (pre-tax) up to INR 13,450 would be considered as target respondents.

Similarly, using the same simulator (see fig 2 below) it was estimated that any adult with annual pre-tax income of INR 6,00,000/- or above would be considered among the top-10 % of the population in India. This converts to INR 50,000/- per month.

Hence for survey among control sample, households having per capita pre-tax monthly income of INR 50,000/- or above would be selected (to be termed as "top-10" henceforth).

All the enumerators would be provided a table wherein they can convert the household income based on number of adults in the household to decide whether the household can be interviewed or not.

METHODOLOGY NOTE:

The World Inequality Database (WID.world) aims to provide open and convenient access to the most extensive available database on the historical evolution of the world distribution of income and wealth, both within countries and between countries.

The estimates are based on a combination of sources used at the national level (including tax receipts, household surveys and national accounts), fiscal data coming from taxes on income, inheritance and wealth data and wealth rankings. The calculations are based on national income (NI), i.e. GDP minus consumption of fixed capital (capital depreciation) plus net foreign income. [https://wid.world/methodology/#library-others]

POVERTY BASED ON DR. C. RANGARAJAN REPORT:

As per Dr. Rangarajan report the new poverty line is when monthly per capita consumption expenditure of Rs.972 in rural areas and Rs.1,407 in urban areas in 2011-12 (i.e. Rs. 47 per day for urban areas).

The inflation rate in India between March 2012 and March 2019 was 53.73%, which translates into a total increase of Rs.756. This means that Rs.1,407 rupees in March 2012 are equivalent to Rs.2,163 in March 2019. The average monthly inflation rate between these periods was 0.51% In consideration of this study, households under poverty line would be determined based on monthly household income and number of members in household.

FIG 1: THRESHOLD MONTHLY INCOME OF BOTTOM-40% OF POPULATION

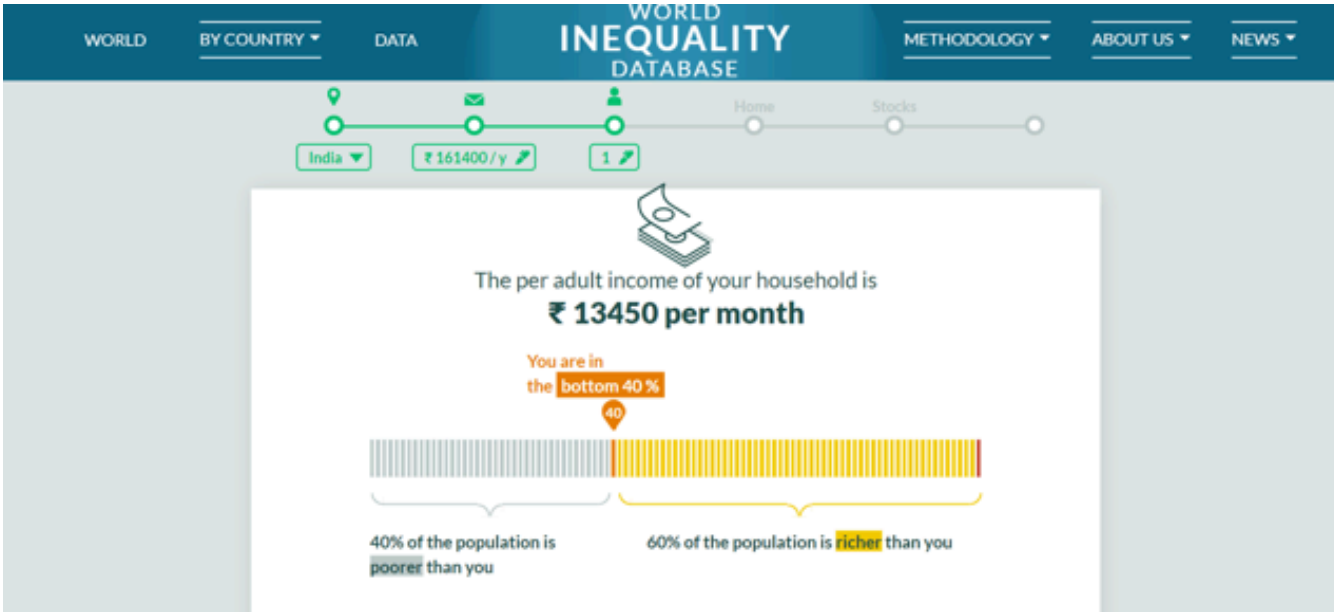
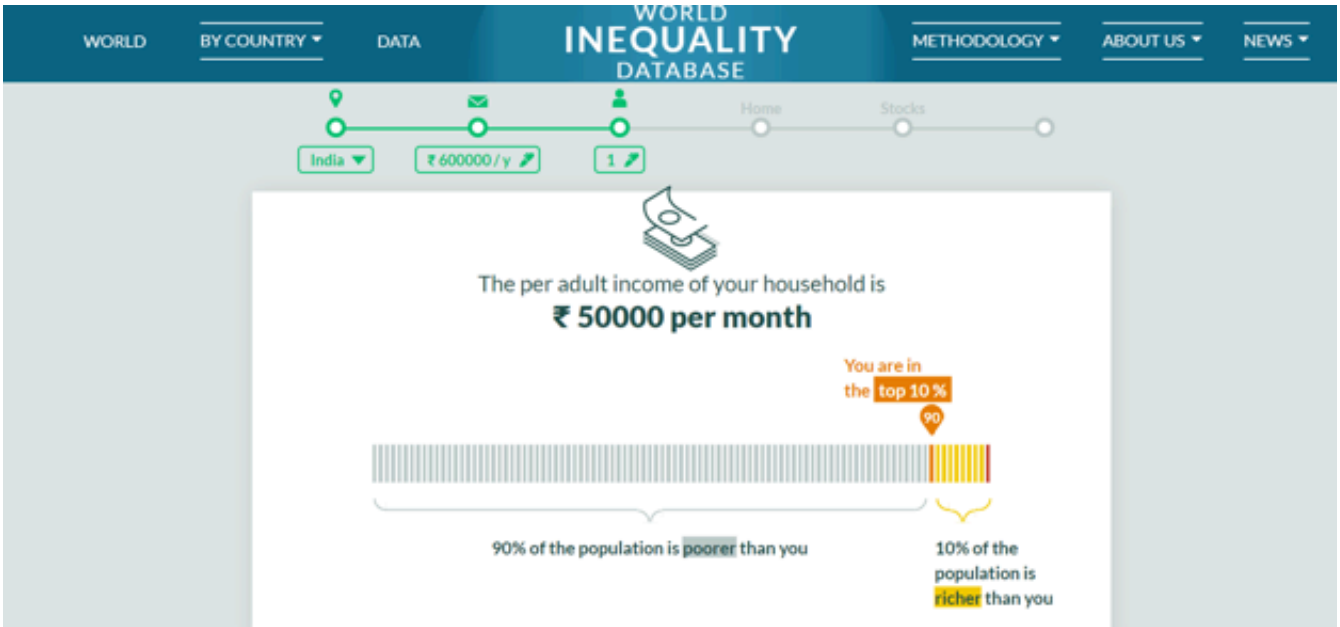


FIG 2: THRESHOLD MONTHLY INCOME OF TOP-10% OF POPULATION



APPENDIX 2: ROAD CRASH VICTIM PROFILE

The impact of road crash on victims varies depending on various factors such as victim's demographic and socio-economic profile (age, gender, educational qualification, household income, etc.). This chapter presents summary of the demographic, professional and economic profile of victims. The road crash victims were segregated into two key categories i.e. LIH (from poor families) and HIH (from rich families).

4.1 GENDER OF VICTIMS

Gender wise, travel habits and road usage of males differ from females to a large extent. Males being prime users of the roads in the form of drivers, pedestrians, cyclists, passengers, etc. more likely to get killed or seriously injured in crashes than women. During survey about 86 percent of road crash victims of LIH category were males while among the HIH category such proportion was about 79 percent.

TABLE 4.1: GENDER OF ROAD CRASH VICTIMS *[All figures in %]*

Road crash victim gender	LIH			HIH		
	N	Male	Female	N	Male	Female
Overall	1647	86.2	13.8	432	78.7	21.3
Bihar	412	87.1	12.9	115	82.6	17.4
Maharashtra	415	85.5	14.5	113	76.1	23.9
Tamil Nadu	407	79.4	20.6	103	68.9	31.1
Uttar Pradesh	413	92.7	7.3	101	87.1	12.9

4.2 AGE-GROUP OF VICTIMS AT THE TIME OF ROAD CRASH

A majority of the victims covered in the survey were from young and middle working age groups. Among LIH category victims, overall maximum number (53.6%) of victims were in the age-group of 26-45 years. Similarly, among HIH category, overall highest proportion of victims (64%) were from the age-group of 26-45 years. The probable reason is that most commuting/ travel happens due to work/ occupation and 26-45 age-groups are more prone to crashes.

TABLE 4.2: AGE-GROUP OF ROAD CRASH VICTIMS AT THE TIME OF CRASH *[All figures in %]*

Age-group of the road crash victim	N	14-18 yrs.	18-25 yrs.	26-35 yrs.	36-45 yrs.	46-60 yrs.	More than 60 yrs.
LIH							
Overall	1647	4.9	20.5	29.3	24.3	16.7	4.3
Bihar	412	8.0	25.7	26.9	21.6	12.9	4.9
Maharashtra	415	3.4	18.8	28.9	24.1	18.3	6.5
Tamil Nadu	407	0.7	10.6	29.7	31.2	25.3	2.5
Uttar Pradesh	413	7.5	26.9	31.5	20.3	10.4	3.4
HIH							
Overall	432	0.7	16.4	39.6	24.1	14.8	4.4
Bihar	115	1.7	27.8	55.7	9.6	3.5	1.7
Maharashtra	113	--	10.6	27.4	37.2	18.6	6.2
Tamil Nadu	103	--	9.7	37.9	32.0	18.4	1.9
Uttar Pradesh	101	1.0	16.8	36.6	17.8	19.8	7.9

4.3 EDUCATIONAL QUALIFICATION OF VICTIMS AT THE TIME OF ROAD CRASH

In terms of education, about two-third (66.2%) of the HIH category victims were graduate or post graduate at the time of crash. Almost, similar trend was observed across states where highest proportion of HIH victims was either graduate or post graduate at the time of crash.

On the other hand, only one-fourth (24.8%) of victims from LIH category were graduate or above at the time of crash.

TABLE 4.3: EDUCATIONAL QUALIFICATION OF ROAD CRASH VICTIMS

[All figures in %]

Highest education of victim at the time of road crash	N	Up to 5th Class	Up to 8th Class	Up to 10th Class	Up to 12th Class	Diploma	Graduate	Postgraduate
LIH								
Overall	1647	21.0	13.1	17.9	15.2	8.1	21.3	3.5
Bihar	412	31.1	15.0	16.0	16.7	4.6	16.3	0.2
Maharashtra	415	18.0	12.5	23.9	16.1	7.2	17.8	4.3
Tamil Nadu	407	7.3	7.4	12.0	12.0	17.9	37.6	5.7
Uttar Pradesh	413	27.1	17.4	19.4	16.0	2.7	13.6	3.9
HIH								
Overall	432	3.0	3.9	4.6	10.4	11.8	52.5	13.7
Bihar	115	--	1.7	5.2	12.2	13.9	62.6	4.3
Maharashtra	113	6.2	6.2	7.1	9.7	10.6	38.1	22.1
Tamil Nadu	103	--	3.9	4.9	10.7	18.4	45.6	16.5
Uttar Pradesh	101	6.0	4.0	1.0	8.9	4.0	64.4	11.9

APPENDIX 2: ROAD CRASH VICTIM PROFILE

4.4 OCCUPATION OF VICTIMS AT THE TIME OF CRASH

Occupation profile wise, among LIH category, the highest proportion of victims covered was salaried employees (30.7%) at the time of crash followed by victims that were laborer/ skilled or unskilled workers (21.1%), agriculture laborer/ farmer (14.3%), etc.

TABLE 4.4: VICTIMS OCCUPATION AT THE TIME OF CRASH – LIH *[N=1647, All figures in %]*

LIH victims occupation at the time of crash	Unemployed	Housewife	Agriculture Laborer/ Farmer	Laborer/ skilled worker/ unskilled worker	Petty trader/ shop owner	Businessmen/ self-employed	Salaried employee (Pvt/ Govt)	Retired	Student
Overall	6.3	3.6	14.3	21.1	8.4	7.5	30.7	0.8	7.2
Bihar	9.0	4.4	12.6	20.4	10.9	5.6	26.5	1.0	9.7
Maharashtra	4.1	3.6	26.5	15.2	7.2	6.0	27.7	0.5	9.2
Tamil Nadu	3.4	2.9	4.7	18.7	9.3	12.8	46.2	1.2	0.7
Uttar Pradesh	8.5	3.6	13.3	30.0	6.3	5.8	22.8	0.5	9.2

Among HIH category, most victims (42%) were businessmen/ self-employed at the time of crash and almost similar proportion of victims (41%) were salaried employees (Pvt/ govt.).

TABLE 4.5: VICTIMS OCCUPATION AT THE TIME OF CRASH – HIH *[N=432, All figures in %]*

HIH victims occupation at the time of crash	Unemployed	Housewife	Farmer	Businessmen/ self-employed	Salaried employee (Pvt/ Govt)	Student	Others
Overall	4.6	3.5	1.6	42.1	41.0	5.8	1.4
Bihar	7.8	0.9	1.7	54.8	30.4	3.5	0.9
Maharashtra	8.8	8.0	0.9	34.5	39.8	7.1	0.9
Tamil Nadu	0.0	1.9	0.0	19.4	75.7	1.9	1.0
Uttar Pradesh	1.0	3.0	4.0	59.4	18.8	10.9	3.0

4.5 INCOME OF VICTIMS AT THE TIME OF CRASH

In terms of monthly income at the time of crash, most of the victims from LIH households (25%) were earning between Rs.5,000 to Rs.10,000 followed by victims that were earning between Rs.10,001 to Rs.20,000. About 18 percent of victims from LIH households were not earning at all.

State wise, except Tamil Nadu, highest proportion of victims were earning between Rs.5,000 to Rs.10,000 at the time of crash.

TABLE 4.6: VICTIMS INCOME AT THE TIME OF CRASH – LIH

[N=1647, All figures in %]

LIH victims monthly income at the time of crash	Not earning	Up to Rs. 5,000	Rs. 5,001 to Rs. 10,000	Rs. 10,001 to Rs. 20,000	Rs. 20,001 to Rs. 30,000	Rs. 30,001 to Rs. 50,000	Rs. 50,001 to Rs. 75,000	Rs. 75,001 to Rs. 1,00,000
Overall	17.9	13.8	25.5	21.2	7.3	7.7	4.8	1.8
Bihar	23.3	20.4	28.2	20.1	5.8	1.7	--	0.5
Maharashtra	18.3	17.8	30.8	21.4	5.8	3.1	2.7	--
Tamil Nadu	8.1	1.5	10.3	17.4	14.0	25.1	16.7	6.9
Uttar Pradesh	21.5	15.3	32.4	25.7	3.9	1.2	--	--

Compared to LIH household victims, lesser proportion of HIH household victims were not earning at the time of crash. Among HIH household victims, one-third of victims were earning between Rs.50,000 to Rs.1 Lakh per month and almost similar proportion of HIH household victims was earning up to Rs.50,000 per month.

TABLE 4.7: VICTIMS INCOME AT THE TIME OF CRASH – HIH

[N=432, All figures in %]

HIH victims monthly income at the time of crash	Not earning	Up to Rs.50,000	Rs.50,000 to Rs.1 Lakh	Rs.1 Lakh to Rs.2 Lakh	Rs.2 Lakh to Rs.4 Lakh	Rs.4 Lakh to Rs.6 Lakh
Overall	14.1	33.8	34.7	14.6	2.3	0.5
Bihar	12.2	42.6	37.4	4.3	1.7	1.7
Maharashtra	24.8	37.2	29.2	8.8	--	--
Tamil Nadu	3.9	33.0	30.1	32.0	1.0	--
Uttar Pradesh	14.9	20.8	42.6	14.9	6.9	--

APPENDIX 2: ROAD CRASH VICTIM PROFILE

4.6 MARITAL STATUS OF VICTIM AT THE TIME OF ROAD CRASH

Overall, about 7 out of 10 victims from both LIH and HIH category were married and rest were single.

TABLE 4.8: MARITAL STATUS OF THE VICTIM AT THE TIME OF ROAD CRASH *[All figures in %]*

Marital status of the victim	LIH			HIH		
	N	Married	Single	N	Married	Single
Overall	1647	69.7	30.3	432	74.1	25.9
Bihar	412	66.0	34.0	115	65.2	34.8
Maharashtra	415	63.6	36.4	113	72.6	27.4
Tamil Nadu	407	85.7	14.3	103	90.3	9.7
Uttar Pradesh	413	63.7	36.3	101	69.3	30.7

4.7 AVERAGE HOUSEHOLD SIZE

The average household size of respondents in LIH segment was 5.6 which consisted of 3.8 adult members (above 18 years of age) and 1.8 members below 18 years of age.

The median values of number of adult members was 3, number of members below 18 years was 2 and total members in household was 5.

TABLE 4.9: AVERAGE HOUSEHOLD SIZE (MEAN VALUE)

Average household size (Mean value)	N	No. of adult members above 18 yrs. of age	No. of members below 18 yrs. of age	Total members
LIH				
Overall	1647	3.8	1.8	5.6
Bihar	412	4.2	2.3	6.4
Maharashtra	415	3.8	1.3	5.1
Tamil Nadu	407	3.1	1.1	4.2
Uttar Pradesh	413	4.2	2.4	6.6
HIH				
Overall	432	3.4	1.4	4.8
Bihar	115	3.6	2.0	5.6
Maharashtra	113	3.1	1.0	4.1
Tamil Nadu	103	3.1	1.1	4.2
Uttar Pradesh	101	3.7	1.4	5.1

APPENDIX 3: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – LIH & HIH

A1 PROFILE OF ROAD CRASH VICTIM

During the survey, victims or their family members were explored about the various details of the road crash. Demographic and professional profile or victim, details of the crash such as time date, type of vehicles involved etc. were collected. The road crash victims were segregated into two key categories i.e. LIH (from poor families) and HIH (from rich families).

A1.1 YEAR OF ROAD CRASH

Overall, higher proportion of the respondents was covered where crashes happened during 2015-19. Among LIH, seven out of ten crashes happened in 2015-19 while in the case of HIH eight out of ten crashes happened during 2015-19.

Almost similar trend was seen across all states where the maximum number of respondents/ family members experienced crashes during 2015-19.

TABLE A1: YEAR OF ROAD CRASH *[All figures in %]*

Year of crash	LIH				HIH			
	N	2005-09	2010-14	2015-19	N	2005-09	2010-14	2015-19
Overall	1647	9.4	20.4	70.2	432	3.7	17.1	79.2
Bihar	412	8.5	24.5	67.0	115	6.1	13.0	80.9
Maharashtra	415	13.3	19.5	67.2	113	6.2	12.4	81.4
Tamil Nadu	407	6.6	15.0	78.4	103	1.0	16.5	82.5
Uttar Pradesh	413	9.0	22.5	68.5	101	1.0	27.7	71.3

A1.2 GENDER OF VICTIMS

Overall, higher proportion of males were victims of road crashes. In the LIH category, over 8 out of 10 were male victims of road crashes while among the HIH category it was about 78 percent.

Almost similar trend was seen across all states where the maximum number of road crash victims were males.

TABLE A2: GENDER OF ROAD CRASH VICTIMS *[All figures in %]*

Road crash victim gender	LIH			HIH		
	N	Male	Female	N	Male	Female
Overall	1647	86.2	13.8	432	78.7	21.3
Bihar	412	87.1	12.9	115	82.6	17.4
Maharashtra	415	85.5	14.5	113	76.1	23.9
Tamil Nadu	407	79.4	20.6	103	68.9	31.1
Uttar Pradesh	413	92.7	7.3	101	87.1	12.9

APPENDIX 3: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – LIH & HIH

A1.3 AGE-GROUP OF VICTIMS AT THE TIME OF ROAD CRASH

Considering the age-group of the respondents from the LIH group, overall maximum number of victims (29%) were in the age-group of 26-35 years followed by 36-45 yrs. (24%). Thus, more than half of respondents (53.6%) were in the age-group of 26-45 years.

Similarly, among the HIH category, overall, highest proportion of victims (40%) was from the age-group of 26-35 years followed by 36-45 yrs. (24%). Thus about two-third (64%) of victims were in the age-group of 26-45 years.

TABLE A3: AGE-GROUP OF ROAD CRASH VICTIMS *[All figures in %]*

Age-group of the road crash victim	N	14-18 yrs.	18-25 yrs.	26-35 yrs.	36-45 yrs.	46-60 yrs.	More than 60 yrs.
LIH							
Overall	1647	4.9	20.5	29.3	24.3	16.7	4.3
Bihar	412	8.0	25.7	26.9	21.6	12.9	4.9
Maharashtra	415	3.4	18.8	28.9	24.1	18.3	6.5
Tamil Nadu	407	0.7	10.6	29.7	31.2	25.3	2.5
Uttar Pradesh	413	7.5	26.9	31.5	20.3	10.4	3.4
HIH							
Overall	432	0.7	16.4	39.6	24.1	14.8	4.4
Bihar	115	1.7	27.8	55.7	9.6	3.5	1.7
Maharashtra	113		10.6	27.4	37.2	18.6	6.2
Tamil Nadu	103		9.7	37.9	32.0	18.4	1.9
Uttar Pradesh	101	1.0	16.8	36.6	17.8	19.8	7.9

A1.4 EDUCATIONAL QUALIFICATION OF VICTIMS AT THE TIME OF ROAD CRASH

In terms of education of LIH category victims, around 21 percent were graduate and almost similar proportion of victims were educated up to 5th class followed by victims educated till 10th standard (18%).

Among the HIH category, more than half of the victims were graduate followed by post-graduate (14%).

TABLE A4: EDUCATIONAL QUALIFICATION OF ROAD CRASH VICTIMS *[All figures in %]*

Education of victim at the time of road crash	N	Up to 5th Class	Up to 8th Class	Up to 10th Class	Up to 12th Class	Diploma	Graduate	Postgraduate
LIH								
Overall	1647	21.0	13.1	17.9	15.2	8.1	21.3	3.5
Bihar	412	31.1	15.0	16.0	16.7	4.6	16.3	0.2
Maharashtra	415	18.0	12.5	23.9	16.1	7.2	17.8	4.3
Tamil Nadu	407	7.3	7.4	12.0	12.0	17.9	37.6	5.7
Uttar Pradesh	413	27.1	17.4	19.4	16.0	2.7	13.6	3.9
HIH								
Overall	432	3.0	3.9	4.6	10.4	11.8	52.5	13.7
Bihar	115	--	1.7	5.2	12.2	13.9	62.6	4.3
Maharashtra	113	6.2	6.2	7.1	9.7	10.6	38.1	22.1
Tamil Nadu	103	--	3.9	4.9	10.7	18.4	45.6	16.5
Uttar Pradesh	101	6.0	4.0	1.0	8.9	4.0	64.4	11.9

APPENDIX 3: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – LIH & HIH

A1.5 MARITAL STATUS OF VICTIMS AT THE TIME OF ROAD CRASH

Overall, about 7 out of 10 victims from both LIH and HIH category were married and rest were single. State-wise, highest victims of Tamil Nadu were married while lowest were from Uttar Pradesh.

TABLE A5: MARITAL STATUS OF THE VICTIM AT THE TIME OF ROAD CRASH *[All figures in %]*

Marital status of the victim	LIH			HIH		
	N	Married	Single	N	Married	Single
Overall	1647	69.7	30.3	432	74.1	25.9
Bihar	412	66.0	34.0	115	65.2	34.8
Maharashtra	415	63.6	36.4	113	72.6	27.4
Tamil Nadu	407	85.7	14.3	103	90.3	9.7
Uttar Pradesh	413	63.7	36.3	101	69.3	30.7

A2 ROAD CRASH DETAILS

A2.1 ROAD TYPE WHERE CRASH HAPPENED

Road type wise, the maximum number of crashes occurred on city/ district/ municipality roads followed by national highways/ expressways

Category wise, 56 percent crashes among LIH and 64 percent crashes among HIH category occurred on city/ district/municipal roads.

Based on crashes reported, the proportion of death cases was higher on national highways/ state highways, while survival cases were higher on city/ district/ municipality roads, probably because of the speed of the vehicles.

TABLE A6: ROAD TYPE WHERE CRASH HAPPENED *[All figures in %]*

Type of road on which crash happened	N	National Highway/ Expressway	State Highway	City/ District/ Municipality roads	Village road
LIH					
Overall	1647	18.1	15.4	55.9	10.6
Bihar	412	25.3	17.8	41.1	15.8
Maharashtra	415	11.0	18.1	62.2	8.7
Tamil Nadu	407	13.5	13.9	70.6	2.0
Uttar Pradesh	413	24.0	13.5	42.3	20.2
HIH					
Overall	432	17.4	14.4	63.9	4.3
Bihar	115	14.5	32.5	48.2	4.8
Maharashtra	113	19.5	3.4	69.0	8.0
Tamil Nadu	103	9.6	8.2	82.2	--
Uttar Pradesh	101	27.4	12.9	56.5	3.2

APPENDIX 3: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – LIH & HIH

A2.2 VEHICLES INVOLVED IN THE CRASH

With respect to the type of vehicle involved in the crash, overall, about 6 out of 10 crashes happened while victims were riding motorized two-wheelers.

The higher proportion of LIH victims that were involved in the crash were using roads/highways as pedestrians (12.2%), followed by those who were using cars (7.4%) and bicycles (6.2%)

Among HIH category victims, after M2Ws one-fourth of crashes occurred when victims were using cars.

TABLE A7: TYPE OF VEHICLE INVOLVED IN CRASH – VICTIM VEHICLE *[All figures in %]*

Victim vehicle type involved in crash	N	M2W	Car	Bicycle	3W	Pedestrian	Others
LIH							
Overall	1647	64.9	7.4	6.2	3.7	12.2	5.6
Bihar	412	51.9	3.2	10.2	8.0	18.2	8.5
Maharashtra	415	79.5	4.3	2.9	1.2	9.2	2.9
Tamil Nadu	407	66.1	17.2	3.4	1.2	8.4	3.7
Uttar Pradesh	413	62.0	5.1	8.2	4.4	13.1	7.3
HIH							
Overall	432	66.0	25.9	0.9	2.1	3.7	1.3
Bihar	115	67.0	23.5	1.7	4.3	--	3.5
Maharashtra	113	86.7	9.7	0.9	0.9	1.8	0.0
Tamil Nadu	103	47.6	44.7	--	1.0	5.8	1.0
Uttar Pradesh	101	60.4	27.7	1.0	2.0	7.9	1.0

Also, impact of the crash (survived) was measured based on type of vehicle victims were using at the time of crashes. It was found that about 8 out of 10 victims survived when they were travelling in cars (79.5%) followed by motorized two wheelers users (75.3%).

Comparatively, the proportion of survived victims was low while they were traveling through non-motorized transport – Bicycle (55%) and when they were using three-wheelers (47%).

Across LIH and HIH categories, lowest proportion of road victims survived while they was using road as pedestrian.

TABLE A8: TYPE OF VICTIM VEHICLE WISE IMPACT OF CRASH (SURVIVED) *[All figures in %]*

Victim vehicle type wise impact of crash (survived)	Overall	LIH Survived	HIH Survived
N	2079	1647	432
Overall	68.8	63.9	87.5
Car	79.5	73.0	86.6
M2W (Motorcycle/ Scooter/ Scooty)	75.3	71.1	90.9
Bicycle	54.7	53.9	75.0
3W/ Cycle or Battery Rickshaw	47.1	41.0	88.9
Pedestrian	42.9	43.3	37.5
Others	41.8	39.1	83.3

Further, in terms of other offending vehicles involved in the crash, overall, slightly over one-fourth of victims from the LIH category were riding M2Ws, followed by truck/lorry/ tractor and then car.

A higher proportion of trucks /lorries /tractors was involved in crashes in Bihar (28.9%) and Uttar Pradesh (27.8%), while M2Ws in Maharashtra (37.8%) and Cars in Tamil Nadu (29%).

Among HIH category respondents, about 32 percent were using M2Ws, followed by Cars (29.4%), trucks/ lorries/ tractors (12%). Car as another offending vehicle during the crash was mentioned by highest proportion of respondents in Bihar (24.3%), Tamil Nadu (28.2%), and Uttar Pradesh (37.6%), and M2W in Maharashtra (55.8%).

APPENDIX 3: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – LIH & HIH

TABLE A9: TYPE OF VEHICLE INVOLVED IN THE CRASH – OTHER OFFENDING VEHICLE *[All figures in %]*

Other offending vehicle involved in crash	N	M2W	Truck/ lorry/ Tractor	Car	None	3W	Bus/ Minibus	Taxi	Others
LIH									
Overall	1647	25.8	22.0	20.9	6.9	4.6	6.7	5.8	7.5
Bihar	412	20.6	28.9	11.2	9.2	10.4	3.9	5.3	10.4
Maharashtra	415	37.8	16.1	21.2	8.4	2.4	4.8	2.2	7.0
Tamil Nadu	407	21.4	15.0	29.0	4.9	3.7	11.1	14.7	0.2
Uttar Pradesh	413	23.2	27.8	22.5	4.8	1.7	7.0	1.2	11.6
HIH									
Overall	432	31.7	12.0	29.4	1.9	10.4	5.1	7.6	1.9
Bihar	115	24.3	7.0	24.3	0.9	23.5	7.0	10.4	2.6
Maharashtra	113	55.8	6.2	28.3	4.4	1.8	0.9	0.9	1.8
Tamil Nadu	103	17.5	17.5	28.2	1.0	5.8	10.7	18.4	1.0
Uttar Pradesh	101	27.7	18.8	37.6	1.0	9.9	2.0	1.0	2.0

A2.3 WAYS IN WHICH VEHICLE/ ROAD USED BY THE VICTIM AT THE TIME OF CRASH

Respondents were asked about the way in which victims were using vehicle/ road at the time of crash. Overall, higher proportion of victims were using roads while driving/ riding vehicle.

In terms of habitation, higher proportion of victims in urban areas were driving/ riding vehicles, while in the case of rural areas higher proportion of victims were using the roads as passenger/ pillion rider or pedestrian.

Overall, from the LIH category, over two-third of victims were either driving/ riding the vehicle, one-fifth were using as passengers/ pillion riders, and about 12 percent as a pedestrian.

Similarly, among the HIH category, 8 out of 10 victims were using the road as driver/ rider while about one-sixth were using as passenger/ pillion riders.

TABLE A10: WAYS IN WHICH ROAD/ VEHICLE USED BY THE VICTIM *[All figures in %]*

Road/ vehicle usage as	LIH				HIH			
	N	Driver/ Rider	Passenger/ Pillion	Pedestrian	N	Driver/ Rider	Passenger/ Pillion	Pedestrian
Overall	1647	67.2	20.6	12.2	432	80.8	15.5	3.7
Bihar	412	52.2	29.6	18.2	115	75.7	24.3	--
Maharashtra	415	68.2	22.7	9.2	113	85.0	13.3	1.8
Tamil Nadu	407	83.8	7.9	8.4	103	84.5	9.7	5.8
Uttar Pradesh	413	64.9	22.0	13.1	101	78.2	13.9	7.9

APPENDIX 3: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – LIH & HIH

A3. RESPONDENT PROFILE

Out of all the respondents, about 42 percent were victims themselves while in 58 percent cases close family members were interviewed.

A3.1 RESPONDENTS POSITION IN HOUSEHOLD

Among both the categories, most of the respondents were either head of the households or chief wage earners. 28 percent LIH and 31 percent HIH respondents were other most affected members of the household.

TABLE A11: RESPONDENTS POSITION IN HOUSEHOLD *[All figures in %]*

Position in household	LIH				HIH			
	N	HoH	CWE	Other*	N	HoH	CWE	Other*
Overall	1647	45.7	26.3	28.1	432	33.6	35.2	31.3
Bihar	412	45.1	23.8	31.1	115	15.7	34.8	49.6
Maharashtra	415	48.7	20.0	31.3	113	54.0	21.2	24.8
Tamil Nadu	407	47.7	33.7	18.7	103	45.6	40.8	13.6
Uttar Pradesh	413	41.2	27.8	31.0	101	18.8	45.5	35.6

A3.2 GENDER WISE

Gender wise, one-fourth of respondents in LIH category were females while and one-third in HIH category were females. Highest proportion of females was covered in Tamil Nadu.

TABLE A12: GENDER OF RESPONDENTS *[All figures in %]*

Gender of respondent	LIH			HIH		
	N	Male	Female	N	Male	Female
Overall	1647	74.5	25.5	432	66.9	33.1
Bihar	412	76.0	24.0	115	69.6	30.4
Maharashtra	415	78.6	21.4	113	73.5	26.5
Tamil Nadu	407	63.4	36.6	103	51.5	48.5
Uttar Pradesh	413	79.9	20.1	101	72.3	27.7

A3.3 AGE GROUP WISE

Age-group wise, most of the respondents were from the age-group of 26-35 years followed by 36-45 years across both the categories.

TABLE A13: AGE-GROUP OF RESPONDENTS *[All figures in %]*

Age group	N	18-25 yrs.	26-35 yrs.	36-45 yrs.	46-60 yrs.	More than 60 yrs.
LIH						
Overall	1647	18.5	36.0	25.5	17.0	3.0
Bihar	412	26.2	34.2	21.4	14.3	3.9
Maharashtra	415	21.4	34.7	25.1	15.4	3.4
Tamil Nadu	407	4.7	37.1	35.1	22.9	0.2
Uttar Pradesh	413	21.5	38.0	20.6	15.5	4.4
HIH						
Overall	432	15.5	44.9	28.2	10.6	0.7
Bihar	115	27.8	57.4	12.2	2.6	--
Maharashtra	113	13.3	31.9	38.9	13.3	2.7
Tamil Nadu	103	5.8	41.7	39.8	12.6	--
Uttar Pradesh	101	13.9	48.5	22.8	14.9	--

APPENDIX 3: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – LIH & HIH

A3.4 EDUCATION WISE

Education wise, about 18 percent LIH respondents were educated till primary level followed by senior secondary level (17%) and secondary level (16%). While in case of HIH category, about two-third of respondents were graduate or above.

TABLE A14: EDUCATION OF RESPONDENTS *[All figures in %]*

Highest Education of Respondent	N	Up to Primary Class	Middle school	Secondary school	Senior secondary school	Diploma	Graduate/ college and above	Post-graduate/ University
LIH								
Overall	1647	18.1	12.0	15.8	16.8	7.7	25.0	4.7
Bihar	412	26.9	12.6	15.5	19.4	5.1	20.1	0.2
Maharashtra	415	12.3	11.8	21	22.4	6.7	20.5	5.3
Tamil Nadu	407	4.2	7.1	9.1	9.8	16.5	45.2	8.1
Uttar Pradesh	413	28.8	16.2	17.7	15.3	2.4	14.5	5.1
HIH								
Overall	432	0.7	2.5	3.9	10.4	11.3	56.0	15.0
Bihar	115	--	--	6.1	11.3	15.7	63.5	3.5
Maharashtra	113	0.9	3.5	4.4	15.9	10.6	42.5	22.1
Tamil Nadu	103	--	1.0	1.9	7.8	14.6	52.4	22.3
Uttar Pradesh	101	2.0	5.9	3.0	5.9	4.0	66.3	12.9

A3.5 OCCUPATION WISE

Occupation wise most of LIH respondents were labour (skilled/ unskilled)/ shop owners (27.5%) followed by salaried employees (Pvt./ Govt.) (27%), farmers/ agriculture laborer (20%).

Among HIH category, about 8 out of 10 respondents were either business/ self-employed or salaried employees (Pvt. Govt.).

TABLE A15: OCCUPATION OF RESPONDENTS *[All figures in %]*

Occupation of respondent	N	Unemployed	Housewife	Farmer/ Agri laborer	Unskilled/ skilled worker/ shop owner	Businessmen/ self-employed	Salaried employee (Pvt/ Govt)	Retired/ Student
LIH								
Overall	1647	5.9	9.7	20.4	27.5	7.3	27.0	2.2
Bihar	412	8.7	9.0	18.0	29.4	6.3	25.7	2.9
Maharashtra	415	7.0	6.0	35.5	18.8	5.1	24.6	3.2
Tamil Nadu	407	1.2	14.3	3.6	26.2	11.8	42.5	0.2
Uttar Pradesh	413	6.5	9.7	24.2	35.6	6.3	15.3	2.4
HIH								
Overall	432	3.0	10.9	1.2	--	42.1	40.7	2.1
Bihar	115	6.1	5.2	1.7	--	44.3	42.6	--
Maharashtra	113	3.5	8.0	--	--	41.6	40.7	6.2
Tamil Nadu	103	--	11.7	--	--	26.2	62.1	--
Uttar Pradesh	101	2.0	19.8	3.0	--	56.4	16.8	2.0

APPENDIX 3: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – LIH & HIH

A3.6 BPL STATUS OF HOUSEHOLD

The BPL status of the household was recorded based on the reporting of the respondents. However, cases where respondents were not aware of the same, BPL status was determined based on monthly household income and number of members in household. Households having per capita income below Rs.2,163 were considered as BPL.

Based on above, during survey a little higher than half of respondents (53.1%) were covered from BPL households while remaining were from non-BPL.

TABLE A16: BPL STATUS OF LIH HOUSEHOLDS *[All figures in %]*

BPL status of victim household	N	Yes	No
Overall	1647	53.1	46.9
Bihar	412	65.3	34.7
Maharashtra	415	40.2	59.8
Tamil Nadu	407	51.1	48.9
Uttar Pradesh	413	55.7	44.3

A3.7 AVERAGE HOUSEHOLD SIZE

The average household size of respondents in LIH segment was 5.6 which consisted 3.8 adult members (above 18 years of age) and 1.8 members below 18 years of age.

The median values of no. of adult members was 3, number of members below 18 years was 2 and total members in household was 5.

TABLE A17: AVERAGE HOUSEHOLD SIZE (MEAN VALUE)

Average household size (Mean value)	N	No. of adult members above 18 yrs. of age	No. of members below 18 yrs. of age	Total members
LIH				
Overall	1647	3.8	1.8	5.6
Bihar	412	4.2	2.3	6.4
Maharashtra	415	3.8	1.3	5.1
Tamil Nadu	407	3.1	1.1	4.2
Uttar Pradesh	413	4.2	2.4	6.6
HIH				
Overall	432	3.4	1.4	4.8
Bihar	115	3.6	2.0	5.6
Maharashtra	113	3.1	1.0	4.1
Tamil Nadu	103	3.1	1.1	4.2
Uttar Pradesh	101	3.7	1.4	5.1

APPENDIX 4: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – TRUCK DRIVERS

The truck drivers were interviewed across Bihar, Maharashtra, Tamil Nadu and Uttar Pradesh to understand their awareness about MVAA and Motor third party liability insurance, compensation and experience of road crashes. The respondents selected for the interview were truck drivers of Medium Motor Vehicles, Heavy Motor Vehicles and Trailers. This section contains demographic and professional profile of truck drivers.

B1. DEMOGRAPHIC PROFILE OF TRUCK DRIVERS

A total sample of 420 truck drivers was covered in 4 states: each state containing about one-fourth of respondents.

TABLE B1: SAMPLE COVERAGE

Sample coverage	N	Percentage
Overall	420	--
Bihar	101	24%
Maharashtra	113	27%
Tamil Nadu	100	24%
Uttar Pradesh	106	25%

B1.1 AGE-GROUP WISE

Age group-wise, overall, 46 percent drivers were in the age group of 26-40 years, while close to 3 out of 10 drivers were in the age group of 36-45 years.

TABLE B2: AGE-GROUP OF TRUCK DRIVERS *[All figures in %]*

Age Group	N	18-25 yrs.	26-35 yrs.	36-45 yrs.	46-60 yrs.	> 60 yrs.
Overall	420	8.6	45.5	31.9	13.3	0.7
Bihar	101	9.9	69.3	19.8	1.0	--
Maharashtra	113	6.2	46.9	31.0	15.0	0.9
Tamil Nadu	100	--	30.0	49.0	21.0	--
Uttar Pradesh	106	17.9	35.8	28.3	16.0	1.9

B1.2 EDUCATIONAL QUALIFICATION WISE

Educational qualification wise, overall 36 percent of truck drivers were educated up to secondary level followed by middle level (29%), senior secondary level (15%). Very few were educated above senior secondary level. More than 43 percent of truck drivers have not passed class 10th.

TABLE B3: EDUCATIONAL QUALIFICATION OF TRUCK DRIVERS *[All figures in %]*

Education qualification	N	Illiterate	Not completed primary	Up to Class 5th	Up to Class 8th	Up to Class 10th	Up to Class 12th	Diploma	Graduate & above
Overall	420	3.1	1.0	9.8	29.3	36.2	14.8	1.4	4.5
Bihar	101	0.0	0.0	4.0	25.7	51.5	13.9	0.0	5.0
Maharashtra	113	1.8	1.8	15.0	32.7	33.6	12.4	1.8	0.9
Tamil Nadu	100	0.0	0.0	3.0	38.0	34.0	13.0	3.0	9.0
Uttar Pradesh	106	10.4	1.9	16.0	20.8	26.4	19.8	0.9	3.8

APPENDIX 4: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – TRUCK DRIVERS

B2 PROFESSIONAL EXPERIENCE OF TRUCK DRIVERS

B2.1 DRIVING EXPERIENCE WISE

Overall, one-third of truck drivers had driving experience of 6-10 years followed by those who were having 2-5 yrs. experience (32%) and having more than 15 yrs. experience (18%).

State wise, nearly 54 percent truck drivers in Bihar had 2-5 years of driving experience and in rest of the states majorly between 6-10 years.

TABLE B4: DRIVING EXPERIENCE OF TRUCK DRIVERS *[All figures in %]*

Driving experience	N	Less than 2 yrs.	2-5 yrs.	6-10 yrs.	11-15 yrs.	More than 15 yrs.
Overall	420	1.4	31.9	34.3	14.0	18.3
Bihar	101	--	53.5	27.7	10.9	7.9
Maharashtra	113	--	15.9	31.9	24.8	27.4
Tamil Nadu	100	3.0	37.0	47.0	6.0	7.0
Uttar Pradesh	106	2.8	23.6	31.1	13.2	29.2

B2.2 WORKING SECTOR WISE

Overall, 9 out of 10 truck drivers were working in private sector while only 2 percent in government.

TABLE B5: WORKING SECTOR OF TRUCK DRIVERS *[All figures in %]*

Working sector	N	Private	Government
Overall	420	98.3	1.7
Bihar	101	100.0	--
Maharashtra	113	100.0	--
Tamil Nadu	100	95.0	5.0
Uttar Pradesh	106	98.1	1.9

B2.3 VEHICLE OWNERSHIP TYPE

Overall, 8 out of 10 trucks were owned by fleet owners/ company while about 12 percent were self-owned trucks.

State wise, majorly trucks were owned by fleet owners except Tamil Nadu where about one-fourth truck drivers have their own trucks.

TABLE B6: VEHICLE OWNERSHIP WISE *[All figures in %]*

Vehicle ownership	N	Self-Owned	Owned by fleet owner/ company
Overall	420	12.4	87.6
Bihar	101	3.0	97.0
Maharashtra	113	16.8	83.2
Tamil Nadu	100	26.0	74.0
Uttar Pradesh	106	3.8	96.2

B2.4 INCOME FROM TRUCK DRIVING PROFESSION

Overall, nearly 47 percent truck drivers had an income of Rs.10,000- Rs. 20,000, followed by 29 percent having from Rs.20,000 to Rs.30,000.

State wise, major proportion of truck drivers' income was in between Rs. 10,000 to Rs. 20,000.

TABLE B7: INCOME FROM TRUCK DRIVING PROFESSION *[All figures in %]*

Income from truck driving profession	N	Rs. 5,001 to 10,000	Rs. 10,001 to 20,000	Rs. 20,001 to 30,000	Rs. 30,001 to 50,000	Rs. 50,001 to 75,000
Overall	420	12.9	47.1	29.3	8.1	2.6
Bihar	101	2.0	46.5	46.5	5.0	--
Maharashtra	113	25.7	46.9	22.1	3.5	1.8
Tamil Nadu	100	3.0	33.0	33.0	22.0	9.0
Uttar Pradesh	106	18.9	61.3	17.0	2.8	--

APPENDIX 4: RESPONDENT PROFILE (DEMOGRAPHIC & PROFESSIONAL) – TRUCK DRIVERS

B2.5 STRUCTURE OF MONTHLY BENEFITS

Overall, 6 out of 10 truck drivers were paid on monthly basis and rest 31 percent on trip basis. Only 8 percent truck drivers were paid on the basis of driving hours.

Across states, over half the truck drivers were paid on monthly basis, except Tamil Nadu where 54 percent truck drivers were paid trip wise and 24 percent based on driving hours.

TABLE B8: STRUCTURE OF MONTHLY BENEFITS OF TRUCK DRIVERS *[All figures in %]*

Structure of monthly benefits	N	Monthly Salary	Trip wise	Number of Driving Hours
Overall	420	61.2	30.7	8.1
Bihar	101	87.1	7.9	5.0
Maharashtra	113	76.1	23.0	0.9
Tamil Nadu	100	22.0	54.0	24.0
Uttar Pradesh	106	57.5	38.7	3.8

B2.6 SETTLEMENT OF PENALTIES

Overall, more than three-fourth truck drivers confirmed that the settlement of penalties was done by the owner or company, 13 percent truck drivers settled penalties by themselves and 11 percent drivers shared by both driver and owner.

State wise, majority of truck drivers mentioned that the settlement of penalties was done by their owner/ company.

TABLE B9: SETTLEMENT OF PENALTIES *[All figures in %]*

Settlement of penalties	N	Owner/ Company pays for it	Settled by the driver from his salary	Shared by both driver and owner
Overall	420	76.7	12.9	10.5
Bihar	101	74.3	9.9	15.8
Maharashtra	113	57.5	27.4	15.0
Tamil Nadu	100	91.0	5.0	4.0
Uttar Pradesh	106	85.8	7.5	6.6

B2.7 DRIVING SCHEDULE (PER DAY AND PER MONTH)

Overall, truck drivers drive 9.9 hours per day and 22.1 days a month. State wise, truck drivers in Uttar Pradesh drive maximum 11 hours a day followed by Bihar.

In terms of driving per month, Maharashtra truck drivers drive about 24 days a month followed by Uttar Pradesh. Least driving schedule (per day and per month) was recorded for truck drivers of Tamil Nadu.

TABLE B10: VEHICLE OWNERSHIP *[N=420, All figures in mean]*

Driving schedule	Avg. hours' drive/ day	Avg. days' work/ month
Overall	9.9	22.1
Bihar	10.0	21.8
Maharashtra	9.4	24.1
Tamil Nadu	9.1	20.0
Uttar Pradesh	11.0	22.3

B2.8 TYPE OF TRUCK WISE

Truck type wise, overall, about half of the truck drivers covered were driving heavy motor vehicles (exceed 12 tons) while about 45 percent were driving medium motor/ good vehicles (between 7.5-12 tons).

Across states, at-least half of the truck drivers were driving heavy motor vehicle expect Bihar where such proportion was about 42.6 percent.

TABLE B11: TYPE OF TRUCK CATEGORY *[All figures in mean]*

Type of truck category	N	Medium Motor Vehicle (B/w 7.5-12 tons)	Heavy Motor Vehicle (Exceed 12 tons)	Trailer
Overall	420	45.7	50.2	4.0
Bihar	101	56.4	42.6	1.0
Maharashtra	113	40.7	50.4	8.8
Tamil Nadu	100	43.0	57.0	--
Uttar Pradesh	106	43.4	50.9	5.7

APPENDIX 5: QUESTIONNAIRES

QUESTIONNAIRE – TEST SAMPLE (B-40)

City of Interview	
Serial No	
Place of Interview	

PREAMBLE

Good .....: I am from MDRA (Marketing & Development Research Associates), a leading market and social research agency in India. We are currently conducting a survey to assess the impact of road deaths on victims in terms of poverty and social status for SaveLIFE Foundation (SLF) in collaboration with the World Bank.

I want to ask for your permission to include you in our study and it is up to you to decide whether to participate. The interview will take about 25-30 minutes. You can decide not to answer any question and can stop the interview at any time. Everything that you report during the interview will be kept strictly confidential. Your responses would be combined with responses given by other respondents and would not be identified separately.

[Please note that no payment/ money/ fee to be paid to anyone in any manner for participating in this survey]

SECTION A: QUALIFYING CRITERIA

S.N.	Question	Response
A1	Has anyone in your household died or suffered serious injury from a road crash in the last 15 years? [Serious/ severe injuries mean cases where victims attended hospital for treatment]	(1) Yes, death due to a road crash (2) Yes, serious injuries (3) Yes, minor injuries [TERMINATE] (4) No [TERMINATE]
A2	How many members of your household were involved in that road crash?	(1) 1 member (2) More than 1 member [In case of more than 1 member, victim that contributed the most to the monthly household expenses before crash would be selected/ information about such victim would be asked. In case where victims contributed equally or not contributed at all, take details about the oldest victim at the time of crash.]

A3	Did road crash victim (as selected in A2) involve in more than 1 crash in last 15 years where serious/ severe injuries were sustained.	(1) Yes (2) No [If Yes, information about the latest crash would be taken]
A4	What was the impact of the road crash on the victim?	(1) Died at the scene (2) Died while being transported to hospital (3) Taken to hospital & discharged within 24 hrs. (4) Had to be admitted in the hospital for more than 1 day (5) Died in hospital within 30 days from the crash (6) Died after 30 days from the crash
A5	When did the road crash happen?	(1) Before Jan 2005 [TERMINATE] (2) Between Jan 2005 - July 2019 [CONTINUE] (3) After July 2019 [TERMINATE]
A6	Crash victim's relation with respondent	(1) Self [GO TO A8] (2) Parent/ Grand parent (3) Son/ Daughter (4) Uncle/ Aunt (5) Nephew/ Niece (6) Spouse (7) Sibling (8) Father/ Mother-in-law (9) Brother/ Sister-in-law (10) Son/ Daughter-in law (11) Others (specify): _____
A7	Did you use to live with the victim when the road crash happened?	(1) Yes [CONTINUE] (2) No [TERMINATE]
A8	How do you term yourself in your household? [A group of people staying together under the same roof and sharing food from a common kitchen is called a Household. Persons living in hostels or messes and taking food from a common kitchen do not constitute a household.]	(1) Head of the Household [HoH is the person (either male or female) that takes key decision in the household] (2) Chief Wage Earner [Chief wage earner is the person (either male or female) who contributes the most to the household expenses] (3) Other most affected member of the household [Member of the household that was most impacted due to crash after HoH and CWE]

APPENDIX 5: QUESTIONNAIRES

A9	What was your age when the road crash happened?	(1) Less than 14 yrs. [TERMINATE] (2) More than 14 yrs. [CONTINUE]
A10	Please provide following information about your household members (as on 31 Jan 2020).	Number
1	Number of adult members above 18 yrs. of age	
2	Number of members below 18 yrs. of age	
3	Total household members	
A11	Income: Please look at this card and tell me which income group best indicates Total Monthly Household Income. [SHOW CARD] (as on 31 Jan 2020). [Please include all the income/ receipts of every member of the household from all sources such as job, profession, wages, rent, pension, gratuity, etc.]	(1) Up to Rs. 5,000 (2) Rs. 5,001 to Rs. 10,000 (3) Rs. 10,001 to Rs. 20,000 (4) Rs. 20,001 to Rs. 30,000 (5) Rs. 30,001 to Rs. 50,000 (6) Rs. 50,001 to Rs. 75,000 (7) Rs. 75,001 to Rs. 1,00,000 (8) More than Rs. 1,00,000
A12	Based on the table provided in the annexure, is respondent eligible for the survey? [Use the table provided at the end to check the eligibility of the respondent for the survey]	(1) Yes [CONTINUE] (2) No [TERMINATE]
A13	Is your household a BPL household? [Use the table provided at the end to check and validate the BPL status of household]	(1) Yes (2) No

SECTION B: RESPONDENT PROFILE

S.N.	Question	Response
B1	Respondent Name	
B2	Phone Number	
B3	Address	
B4	City	
B5	State	(1) Bihar (2) Maharashtra (3) Tamil Nadu (4) Uttar Pradesh
B6	Location of habitation	(1) Urban (2) Rural
B7	Gender	(1) Male (2) Female
B8	What was your age on last birthday?	Mention age: _____ years.
B9	Highest Education of Respondent	(1) Illiterate (2) Literate with no formal education (3) Did not complete primary education (4) Primary school (up to Class 5th) (5) Middle school (up to Class 8th) (6) Secondary school (up to Class 10th) (7) Senior secondary school (up to Class 12th) (8) Diploma (9) Graduate/college and above (10) Postgraduate/ University (11) Other (Specify): _____
B10	Occupation of respondent	(1) Unemployed (2) Housewife (3) Agricultural Laborer (4) Other Laborer (5) Farmer (6) Unskilled worker (7) Petty trader/ shop owner (8) Skilled worker (9) Businessmen/ self-employed (10) Salaried employee (Pvt/ Govt) (11) Retired (12) Other (Specify): _____

APPENDIX 5: QUESTIONNAIRES

SECTION C: ROAD CRASH DETAILS

S.N.	Question	Response
C1	When did road crash happen? (Mention date, month and year)	_____ [DD/MM/YYYY]
C2	Where did the road crash happen?	City/ location Name: _____
C3	Type of city/ location where road crash happened	(1) Within the city of victim residence (2) Other city
C4	Type of road on which crash happened	(1) Expressway (2) National Highway (3) State Highway (4) City/ District/ Municipality roads (5) Village road (6) Other (specify): _____
C5	Type of vehicles involved in the road crash [MENTION CODE] [POST CODES] Personal vehicles (1) M2W - Motorcycle/ Scooter/ Scooty (2) Car (3) Bicycle Commercial vehicles (4) Taxi (5) Three-wheeler/ Cycle-Rickshaw/ Battery Rickshaw (6) Bus/ Minibus (7) Truck/ lorry/ Tractor Others (8) Pedestrian (9) None (10) DK/ CS (11) Others (specify): _____	(1) Victim vehicle: _____ (2) Other offending vehicle: _____

C6	In which way victim was using vehicle/ road at the time of crash.	(1) Driver/ Rider (2) Passenger/ Pillion (3) Pedestrian (4) Others: _____
C7	Which vehicle was at fault at the time of the road crash?	(1) Victim's vehicle /vehicle in which victim was travelling (2) Other vehicle (3) DK/CS
C8	Was the victim wearing helmet or seatbelt during the road crash?	(1) Yes, wearing helmet [2 wheeler users] (2) Yes, wearing seatbelt [4 wheeler users] (3) Not wearing helmet/ seatbelt (4) Not applicable
C9	How was the victim transferred to the hospital?	(1) Ambulance (2) Police vehicle (3) Private vehicle (4) Public vehicle (auto/ taxi/ etc.) (5) Not transferred to hospital [GO TO C19] (6) DK/CS (7) Others (specify): _____
C10	[IF RESPONSE IS 1] Approx. time from crash ambulance took to arrive at crash location?	(1) Within 15 minutes (2) 16-30 mins (3) 31-45 mins (4) Beyond 45 mins (4) DK/CS
C11	Which hospital was the victim taken to?	(1) Govt. (2) Private (3) Others (specify): _____
C12	Was the victim admitted to the hospital?	(1) Yes (2) No (3) DK/CS
C13	[IF YES] How long did victim had to stay in hospital?	_____days

APPENDIX 5: QUESTIONNAIRES

C14	On reaching hospital, how long it took before a doctor/ nurse attended to the injury?	(1) Immediately on reaching hospital (2) Within 10-30 mins (3) 31-60 mins (4) Beyond 60 mins (5) DK/ CS
C15	Did the victim face any discrimination or prejudice by hospital officials/ staff?	(1) Yes (2) No (3) DK/CS
C16	[IF YES], What kind of harassment/ prejudice did the victim/ attendant/ family face? [RECORD VERBATIM] _____ _____ POSTCODES (1) Victim was not attended immediately at hospital (2) Asked to wait for police before attending victim (3) Made excuses and asked to take the victim to other hospital (4) Denied admission of victim to the hospital (5) Asked for money for treatment (6) Others (specify): _____	
C17	Among your acquaintances/ friends/ relatives, does anybody work as a medical/ first aid staff at a medical facility or hospital?	(1) Yes (2) No [GO TO C19]
C18	Were they of any help during the treatment of the victim?	(1) Yes (2) No
C19	Was this road crash reported to the police?	(1) Yes (2) No (3) DK/CS
C20	Was a FIR filed after the road crash?	(1) Yes (2) No (3) DK/CS
C21	[IF YES TO C20] Were the police officials helpful/ cooperative during the process?	(1) Yes (2) No (3) DK/CS

C22	[IF NO TO C20] What were the reasons for not filing FIR? [RECORD VERBATIM] _____ _____ _____ POSTCODES (1) Was afraid of police harassment (2) Did not want to get into legal hassles (3) Fear of being asked to pay bribe (4) Did not feel need of filing FIR (5) Police official declined to file FIR (6) Others (specify): _____	
C23	Did you/ your family or offending vehicle user file any case under Motor Accident Claims Tribunal (MACT) after the road crash?	(1) Yes (2) No [GO TO C27] (3) DK/CS [GO TO NEXT SECTION D]
C24	Did you/ your family members have to visit court for hearings?	(1) Yes, Mention how many times: _____ (2) No (3) DK/CS
C25	Did you spend any money on litigation?	(1) Yes (2) No (3) DK/CS
C26	Is the case still ongoing in the courts?	(1) Yes (2) No
	[IF NO TO C23], what were the reasons for not filing case? [RECORD VERBATIM] _____ _____ _____ (1) Out of court settlement was done (2) Unable to hire/ afford lawyer/ fee (3) Did not want to get into legal hassles (4) Did not feel need of filing case (5) To avoid work/ study loss due to court hearings (6) Others (specify): _____	

APPENDIX 5: QUESTIONNAIRES

SECTION D: ROAD CRASH VICTIM PROFILE

S.N.	Question	Response
	ASK D1-D3 IF RESPONDENT IS OTHER THAN ROAD CRASH VICTIM	
D1	Gender of the road crash victim	(1) Male (2) Female
D2	Age of victim at the time of road crash	Mention age: _____ years.
D3	Highest Education of victim at the time of road crash	(1) Illiterate (2) Literate with no formal education (3) Did not complete primary education (4) Primary school (up to Class 5th) (5) Middle school (up to Class 8th) (6) Secondary school (up to Class 10th) (7) Senior secondary school (up to Class 12th) (8) Diploma (9) Graduate/college and above (10) Postgraduate/ University (11) Other (Specify): _____
D4	Marital status of the victim at the time of road crash	(1) Married (2) Single (Unmarried/ separated/ divorced/ widowed)
D5	Was the victim earning member of the household before road crash?	(1) Yes (2) No [GO TO D7]
D6	Was the victim chief wage-earning member [the person who contributed maximum to the household monthly expenses] of the household before road crash?	(1) Yes (2) No
D7	Did the victim survive after road crash?	(1) Yes survived [GO TO D11] (2) No, died due to road crash [GO TO D8]
D8	What was the monthly income of victim before road crash? [SHOW CARD & MENTION CODE]	(1) Not earning (2) Up to Rs. 5,000 (3) Rs. 5,001 to Rs. 10,000 (4) Rs. 10,001 to Rs. 20,000 (5) Rs. 20,001 to Rs. 30,000 (6) Rs. 30,001 to Rs. 50,000 (7) Rs. 50,001 to Rs. 75,000 (8) Rs. 75,001 to Rs. 1,00,000 (9) More than Rs. 1,00,000

D9	What was the approx. monthly contribution of victim in household total income before road crash?	_____%
D10	What was the occupation of victim before road crash? [MENTION CODE] [POST CODES] (1) Unemployed (2) Housewife (3) Agricultural Laborer (4) Other Laborer (5) Farmer (6) Unskilled worker (7) Petty trader/ shop owner (8) Skilled worker (9) Businessmen/ self-employed (10) Salaried employee (Pvt/ Govt) (11) Retired (12) Student (13) Other (Specify): _____	Pre-crash occupation: _____
	ASK IF ROAD Crash VICTIM SURVIVED, ELSE GO TO NEXT SECTION	
D11	Pre-crash, post-crash & current monthly income of road crash victim [SHOW CARD & MENTION CODE] [POST CODES] (1) Not earning (2) Up to Rs. 5,000 (3) Rs. 5,001 to Rs. 10,000 (4) Rs. 10,001 to Rs. 20,000 (5) Rs. 20,001 to Rs. 30,000 (6) Rs. 30,001 to Rs. 50,000 (7) Rs. 50,001 to Rs. 75,000 (8) Rs. 75,001 to Rs. 1,00,000 (9) More than Rs. 1,00,000	(1) Pre crash: Rs. _____/ month (2) On resuming work after crash: Rs. _____/ month (3) Current (as on 31 Jan 2020): Rs. _____/ month
D12	What was the monthly contribution of victim in household total income?	(1) Pre crash: _____% (2) On resuming work after crash: _____% (3) Current (as on 31 Jan 2020): _____%
D13	Pre-crash, post-crash and current occupation of road crash victim. [TAKE CODES FROM D10]	(1) Pre crash: _____ (2) On resuming work after crash: _____ (3) Current (as on 31 Jan 2020): _____
D14	Did the road crash victim return to his previous occupation/ school on resuming work after crash?	(1) Yes (2) No [GO TO D16]
D15	After how many days road crash victim returned to his regular work/ school?	_____ days

APPENDIX 5: QUESTIONNAIRES

D16	IF NOT RETURNED TO PREVIOUS OCCUPATION, how many days did it take to find a new job from the day of crash?	(1) _____ days (2) NA
D17	On resuming work after crash, did victim maintain the same salary/ wage as it was before the crash?	(1) Yes, almost the same (2) No, lower than previous (3) NA
D18	Whether the victim underwent any sort of disability?	(1) Yes (2) No [GO TO D22] (3) DK/CS [GO TO D22]
D19	Whether the victim requires ongoing mobility assistance (e.g. wheelchair, walking frame, etc.)	(1) Yes (2) No (3) DK/CS
D20	What was the severity of crash victim disability?	(1) Serious disability (Traumatic Brain Injury, amputation, quadriplegic, etc.) (2) Partial disability (some functional loss but still can-do regular work) [GO TO D22] (3) Temporary disability; recovered [GO TO D22]
D21	What type of serious disability did victim sustain?	(1) Para/ Quadriplegia (2) Acquired Brain Injury (3) Amputation of a limb (e.g. hand/foot/arm/leg) (4) Permanent Blindness (5) Severe burns (6) Others (specify): _____
D22	Majorly, who took care of the victim after the crash?	(1) Male member of the family (2) Female member of the family (3) Self (4) Anyone else (specify) _____
D23	Majorly, who bought all the medicines to the recovering victim?	(1) Male member of the family (2) Female member of the family (3) Self (4) Anyone else (specify) _____
D24	Majorly, who cooked all the meals in the household and took care of the daily needs of the victim?	(1) Male member of the family (2) Female member of the family (3) Self (4) Anyone else (specify) _____
D25	Who accompanied the victim to the hospital/ doctor most of the time?	(1) Male member of the family (2) Female member of the family (3) None (4) Anyone else (specify) _____

SECTION E: ROAD CRASH VICTIM PROFILE

S.N.	Question	Response
E1	Has any member of household suffered from depression (cue: feeling low/ sad without any reason) due to impact of the road crash?	(1) Yes (2) No (3) DK/CS
E2	Has any household member developed any health issues/ complications due to the aforesaid road crash?	(1) Yes (2) No (3) DK/CS
E3	[IF YES] Has suffering member of the household taken medical (doctor) consultation in this regard?	(1) Yes (2) No (3) DK/CS
E4	Has there been any change in the sleep pattern of any member of household since the road crash?	(1) Yes, difficulty in sleeping (2) Sometimes; difficulty in sleeping (3) No, sleep well
E5	Has there been any change in dietary habits/ food intake of any family member post the road crash?	(1) Yes (2) No (3) DK/CS

SECTION F: FINANCIAL/ SOCIAL IMPACT FOR THE HOUSEHOLD

F1	As a result of road crash, what were the key impacts on your household			
A	Financial impact			
1	Decline in total income of household	(1) Yes	(2) No	(3) DK/CS
2	Out of pocket expenses increased due to medical treatment	(1) Yes	(2) No	(3) DK/CS
3	Had to sell/ mortgage some family assets (e.g. property, jewelry, vehicle, etc.)	(1) Yes	(2) No	(3) DK/CS
4	Had to borrow money (from anyone)	(1) Yes	(2) No	(3) DK/CS
5	Had to relocate for treatment for more than 30 days	(1) Yes	(2) No	(3) DK/CS
6	Any household member had to relocate permanently	(1) Yes	(2) No	(3) DK/CS

APPENDIX 5: QUESTIONNAIRES

B	Occupational impact			
7	Change in working pattern of household members	(1) Yes	(2) No	(3) DK/CS
8	Someone in household had to take up additional jobs/shifts	(1) Yes	(2) No	(3) DK/CS
9	Someone in household had to give up study	(1) Yes	(2) No	(3) DK/CS
C	Social impact			
10	Living standard has decreased	(1) Yes	(2) No	(3) DK/CS
11	Victim had to be accompanied by someone	(1) Yes	(2) No	(3) DK/CS
12	Food consumption has decreased	(1) Yes	(2) No	(3) DK/CS
F2	If survived, how many months did victim take for recovery (fit for work) after road crash?	_____ months		
	Impact of road crash consequences on household w.r.t?			
1	Decline in household income	(1) Severe	(2) Moderate	(3) None
2	Living standard has decreased	(1) Severe	(2) Moderate	(3) None
3	Food consumption has decreased	(1) Severe	(2) Moderate	(3) None
4	Emotional impact on household	(1) Severe	(2) Moderate	(3) None

SECTION G: INSURANCE & COMPENSATION W.R.T THE VICTIM

S.N.	Question	Response
G1	Was the vehicle in/ on which victim was traveling insured at the time of road crash?	(1) Yes (2) No (3) DK/CS (4) Not Applicable
G2	[IF YES] Which type of MOTOR VEHICLE insurance?	(1) Third party insurance (Liability) (2) Comprehensive insurance (3) DK/ CS (4) Others (specify): _____

G3	Was the other vehicle (colliding vehicle) involved in the crash insured?	(1) Yes, insured (2) No, uninsured (3) Hit and run case (4) DK/CS
G4	Was the victim covered under MEDICAL INSURANCE at the time of road crash?	(1) Yes (2) No (3) DK/CS
G5	Was the victim covered under LIFE INSURANCE at the time of road crash?	(1) Yes (2) No (3) DK/CS
G6	Did you/ your household member claim insurance after the road crash? [MULTIPLE RESPONSE POSSIBLE]	(1) Yes, Motor vehicle insurance (2) Yes, Medical insurance (3) Yes, Life insurance (4) None (5) DK/CS
G7	Were you/ victim aware of compensation clauses and schemes in the event of a road crash?	(1) Yes (2) No (3) DK/CS
G8	Type of schemes availed/ got compensation under the following	

	Authority	Availed	Received eligible/ promised compensation	Compensation received in (after crash)
1	Government/ local authorities (ex-gratia)	(1) Yes (2) No [GO TO G8.2]	(1) Yes (2) No [GO TO G8.2]	_____ months
2	Motor vehicle insurance	(1) Yes (2) No [GO TO G8.3]	(1) Yes (2) No [GO TO G8.3]	_____ months
3	Medical insurance	(1) Yes (2) No [GO TO G8.4]	(1) Yes (2) No [GO TO G8.4]	_____ months
4	Life insurance	(1) Yes (2) No [GO TO G9]	(1) Yes (2) No [GO TO G9]	_____ months

G9	Did victim/ nominee claiming compensation had to attend court?	(1) Yes (2) No (3) Not Applicable (4) DK/CS
G10	Did victim/ nominee face any hurdles/ difficulties in accessing the compensation money?	(1) Yes (2) No (3) Not Applicable (4) DK/CS

APPENDIX 5: QUESTIONNAIRES

	Loss of income/ expenditure due to road crash and recovery		
	Particular	Total loss of income/ expenditure [Mention amount]	Proportion of amount recovered/ due to be recovered from insurances
	Loss of income during the period of treatment including victim and family members income (members that attending victim)	Rs. _____	_____%
	Loss of property/ vehicle etc. due to road crash	Rs. _____	_____%
	Out of pocket expenses on treatment of victim including hospitalization, medicine, and related expenses	Rs. _____	_____%
	Legal/ administrative/ compensation expenses including police, lawyer, etc.	Rs. _____	_____%
	Compensation cost to other vehicle/ person involved in crash	Rs. _____	_____%
	Other expenses (specify): _____	Rs. _____	_____%

	What did you do/ get to cope up with the financial burden due to road crash?		
	Arranged a loan (lenders, bank, relatives, etc.)	(1) Yes (2) No	Amount borrowed: Rs. _____
	Sold/ mortgage assets (land, jewelry, motor vehicle etc.)	(1) Yes (2) No	Amount received: Rs. _____
	Took on extra work by household members	(1) Yes (2) No	Monthly extra earning: Rs. _____
	Compensation from insurance company (including vehicle/ life insurance, etc.)	(1) Yes (2) No	Total amount: Rs. _____
	Received compensation under schemes (govt., local authorities, funeral expenses, etc.)	(1) Yes (2) No	Total amount: Rs. _____
	Received compensation from employer	(1) Yes (2) No	Total amount: Rs. _____
	Dependent was provided job by employer/ govt.	(1) Yes (2) No	Monthly income: Rs. _____
	Received compensation from other party involved in road crash	(1) Yes (2) No	Total amount: Rs. _____

	Others (specify): _____	(1) Yes (2) No	Total Amount: Rs. _____		
	Was any major financial investment made on victim within 1 year prior to crash that could not be recovered? [e.g. Education fees/ donation, business set-up, organ transplant, etc.]	(1) Yes (2) No	Total investment: Rs. _____		
G14	If road crash victim died due to road crash, how much expenses incurred on the funeral?		Total expense Rs. _____		
G15	Did the insurance cover any of the funeral expenses?		(1) Yes [What percentage: _____%] (2) No		
G16	Please provide following details about household [where victim survived]		Before crash (Rs.)	On resuming work after crash (Rs.)	Current (as on 31 Jan 2020) (Rs.)
1	Average total monthly HOUSEHOLD INCOME from all sources (Approx.) [Please include all the income/ receipts of every member of household from all sources such as job, profession, wages, rent, pension, gratuity, etc.]		_____	_____	_____
2	Average total monthly household expenses on all items (Approx.)		_____	_____	_____
3	Total number of members in the household		_____	_____	_____

SECTION H: PERCEPTIONS OF RESPONDENT ON ROAD SAFETY

S.N.	Question	Response
H1	According to you what is the level of impact of road crashes on the society?	(1) Severe (2) Major (3) Moderate (4) Minor (5) Insignificant
H2	Do you feel safe while commuting on the roads?	(1) Always (2) Mostly (3) Sometimes (4) Rarely (5) Never

APPENDIX 5: QUESTIONNAIRES

H3	How would you rate road safety in your neighborhood/ city?	(1) Excellent (2) Very Good (3) Good (4) Average (5) Poor
H4	Do you drive any motorized vehicle? [MULTIPLE RESPONSE POSSIBLE]	(1) M2W - Motorcycle/ Scooter/ Scooty (2) Car (3) Taxi (4) Three-wheeler/ Cycle/ Battery Rickshaw (5) Truck/ lorry/ Tractor (6) None (7) Others: _____
H5	[IF RESPONSE IS 1-5 TO H4], Do you feel safe driving in your neighborhood/city?	(1) Always (2) Mostly (3) Sometimes (4) Rarely (5) Never

["THANK YOU" FOR YOUR TIME AND PATIENCE / KINDLY RE-CHECK IF ANY QUESTION IS LEFT BLANK]

FIELD CONTROL INFORMATION

INVESTIGATOR					
NAME		DATE		SIGNATURE	
SUPERVISOR					
NAME		DATE		SIGNATURE	
VERIFICATION BY: (NAMES & SIGNATURES)					
	TL	FE	FM	RE	
ACCOMPANIED					
SPOT/ BACK CHECKED					
SCRUTINIZED					

[SELECTION CRITERIA FOR TEST SAMPLE & BPL STATUS]

Use the following table to check the eligibility of respondent for the survey based on

- Monthly Household Income (MHI)

- Number of adult members in household.

Consider the highest value of the range of the coded response of A11 and number of adult members as per A10.1 to check eligibility. If the total MHI is below the eligibility range, provide response in A12 and proceed.

Total number of adult members in household	Monthly Household Income	A13. BPL household having MHI below
1	Up to Rs.13,500	Up to Rs.2,163
2	Up to Rs.27,000	Up to Rs.4,326
3	Up to Rs.40,500	Up to Rs.6,489
4	Up to Rs.54,000	Up to Rs.8,652
5	Up to Rs.67,500	Up to Rs.10,815
6	Up to Rs.81,000	Up to Rs.12,978
7	Up to Rs.94,500	Up to Rs.15,141
8	Up to Rs.1,08,000	Up to Rs.17,304
9	Up to Rs.1,21,500	Up to Rs.19,467
10	Up to Rs.1,35,000	Up to Rs.21,630

APPENDIX 5: QUESTIONNAIRES

QUESTIONNAIRE – CONTROL SAMPLE (T-10)

City of Interview	
Serial No	
Place of Interview	

PREAMBLE

Good .....: I am from MDRA (Marketing & Development Research Associates), a leading market and social research agency in India. We are currently conducting a survey to assess the impact of road deaths on victims in terms of poverty and social status for SaveLIFE Foundation (SLF) in collaboration with the World Bank.

I want to ask for your permission to include you in our study and it is up to you to decide whether to participate. The interview will take about 25-30 minutes. You can decide not to answer any question and can stop the interview at any time. Everything that you report during the interview will be kept strictly confidential. Your responses would be combined with responses given by other respondents and would not be identified separately.

[Please note that no payment/ money/ fee to be paid to anyone in any manner for participating in this survey]

SECTION A: QUALIFYING CRITERIA

S.N.	Question	Response
A1	Has anyone in your household died or suffered serious injury from a road crash in the last 15 years? [Serious/ severe injuries mean cases where victims attended hospital for treatment]	(1) Yes, death due to a road crash (2) Yes, serious injuries (3) Yes, minor injuries [TERMINATE] (4) No [TERMINATE]
A2	How many members of your household were involved in that road crash?	(1) 1 member (2) More than 1 member [In case of more than 1 member, victim that contributed the most to the monthly household expenses before crash would be selected/ information about such victim would be asked. In case where victims contributed equally or not contributed at all, take details about the oldest victim at the time of crash.]

A3	Did road crash victim (as selected in A2) involve in more than 1 crash in last 15 years where serious/ severe injuries were sustained.	(1) Yes (2) No [If Yes, information about the latest crash would be taken]
A4	What was the impact of the road crash on the victim?	(1) Died at the scene (2) Died while being transported to hospital (3) Taken to hospital & discharged within 24 hrs. (4) Had to be admitted in the hospital for more than 1 day (5) Died in hospital within 30 days from the crash (6) Died after 30 days from the crash
A5	When did the road crash happen?	(1) Before Jan 2005 [TERMINATE] (2) Between Jan 2005 - July 2019 [CONTINUE] (3) After July 2019 [TERMINATE]
A6	Crash victim's relation with respondent	(1) Self [GO TO A8] (2) Parent/ Grand parent (3) Son/ Daughter (4) Uncle/ Aunt (5) Nephew/ Niece (6) Spouse (7) Sibling (8) Father/ Mother-in-law (9) Brother/ Sister-in-law (10) Son/ Daughter-in law (11) Others (specify): _____
A7	Did you use to live with the victim when the road crash happened?	(1) Yes [CONTINUE] (2) No [TERMINATE]
A8	How do you term yourself in your household? [A group of people staying together under the same roof and sharing food from a common kitchen is called a Household. Persons living in hostels or messes and taking food from a common kitchen do not constitute a household.]	(1) Head of the Household [HoH is the person (either male or female) that takes key decision in the household] (2) Chief Wage Earner [Chief wage earner is the person (either male or female) who contributes the most to the household expenses] (3) Other most affected member of the household [Member of the household that was most impacted due to crash after HoH and CWE]
A9	What was your age when the road crash happened?	(1) Less than 14 yrs. [TERMINATE] (2) More than 14 yrs. [CONTINUE]

APPENDIX 5: QUESTIONNAIRES

A10	Please provide following information about your household members (as on 31 Jan 2020).	Number
1	Number of adult members above 18 yrs. of age	
2	Number of members below 18 yrs. of age	
3	Total household members	
A11	Income: Please look at this card and tell me which income group best indicates Total Monthly Household Income. [SHOW CARD] (as on 31 Jan 2020). [Please include all the income/ receipts of every member of the household from all sources such as job, profession, wages, rent, pension, gratuity, etc.]	(1) Less than Rs.50 thousand [TERMINATE] (2) Rs.50 thousand to Rs.1 Lakh (3) Rs.1 Lakh to Rs.2 Lakh (4) Rs.2 Lakh to Rs.4 Lakh (5) Rs.4 Lakh to Rs.6 Lakh (6) Rs.6 Lakh to Rs.10 Lakh (7) Rs.10 Lakh to Rs.15 Lakh (8) More than Rs.15 Lakh
A12	Based on the table provided in the annexure, is respondent eligible for the survey? [Use the table provided at the end to check the eligibility of the respondent for the survey]	(1) Yes [CONTINUE] (2) No [TERMINATE]

SECTION B: RESPONDENT PROFILE

S.N.	Question	Response
B1	Respondent Name	
B2	Phone Number	
B3	Address	
B4	City	
B5	State	(1) Bihar (2) Maharashtra (3) Tamil Nadu (4) Uttar Pradesh

B6	Location of habitation	(1) Urban (2) Rural
B7	Gender	(1) Male (2) Female
B8	What was your age on last birthday?	Mention age: _____ years.
B9	Highest Education of Respondent	(1) Illiterate (2) Literate with no formal education (3) Did not complete primary education (4) Primary school (up to Class 5th) (5) Middle school (up to Class 8th) (6) Secondary school (up to Class 10th) (7) Senior secondary school (up to Class 12th) (8) Diploma (9) Graduate/college and above (10) Postgraduate/ University (11) Other (Specify): _____
B10	Occupation of respondent	(1) Unemployed (2) Housewife (3) Farmer (4) Businessmen/ trader/ self-employed (5) Salaried employee (Pvt/ Govt) (6) Retired (7) Other (Specify): _____

SECTION C: ROAD CRASH DETAILS

S.N.	Question	Response
C1	When did road crash happen? (Mention date, month and year)	_____ [DD/MM/YYYY]
C2	Where did the road crash happen?	City/ location Name: _____
C3	Type of city/ location where road crash happened	(1) Within the city of victim residence (2) Other city

APPENDIX 5: QUESTIONNAIRES

C4	Type of road on which crash happened	(1) Expressway (2) National Highway (3) State Highway (4) City/ District/ Municipality roads (5) Village road (6) Other (specify): _____
C5	Type of vehicles involved in the road crash [MENTION CODE] [POST CODES] Personal vehicles (1) M2W - Motorcycle/ Scooter/ Scooty (2) Car (3) Bicycle Commercial vehicles (4) Taxi (5) Three-wheeler/ Cycle-Rickshaw/ Battery Rickshaw (6) Bus/ Minibus (7) Truck/ lorry/ Tractor Others (8) Pedestrian (9) None (10) DK/ CS (11) Others (specify): _____	(1) Victim vehicle: _____ (2) Other offending vehicle: _____
C6	In which way victim was using vehicle/ road at the time of crash.	(1) Driver/ Rider (2) Passenger/ Pillion (3) Pedestrian (4) Others: _____
C7	Which vehicle was at fault at the time of the road crash?	(1) Victim's vehicle /vehicle in which victim was travelling (2) Other vehicle (3) DK/CS
C8	Was the victim wearing helmet or seatbelt during the road crash?	(1) Yes, wearing helmet [2 wheeler users] (2) Yes, wearing seatbelt [4 wheeler users] (3) Not wearing helmet/ seatbelt (4) Not applicable

C9	How was the victim transferred to the hospital?	(1) Ambulance (2) Police vehicle (3) Private vehicle (4) Public vehicle (auto/ taxi/ etc.) (5) Not transferred to hospital [GO TO C19] (6) DK/CS (7) Others (specify): _____
C10	[IF RESPONSE IS 1] Approx. time from crash ambulance took to arrive at crash location?	(1) Within 15 minutes (2) 16-30 mins (3) 31-45 mins (4) Beyond 45 mins (4) DK/CS
C11	Which hospital was the victim taken to?	(1) Govt. (2) Private (3) Others (specify): _____
C12	Was the victim admitted to the hospital?	(1) Yes (2) No (3) DK/CS
C13	[IF YES] How long did victim had to stay in hospital?	_____ days
C14	On reaching hospital, how long it took before a doctor/ nurse attended to the injury?	(1) Immediately on reaching hospital (2) Within 10-30 mins (3) 31-60 mins (4) Beyond 60 mins (5) DK/ CS
C15	Did the victim face any discrimination or prejudice by hospital officials/ staff?	(1) Yes (2) No (3) DK/CS

APPENDIX 5: QUESTIONNAIRES

C16	[IF YES], What kind of harassment/ prejudice did the victim/ attendant/ family face? [RECORD VERBATIM] _____ _____ _____ POSTCODES (1) Victim was not attended immediately at hospital (2) Asked to wait for police before attending victim (3) Made excuses and asked to take the victim to other hospital (4) Denied admission of victim to the hospital (5) Asked for money for treatment (6) Others (specify): _____	
C17	Among your acquaintances/ friends/ relatives, does anybody work as a medical/ first aid staff at a medical facility or hospital?	(1) Yes (2) No [GO TO C19]
C18	Were they of any help during the treatment of the victim?	(1) Yes (2) No
C19	Was this road crash reported to the police?	(1) Yes (2) No (3) DK/CS
C20	Was a FIR filed after the road crash?	(1) Yes (2) No (3) DK/CS
C21	[IF YES TO C20] Were the police officials helpful/ cooperative during the process?	(1) Yes (2) No (3) DK/CS
C22	[IF NO TO C20] What were the reasons for not filing FIR? [RECORD VERBATIM] _____ _____ _____ POSTCODES (1) Was afraid of police harassment (2) Did not want to get into legal hassles (3) Fear of being asked to pay bribe (4) Did not feel need of filing FIR (5) Police official declined to file FIR (6) Others (specify): _____	

C23	Did you/ your family or offending vehicle user file any case under Motor Accident Claims Tribunal (MCAT) after the road crash?	(1) Yes (2) No [GO TO C27] (3) DK/CS [GO TO NEXT SECTION D]
C24	Did you/ your family members have to visit court for hearings?	(1) Yes, Mention how many times: _____ (2) No (3) DK/CS
C25	Did you spend any money on litigation?	(1) Yes (2) No (3) DK/CS
C26	Is the case still ongoing in the courts?	(1) Yes (2) No
	[IF NO TO C23], what were the reasons for not filing case? [RECORD VERBATIM] _____ _____ _____ (1) Out of court settlement was done (2) Unable to hire/ afford lawyer/ fee (3) Did not want to get into legal hassles (4) Did not feel need of filing case (5) To avoid work/ study loss due to court hearings (6) Others (specify): _____	

SECTION D: ROAD CRASH VICTIM PROFILE

S.N.	Question	Response
	ASK D1-D3 IF RESPONDENT IS OTHER THAN ROAD CRASH VICTIM	
D1	Gender of the road crash victim	(1) Male (2) Female
D2	Age of victim at the time of road crash	Mention age: _____ years.

APPENDIX 5: QUESTIONNAIRES

D3	Highest Education of victim at the time of road crash	(1) Illiterate (2) Literate with no formal education (3) Did not complete primary education (4) Primary school (up to Class 5th) (5) Middle school (up to Class 8th) (6) Secondary school (up to Class 10th) (7) Senior secondary school (up to Class 12th) (8) Diploma (9) Graduate/college and above (10) Postgraduate/ University (11) Other (Specify): _____
D4	Marital status of the victim at the time of road crash	(1) Married (2) Single (Unmarried/ separated/ divorced/ widowed)
D5	Was the victim earning member of the household before road crash?	(1) Yes (2) No [GO TO D7]
D6	Was the victim chief wage-earning member [the person who contributed maximum to the household monthly expenses] of the household before road crash?	(1) Yes (2) No
D7	Did the victim survive after road crash?	(1) Yes survived [GO TO D11] (2) No, died due to road crash [GO TO D8]
D8	What was the monthly income of victim before road crash? [SHOW CARD & MENTION CODE]	(1) Not earning (2) Up to Rs.50,000 (3) Rs.50,000 to Rs.1 Lakh (4) Rs.1 Lakh to Rs.2 Lakh (5) Rs.2 Lakh to Rs.4 Lakh (6) Rs.4 Lakh to Rs.6 Lakh (7) Rs.6 Lakh to Rs.10 Lakh (8) Rs.10 Lakh to Rs.15 Lakh (9) More than Rs.15 Lakh
D9	What was the approx. monthly contribution of victim in household total income before road crash?	_____%

D10	What was the occupation of victim before road crash? [MENTION CODE] [POST CODES] (1) Unemployed (2) Housewife (3) Farmer (4) Businessmen/ trader/ self-employed (5) Salaried employee (Pvt/ Govt) (6) Retired (7) Student (8) Other (Specify): _____	Pre-crash occupation: _____
ASK IF ROAD Crash VICTIM SURVIVED, ELSE GO TO NEXT SECTION		
D11	Pre-crash, post-crash & current monthly income of road crash victim [SHOW CARD & MENTION CODE] [POST CODES] (1) Not earning (2) Up to Rs.50,000 (3) Rs.50,000 to Rs.1 Lakh (4) Rs.1 Lakh to Rs.2 Lakh (5) Rs.2 Lakh to Rs.4 Lakh (6) Rs.4 Lakh to Rs.6 Lakh (7) Rs.6 Lakh to Rs.10 Lakh (8) Rs.10 Lakh to Rs.15 Lakh (9) More than Rs.15 Lakh	(1) Pre crash: Rs. _____/ month (2) On resuming work after crash: Rs. _____/ month (3) Current (as on 31 Jan 2020): Rs. _____/ month
D12	What was the monthly contribution of victim in household total income?	(1) Pre crash: _____% (2) On resuming work after crash: _____% (3) Current (as on 31 Jan 2020): _____%
D13	Pre-crash, post-crash and current occupation of road crash victim. [TAKE CODES FROM D10]	(1) Pre crash: _____ (2) On resuming work after crash: _____ (3) Current (as on 31 Jan 2020): _____

APPENDIX 5: QUESTIONNAIRES

D14	Did the road crash victim return to his previous occupation/ school on resuming work after crash?	(1) Yes (2) No [GO TO D16]
D15	After how many days road crash victim returned to his regular work/ school?	_____ days
D16	IF NOT RETURNED TO PREVIOUS OCCUPATION, how many days did it take to find a new job from the day of crash?	(1) _____ days (2) NA
D17	On resuming work after crash, did victim maintain the same salary/ wage as it was before the crash?	(1) Yes, almost the same (2) No, lower than previous (3) NA
D18	Whether the victim underwent any sort of disability?	(1) Yes (2) No [GO TO D22] (3) DK/CS [GO TO D22]
D19	Whether the victim requires ongoing mobility assistance (e.g. wheelchair, walking frame, etc.)	(1) Yes (2) No (3) DK/CS
D20	What was the severity of crash victim disability?	(1) Serious disability (Traumatic Brain Injury, amputation, quadriplegic, etc.) (2) Partial disability (some functional loss but still can-do regular work) [GO TO D22] (3) Temporary disability; recovered [GO TO D22]
D21	What type of serious disability did victim sustain?	(1) Para/ Quadriplegia (2) Acquired Brain Injury (3) Amputation of a limb (e.g. hand/foot/arm/leg) (4) Permanent Blindness (5) Severe burns (6) Others (specify): _____
D22	Majorly, who took care of the victim after the crash?	(1) Male member of the family (2) Female member of the family (3) Self (4) Anyone else (specify) _____

D23	Majorly, who bought all the medicines and administered medicines to the recovering victim?	(1) Male member of the family (2) Female member of the family (3) Self (4) Anyone else (specify) _____
D24	Majorly, who cooked all the meals in the household and took care of the daily needs of the victim?	(1) Male member of the family (2) Female member of the family (3) Self (4) Anyone else (specify) _____
D25	Who accompanied the victim to the hospital/ doctor most of the time?	(1) Male member of the family (2) Female member of the family (3) None (4) Anyone else (specify) _____

SECTION E: PSYCHOLOGICAL/ EMOTIONAL IMPACT ON HOUSEHOLD

S.N.	Question	Response
E1	Has any member of household suffered from depression (cue: feeling low/ sad without any reason) due to impact of the road crash?	(1) Yes (2) No (3) DK/CS
E2	Has any household member developed any health issues/ complications due to the aforesaid road crash?	(1) Yes (2) No (3) DK/CS
E3	[IF YES] Has suffering member of the household taken medical (doctor) consultation in this regard?	(1) Yes (2) No (3) DK/CS
E4	Has there been any change in the sleep pattern of any member of household since the road crash?	(1) Yes, difficulty in sleeping (2) Sometimes; difficulty in sleeping (3) No, sleep well
E5	Has there been any change in dietary habits/ food intake of any family member post the road crash?	(1) Yes (2) No (3) DK/CS

APPENDIX 5: QUESTIONNAIRES

SECTION F: FINANCIAL/ SOCIAL IMPACT FOR THE HOUSEHOLD

F1	As a result of road crash, what were the key impacts on your household			
A	Financial impact			
1	Decline in total income of household	(1) Yes	(2) No	(3) DK/CS
2	Out of pocket expenses increased due to medical treatment	(1) Yes	(2) No	(3) DK/CS
3	Had to sell/ mortgage some family assets (e.g. property, jewelry, vehicle, etc.)	(1) Yes	(2) No	(3) DK/CS
4	Had to borrow money (from anyone)	(1) Yes	(2) No	(3) DK/CS
5	Had to relocate for treatment for more than 30 days	(1) Yes	(2) No	(3) DK/CS
6	Any household member had to relocate permanently	(1) Yes	(2) No	(3) DK/CS
B	Occupational impact			
7	Change in working pattern of household members	(1) Yes	(2) No	(3) DK/CS
8	Someone in household had to take up additional jobs/shifts	(1) Yes	(2) No	(3) DK/CS
9	Someone in household had to give up study	(1) Yes	(2) No	(3) DK/CS
C	Social impact			
10	Living standard has decreased	(1) Yes	(2) No	(3) DK/CS
11	Victim had to be accompanied by someone	(1) Yes	(2) No	(3) DK/CS
12	Food consumption has decreased	(1) Yes	(2) No	(3) DK/CS
F2	If survived, how many months did victim take for recovery (fit for work) after road crash?	_____ months		

	Impact of road crash consequences on household w.r.t?			
1	Decline in household income	(1) Severe	(2) Moderate	(3) None
2	Living standard has decreased	(1) Severe	(2) Moderate	(3) None
3	Food consumption has decreased	(1) Severe	(2) Moderate	(3) None
4	Emotional impact on household	(1) Severe	(2) Moderate	(3) None

SECTION G: INSURANCE & COMPENSATION W.R.T THE VICTIM

S.N.	Question	Response
G1	Was the vehicle in/ on which victim was traveling insured at the time of road crash?	(1) Yes (2) No (3) DK/CS (4) Not Applicable
G2	[IF YES] Which type of MOTOR VEHICLE insurance?	(1) Third party insurance (Liability) (2) Comprehensive insurance (3) DK/ CS (4) Others (specify): _____
G3	Was the other vehicle (colliding vehicle) involved in the crash insured?	(1) Yes, insured (2) No, uninsured (3) Hit and run case (4) DK/CS
G4	Was the victim covered under MEDICAL INSURANCE at the time of road crash?	(1) Yes (2) No (3) DK/CS
G5	Was the victim covered under LIFE INSURANCE at the time of road crash?	(1) Yes (2) No (3) DK/CS

APPENDIX 5: QUESTIONNAIRES

G6	Did you/ your household member claim insurance after the road crash? [MULTIPLE RESPONSE POSSIBLE]		(1) Yes, Motor vehicle insurance (2) Yes, Medical insurance (3) Yes, Life insurance (4) None (5) DK/CS	
G7	Were you/ victim aware of compensation clauses and schemes in the event of a road crash?		(1) Yes (2) No (3) DK/CS	
G8	Type of schemes availed/ got compensation under the following			
	Authority	Availed	Received eligible/ promised compensation	Compensation received in (after crash)
1	Government/ local authorities (ex-gratia)	(1) Yes (2) No [GO TO G8.2]	(1) Yes (2) No [GO TO G8.2]	_____ months
2	Motor vehicle insurance	(1) Yes (2) No [GO TO G8.3]	(1) Yes (2) No [GO TO G8.3]	_____ months
3	Medical insurance	(1) Yes (2) No [GO TO G8.4]	(1) Yes (2) No [GO TO G8.4]	_____ months
4	Life insurance	(1) Yes (2) No [GO TO G9]	(1) Yes (2) No [GO TO G9]	_____ months
G9	Did victim/ nominee claiming compensation had to attend court?		(1) Yes (2) No (3) Not Applicable (4) DK/CS	
G10	Did victim/ nominee face any hurdles/ difficulties in accessing the compensation money?		(1) Yes (2) No (3) Not Applicable (4) DK/CS	
G11	Loss of income/ expenditure due to road crash and recovery			

S.N.	Particular	Total loss of income/ expenditure [Mention amount]	Proportion of amount recovered/ due to be recovered from insurances
1	Loss of income during the period of treatment including victim and family members income (members that attending victim)	Rs. _____	_____%
2	Loss of property/ vehicle etc. due to road crash	Rs. _____	_____%
3	Out of pocket expenses on treatment of victim including hospitalization, medicine, and related expenses	Rs. _____	_____%
4	Legal/ administrative/ compensation expenses including police, lawyer, etc.	Rs. _____	_____%
5	Compensation cost to other vehicle/ person involved in crash	Rs. _____	_____%
6	Other expenses (specify): _____	Rs. _____	_____%

G12	What did you do/ get to cope up with the financial burden due to road crash?		
1	Arranged a loan (lenders, bank, relatives, etc.)	(1) Yes (2) No	Amount borrowed: Rs. _____
2	Sold/ mortgage assets (land, jewelry, motor vehicle etc.)	(1) Yes (2) No	Amount received: Rs. _____
3	Took on extra work by household members	(1) Yes (2) No	Monthly extra earning: Rs. _____
4	Compensation from insurance company (including vehicle/ life insurance, etc.)	(1) Yes (2) No	Total amount: Rs. _____
5	Received compensation under schemes (govt., local authorities, funeral expenses, etc.)	(1) Yes (2) No	Total amount: Rs. _____
6	Received compensation from employer	(1) Yes (2) No	Total amount: Rs. _____
7	Dependent was provided job by employer/ govt.	(1) Yes (2) No	Monthly income: Rs. _____
8	Received compensation from other party involved in road crash	(1) Yes (2) No	Total amount: Rs. _____

APPENDIX 5: QUESTIONNAIRES

9	Others (specify): _____	(1) Yes (2) No	Total Amount: Rs. _____		
G13	Was any major financial investment made on victim within 1 year prior to crash that could not be recovered? [e.g. Education fees/ donation, business set-up, organ transplant, etc.]	(1) Yes (2) No	Total investment: Rs. _____		
G14	If road crash victim died due to road crash, how much expenses incurred on the funeral?		Total expense Rs. _____		
G15	Did the insurance cover any of the funeral expenses?		(1) Yes [What percentage: _____%] (2) No		
G16	Please provide following details about household [where victim survived]		Before crash (Rs.)	On resuming work after crash (Rs.)	Current (as on 31 Jan 2020) (Rs.)
1	Average total monthly HOUSEHOLD INCOME from all sources (Approx.) [Please include all the income/ receipts of every member of household from all sources such as job, profession, wages, rent, pension, gratuity, etc.]		_____	_____	_____
2	Average total monthly household expenses on all items (Approx.)		_____	_____	_____
3	Total number of members in the household		_____	_____	_____

SECTION H: PERCEPTIONS OF RESPONDENT ON ROAD SAFETY

S.N.	Question	Response
H1	According to you what is the level of impact of road crashes on the society?	(1) Severe (2) Major (3) Moderate (4) Minor (5) Insignificant
H2	Do you feel safe while commuting on the roads?	(1) Always (2) Mostly (3) Sometimes (4) Rarely (5) Never

H3	How would you rate road safety in your neighborhood/ city?	(1) Excellent (2) Very Good (3) Good (4) Average (5) Poor
H4	Do you drive any motorized vehicle? [MULTIPLE RESPONSE POSSIBLE]	(1) M2W - Motorcycle/ Scooter/ Scooty (2) Car (3) Taxi (4) Three-wheeler/ Cycle/ Battery Rickshaw (5) Truck/ lorry/ Tractor (6) None (7) Others: _____
H5	[IF RESPONSE IS 1-5 TO H4], Do you feel safe driving in your neighborhood/city?	(1) Always (2) Mostly (3) Sometimes (4) Rarely (5) Never

["THANK YOU" FOR YOUR TIME AND PATIENCE / KINDLY RE-CHECK IF ANY QUESTION IS LEFT BLANK]

FIELD CONTROL INFORMATION

INVESTIGATOR					
NAME		DATE		SIGNATURE	
SUPERVISOR					
NAME		DATE		SIGNATURE	
VERIFICATION BY: (NAMES & SIGNATURES)					
	TL	FE	FM	RE	
ACCOMPANIED					
SPOT/ BACK CHECKED					
SCRUTINIZED					

NOTE: NO QUESTIONNAIRE WILL BE ACCEPTED WITHOUT COMPLETE FIELD CONTROL INFORMATION AND/ OR UNSIGNED AS AND WHERE APPLICABLE.

APPENDIX 5: QUESTIONNAIRES

[SELECTION CRITERIA FOR TEST SAMPLE]

Use the following table to check the eligibility of respondent for the survey based on

- Monthly Household Income (MHI)

- Number of adult members in household.

Consider the highest value of the range of the coded response of A11 and number of adult members as per A10.1 to check eligibility. If the total MHI is above the eligibility range, provide response in A12 and proceed.

Total number of adult members in household	Monthly Household Income
1	More than 50,000
2	More than 1 Lakh
3	More than 1.5 Lakh
4	More than 2 Lakh
5	More than 2.5 Lakh
6	More than 3 Lakh
7	More than 3.5 Lakh
8	More than 4 Lakh
9	More than 4.5 Lakh
10	More than 5 Lakh

QUESTIONNAIRE FOR TRUCK DRIVERS

City of Interview	
Serial No	
Place of Interview	

PREAMBLE

Good .....: I am from MDRA (Marketing & Development Research Associates), a leading market research agency in India. We are currently conducting a survey to understand the awareness of Truck Drivers about compensation (in the event of crash) and related provisions of the Motor Vehicle Amendment Act, 2019 for SaveLIFE Foundation (SLF) in collaboration with the World Bank.

I want to ask for your permission to include you in our study and it is up to you to decide whether to participate. The interview will take about 10-15 minutes. You can decide not to answer any question and can stop the interview at any time. Everything that you report during the interview will be kept strictly confidential. Your responses would be combined with responses given by other respondents and would not be identified separately.

[Please note that no payment/ money/ fee to be paid to anyone in any manner for participating in this survey]

SECTION A: RESPONDENT PROFILE

S.N.	Question	Response
A1	Respondent Name	
A2	Phone Number	
A3	What was your age on last birthday? [READ OUT AND RECORD]	_____ years
A4	Highest Education of Respondent	(1) Illiterate (2) Literate with no formal education (3) Did not complete primary education (4) Primary school (up to Class 5th) (5) Middle school (up to Class 8th) (6) Secondary school (up to Class 10th) (7) Senior secondary school (up to Class 12th) (8) Diploma (9) Graduate/college and above (10) Postgraduate/ University (11) Other (Specify): _____

APPENDIX 5: QUESTIONNAIRES

A5	Please look AT THIS CARD and tell me which income group best indicates your monthly income from truck driving profession? [SHOW CARD]	(1) Up to Rs. 5,000 (2) Rs. 5,001 to Rs. 10,000 (3) Rs. 10,001 to Rs. 20,000 (4) Rs. 20,001 to Rs. 30,000 (5) Rs. 30,001 to Rs. 50,000 (6) Rs. 50,001 to Rs. 75,000 (7) Rs. 75,001 to Rs. 1,00,000 (8) More than Rs. 1,00,000
A6	Since how long you have been in the truck driving profession?	(1) Less than 2 yrs. (2) 2-5 yrs. (3) 6-10 yrs. (4) 11-15 yrs. (5) More than 15 yrs.
A7	Which sector do you work in?	(1) Private (2) Government (3) Others _____
A8	Who owns the truck you drive?	(1) Self-owned (2) Owned by fleet owner/ company
A9	Base City (from where you operate trucks)	_____
A10	On an average, how many hours do you drive in a typical day (out of 24 hrs.)?	_____ hours
A11	On an average, how many days do you work in a month?	_____ days
A12	What type of truck (category of truck) do you drive generally? [Mention category of truck based on Gross Vehicle Weight]	(1) Medium Motor Vehicle (B/w 7.5-12 tons) (2) Heavy Motor Vehicle (Exceed 12 tons) (3) Trailer
A13	On what basis are monetary benefits provided to you by the truck company or owner?	(1) Monthly Salary (2) Number of Driving Hours (3) Trip wise (4) Other (specify): _____

A14	In case of enforcement violations, who pays for the penalties?	(1) Settled by the driver from his salary (2) Owner /Company pays for it (3) Shared by both driver and owner (4) Other (specify): _____

SECTION B: AWARENESS ABOUT MVAA & ROAD SAFETY RELATED ASPECTS

S.N.	Question	Response		
B1	I would like to ask you regarding a few aspects of motor vehicle and workers act. Before this survey began were you aware of following:	Fully Aware	Somewhat Aware	Not Aware
a	AWARENESS OF MOTOR THIRD PARTY LIABILITY INSURANCE: Motor Third Party Liability insurance covers your liability for injuries (and property damage to a limited extent) to others caused in an crash that is your fault. Additional coverage to include loss or damage to your own vehicle can be purchased as an add-on to Third Party Liability insurance, and is commonly called Comprehensive insurance			
1	The purchase of Motor Third party liability insurance is compulsory and you may be fined by the Police if vehicle in uninsured	3	2	1
2	If the vehicle you are driving is UNINSURED, you (or the owner) may be personally liable to pay for injuries caused to others if you are at fault for the crash	3	2	1
3	Motor Third Party liability insurance provides compensation to other people for their injuries if the crash is your fault	3	2	1
4	Motor Third Party liability insurance does not provide compensation for injuries you incur if the crash is your fault	3	2	1
5	If someone else is a fault for an crash and you incur injuries, you may be able to claim compensation from the insurer the vehicle is insured with	3	2	1
6	The compensation you are eligible to receive may be reduced if you breach a traffic law	3	2	1
7	Along with driver, truck attendant (khalasi) is also covered for benefits under third party insurance under MVAA, 2019	3	2	1

APPENDIX 5: QUESTIONNAIRES

8	The time limitation for filing of cases for compensation for injuries before the Claims Tribunal is 6 months from the date of the crash	3	2	1
9	In case of road crash, insurance company is liable to designate an officer to help you with the process of settlement of your claim	3	2	1
b	AWARENESS ABOUT THE CHANGES UNDER MVAA CHANGES			
10	The motor vehicle act has been amended in 2019 and came into force from 1st September 2019	3	2	1
11	The fines for traffic violations have been increased	3	2	1
12	If the application for driving license renewal is made after 3 years from the date of expiry of license, then the licensing authority may refuse to renew	3	2	1
13	Provision for protection of Good Samaritans from unnecessary trouble or harassment from civil or criminal proceedings	3	2	1
14	The provision for cashless emergency medical treatment of crash victim injuries during the "golden hour"	3	2	1
15	The increased compensation for hit and run cases is INR 2 lakhs for death and INR 50,000 for grievous hurt under MVAA, 2019?	3	2	1
16	Lumpsum compensation available for death and grievous injury, without the need to prove fault of another party (this is an alternate to proceeding with an injury claim against a third party or their insurer)	3	2	1
B2	Do you think with MVAA 2019 amendments would help in implementation of compliance w.r.t REGISTRATION of vehicle?	(1) Yes, definitely (2) Yes, to some extent (3) Not at all		
B3	Do you think with MVAA 2019 amendments would help in implementation of compliance w.r.t LICENSING?	(1) Yes, definitely (2) Yes, to some extent (3) Not at all		
B4	Do you think with MVAA 2019 amendments would help in implementation of compliance w.r.t INSURANCE REQUIREMENTS?	(1) Yes, definitely (2) Yes, to some extent (3) Not at all		
B5	Do you think MVAA 2019 would improve safe driving behaviour among truck drivers?	(1) Yes, definitely (2) Yes, to some extent (3) Not at all		
B6	Do you support the increased fines for traffic violations like drunk driving, over speeding, distracted driving, non-usage of seat belts etc.?	(1) Yes (2) No (3) DK/CS		

B7	Do you feel safe driving on the roads?	(1) Always (2) Sometimes (3) Never
B8	[IF RESPONSE IS 2, 3] What are the reasons for feeling unsafe on the roads? [RECORD VERBATIM] _____ _____ _____	
B9	Are you aware of third-party insurance cover?	(1) Yes (2) No [GO TO NEXT SECTION] (3) DK/CS [GO TO NEXT SECTION]
B10	[IF YES], what is your understanding of third-party insurance? Explain. [RECORD VERBATIM] _____ _____ _____	
B11	According to you, what all does third-party insurance cover? [MULTIPLE RESPONSE POSSSIBLE]	(1) Death (2) Injury/ Disability (3) Property Damage (4) All of above (5) Other (specify): _____

SECTION C: INSURANCE COVERAGE AND COMPENSATION

S.N.	Question	Response
C1	Is your vehicle insured under motor vehicle insurance?	(1) Yes (2) No [GO TO C3]
C2	Type of vehicle insurance [Motor Third Party Liability insurance covers your liability for injuries (and property damage to a limited extent) to others caused in an crash that is your fault. Additional coverage to include loss or damage to your own vehicle can be purchased as an add-on to Third Party Liability insurance, and is commonly called Comprehensive insurance]	(1) Third party insurance (Liability) (2) Comprehensive insurance (3) DK/ CS (4) Others (specify): _____
C3	[IF RESPONSE TO C1 IS 2], What are the reasons for not having vehicle insurance? [RECORD VERBATIM] _____ _____ _____	

APPENDIX 5: QUESTIONNAIRES

C4	When did you last renew your vehicle insurance? [month & year]	_____ [MM/YYYY]
C5	Who paid the vehicle insurance premium amount mostly?	(1) Fleet Owner (2) Driver (3) Others (specify): _____
C6	Are you aware of the process of claiming insurance from the insurance company in the event of a crash?	(1) Yes (2) No (3) DK/CS

SECTION D: PERSONAL ROAD CRASH EXPERIENCE

S.N.	Question	Response
D1	While driving your truck, have you ever been involved in a road crash where you sustained injuries?	(1) Yes (2) No [END THE INTERVIEW]
D2	When did the most recent road crash happen? [Ask for the details of latest crash]	(1) Date: _____ [DD/MM/YYYY] (2) Time: _____ [24 HRS. FORMAT]
D3	Where did crash happen?	(1) City Name: _____ (2) State Name: _____
D4	Was an FIR filed after the road crash?	(1) Yes (2) No (3) DK/CS
D5	Type of road on which crash happened	(1) Expressway (2) National Highway (3) State Highway (4) City/ District/ Municipality roads (5) Village road (6) Other (specify): _____
D6	Impact of the crash to self	(1) Serious injury (attended hospital and admitted or treated at hospital) (2) Minor injury (not requiring hospital treatment)

D7	Did you visit hospital after crash and were you admitted for treatment?	(1) Visited hospital for treatment but not admitted (2) Admitted to hospital for treatment (3) Not visited hospital
D8	Impact of the crash to others party involved in crash	(1) Fatal crash (where victim died) (2) Serious injury (attended hospital and admitted or treated at hospital) (3) Minor injury (not requiring hospital treatment) (4) No Injury (5) DK/CS
D9	VEHICLE INSURANCE DETAILS	
1	Was your vehicle insured at the time of crash?	(1) Yes (2) No [GO TO D10]
2	Type of insurance with which your vehicle was insured at the time of crash	(1) Third party insurance (Liability) (2) Comprehensive insurance (3) DK/ CS (4) Others (specify): _____
3	Did you/ your fleet owner claim insurance for personal injury after the crash?	(1) Yes (2) No [GO TO D10]
4	Was your claim approved by the insurance company?	(1) Yes (2) No [GO TO D10]
5	What was the total claim amount?	(1) Rs. _____ (2) DK/CS
D10	COMPENSATION TO/ FROM OTHER PARTY [OTHER THAN FROM AN INSURER]	
1	Was the other vehicle/ party involved in crash covered under insurance?	(1) Yes, insured (2) No, uninsured (3) Hit and run case (4) DK/CS
2	Who was at the fault during crash?	(1) Other party involved in crash (2) Self [GO TO D10.8]
3	Did you receive any compensation for personal injury from other party, who was not an insurer, involved in the crash?	(1) Yes: Rs. _____ (mention amount) (2) No [GO TO D11]

APPENDIX 5: QUESTIONNAIRES

4	How many days did it take for the payment to be accessed?	_____days
5	Did you face any challenges/ difficulties in accessing the money?	(1) Yes (2) No
6	Did you have to visit court for claiming compensation?	(1) Yes (2) No
7	How would you rate the compensation claim process?	(1) Easy (2) Moderate (3) Difficult
8	Did you/ fleet owner have to pay any compensation to other party involved in the crash for injuries they sustained?	(1) Yes: Rs. _____ (mention amount) (2) No
D11	OTHER INSURANCES DETAILS	
1	Were you covered under any other personal injury insurance at the time of crash (other than Motor Vehicle Insurance)? [MULTIPLE RESPONSES POSSIBLE]	(1) Medical Insurance (2) Life Insurance (3) Other (specify): _____ (4) None [GO TO D12]
2	Did you claim insurance?	(1) Yes (2) No [GO TO D12]
3	Did you face any problems with your insurance company/ official?	(1) Yes (2) No
4	[IF YES], What type of problems did you face? [RECORD VERBATIM] _____ _____	
D12	GOVERNMENT SCHEMES	
1	Did you apply for/ benefit from any road crash scheme run by the Government after your crash?	(1) Yes (2) No [END THE INTERVIEW]
2	Type of schemes you applied for/ benefited from [MULTIPLE RESPONSE POSSSIBLE]	(1) Cashless treatment at hospital (2) Solatium fund for hit and run case (3) Ex-gratia (4) Others (specify): _____
3	How much total amount/ benefit did you receive?	Rs. _____
4	How many days did it take for the payment to be processed?	_____days

["THANK YOU" FOR YOUR TIME AND PATIENCE / KINDLY RE-CHECK IF ANY QUESTION IS LEFT BLANK]

FIELD CONTROL INFORMATION

INVESTIGATOR					
NAME		DATE		SIGNATURE	
SUPERVISOR					
NAME		DATE		SIGNATURE	
VERIFICATION BY: (NAMES & SIGNATURES)					

	TL	FE	FM	RE
ACCOMPANIED				
SPOT/ BACK CHECKED				
SCRUTINIZED				

NOTE: NO QUESTIONNAIRE WILL BE ACCEPTED WITHOUT COMPLETE FIELD CONTROL INFORMATION AND/ OR UNSIGNED AS AND WHERE APPLICAB

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NOTES

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