# Minimum wage – Does it play a crucial role in reducing poverty: The case of India

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**Abstract-**The study aims to analyze the impact of the amelioration of the Minimum Wage Policy in 2015 by the government of India, with the primary focus on reducing poverty in the nation. To capture its effect, the study has considered the incidence of poverty, its intensity as well as the severity of poverty. The marginal contribution of the minimum wage to the observed changes was determined using a decomposition methodology, which also considered other variables such as pension and social assistance benefits in addition to the wage floor. The importance of the minimum wage for reducing poverty has been particularly given emphasis on the Northern region of India since it consists of the majority of poor households and wage laborers in the nation. Between 2015 and 2019, the minimum wage led to a 37.6% decline in the percentage of indigent people, a 38.4% decrease in the intensity of poverty and 41.2% reduction in the poverty severity. The results indicate that there should be due focus provided to the inclusion of minimum wage in the income of the poor people in backward areas, in this context, the Northern region of India.

Keywords: Poverty reduction, Minimum wage policy, Social security, Minimum wage.

## 1.INTRODUCTION

Poverty - the state or condition in which a person or community is deprived of the basic amenities for a minimum standard of living, hinders both individual as well as economic growth. As per Global Hunger Index (2022), India ranks 107th out of the 121 countries calculated by the Index, indicating that India has still a long way forward to eradicate poverty. However, it has been estimated that between 2011 and 2019, extreme poverty has declined by 12.3 percentage points in India (World Bank Research Policy, 2022). Does MW policy revision in 2015 contribute towards this immense reduction? This paper aims to assess one of the most significant measures taken by the government of India in 2015, the amelioration of the Minimum Wage policy, with the aim of reducing poverty. Further studies show that poverty declined by 9.1 percentage points from 19.1% to 10% between 2015 and 2019 respectively (Economic times, 2019).

According to certain research, the two major factors that had an impact on reducing poverty were economic growth and redistributive policies (Lustig et al., 2013; Pero and Cruz, 2015), and other major factors include the relative importance of labor market development, social benefits as well as income transfer programmes (Soares et al., 2007; Hoffmann and Ney, 2008; Soares, 2011).

Many economies have focused on redistributive policies as income transfer programmes have major effects on poverty and inequality, yet the minimum wage (MW) policy has received less attention, since scant studies have been conducted regarding this.

The MW policy has been traditionally included among the labor market regulation policies and not been appropriated as a redistributive policy, despite few studies that evaluated the association between Minimum wages and reduction in inequality of wages (Firpo and Reis, 2007; Menezes-Filho and Rodrigues, 2009; Neder and Ribeiro, 2010; Komatsu, 2013; Ferreira et al., 2014; Machado et al., 2016). That would be expected given that the minimum wage (MW), like in some other nations, serves as a social indexer in India for determining the minimum level of benefits that are guaranteed by the constitution along with the wage floor. The MW appreciated by 21.9% between 1965 and 2019, which makes the gap significant.

Few studies have been conducted to assess the effect of Minimum wages on poverty reduction in developing countries. However, a recent study using decomposition analysis conducted in Brazil demonstrated the impact of MW valorization on income inequality reduction. The findings revealed

that between the years of 2000 and 2010 , the decline in income inequality in the nation was due to the major contribution of MW recipients in the form of labor income, retirement income, or social assistance (BRITO et al., 2017). Focus was placed on how real changes in the MW might coexist with rising employment, especially in the formal sector. The rise in formal employment, in turn, indicated the transfer of workers from informal to formal jobs, with a focus on recruitment through official employment records (Corseuil and Foguel, 2016).

Investigations examining whether the MW significantly affects poverty are warranted to the degree that those with per capita income levels below the median income are the ones receiving the minimum wage as pensions, wages or social assistance. This would fulfill the "guaranteed minimum income" obligation under the 1948 Indian Constitution. The study aims to research this purpose. So, using data from the Consumer Pyramid Household Survey from 2015 and 2019, a decomposition methodology has been employed to quantify the significance of the Minimum wage policy on reducing poverty in India. The decline in poverty was calculated as a decrease in the incidence of poverty that indicates the percentage of poor persons in the population as well as the reduction in the intensity of poverty. The decomposition is used to show how these three indicators of poverty have changed between 2015 and 2019 in terms of the relative weight of various components of household income. Between 2015 and 2019 due emphasis was given to the amelioration of the MW policy by the government of India in 2015 and hence the analysis was conducted based on this timeline.

The findings imply that the MW significantly and appropriately contributed to the changes in all the studied metrics. Interestingly, the minimum wage did not have a greater impact on reducing the percentage of poor people than it had on reducing the depth and severity of poverty, highlighting the MW significance among households below poverty line. This observation reflected that the assistance and social security channels were outpaced by the labor market, which suggests that there are more working recipients in impoverished households in the nation than pensioners and those receiving assistance.

Despite these significant findings, which highlight the numerous ways in which different sources of income have contributed to the reduction in Indian poverty, it is warned that the technique used in this study has limitations, as with any other study. The most significant drawback is that the employed methodology merely calculates the relation between factors and observed measures; it does not allow us to determine causal linkages. However, it is expected that the data gathered with the aid of the decomposition should be able to inspire additional research into the fundamental reasons using complementary methodologies.

## 2. LITERATURE REVIEW

The protracted Minimum Wage valuation policy that followed, beginning in 1948 in India, led to the empirical research on the link between the MW and poverty reduction, as conducted by several studies. For various decades of the 20th century, the topic had been at the forefront of the public debate globally. (Kaufman, 2010) advocated that the neoclassical economists and institutionalists who were advent supporters of the labor market as part of the price maker model, famously criticized it. The discussion has been centered primarily on theories for many years. But beginning in the 1990s in the USA, a shift in the policy of minimum wage spurred the surge for actual research, reviving these discussions. It was held that the premise of minimum wage enhancements will worsen the condition of the poor by having impacts on the laborers. In a prolonged debate, these findings prompted the development of novel theoretical frameworks and subsequent rounds of empirical research. The elasticity in employment in case of the minimum wage has been negative, but with minor modest yearly value variations, according to contemporary research that has so far been unable to reach a more accurate conclusion (Belman and Wolfson, 2014). In his synthesised analysis of the empirical research, Gindling (2014) highlights how MW and poverty are typically associated negatively.

With some caveats, however, later research has supported the MW's beneficial contribution to the nation's effort to reduce poverty. For example, when minimum wages are extended from the current rate, 76 million laborers, along with low salaried workers will benefit from it. There are instances where even with some disemployment impacts, when minimum wages are extended, it would lead to the reduction in poverty,

and the differences in the pay as per gender if it were fully implemented (Patrick Belser and Uma Rani, 2011). Once urbanization and other variables are taken into account, poor pay in the sector can also be partially blamed for the greater poverty incidence in backward regions (Patrick Belser and Uma Rani, 2012). Moreover, it has been proved that the likelihood of remaining poor declines by 10 % if the minimum wages are paid with due priority (Patrick Belser and Uma Rani, 2012). Results reveal that minimum wages decrease poverty for all racial and ethnic groups. Besides imparting skills in the informal sector, the livelihoods of the laborers can be improved and poverty in the rural areas can be eliminated by ensuring that their income includes sufficient minimum wages (Rajesh Raj S.N and Vinish Kathuria, 2015). When compared to the Malays and Chinese, increases in the minimum wage had the greatest impact on reducing ethnic Indian poverty (M. YusofSaari, M. Affan AbdulRahman, Azman Hassan, Muzafar Shah Habibullah, 2016).

The present research contributes to the study as follow. First and foremost, the research has been extended to the years 2015 through 2019, which corresponds with a critical era for decline in poverty by 9%, since the amelioration of the minimum wage policy by the government of India in 2015. Despite the studies conducted by Cacciamali (2015), previously offered few estimates of probability between the years 2002 and 2012, that supported minimum wage's benefits for reducing poverty, this present research employs a thorough methodology, known as the decomposition methodology and also makes an effort to assess the poverty reduction in terms of its proportion, gap and severity with specific emphasis being given to two different regions. It had facilitated us in evaluating the claim by Neumark et als (2004) that rises in the MW only benefit those impoverished people who are better off. Additionally, the current study aims to test the hypothesis predicted by Afonso (2011); which is to analyze whether the labor market or other factors such as insurance, social assistance benefits were the most significant channels of transmission.

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[1] According to Arango and Pachón(2004), most minimum-wage workers in Colombia were situated in the center of the income distribution.

## 3. METHODOLOGY

*3.1 Measures of Poverty*
The poverty measure used in this article has been adopted from the Foster-Greek-Thorbecke methodology, which consists of the three variables which are as follow : (a) Alpha equal to zero represents the incidence of poverty; (b) Alpha equal to 1 represents the intensity of poverty; (c) Alphas equal to 2 represents the severity of poverty.

$$FGT_\alpha = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{G_i}{z}\right)^\alpha \text{, with } \alpha \geq 0$$

in which $G_i = (z - y_i)xI(y_i \leq z)$ represents the income gap for poor individuals, the individual income is denoted by $y_i$ and the poverty line is denoted by z, whereas the individual income which is less than or equal to the poverty line is represented by the function I().

Following are the interpretation of the three measures - the incidence of poverty compares the individual income $y_i$ with a poverty line z to measure the representation of poor households in the population. A value of 1 is assigned to indicator function I() when the income of the individual is equal to or below the poverty line, otherwise it receives a value of 0.

$$FGT_0 = \frac{1}{N}\sum_{i=1}^{N} I(y_i \leq z)$$

However, this measure has a major drawback since it does not show how much the poor people deviates with respect to the poverty line, in other words, disregarding the intensity of poverty. Moreover, it does not reflect the changes in the poverty level of the population when the prevailing standard of living of the poor becomes worse, i.e when they fall below the poverty line. To take this into account, the second measure, known as the Intensity of poverty, has been utilized since it shows the gap of poverty along with the incidence of poverty.

$$FGT_1 = \frac{1}{N}\sum_{i=1}^{N} \frac{G_i}{z}$$

The final measure considers not only the inequality among the poor, but also the average gap and is known as the severity of poverty. It is a weighted sum of the poverty gaps, which indicates greater the gap, greater the weight.

$$FGT_2 = \frac{1}{N} \sum_{i=1}^{N} \left(\frac{G_i}{z}\right)^2$$

Thus, to comprehend the possible impacts of the MW on poverty, the three measures have been used to capture the percentage of poor population, its intensity, and inequality amongst the poorest.

*3.2 Data*

The data has been taken from the Consumer Pyramid Household Survey (CPHS) for the years 2015 and 2019. The period reflects an intense reduction in poverty since the enhancement of the MW policy in 2015, whereby there was an upwards revision in the minimum wage from Rs 137 to Rs 160 per day by the government of India on 1 July 2015. The poverty line has been used from the calculations of the National Multidimensional Poverty Index by NITI Aayog since it comprised of the consumption of households and the regional diversity of the country. As a result, poverty has not been referred to by income programs, which would lead to an anomaly in the estimates.

The per capita household income is one of the main focuses of the analysis of this report. Monthly household income has only been taken into account from the information of households, which means that all those values in which residents representing at least one income source being ambiguous have not been considered. The average sample collected for each year was 1,73,339.

*3.3 Variables of the model*

The aggregate of the income of the residents ($y_i$) represents the household income, on the other hand when the number of residents divides the monthly household income (Yhhold), it results in the per capita household income. Thus,

$$Y_{pc} = \frac{Y_{hhold}}{n} = \frac{1}{n}\sum_{i=1}^{n} y_i \qquad (1)$$

The following equation represents the decomposition of income of households into income specific to labor and income earned besides labor such as assistance, social security and other sources:

$$Y_{hhold} = Y_L + Y_{NL} = Y_{Labor} + Y_{Social\ security} + Y_{Assistance} + Y_{Other} \qquad (2)$$

[2] Along with Subsections 3.3, this subsection also replicates or modifies elements of Brito (2015), whose technique was employed to calculate the effects of the MW on income inequality.

In order to analyze the effect of Minimum wage in per capita household income in the model, the income of households have been divided into the components as follow : income earned via labor; otherwise labor income which includes the wage floor; retirees or pensioners earning 1 MW in their social security incomes; income received through BPC with 1 MW; and other income comprised of income earned via labor not including the MW, social security income not including the MW, income from donations, rent, interest from savings accounts, social programs, dividends etc. The terminologies "non-MW labor income" as well as "non-MW social security income" has been included separately due to the heterogeneity of the terminology 'others'. Thus, it results in the equation below after dividing it by the number of households.

$$\frac{Y_{hhold}}{n} = \frac{Y_{M\ Wlabor}}{n} + \frac{Y_{M\ woc.security}}{n} + \frac{Y_{BPC}}{n} + \frac{Y_{non-MWlabor}}{n} + \frac{Y_{non-MWsoc.security}}{n} + \frac{Y_{Others\ 2}}{n} \qquad (3)$$

The minimum wage with respect to the price and quantity effects have been considered in another context, in which the percentage of households receiving the minimum wages through specific mediums such as labor market, social security, and BPC indicates the quantity effect. Moreover, the average income earned per minimum wage channel indicates the price effect. Thus,

$$Y_{pc} = (\%MW_L * Y_{MW.L}) + (\%MW_{SS} * Y_{MW.SS}) + (\%MW_A * Y_{MW.A}) \qquad (4)$$
$$+ Y_{non-MWlabor.pc} + Y_{non-MWsoc.security.pc} + Y_{Other\ 2.pc}$$

Hence, the equation above represents the per capita income of households that includes factors which are as follow - the percentage of households earning 1 MW in the labor market (%MWL), occupied individuals receiving the wage floor and their average remuneration (YMWL), the percentage of households receiving the minimum wage in their social security benefits (%MWSS), the average income earned via Social Security by these recipients (YMWSS), the percentage of households that receive the BPC (%MWA), the average income earned through BPC (YMWA), another factor specific to labor income exclusive of minimum wages, social security income not including the minimum wages, and consequently,

a part of the equation in which all other income sources have been aggregated.

Based on the FGT measure, the analysis has been performed with equation (4) for the years 2015 and 2019, to calculate the effect of the variation of the factors on the changes in the measurements of poverty (FGT0, FGT1, and FGT2).

3.4 Descriptive Statistics

This section consists of the principal components of the study. The total numbers and shares(%) of households and poor households, in accordance with the presence of MW recipients has been presented in

Table 1-Total numbers and shares (%) of households and poor households, in accordance with the presence of MW recipients: India — 2015 and 2019.

| | South | | North | |
|---|---|---|---|---|
| Households | 2015 | 2019 | 2015 | 2019 |
| Total Households | 162051950 | 243051953 | 250240652 | 307244690 |
| Total households (%) | 100.0 | 100.0 | 100.0 | 100.0 |
| Households with at least one occupied person receiving MW | 14.1 | 16.2 | 24.6 | 26.0 |
| Households with at least one retiree or pensioner receiving MW | 15.7 | 17.4 | 25.6 | 25.4 |
| Households with at least one occupied person receiving MW/households with at least one occupied person | 17.0 | 18.5 | 28.5 | 32.8 |
| Households with at least one retiree or pensioner receiving MW/households with at least one retiree or pensioner | 50.6 | 51.6 | 76.4 | 74.7 |
| Poor Households | 2015 | 2019 | 2015 | 2019 |
| Poor households (%) | 100.0 | 100.0 | 100.0 | 100.0 |
| Poor households with at least one occupied person receiving MW | 21.8 | 22.2 | 27.0 | 20.6 |
| Poor households with at least one retiree or pensioner receiving MW | 15.6 | 7.5 | 20.1 | 8.2 |
| Poor households with at least one occupied person receiving MW / poor households with at least one occupied person | 26.7 | 29.1 | 30.1 | 25.5 |
| Poor households with at least one retiree or pensioner receiving MW/poor households with at least one retiree or pensioner | 58.6 | 45.4 | 80.6 | 62.6 |
| Source : CPHS 2015, 2019. Own preparation. | | | | |

To capture the significant impact of the minimum wage in the major two regions of India, namely North India (Northwest and Northeast) and South India, the descriptive statistics in Table 1 has been used to elaborate on the effects of MW on the households of both regions.

From the analysis of Table 1, it can be construed that the minimum wage (MW) is of greater importance in North India than South India, in which the gap is higher in households receiving income via labor than pensions received by retirees. In South India, the households who had at least one employed individual earning the minimum wage was 14.1% in 2015, while this proportion was 24.6% in North India. The regional difference remained 16% in the Southern region against 26% in the Northern region in 2019, thus giving rise to the higher impact of minimum wage (MW) as income via labor in regions that are under-developed. Additionally, the research of benefits received by retirees revealed that the Northern region had a larger percentage of individuals receiving the minimum wages with at least one retiree than the Southern region. This proportion was 25.4% in North India and 17.4% in South India in 2019 and the proportions were 25.6% and 15.7% in 2015, respectively. Overall, there was an increase in the percentage of households earning the minimum wage from the aggregate households (only a slight decline in the percentage of minimum wage (MW) pensions received by retirees was noted in North India).

It can be observed that the importance of MW on income from labor in the Northern region (26% in 2019) or in retirement pensions (25.4%) is higher than in the Southern region (16.2% and 17.4%, respectively in 2019).The second section of Table 1 comprises of the analysis of poor households of the two regions. There is an overrepresentation of MW recipients in the labor market in case of poor households. Whereas there is an underrepresentation of the poor residents receiving the minimum wage along with the social

security in the two regions, particularly in 2019. There is a considerable decline of households earning the minimum wage in the Northern region (6.4%) along with the retirees earning the minimum wage (11.9%) over the years, thereby highlighting the importance of minimum wage in poverty reduction.

In brief, the above analysis suggests that in Indian households, minimum wage (MW) is a significant factor for reduction in poverty, particularly since the households earn the minimum wage or wage floor. But on average, the households receiving the minimum wage has risen in more-developed areas, however it declined in poor households and in less-developed areas, thereby indicating that one of the ways to eliminate poverty can be achieved through the improvement in the minimum wages. In order to evaluate the current hypothesis, a decomposition analysis has been conducted, and the results are presented in the next section.

## 4. RESULTS

The results of the analysis performed, on the basis of the methodology section before has been presented in this section, in which the model has been presented consisting of the MW terminologies are highlighted for the two regions based on the 2015-2019 period.

Table 2-Results for the model : 2015-2019

| Northern region | (a) | | | (b) | | | (c) | | |
|---|---|---|---|---|---|---|---|---|---|
| | FGTO | S.D | %FGTO | FGT1 | S.D | %FGT1 | FGT2 | S.D | %FGT2 |
| Index2019 | 10 | | | 6.45 | | | 4.16 | | |
| Index 2015 | 19.1 | | | 15.24 | | | 10.87 | | |
| Total change | -9.1 | 0 | 100 | -8.79 | 0 | 100 | -6.71 | 0 | 100 |
| MW_labor | -2.21 | 0.05 | 10.90% | -1.64 | 0.06 | 16.16% | -0.65 | 0.04 | 13.80% |
| MW_soc.secmity | -1.45 | 0.05 | 7.15% | -0.89 | 0.04 | 8.77% | -0.56 | 0.05 | 11.89% |
| Y_BPC | -0.45 | -0.06 | 2.22% | -0.35 | -0.045 | 3.45% | -0.27 | -0,078 | 5.73% |
| Non_MW_labor | -10.78 | 0.22 | 53.16% | -4.52 | 0.21 | 44.53% | -1.46 | 0.24 | 31.00% |
| Non_MW _soc.security | -0.67 | 0.08 | 3.30% | -0.39 | 0.045 | 3.84% | -0.37 | 0.056 | 7.86% |
| Other income | -1.25 | -0.11 | 6.16% | -1.76 | -0.23 | 17.34% | -0.25 | -0.14 | 5.31% |
| %occupied_ MW | -1.67 | 0.Q7 | 8.23% | -0.87 | 0.009 | 8.57% | -0.51 | 0.086 | 10.83% |
| %soc.security_MW | -1.35 | 0.04 | 6.66% | 0.62 | 0.024 | -6.11% | -0.37 | 0.05 | 7.86% |
| %BPC | -0.45 | -0.06 | 2.22% | -0.35 | -0.07 | 3.45% | -0.27 | -0.08 | 5.73% |
| | | | MW=37.6 | | | MW=38.4 | | | MW=41.2 |

| Southern region | (a) | | | (b) | | | (c) | | |
|---|---|---|---|---|---|---|---|---|---|
| | FGTO | S.D | %FGT0 | FGT1 | S.D | %FGT1 | FGT2 | S.D | %FGT2 |
| MW _labor | -1.05 | 0.04 | 8.87% | -0.65 | -0.06 | 14.32% | -0.22 | 0.22 | 12.87% |
| MW__soc.security | -0.48 | 0.Q3 | 4.05% | -0.21 | 0.22 | 4.63% | -0.16 | 0.08 | 9.36% |
| Y_BPC | -0.2 | -0.045 | 1.69% | -0.Q9 | 0.08 | 1.98% | -0.12 | -0.11 | 7.02% |
| Non_MW_labor | -7.6 | 0.1 | 64.19% | -2.62 | -0.06 | 57.71% | -0.5 | -0.078 | 29.24% |
| Non_MW_ soc.security | -0.24 | 0.08 | 2.03% | -0.14 | -0.12 | 3.08% | -0.15 | 0.24 | 8.77% |
| Other incone | -0.92 | -0.12 | 7.77% | -0.73 | 0.04 | 16.08% | -0.17 | 0.056 | 9.94% |
| %occupicd_MW | -0.47 | 0.04 | 3.97% | -0.36 | 0.24 | 7.93% | -0.17 | 0.1 | 9.94% |
| %soc.secu1ity _ MW | -0.68 | 0.05 | 5.74% | 0.35 | 0.056 | -7.71% | -0.1 | 0.08 | 5.85% |
| %BPC | -0.2 | -0.045 | 1.69% | -0.09 | 0.08 | 1.98% | -0.12 | -0.12 | 7.02% |
| Observations:1,73,339 | | | MW=24.5 | | | MW=27.9 | | | MW =35.6 |

Source : CPHS 2015 and 2019. Own Preparation.

FGT0 (column (a)), representing the incidence of poverty indicates that the weight assigned to minimum wage (MW) is higher in the Northern region compared to the Southern region on the basis of both the labor market and social security. Whereas in the Northern region, minimum wage impact in the labor market was 19.13%, whereas Southern region showed 12.84%, and in the effects were 13.81%, and 9.79% respectively, while considering social security.

When considering poverty intensity (FGT1), the influence of minimum wage (MW) within the Northern region has been greater than the Southern region. In terms of the labor market, the contribution of minimum wage (MW) in the Northern region was 24.37% compared to 22.25% in the Southern region and 17.34% versus 12.56% while social security is taken into account.

With regard to poverty severity, analysis shows that the minimum wage (MW) shrank more in the Northern region (44.38%) than in the Southern region (38.02%). The minimum wage has a greater importance in the Northern region (24.63%) than the Southern region (22.81%) when it comes to the labor market, whereas, the importance of the minimum wage (MW) in South India is considerably low, when social security is taken into account.

Hence, the significance of minimum wage (MW) differs between the Northern and Southern regions, whereby, the former requires special attention with respect to minimum wage in reducing poverty. However, the labor market is the most important factor in both regions.

## 5. CONCLUSION AND FINAL CONSIDERATIONS

In discussing these conclusions, the emphasis has not been given to the summarization of results, rather; due attention has been given to some results that relates to the major part of the literature. To begin with, there is a need for reiterating the causal research on the impact of the minimum wage (MW) on reducing poverty, as there are scare studies on this topic. As a result, the exact reason for the influence of MW could not be traced. What role has the massive increase in the normalization of work and growth in the economy have to contribute? Moreover, till what degree did the policy of MW drive growth? However, in this exercise, the full impact of MW has not been estimated, which could be even greater. Further research should be conducted to clarify these points.

Based on the analysis of the five years from 2015 till 2019 after the amelioration of the MW policy implemented by the government of India in 2015, in which poverty dropped concurrently with significant MW valuation, the results of this study support the idea that the MW has positively and significantly contributed to India's efforts to reduce poverty, particularly in the Northern region. Additionally, the decomposition analysis showed that the benefaction was in increasing order of importance and affected the three measures – poverty incidence, poverty intensity and the severity of poverty. Taking into account the precise value of the minimum wage (MW), its amelioration was responsible for 37.6%, 38.4%, and 41.2% of the variation in the three metrics in the Northern region and 24.5%, 27.9% and 35.6% in the Southern region, respectively. This result, which shows that the MW's significance rises when a more "narrow notion" of poverty is utilized, highlights an unknown aspect of the minimum wage (MW): the potential importance in reducing the widening of poverty. Moreover, the result challenges the traditional perspectives (Neumark et al., 2004).

Another finding reveals despite social security as a significant means for escaping poverty, the labor market was the principal channel. In 2004, the highest factor regarding this was social security as stated by Barros et al (2006), however the former findings proved otherwise. Likewise, it makes sense that the MW's impact on reducing poverty is greater in less developed regions than in others if occupied people receiving it are overrepresented in these areas.

The slight impact on the proportion of the poor (2.22%) and its greater impact on the spread of poverty (10.12%) and poverty severity (30.4%) has been a major focus since "other income" had a positive contribution on the reduction of poverty. Nonetheless, in terms of these two indicators, the MW contributed significantly more towards dramatic reduction in poverty of the period. Hence, the minimum wage policy can enhance the livelihoods of millions of people from poverty, especially in backward regions if it is revised accordingly. Yet the study is not without its limitations, and it is recommended that further research  be carried out about the casual linkage between minimum wage and its significance in reducing poverty.

Appendix A. Estimated poverty lines for each state (Rural areas)

| Region-Poverty line | In current values for the year(Rs) | | In MW for the year | |
|---|---|---|---|---|
| | 2015 | 2019 | 2015 | 2019 |
| Kerala | 978 | 1018 | 617 | 670.1 |
| Himachal Pradesh | 899 | 913 | 265.3 | 343.2 |
| Punjab | 1004 | 1054 | 285.8 | 331.9 |
| Andhra Pradesh | 795 | 860 | 223.1 | 290.5 |
| Haryana | 990 | 1015 | 348.7 | 376.3 |
| Tamil Nadu | 870 | 880 | 373.9 | 438.2 |
| Meghalaya | 850 | 888 | 198 | 217.5 |
| Tripura | 710 | 798 | 200 | 250 |
| Rajas than | 900 | 905 | 294.7 | 312.6 |
| Maharashtra | 910 | 967 | 206.8 | 239.7 |
| Gujarat | 920 | 932 | 193.5 | 233.7 |
| West Bengal | 1654 | 1783 | 237.1 | 291 |
| Karnataka | 845 | 902 | 227.1 | 264 |
| Uttar Pradesh | 710 | 768 | 213.6 | 271.6 |
| Madhya Pradesh | 750 | 771 | 166.3 | 205.6 |
| Assam | 805 | 828 | 225.7 | 263.6 |
| Odisha | 634 | 695 | 186.2 | 241 |
| Bihar | 760 | 778 | 220.3 | 267 |

Source: RBI publications

Appendix B. Estimated poverty lines for each state (Urban areas)

| Region -Poverty line | In current values for the year(Rs) | | In MW for the year | |
|---|---|---|---|---|
| | 2015 | 2019 | 2015 | 2019 |
| Kerala | 976 | 987 | 617 | 670.1 |
| Himachal Pradesh | 954 | 1064 | 265.3 | 343.2 |
| Punjab | 1125 | 1155 | 285.8 | 331.9 |
| Andhra Pradesh | 1005 | 1009 | 223.1 | 290.5 |
| Haryana | 1152 | 1169 | 34S.7 | 376.3 |
| Tamil Nadu | 925 | 937 | 373.9 | 438.2 |
| Meghalaya | 1114 | 1154 | 198 | 217.5 |
| Tripura | 916 | 920 | 200 | 250 |
| Rajasthan | 950 | 1002 | 294.7 | 312.6 |
| Maharashtra | 1056 | 1126 | 206.8 | 239.7 |
| Gujarat | 1004 | 1152 | 193.5 | 233.7 |
| West Bengal | 1964 | 2381 | 237.1 | 291 |
| Karnataka | 1077 | 1089 | 227.1 | 264 |
| Uttar Pradesh | 875 | 941 | 213.6 | 271.6 |
| Madhya Pradesh | 760 | 897 | 166.3 | 205.6 |
| Assam | 910 | 1008 | 225.7 | 263.6 |
| Odisha | 840 | 861 | 186.2 | 241 |
| Bihar | 760 | 923 | 220.3 | 267 |

Source: RBI publications

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