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Multidimensional poverty among migrants during COVID-19: A case study of rural households in Samastipur district of Bihar, India

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Abstract
Sudden outbreak of COVID-19 forced the government to announce country wide lockdown and the migrant workers in urban area found themselves jobless. With no source of income, the urban cost of living could not be afforded. This triggered the mass exodus also termed as, reverse migration. Migrants returned back to their native villages only to face hostile situation with limited or no options for sustainable livelihood and they were pushed to situation of abject poverty. The current study was undertaken to capture the experiences of the returnee migrants in the rural areas of Samastipur district of Bihar. 400 migrant households in eight blocks of Samastipur district were included in the survey. The main objective was to develop a deeper insight of the precarious situation they were in with respect to their impoverishment as a consequence of the reduced income due to joblessness. Multidimensional poverty index has been constructed for the poverty stricken migrant population during COVID-19 to understand the deprivations they are facing along various dimensions. The results showed that all the participants of the survey are MPI poor as they suffered deprivation in at least a third of the indicators. The deprivation in nutrition is the most important factor contributing towards overall poverty. Education is the next important contributing factor followed by the indicator asset under living standard dimension.

Keywords: Multidimensional poverty, deprivation, COVID-19, migrant households, labour

Introduction
The Government of India announced a nationwide lockdown in last week of March, 2020 to tackle the fast growing COVID-19. This sudden imposition of lockdown resulted in loss of employment/jobs at a massive scale across the country. The worst affected section of the society was that of the migrant workers and they were forced to return back to their villages. The exodus of migrants also termed as, reverse migration was one of the most visible fallouts of COVID-19 pandemic. There were many ad-hoc emergency responses from the government like targeted food or cash programs directed at the poorest and those who are most vulnerable. Later the government announced special economic packages like Pradhan Mantri Garib Kalyan Yojana (PMGKY) scheme with an aim to mitigate the plight of the migrant population. Uttar Pradesh and Bihar are the two leading states with highest proportion of total out migration in the country. Approximately 23.6 lakh migrants of Bihar returned to their native places during pandemic induced lockdown (Nair, 2020) [12]. One of the major challenges for the government is to rehabilitate these migrants in terms of livelihood, food and other forms of support. The overburdened rural economy excessively dependent on agriculture makes it difficult for returnee migrants to get absorbed readily into community / society. They faced hostile situation in their own community due to fear of disease infection and lack of employment and income. There is a pressing need to have a comprehensive approach or strategy in place so as to make their re-integration into the community / society with ease. However while facilitating them to involve in income-generation activities, it is also important addressing their nutritional and economic well-being. For devising an efficient need based strategy, it is important to have first hand information on true picture of their current status at ground level after surviving such a strict lockdown. Once this kind of information is available, the returnee migrants can be segregated into categories based on their current status as well as their specific needs. Govt. of India launched Garib Kalyan Rozgar Abhiyan scheme for the upliftment of returnee migrants in 116 villages of the country. It is expected to enhance the availability of work opportunities locally. There have been studies that establish the fact that employment provisions available in a locality even at low wages reduce seasonal distress

migration. Imbert and Papp (2018) [7] proved that availability of employment in local public works significantly influences out-migration despite the higher earnings available outside the villages. Local income generation also comes with more assurances and proximity to safety in case of unprecedented circumstances such as COVID-19 (Rajan *et al.* 2020) [17].

Thus the COVID-19 induced newer levels of acute poverty for the migrant population needs to be measured so that the strategies as well as policies can be revised in the current context to better integrate the needs and knowledge of migrants who are facing a range of vulnerabilities and marginalization. Of late there has been growing body of literature favouring for measuring poverty as a composite index that includes deprivations along multiple dimensions. The main cause of the multiple deprivations that an individual faces is usually low income, however, incomes as such may not translate into meeting basic needs (Sen 1980). The concept of multidimensional poverty index (MPI) extends beyond traditional assessment based on income or consumption expenditure alone. Hence this approach is considered to be more insightful for poverty assessment. With clear evidence of increase in impoverishment, especially among migrant population, this study is an attempt to develop a deeper insight of their deprivation along multiple dimensions in rural areas of Samastipur district in Bihar. To understand the major implications of their plight on the social wellbeing, MPI has been constructed. Alkire and Foster (2011) [4] methodology has been used according to which three different dimensions, indicators under each dimension and their weights have been included based on global MPI. The aim is to contribute to develop understanding of migrants' experience during lockdown, in terms of the multiple deprivations they were facing so that targeted interventions can be devised to improve overall resilience to the pandemic induced economic shocks.

2. Material and Methods

2.1 Study Area and Sampling Frame

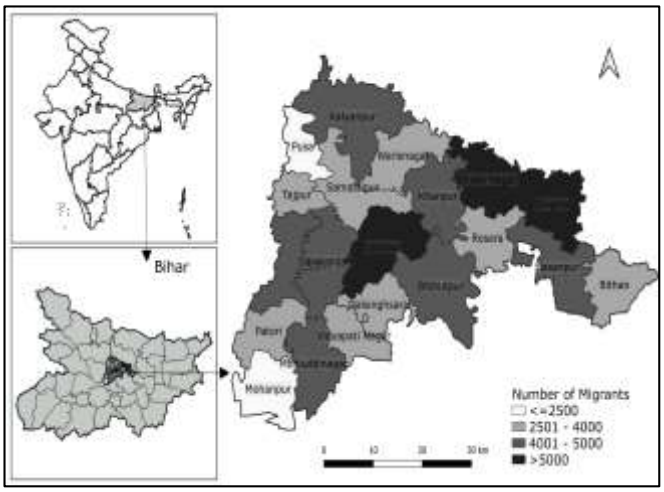

Fig 1: Block wise distribution of returnee migrants in Samastipur

Samastipur is one of the 17 districts of the country which accounts for 25% of total male out-migration (2001 census). About 60% of the state out-migrants are from six districts of Bihar and Samastipur is one of them. According to the data base maintained at quarantine centers, by the office of District Administration of Samastipur, more than 75000 migrants from different states of the country returned back during pandemic induced lockdown. Figure 1 depicts the distribution of returnee migrant population in different blocks of Samastipur district. A survey was undertaken to study the experience of migrants who returned to their native villages during the first wave of COVID-19. The survey was conducted during October to December 2020 to provide a snapshot of the migrants who were facing economic hardships.

Multi-stage sampling design was employed for the survey. Primary stage unit constituted eight blocks of Samstipur district selected randomly followed by random selection of villages as secondary stage units. The ultimate stage units were the households having returnee migrants. Snowball sampling technique was used to identify such households having at least one member returned back from outside his or her native place during lockdown. A total of 400 households were covered for the investigation. In order to capture the experiences they had during lockdown in the current pandemic situation, interviews were conducted with the sampled households in rural areas of eight blocks in Samastipur district. The target was to develop an understanding of the nature of deprivations that they have to deal with as a consequence of loss of employment and income. A semi-structured interview tool was developed with a mix of structured and open-ended questions. Questions were specifically aimed at understanding how the pandemic affected households' economic condition. As indicators of their well being, information on socio-demographic characteristics including health, education, employment and economic variables of the sampled households was captured. The questionnaire was developed by modifying the standard questionnaire for multidimensional poverty index (Alkire and Santos 2010, UNDP Human Development Reports 2010-2014). The questionnaire was pre-tested with the help of a pilot study on a sample of 10 respondents before the execution of final survey.

2.2 Alkire Foster (AF) Method

Poverty is a condition that transcends income and encompasses multiple dimensions of development, such as education, housing, the community environment, the risk of natural disasters and access to basic services. Poverty is an issue that has long plagued the world and is a major concern affecting the development of human societies (Wang *et al*., 2018). Scholars have proposed a multidimensional poverty measurement method based on the multidimensionality, region-specificity and dynamic characteristics of poverty (Alkire and Foster, 2011; Chen *et al*., 2019) [4]. This paper uses a set of indices proposed by Alkire and Foster (2011) [4].

Multidimensional Poverty Index (MPI) has been prepared to assess the poverty among the returnee migrant households. It uses different factors to determine poverty beyond income. The methodology adopted from Sabina Alkire and Maria Emma Santos uses the household as unit of analysis. Multidimensional poverty is derived from the head count ratio (H) and intensity of poverty (A).The headcount ratio is the proportion of the population who are multi-dimensionally poor. It is computed as

$$H = \frac{q}{n}$$

where q is the number of multi-dimensionally poor households, n is total number of households.

The intensity of poverty (A) captures the average weighted count of deprivations experienced by multidimensionally poor households. It is computed as

$$A = \frac{\sum_{1}^{q} c}{q}$$

where c is the total weighted deprivations experienced by poor.

MPI is the product of headcount ratio (H) and the intensity of poverty (A). i.e., $MPI = H \times A$ According to the Human Development Report (2011) households are identified as being vulnerable to poverty if the weighted deprivation is between 20 to 33 percentages. The above 20 percentage has deprivations in one or two indicators which the households hopefully can improve. It can hence be considered not harmful to overall development context. Households are considered multi-dimensionally poor if the weighted deprivation is greater than 33 percent. MPI can also be decomposed to identify most prevalent deprivations among poor households. The contribution of each indicator to overall poverty is computed as

$$\text{Contribution of indicator } i \text{ to MPI} = \frac{w_i CH_i}{MPI} \times 100$$

where w_i is the weight given to the indicator *i*, CH_i is the censored headcount ratio in indicator *i*, obtained by adding up the number of households which are poor and deprived in the indicator *i* and dividing by the total number of households.

2.3 Dimensions, Indicators and Weights

Three dimensions of deprivation have been selected, namely health, education and living standard. These three dimensions comprise a total of nine indicators. There are two indicators for health – nutrition and mortality.

Table 1: Dimensions, indicators and weights used in computation of multidimensional poverty index (MPI)

S. No.	Dimensions	Description of Indicators	Weights
1.	Health	Mortality: Any child or adult (<60 years) death occurred in the previous year	1/6
		Nutrition: Household dietary diversity score (HDDS) < 7	1/6
2	Education	School enrolment: At least one child in the school going age (6-14 years) in the household currently not enrolled in school	1/6
		Years of Schooling: No member (>15 years) in the household has completed five years of schooling	1/6
3.	Living standard	Floor: if the household has dirt, sand or dung floor	1/15
		Water: Water is not from piped source or bore well or closed/open well	1/15
		Sanitation: No toilet or has to share toilet	1/15
		Cooking fuel: Cooking fuel is not electricity, LPG or biogas (it is wood, charcoal, dung etc.)	1/15
		Assets: Owns less than two of fan, TV, refrigerator, cycle, two wheeler and does not own a car or other four wheeler)	1/15

For nutritional status of household, dietary diversity score has been generated (Kanungo *et al*., 2019) [8]. The education dimension has two indicators – enrolment of child in school and completed years of education of adult members of household. The description of dimensions, indicators and the weights assigned to each indicator is shown in Table 1. Using these dimensions, this study attempts to develop a household poverty measure. MPI has been measured using dual cut-off method based on the counting approach developed by Alkire and Foster (2007; 2011) [3, 4]. According to this method equal weight is assigned to each dimension and equal weight to each indicator within each dimension. An individual gets a weighted deprivation score according to his/her number of weighted deprivations. The total weighted deprivation scores range between 0 to 1 and a household is identified poor if weighted deprivation score is greater than 0.33 i.e., one-third of the total deprivation score. The household dietary diversity score (HDDS) has been used as representative of nutritional status of such households. It is defined as a number of food groups consumed over a reference period. Lack of it can have negative consequences on individuals' health, well being and development.Following FAO (2011) guidelines, food items were categorized into 12 different food groups with each food group counting toward the household score if a food item from the group was consumed by anyone in the household in the previous 24 hours. The food groups used to calculate this HDDS included: cereals; tubers and roots; legumes, nuts, and seeds; vitamin A rich vegetables; green leafy vegetables; other vegetables; fruits; meat; eggs; milk and milk products; sweets; oils and fats; and spices, condiments, and beverages. Thus, the HDDS is a continuous score that can range from 0 to 12 based on whether the household consumed each of the 12 food groups. HDDS has been calculated by summing the number of unique food groups consumed during last 24 hour. If an individual eat any quantity of any food group at least once per day, was taken into count. Adequate dietary diversity has been defined as HDDS score ≥7 (Mukherjee *et al*, 2018) [11].

3. Results and Discussion

3.1 Socio-demographic profile

The households surveyed indicated the pattern of mainly the male migration. The male members of the households usually migrate for better prospects of job to earn money and their families stay back in the villages. The mean age of the returnee migrants was observed to be 39.2 years. 51.2 percent of the returnee migrants surveyed belonged to other backward caste (OBC) category whereas 36.2 percent were of scheduled caste (SC) category and 12.6 percent of general category. Majority of the migrant workers (44.2 percent) were observed to have education up to primary level and 37 percent were illiterate followed by 18.8 percent possessing education up to secondary level. They comprised of workforce mostly in different informal sectors of urban economy ranging from construction sites, brick kiln, industrial workers, other services like driver/ maids/ watchman/ cooks. Majority of the

migrant workers (44 percent) reported that they were working in manufacturing sector (industries/factories) as unskilled labour (Table2). Another 21 percent were employed in the construction sites / brick kiln. Some of them were employed in agriculture (19 percent) in the states of Punjab and Haryana, however, their proportion was low as compared to other sectors. The lack of sustained income opportunities at their native places was posing a challenging situation. They experienced a drastic drop in income leading to difficulty in survival.Around 37 percent of the respondents were working on daily wages as labour after returning back to native places and are managing to get a paltry amount of Rs. 3500 to Rs. 5000 per month as income. 24 percent of them reported to have land and they have engaged themselves in agriculture after returning back. They were also asked about their current occupation; more than a third of them (37 percent) said that they get work under MGNREGS as daily wager and that too only for 10 to 12 days in a month. At the same time many of them reported that they are struggling hard to find work under MGNREGS, though it constituted one of the major Central Government's responses to COVID-19 crisis.Apart from limited opportunities in MGNREGS, there were issues of delayed payments, non approval of enough work, and lower wages compared to state minimum wages (Aggarwal and Paikra 2020) [1]. Nearly an equal proportion of them (33 percent) were unemployed and searching for work in villages at the time of survey. 24 percent of them were found to have some land and they were engaged in agriculture. The respondents were asked if they intend to re-migrate to cities in search of work in future, 73 percent were observed to be willing to re-migrate as they do not see a long term opportunity of work for at their native places. Rest of the migrants was observed to be hopeful that the government will take care of them and also they preferred to be with family in such a dreadful situation of the pandemic.

Table 2: Distribution of migrants according to employment in different sectors

Employment status (n = 400)			
Urban cities	**Frequency**	**Native places**	**Frequency**
Agriculture	19.2%	Agriculture	23.8%
Construction	21.6%	Labour	37.4%
Industries	43.7%	Unemployed	33.3%
Offices	6.1%	Self employed	4.1%
Others	9.4%	Salaried	2.3%

3.2 Estimates of multidimensional deprivation

Multidimensional poverty endeavours to include deprivation in all aspects of human life. The adoption of MPI is assessing the level of poverty among households of returnee migrants by the given guidelines shows that the headcount of multidimensional poverty (H) among the surveyed migrant households was 1.0 i.e., 100 percent of the surveyed households are MPI poor i.e., they are in acute poverty. This finding corroborates the fact that people migrate mostly for subsistence and survival and can be considered as distress migration. The findings show that the MPI score for the sampled households was greater than the cut off value of 0.33. They are deprived at least either a) all the indicators of a single dimension or b) a combination across dimensions such as having inadequate dietary diversity, no access to improved sanitation or a dirt floor, possessing very few assets.

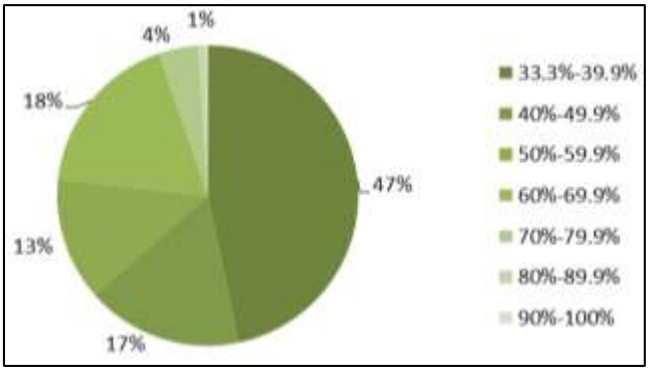

Fig 2: Intensity of Deprivation among MPI Poor

The intensity of poverty (A) which captures the average number of deprivations faced by households, was found to be 0.61 i.e., on an average the households were found to be deprived in 39 percent of the weighted indicators. Thus the multidimensional poverty index (MPI) for the surveyed households stands at 0.39 (H X A). Thus the surveyed migrant households are found to be deprived in 39 percent of the total potential deprivations it could experience overall.Figure 2shows the percentage of MPI poor households experiencing different intensities of deprivation.

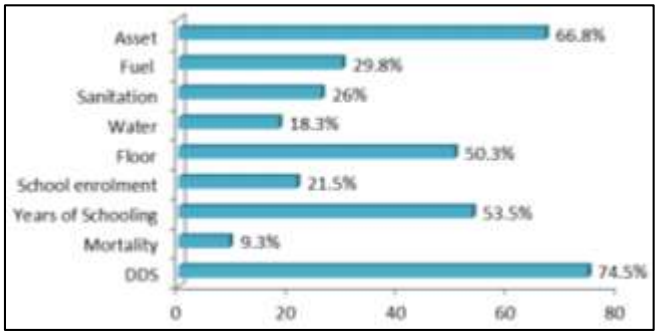

Fig 3: Share of households according to deprivation in different indicators

A fair proportion of MPI poor households (47 percent) were facing the poverty with intensity below 40 percent. Less than 20 percent of the households were observed to be experiencing poverty with intensity of each of the other categories. Figure 3 depicts share of surveyed households deprived in different indicators of poverty. Almost 75 percents of the households were found to be deprived with respect to nutrition having DDS less than 7. The incidence of deprivation with respect to years of schooling under education dimension is 53.5 percent and also 50 percent of them were found to be deprived with respect to the housing floor under the dimension of living standard. Children of age 6-14 years of 21.5 percent of the surveyed households reported that their children were attending some or other private schools before lockdown but now with limited or reduced income, they were unable to pay the fees and were planning to shift their children to government schools. The children of school going age of these households were not enrolled in any school at the time of survey, hence they were considered to be deprived in this indicator.

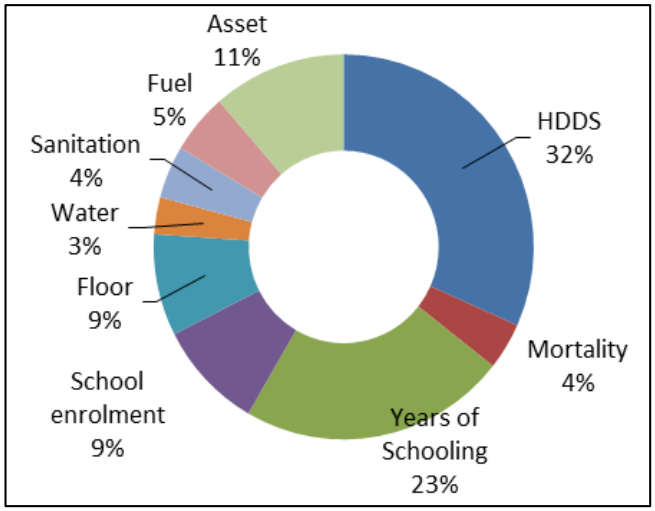

Fig 4: Contribution of Indicators to Overall Poverty

Figure 4 presents the contribution of each of the indicators to the overall measure of MPI. The results show that the nutritional deprivation is observed to be the highest contributing factor (32 percent) towards overall multidimensional poverty of the migrant population followed by years of schooling (23 percent).The indicators like fuel, sanitation, water, mortality contributed very less towards poverty.

3.3 Nutritional status of migrants households

Since nutrition was found to be the most important contributing factor towards overall poverty of the migrant households, it was further analyzed to identify different food groups in which the households were observed to be deprived. The returnee migrants reported that as first step towards coping with the adversity of loss of livelihood because of lockdown, they were forced to cut down their daily expenses. Hence their food consumption took the greatest hit and the diversity of their diet got reduced. The level of diversity in household diets is an indirect measure of diet quality or the extent to which nutritional needs of the households are being met. Dietary diversity scores were examined in relation to the nutritional status of the migrant households. Mean household dietary diversity score of the respondents was 6. Majority of the migrant households (85 percent) were having inadequate HDDS (HDDS<7). Table 3 shows the consumption of food from different food groups among the migrant households on the previous day of the survey.

Table 3: Food groups consumed by households by HDDS

Adequate HDDS (≥ 7)	Inadequate HDDS (0-6)
Cereals (100%) Legumes, nuts and seeds (100%) Roots & Tubers (100%) Other vegetables (100%) Oils & Fats (100%) Miscellaneous (Sweets, Spices, condiment & beverages) (100%) Milk & Milk Products (96.2%) Green leafy vegetables (80%) Fruits & dry fruits (69.2%) Meat (57.7%)	Cereals (100%) Roots & Tubers (100%) Other vegetables (100%) Oils & Fats (100%) Green leafy vegetables (44.3%) Miscellaneous (Sweets, Spices, condiment & beverages) (27.6%) Legumes, nuts and seeds (37.3%) Milk & Milk Products (24.4%) Meat (10.5%)

There were stark differences in consumption of other food groups like legumes, nuts and seeds; milk and milk products and other miscellaneous food items. The dietary diversity and consumption pattern of the migrant households reveal that all of them have used some kind of cereal; roots and tubers; other vegetables; and oils and fats irrespective of dietary diversity score. More than 50 percent of the households with adequate diversity score were observed to be consuming each of the food groups. Whereas lesser number of households (less than 50 percent) with inadequate diversity score were found to be consuming legumes, nuts and seeds; milk & milk products and meat. Fruits and dry fruits were found to be missing from the diet of majority of migrant households.

4. Discussion

The forced reverse migration from urban to rural areas due to COVID-19 pandemic has impacted significantly the demography, society and economy of rural India. A fair proportion of the migrants included in the survey was either illiterate or were having education up to primary level. Most of the migrant workers surveyed in this study were marginal farmers initially who left agriculture and moved to urban areas for better economic opportunities. With low level of education, majority of them were engaged in lowly jobs in cities like labour on construction sites, brick kiln etc., or working as drivers/ maids/ watchman/ cooks. It indicates the prevalence of distress rural-urban migration initially from their native place. With their engagement in these sectors, it is not hard to imagine their plight in cities in terms of their well being. However, the forced reverse migration due to the pandemic has pushed them to situation of abject poverty. This study attempts to analyze the vulnerability to poverty among the returnee migrant households in rural areas of Samastipur district in Bihar and for this the concept of multidimensional poverty measure has been used. One of the major limitations of the usual income based poverty measure is that it fails to capture the deprivations of a household in multiple aspects of life like education, health, employment etc., which is overcome by multidimensional poverty measure. This study is an endeavour to understand the poverty status of returnee migrants holistically.

The overall level of MPI of the rural households surveyed was found to be 1 i.e., all the households were identified as MPI poor thus highlighting the severity of impact of COVID-19 in rural areas. There was significant variation among different dimensions as well as the indicators thereof. A snapshot of information for the selected dimensions and indicators of MPI was also obtained. The findings showed high level of deprivation in nutritional status (high proportion of deprivation with respect to HDDS). The underlying reason may be the fact that in the time of stress with reduced or loss of income, the households tend to have a range of actions in

which they try to preserve assets most important to their livelihood. It usually starts with changes in food habits and a reduction in evitable expenses. As a result, many households start reducing the number of food items in a meal and the number of meals in a day thus reducing the dietary diversity. Many migrant households in this study reported that they were having only two meals a day. Their meal was confined to chapati or rice with one vegetable curry. Majority of them said they include pulses occasionally. According to Lahoti *et al*. (2020) [10], 77 percent of the households were consuming less food based on a study conducted by Centre for Sustainable Development, Azim Premji University across 12 states. Usually the diets in India are poor and mainly cereal based and very few among children as well as adults meet the dietary requirements as recommended by national and international dietary guidelines (Prasad and Sinha, 2019) [16]. Pandey *et al*. (2020) [15] reported that the households in Chhattisgarh were eating fewer vegetables and fruits during lockdown.

The second most important indicator identified contributing significantly to the overall poverty was the years of schooling. Education contributed approximately one third to the MPI thus playing a significant role in keeping the rural masses poverty stricken and they move to urban cities for lowly jobs only. In turn they get worst affected within no time in the distress situation like COVID-19 pandemic and were forced to migrate back to the native places. Also with the closure of many small private schools as well as the inability of parents to provide for fees, children of many households had to drop the school.

According to the Annual Status of Education Report (ASER) 2020, 5.3 percent of rural children across country aged 6 to 10 years did not enroll in school as compared to 1.8 percent in 2018 (ASER 2020).This report also highlighted the levels of learning loss that students in rural India were suffering. However, the government is vigilant to address this issue and has advised the states and Union Territories to conduct a comprehensive door-to door survey to identify out-of-school children of age 6 to 18 years for preparing an action plan for their enrolment (Outlook Web Bureau, 2021) [13].

The returnee migrants were finding it difficult to get an immediate opportunity in the existing job market at their native places. Only a few returnee migrant workers were able to accommodate themselves in MNREGA work scheme for a brief period of time. As a consequence of this, a large proportion of them intended to go back to the cities. The lack of livelihood opportunities at their native place forced them to reconsider their decision of never going back again to the cities. At the time of survey many migrants had already moved back to city and of those remaining, many reported to have job offers from the past employers and were waiting to get the situation stabilized so that they can relocate to cities. However, a fair proportion of migrants were willing to stay back and expressed their willingness to attend training programmes for up skilling or re-skilling themselves so that they can diversify their abilities to get absorbed in livelihood sector. The interventions in this regard are required to extend social and financial security for the reverse migrant households. Since agriculture is the mainstay of economy of Bihar, the focus should be on devising strategies for supporting agriculture and allied activities. However, rural economy based on agriculture is already over-burdened; its capacity to absorb more people is limited. An altogether different approach is required to address the issue of their rehabilitation by diversifying agriculture sector with establishing agri-value chains to create employment opportunities. It requires collaboration among several authorities like different departments of the Government, NGOs, agricultural universities and other stake holders to introduce resilient rehabilitation strategies for migrant workers. High prevalence of unemployment among rural migrants is also due to their inability to travel due to pandemic. As first step towards devising the resilient rehabilitation strategies for migrant workers, various training programmes need to be in intensified mode in relevant field with an aim to help them obtain local employment. Some of the areas in which training can be imparted are:

a) Training to promote cultivation of medicinal plants as current pandemic has highlighted their importance. A surge in demand of its products is being observed and is expected to continue in future.
b) Training on processed products of mushroom and roping in the non-governmental organizations to facilitate the migrant households to establish it as sustainable enterprise.
c) Training on grading and packaging and of agricultural produce for their value addition. With the rise in aware middle class population, value added produce are in great demand especially in urban areas.
d) Training to develop low cost farm storage infrastructure for perishable produce.
e) Training for maintenance of farm implements and facilitate to establish servicing and repairing centers for the implements. The semi-skilled migrant workers erstwhile engaged in various aspects of construction sectors can be helped.

The other most important step towards devising their rehabilitation strategies is creating avenues for their employment locally. Since majority of the returnee migrants are landless labour and are not capable of undertaking an enterprise on their own, the focus should be on community centric initiatives. Hence there is need to put emphasis on strengthening farmers producers' group, self help groups etc. The government has to play a critical role by directing and facilitating enterprises to develop distinctive industries related to modern agriculture to attenuate the development of poverty stricken migrant households. They can also be assisted with financial support in terms of loans with simplified procedures and lower loan thresholds.

5. Limitations of the study

This study has some data limitations. Since at the last stage of sampling the respondents were identified through snowball sampling, the sample is not truly a random sample. Hence the sample is not statistically representative of the migrant population of rural areas of Samastipur district. Since this was a cross sectional study, the impacts of the pandemic could not be measured directly, the results are based on the perceived impact based on the responses of the participants included in the survey. The findings reflect of the experiences of the respondents surveyed.

6. References

1. Aggarwal A, Paikra VK. Why are MNREGA wages so low?, 2020.

https://www.ideasforindia.in/topics/governance/why-are-mnrega-wages-so-low.html
2. Annual Status of Education Report (Rural) 2020 Wave 1. http://img.asercentre.org/docs/ASER/aser2020wave1report_feb1.pdf
3. Alkire S, Foster J. Counting and multidimensional poverty measures. Oxford Poverty and Human Development Initiative (OPHI), Working Paper 7, Oxford Department of International Development, University of Oxford; c2007.
4. Alkire S, Foster J. Counting and multidimensional poverty measures. Journal of Public Economics. 2011;95:476-87.
5. Dehury B, Mohanty SK. Regional Estimates of Multidimensional Poverty in India. Economics Discussion Papers, No 2015-34, Kiel Institute for the World Economy; c2015. Available at: http://www.economics-ejournal.org/economics/discussionpapers/2015-34
6. Guha P, Islam B, Hussain MA. COVID-19 lockdown and penalty of joblessness on income andremittances: A study of inter-state migrant labourers from Assam, India. J. Public Affairs; c2020. https://doi.org/10.1002/pa.2470
7. Imbert, Clement, Papp, John. Costs and Benefits of Seasonal Migration: Evidence from India. The Warwick Economics Research Paper Series (TWERPS) 1161, University of Warwick; c2018.
8. Kanungo S, Mazumder D, Mukherjee S, Majumdar KK, Roy P, Roy S, *et al*. Measuring Poverty in Eastern India through Multi-Dimensional Poverty Index (MPI): Tool to Focus Where to Invest in Public Health. Natl J Community Med. 2019;10(2):55-61.
9. Kennedy G, Ballard T, Claude M. Guidelines for measuring household and individual dietary diversity. FAO; c2011.
10. Lahoti R, Basole A, Abraham R, Kesar S, Nath P. Hunger grows as India's lockdown kills jobs:results of a survey from 12 states. The India Forum, 2020. https ://www.theindiaforum.in/artic le/hunger-grows -india -s-lockd own-kills -jobs.
11. Mukherjee A, Paul S, Saha I, Som TK, Ghose G. Dietary Diversity and its Determinants: A Community-Based Study among Adult Population of Durgapur, West Bengal. Med J of DY Patil Vidyapeeth. 2018;11:296-301.
12. Nair R. Bihar, Rajasthan among states with steep rise in unemployment in 2018-19, youth hardest hit. The Print, 2020. https://theprint.in/economy/bihar-rajasthan-among-states-with-steep-rise-in-unemployment-in-2018-19-youth-hardest-hit/442713/
13. Outlook Web Bureau. Covid Impact: Education Ministry Suggests Door-To-Door Survey To Enroll Students, Relaxation In Detention Norms. Outlook magazine, 2021. https://www.outlookindia.com/website/story/india-news-covid-impact-education-ministry-suggests-doorstep-enrollment-of-students-relaxation-in-detention-norms/370069
14. Oxford Poverty & Human Development Initiative. MPI in India: A Case Study; c2018.
15. Pandey S. Lockdown sees record spike in NREGA jobs, but 1.7 crore applicants fail to get one. The Print, 2020. https ://thepr int.in/india /governance /lockdown-sees-record-spike-in-nrega-jobs-but-1-7-crore-applicants-fail-to-get-one/460818/.
16. Prasad V, Sinha D. Dietary deprivation: diets sans diversity. Frontline magazine; c2019. https ://front line.thehindu.com/cover -story /artic le297 66073.ece.
17. Rajan SI, Sivakumar P, Srinivasan A. The COVID-19 Pandemic and Internal Labour Migrationin India: A 'Crisis of Mobility' Indian Society of Labour Economics; c2020. https://doi.org/10.1007/s41027-020-00293-8