

## Impact of Reverse Migration on The Average Income of Women in Kumaun Region of Uttarakhand

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### Abstract

With the beginning of the coronavirus disease, there was a massive return or reverse movement of migrants across the country, particularly to those states having a high out-migration rate, such as Uttarakhand. Retaking to households also resulted in an impact on the household economy and earning potentials, especially with regard to women taking up income generation. This study aims at exploring the effect of reverse migration on the income of women in the Kumaun region of Uttarakhand. The main data has been gathered from six districts of the Kumaun region, representing women respondents, as the data is from respondents themselves. The number of women within reverse migrant households was 510, and they were analyzed according to households' income. The paired sample t-test is used to compare the income of women before and after the spread of the coronavirus from the recall method from the respondents. The study shows that the average monthly income of female laborers decreased from pre-COVID 23480 to post-COVID 18240, which is 22.3 percent. The conclusion is evident that women tend to move towards low-income groups in the post-COVID era. This is a paired t-test of pre vs. post income, demonstrating the difference is significant for pre- and post-COVID. The study shows that “reverse migration” has been a tremendous adverse impact on the women's income generation in the Kumaun region during the pandemic.

**Keywords:** Reverse Migration, Women, Income, COVID-19 pandemic

### Introduction

Out-migration is a phenomenon which is prevalent in one such state in India – Uttarakhand, particularly in the hill districts thereof. This phenomenon turned out to be misunderstood with the spread of COVID-19, however. Due to the nationwide lockdown in March 2020, industries, businesses and service activities have closed and this resulted in significant number of job losses among migrant workers. This led to the repatriation of millions of migrants to their own states all over India (ILO, 2020). The return of migrants is also called ‘reverse migration’ during the pandemic. One of the remarkable social and economic impacts of the Coronavirus has been reverse migration. The accelerated migration to the urban areas placed additional demands on the rural labor force both in terms of jobs and land use and family's income. In some cases, these financially struggling families experienced issues when attempting to get

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back from the remittance work of their members, in some ways predicting that an inability to secure support from migrant laborers will cause financial and other difficulties. This effect was most pronounced in remote locations where there was already an issue of available jobs.

Women are the largest victims in this period. Women's role in agriculture, animal husbandry, earning from jobs and avocations in the rural house are substantial contributors to the earnings of rural households. COVID-19, however, brought a lot of women's earning opportunities down because of the economic disruptions the pandemic has brought. Women have been revealed to have been higher risk to lose their job or become job insecure during the pandemic as they are more likely to be working in informal and not served employment positions (UN Women, 2020).

There was very high number of return migrants in Uttarakhand from return migrants' perspective during Covid-19. Many of these returned to the state by the Rural Development and Migration Commission (RDMC) reports that 215,000 had returned to the state by June 2020. Among them, 97,865 residents are from Kumaun (the Almora and Bageshwar districts, together with the parts of Champawat, Nainital, Pithoragarh and Udham Singh Nagar (RDMC, 2020), a region with a specific cultural heritage. Migrant return impacts on the local labour market and family economy, posing new challenges for women and families. The Kumaun region provides a platform to look into economic impact of reverse migration of the women.

The present study is a pertinent review of the impact of reverse migration on the average income of women in the Kumaun region of Uttarakhand. It also compares the income before and after COVID-19 and investigates whether there have been any changes in income level for women following the pandemic. Recognizing these changes becomes pivotal for crafting policies to tackle the economic security of women and empower rural livelihoods in the Covid-19 era.

### **Objectives**

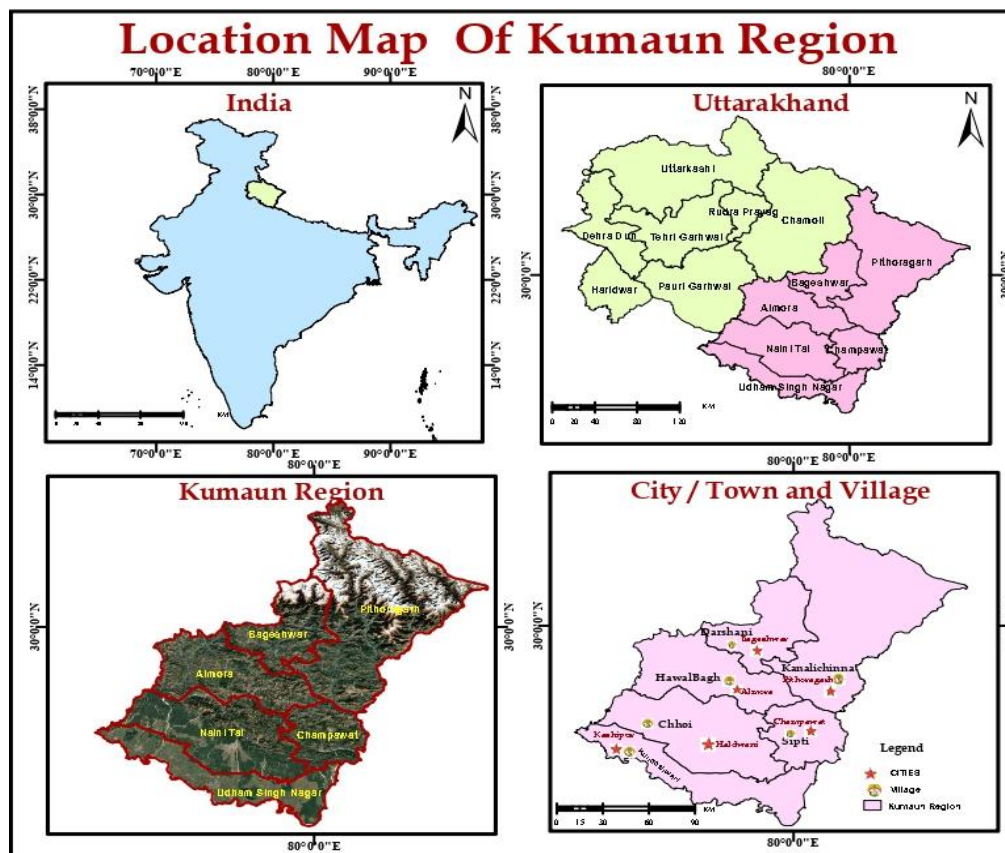
- To analyze the impact of reverse migration on the average income of women in the Kumaun region.
- To compare women's average income before and after COVID-19.
- To evaluate the statistical significance of income changes among women from reverse migrant households.

### **Study Area**

The study will be carried out in the Kumaun region of Uttarakhand. It is the one of Uttarakhand state's two division. On the northern end Kumaun is surrounded by the Tibet while on the western by Garhwal region and to the south Uttar Pradesh, to the east the Nepal. In the Indian Parliament, on 9th November 2000 the Uttar Pradesh Reorganization Act, 2000 was passed and the Kumaun Region became part of the 27th state of the Republic of India – Uttarakhand. The entire geographical area in the Kumaun region being 21034 sq. km is situated between 29°27' N latitude and 79°47'E longitude. The population density of the area is 201 persons/sq. km. Variations are appreciable in climatic conditions according to the altitude and nearness to the

Himalayas. It has total of Six districts – Almora, Bageshwar, Champawat, Udham Singh Nagar, Nainital, Pithoragarh. The whole Kumaun area is a large block of the Himalayas flanked by two adjoining strips of sub-montane region, the Terai and Bhabar. As per 2011 census the total population of Kumaun Region is 4228998 of which 2138287 is males and 2090711 is females. The region comprises of 48 tehsils. The area is most commercial, economically and industrially active area of the State in Kumaun region especially Bhabar and Terai region. Besides, agriculture has a major role in the economy of Kumaun region. Uses large-relative amounts of Population. It is the base of one of the famous Indian Army regiments, Kumaun Regiment. A prominent town of Kumaun is Nainital, Almora, Pithoragarh, Champawat, Bageshwar and Ranikhet. The region also has cities like Haldwani, Rudrapur, Kashipur particularly in the plain (Terai) areas of the region. Nainital is its administrative center.

**Figure:1.1**



Source: Drawn by author using GIS Software

## Research Methodology

While considering the adverse effect of reverse migration on average income of women of the Kumaun region in Uttarakhand, this is descriptive as well as analytical research. This research method is primary data that is obtained. This structured questionnaire was used to obtain the primary data application was made through a field survey. The survey was done in 6 districts of the Kumaun region of Almora, Bageshwar, Champawat, Nainital, Pithoragarh and Udham Singh Nagar. The cities in each district were selected and one village and one city/town in each district was selected for the study.

510 women were selected from the reverse migrant families and studied the reverse migrant's income. The data was gathered from the respondents on socio-economic attributes and pre and post COVID-19 income. Prior to the COVID-19 pandemic, women have been measured by the recall method. To assess the effect of reverse migration on the women's income the paired sample t-test was applied.

## Result and Discussion

The gender split between income groups is suggestive of a trend towards diversion of female income sources since the onset of the pandemic. Prior to COVID-19, most females were in the middle- and upper-income levels, but after COVID-19 most females moved to low-income groups. The trend points to the more precarious economic position of women and their lower access to livelihoods due to the reverse migration and pandemic.

A detailed examination of the data shows that the proportion of women earning below ₹5,000 per month increased from 7.8 percent before COVID-19 to 16.9 percent after COVID-19. Similarly, the share of women in the ₹5,001–15,000 income category rose from 29.6 percent to 41.8 percent. In contrast, the percentage of women earning ₹15,001–25,000 declined from 35.4 percent to 27.2 percent. A similar reduction was observed in the higher income categories, where the proportion of women earning ₹25,001–50,000 decreased from 19.2 percent to 10.4 percent, while those earning above ₹50,000 fell from 8.0 percent to 3.7 percent.

A net movement towards respondents' income falling into the lower income group further highlights the financial difficulties of the COVID experience. Over economic activities have been disturbed, there have been reduced livelihood opportunities and migrant workers went back to their respective hometowns, resulting in a decline in women's incomes. Reverse migration had a deep impact on the overall situation of households in the Kumaun region; this included making women even less economically empowered owing to pandemic.

**Table: 1.1**

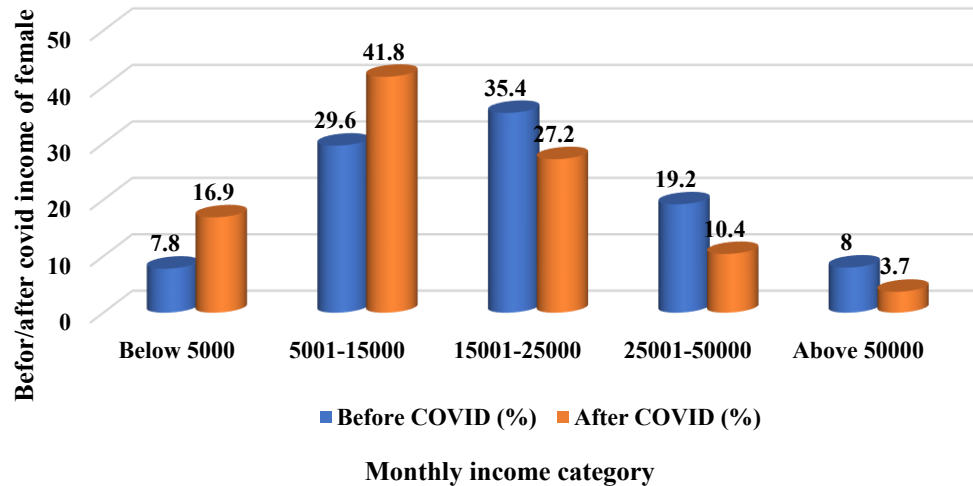
### Monthly Income Distribution of Reverse Migrated Women Before and After COVID-19

| Monthly Category | Income | Before COVID (%) | After COVID (%) |
|------------------|--------|------------------|-----------------|
| Below 5000       |        | 7.8              | 16.9            |
| 5001-15000       |        | 29.6             | 41.8            |
| 15001-25000      |        | 35.4             | 27.2            |
| 25001-50000      |        | 19.2             | 10.4            |
| Above 50000      |        | 8.0              | 3.7             |

Source: Data compiled by author through field survey (2023-24)

**Figure: 1.2**

**Monthly Income Distribution of Reverse Migrated Women  
Before and After COVID-19**



Source: Prepared basis on the field survey data 2023-24

**Table: 1.2**

**Impact of Reverse Migration on Average Income of Women in Kumaun Region**

| District     | Mean Monthly Income Pre-COVID-19 | Mean Monthly Income Post-COVID-19 | (%) Decline |
|--------------|----------------------------------|-----------------------------------|-------------|
| Almora       | 22400                            | 17500                             | 21.9        |
| Bageshwar    | 21800                            | 17000                             | 22.0        |
| Champawat    | 22100                            | 17100                             | 22.6        |
| Nainital     | 24600                            | 18900                             | 23.2        |
| Pithoragarh  | 22300                            | 17400                             | 22.0        |
| U.S. Nagar   | 27700                            | 20800                             | 24.9        |
| <b>Total</b> | <b>23480</b>                     | <b>18240</b>                      | <b>22.3</b> |

Source: Data compiled by author through field survey (2023-24)

This is reflected in the district-wise analysis, which shows that during COVID-19, women's incomes have decreased in all districts. However, the levels of decline were different depending on the occupational structure and livelihood opportunities. Together, Udham Singh Nagar (-24.9 percent) and Nainital (-23.2 percent) had the largest drops in women's income. Pre-pandemically, these districts relied more on service sector activities, market-oriented jobs, and urban jobs. However, comparatively lower decline was observed in the hill districts like

Almora, Bageshwar and Pithoragarh, since women in these areas were actively involved in agriculture and dairy farming and local livelihood activities which helped them in running the households to a certain extent during the lockdown period after COVID-19.

The study results show high levels of resilience to livelihoods and adaptive capability to their work among Reverse migrants' women in the study area with having different regions.

**Table: 1.3**

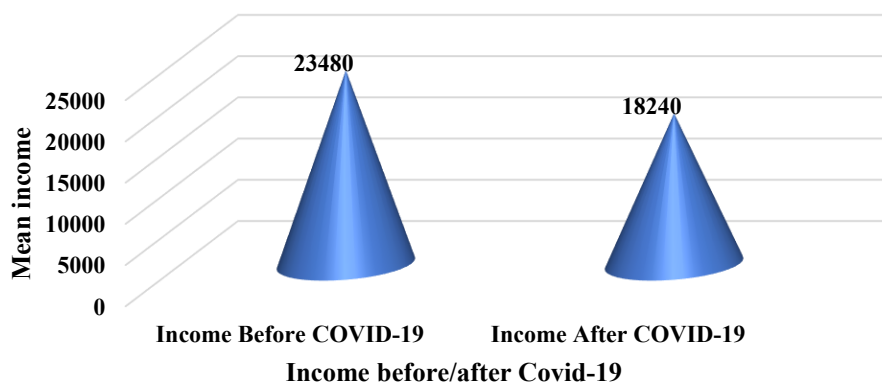
**Descriptive Statistics of Monthly Income of Reverse Migrated Women**

| Variables                     | Mean Income | Standard Deviation | Standard Error Mean |
|-------------------------------|-------------|--------------------|---------------------|
| <b>Income Before COVID-19</b> | 23480       | 7860               | 348.1               |
| <b>Income After COVID-19</b>  | 18240       | 6940               | 307.3               |

Source- Computed by author through field survey data (2023-24)

**Figure: 1.**

**Mean Income of Reverse Migrated Women**



Source- Prepared basis on the field survey data 2023-24

The descriptive statistics reveal that the mean monthly income of reverse migrated women before COVID-19 was 23,480, which declined to 18,240 after the pandemic period. This decline indicates the adverse impact of COVID-19 on women's livelihood and household income security.

The standard deviation values indicate moderate variation in income levels among respondents across different districts of the study area.

**Table: 1.4**

**Paired t-Test Showing Impact of COVID-19 on Women's Income**

| Paired Variables                         | Mean Difference | Std. Deviation of Difference | Std. Error Mean | t-value | df  | p-value | Result      |
|------------------------------------------|-----------------|------------------------------|-----------------|---------|-----|---------|-------------|
| Income Before COVID – Income After COVID | 5240            | 6710                         | 297.1           | 17.64   | 509 | <0.001  | Significant |

Source- Data computed by author through field survey (2023-24)

The paired t-test shows that there was a statistically significant difference in women's income in the after the COVID-19 pandemic. During the post-COVID period, the average monthly wage is decreased by 5,240.

The calculated t value (17.64) is statistically significant on the 5 percent level, and the p value is < 0.001. Thus, the null hypothesis is rejected, and the alternative hypothesis is accepted.

The overall findings reveal that the impact of COVID-19 was very negative on the income and livelihood security of the study area's females reverse migrants.

It is clear from the analysis that during the COVID-19 period, women's occupational structure, sources of livelihood and income-generating activities have been significantly affected in the Kumaun region of Uttarakhand due to reverse migration. During post pandemic, women diversified on involvement with livelihood activities including agriculture, dairy farming, tailoring, petty trade, home based, self-help groups etc.

The paired t-test analysis results also indicate the negative effect of COVID-19 on the income of women had a statistically significant influence. Hence, the study points to the crucial shift towards behaviors and economics of reverse-migrating women in the post-COVID era.

### Conclusion

This study focuses on understanding the effect of the reverse migration on the income of women in the Kumaun region of Uttarakhand during the COVID-19 pandemic. The results emphasize that the resumption of the migration of the different migrants and the impact of the pandemic on the economy have significantly impacted women's employment. Data before and after the pandemic highlights that the income of women dropped on average, from 23,480 to 18,240 per month, a 22.3 percent decline. There is also more of a gradient in the distribution of income from the lowest to highest incomes, with more women moving to the lower end of the range during the post-pandemic period. There is also well-defined gap in the shares of the women at lower and higher ends of the income continuum, and an increase at lower ends and

a decrease at higher ends. This reflects the economic difficulties women experience, and is even evidence of a decrease in their economic status since last year's pandemic.

Paired sample t test revealed a statistically significant difference in income before and after COVID ( $t = 17.64$ ,  $p < 0.001$ ). Hence, the article highlighted that the degradation in income observed in the study did not happen because of randomization but related to economic dynamics within the pandemic and in the reverse migration. The study highlights migration in Uttarakhand as the backdrop issue in a big way. It proves that a large amount of migration in the region was for employment and livelihood opportunities. This forced the migrants to return suddenly during the pandemic, which put additional strains on the local economies and on the livelihoods of households. Changes were most acute for women, who are important to the livelihoods of the household.

Overall, the study's hypothesis is substantiated as reverse migration has significantly negatively affected the women's financial well-being in the Kumaun region. The results emphasize the necessity to enhance activities in the rural sectors, economic involvement of women, skill building programmes and broaden livelihood support activities. These can improve the security of women's incomes and ensure that women are not disproportionately impacted by future economic shocks and crises.

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