

Socio-Economic Condition of Displaced Households in New Builum Village, Kolasib District, Mizoram

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ABSTRACT

This paper aims to study the socio-economic effects of dam-developed induced displacement in New Builum village, Mizoram. Construction of large dams has had huge economic and environmental cost. In India, large dams have displaced millions of people from their homes destroying livelihoods in the process. The question which must be asked therefore is whether the benefits of dam construction outweigh its socio-economic costs. The study found that the construction of Serlui B Hydel Power Project has led to socio-economic problems namely loss of livelihood leading to rising unemployment and deteriorating standard of living along with loss of history and memories for the displaced population now settled in New Builum village.

Keywords: Builum, Dam, Displacement, Livelihood, Resettlement, Socio-Economic Cost.

Introduction

New Builum village is situated in Bilkhawthlir rural development block of Kolasib District, Mizoram. Its location code or village code is 271168 according to 2011 Census of India. The village's district and sub-district headquarters are Kolasib and Bilkhawthlir, respectively. The total population of the village is 323 people of whom, 166 are males and 157 are females. New Builum village has a literacy rate of 75.85% of whom, 74.10% are males and 77.71% are females. The village currently houses around 44 families engaging in various forms of livelihood. Kolasib, which is approx. 9 kilometers away, is the closest town to Builum for all important trade and commercial activities.

The 12 MW Serlui-B Hydel Power Project is a gravity dam constructed on Serlui River in Kolasib District. It is the largest hydro-electric power plant in Mizoram. As a result, Builum village, a small village located in Bilkhawthlir rural development block of Kolasib District which was established in the year 1941 was submerged in 2007. The affected inhabitants were relocated and resettled at Bawktlang (New Builum) near Rengtekawn. About 53 kilometers of arable land were submerged by the dam, forcing the evacuation of 79 homes. In December 2019, a Joint Physical Verification revealed that Builum village was fully submerged and that, following compensation to the villagers, the population had been relocated 500 kilometers south to Bawktlang (New Builum), close to Rengtekawn. As per the Builum Inquiry



Commission, the Serlui-B Hydel Power Project holds the questionable distinction of being the source of the state's first recognized "dam refugees."

Review of Literature

A research by Jackson et al. (2000) examined the socioeconomic effects of relocation brought on by China's Three Gorges Dam development. It is now possible for China to achieve its long-held objective of isolating the Yangtze River at the Three Gorges in Central China and employing the electricity, improved navigation, and flood control to strengthen the nation's economy. According to the report, the dam project exacerbated social issues, which in turn led to a rise in unemployment and a decline in public health, particularly for the displaced people. It came to the conclusion that although while the initiative improved China's economic performance, it had a negative impact on a sizable portion of the populace, which may lead to widespread social discontent and ultimately changes in political institutions. The socioeconomic impacts of dam construction on the neighboring communities of Tokwe Mukosi in Zimbabwe's Masvingo province were investigated in a research conducted by Chazireni et al. (2018). The study's findings demonstrated that Tokwe Mukosi Dam affected the nearby communities in both positive and bad ways.

The study found that the building of the Tokwe Mukosi Dam had several beneficial socioeconomic effects, such as enhanced fish availability, water supply for home and agricultural uses, livestock production, tourism growth, and related revenue enhancement. On the other hand, the study also found that building dams had detrimental effects, such as increased rates of vector-borne and water-borne illnesses, drowning deaths, crocodile attacks on humans and animals, and population displacement.

A research by Mudzengi (2012) examined the socioeconomic effects of the Siya dam's development in Zimbabwe's Mazungunye neighborhood of the Bikita region. According to the study's findings, the dam may be utilized for irrigation, ensuring that agriculture would continue to be sustainable despite climate change. The dam's fish resources can also be exploited to increase dietary protein needs, which will benefit community health and help fulfill the Millennium Development Goals. The study also came to the conclusion that Siya Dam might be improved by utilizing its water resources to build a small hydroelectric power plant project, which would supplement the country's electrical infrastructure and help provide clean energy.

The socioeconomic impacts of the Siya dam's construction in Zimbabwe's Mazungunye neighborhood of the Bikita district were investigated in a study conducted by Mudzengi (2012). According to the study's findings, irrigation could be facilitated by the dam, ensuring that agriculture will continue to be sustainable despite climate change. In addition to meeting dietary protein needs, using the dam's fish resources can enhance community health and aid in the accomplishment of the Millennium Development Goals. According to the study's findings, Siya Dam might be improved by utilizing its water resources to build a small hydroelectric power plant project. This would help generate clean energy and support the country's electrical infrastructure.

There was a 26.55% rise in the average total area under crop cultivation. During the Rabi and Kharif seasons, the average production of almost all crops rose by 55% in the areas surrounding the dams. The overall number of animals rose by 18.08% when the dam was completed, although the number of horses decreased by 1.5%. While the migration rate has decreased by 19.09% since the dam's completion, income, expenses, and savings have all increased significantly to 36.16%, 17.68%, and 32.15%, respectively. Furthermore, the choice of crops has changed from poor to outstanding and pushed by the market. The water table and quality have improved, and wells have been refilled.

Khoshrody et al. (2016) investigated the effects of the Baft dam's construction on the productivity and efficiency of Iranian farmers. The treatment group, which utilizes water from the Baft dam, and the control group, which does not use the dam water, were the two farmer groups selected and evaluated for the study. The study found that in terms of efficiency and Total Factor Productivity (TFP), the treatment group fared better than the control group. However, the average agricultural unit production of the treatment and control groups did not differ significantly. The study also revealed that the treatment group's population increased by 197%, from 145 to 431, after the dam was completed.

Rahman et al. (2021) investigated how local, resettled, and displaced groups in Sudan regarded the social effects of the Merowe dam project. According to the study, Merowe Dam affected nearby communities in both positive and negative ways. The top three positive effects were larger homes, better educational opportunities for kids, and an enhancement in quality of life; downstream people scored comparatively higher than upstream and moved ones. In order to enjoy and thrive in their social lives, relocating inhabitants also demonstrated positive attitudes regarding the provision of basic services like schools, health facilities, running water, electricity, marketplaces, etc. The negative effects are mostly intangible, including sentimental effects that are strongly tied to human emotions, the loss of history and memories, yearning for the past, and complaints about compensation packages and how the government handles them.

A study by Kaboli et al. (2017) examined the socioeconomic impacts of building reservoir dams in Divandareh, Iran. The study's findings indicate that the dam project's primary benefits were enhancing the area's agriculture, supplying drinking water, expanding the irrigated area, reducing flooding, raising land values, boosting tourism, and raising income levels. The biggest drawbacks, however, were the forced relocation of residents upstream, the destruction of the main occupations (agriculture and livestock), the establishment of false occupations among locals, the destruction of schools and mosques, environmental harm, tree-cutting, and illegal land ownership upstream of the dam.

A study on the socioeconomic effects of the construction of major hydropower plants in a developing nation was carried out by Faria et al. (2017). According to the study, the GDP and tax revenues of counties that constructed hydropower facilities were higher in the initial years of their development. But those beneficial economic benefits didn't last long.



Objectives

Given the situation, the study was carried out with specific goals in mind which are as follows:

- 1. To identify the demographic profile of households in New Builum village.
- 2. To identify the living condition of households in New Builum village.
- 3. To identify the employment condition of households in New Builum village.
- 4. To identify the economic condition of households in New Builum village.

Methodology

The study was primarily based on primary data collected by the authors. The sample size covered twenty-four households selected using random sampling technique. Primary data was collected through structured questionnaire and scheduled interview method. The questionnaire consisted of questions which were both open-ended and close-ended. Scheduled interview was designed and conducted in a way that helped the authors collect the required data. Secondary data was collected from various publications of state government, books, magazines, periodical reports, news articles and e-resources.

Analysis and Interpretation of Data

Data analysis is regarded as a key component and the center of research effort. Data collected from the study is analyzed and interpreted using appropriate tools and procedures in order to arrive at an empirical solution to the problem. To extract useful information from the data provided by household respondents, raw data was first edited, coded, and then tabulated using appropriate statistical tools in MS Excel.

1. Household demographic profile

i) As shown in **Figure 1**, 91.7 per cent of household heads surveyed are male and the remaining 8.3 per cent are female. The study finds that in New Builum village, men are the primary breadwinner who holds position of power and decision-making in all aspects of the village life such as politics, religion, family, etc.

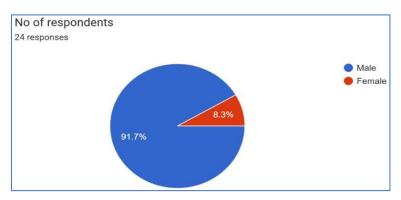


Figure 1: Number of Respondents

ii) From **Figure 2**, it can be observed that 50 per cent of household heads lie between the agegroup of fifty years and above, 25 per cent lie between the age group of thirty-five to fifty



years with the remaining 25 per cent lying between the age group of eighteen to thirty-five years.

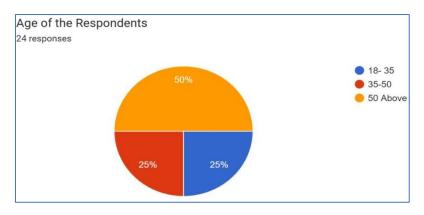


Figure 2: Age of Respondents

iii) The study also focuses on the average size of households and number of adult family members per household. From Figure 3 and Table 1, it can be observed that the majority of households have members ranging between three to six while a minority of households has members ranging between six to eight. In other words, the majority of households in New Builum village is a nuclear family with one to four children.

Family Size	Frequency	
1 to 3	7	
3 to 6	13	
6 to 8	4	
8 to 10	0	

Table 1: Size of Family

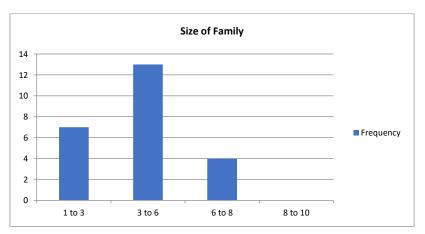


Figure 3: Size of Family

iv) From **Figure 4** and **Table 2**, it can be observed that the number of adult family members in majority of households ranges between one to three while the number of adult family members in a minority of households ranges between five to seven.

Adult Family Member	Frequency
1 to 3	15
3 to 5	6
5 to 7	3
7 to 9	0

Table 2: Number of Adult Family Member

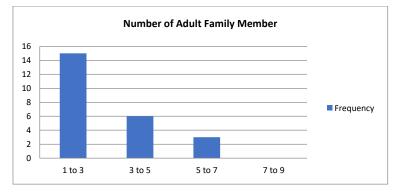


Figure 4: Number of Adult Family Member

v) The study also focuses on the religious affiliation of household members. From **Figure 5**, it can be observed that 100 per cent of households in New Builum village belonged to Christianity. In other words, New Builum village has a very homogenous society with the people sharing very similar cultural values.

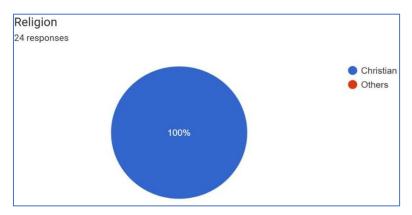


Figure 5: Religion of Respondents

2. Household standard of living

The quantity and quality of material goods and services accessible to a particular population is referred to as the standard of living. Access to medical care, educational opportunities, clean



drinking water, electricity, access to public distribution system (PDS), cooking fuel, etc are all factors that must be considered when analysing the standard of living. i) From **Figure 6**, it can be observed that 91.7 per cent of households in New Builum village are fully electrified whereas 8.3 per cent of households have no electric connection in their homes.

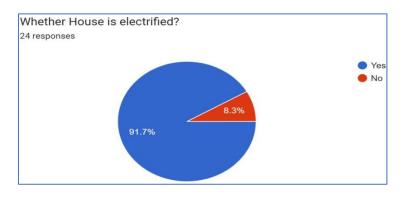


Figure 6: Household Electrification

ii) From **Figure 7**, it can be observed that 66.7 per cent of households in New Builum village have bathroom and toilet attached to their houses whereas 33.3 per cent of households have no attached bathroom and toilet.

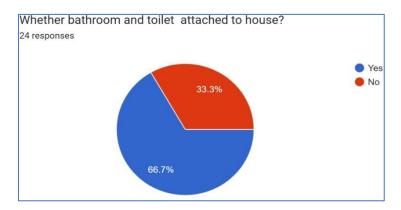


Figure 7: Attached Bathroom and Toilet

iii) From Figure 8, it can be observed that 100 per cent of households in New Builum village have PHE water supply connection as their primary source of drinking, cooking, washing and other domestic needs. No rooftop catchment facility for rain-water harvesting was observed during the study.

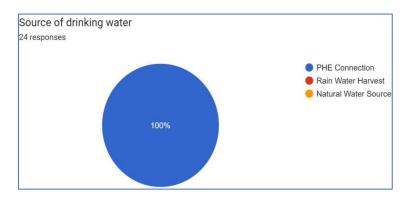


Figure 8: Household Drinking Water Supply



iv) From **Figure 9**, it can be observed that 70.8 per cent of households in New Builum village use LPG gas connection for all their cooking needs whereas 29.2 per cent of households still burnt wood for cooking and heating purposes.

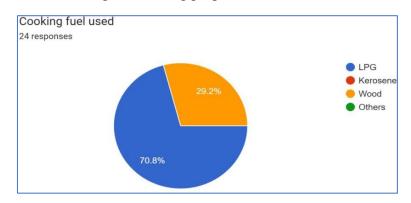


Figure 9: Household Cooking Fuel

v) From **Figure 10**, it can be observed that 62.5 per cent of households in New Builum village have access to septic tank toilets with the remaining 37.5 per cent of households still using pit latrine toilets dug near their homes.

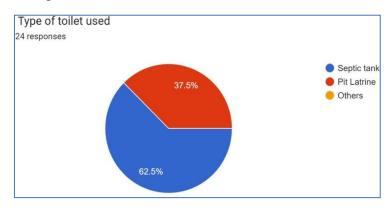


Figure 10: Household Toilet

vi) From **Figure 11**, it can be observed that 83.3 per cent of households in New Builum Village have no access to any form of news media with only 16.7 per cent of households having access to monthly newspaper subscription.

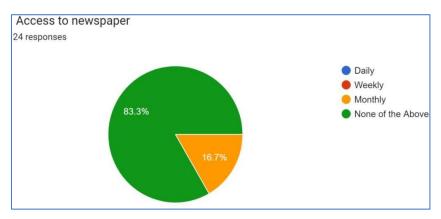


Figure 11: Household Access to Newspaper



vii)From **Figure 12**, it can be observed that 83.3 per cent of households in New Builum village have one to three family members using mobile phones and only 16.7 per cent of households have four to six family members using mobile phones.

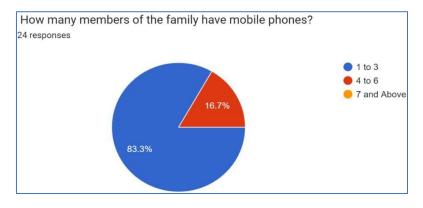


Figure 12: Household Access to Mobile Phones

viii) From **Figure 13**, it can be observed that 70.8 per cent of households in New Builum village are enlisted as Below Poverty Line (BPL) family while 29.2 per cent of households are not enlisted. This points to the high level of families living below the poverty line.

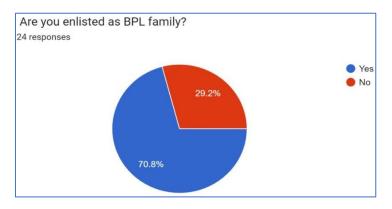


Figure 13: Household BPL Enlistment

ix) From **Figure 14**, it can be observed that 45.8 per cent of households in New Builum village have one child going to school and 33.3 per cent have no children going to school. Another

12.5 per cent of households have two children going to school with the remaining 8.3 per cent having three children going to school.

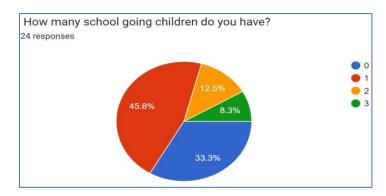


Figure 14: Household Children Enrolment



x) From **Figure 15**, it can be observed that 58.3 per cent of households in New Builum village have access to the village Public Distribution System (PDS) retailer while 41.7 per cent of households did not even know that village PDS retailer existed.

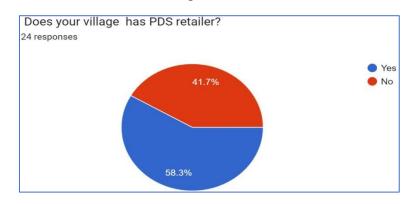


Figure 15: Household Access to PDS

xi) From **Figure 16**, it can be observed that 100 per cent of households in New Builum village have access to the village Health Sub-Centre. However, no Primary Health Centre exists in the village.

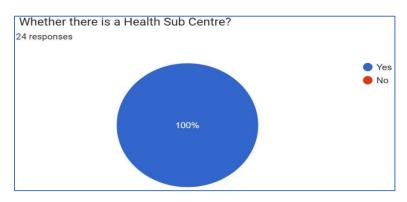


Figure 16: Household Access to Health Sub Centre

xii)From **Figure 17**, it can be observed that the village has only one government-run Primary School for children. For accessing Middle and High School education, households have no choice but to send their children to neighbouring towns.

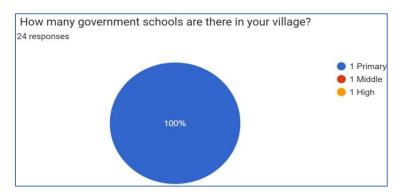


Figure 17: Household Access to Education

3. Household employment profile



Occupation is an important measure of social class and signifies the status of a person in the society. i) From **Figure 18**, it can be observed that 50 per cent of household heads in New Builum village are occasional workers, 33.3 per cent are engaged in primary activities, 12.5 percent are engaged in tertiary activities with the remaining 4.2 per cent working as government servants.

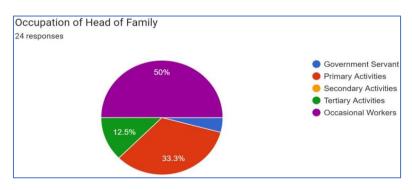


Figure 18: Household Occupational Distribution

ii) The study also attempts to find out the number of adult working family members within each household. From Figure 19, it can be observed that 66.7 per cent of households in New Builum village have below three adult working family members and the remaining 33.3 per cent of households have between three to five adult working family members.

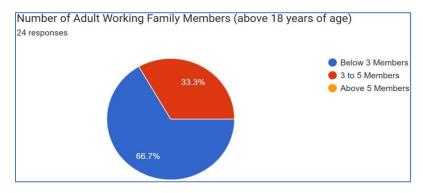


Figure 19: Adult Working Family Member

iii)From Figure 20, it can be observed that 70.8 per cent of households in New Builum village have adult working family members engaging in primary occupations which are nonfarming related and the remaining 29.2 per cent of households have adult working family members engaging in farming activities.

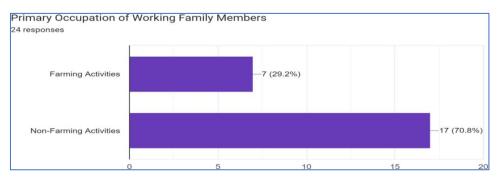


Figure 20: Primary Occupation of Households



iv)From **Figure 21**, it can be observed that 70.8 per cent of households in New Builum village have adult family members working four to six days in a week and the remaining 29.2 per cent of households have adult family members working one to three days in a week.

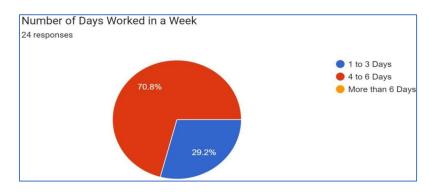


Figure 21: Weekly Working Days

v) From **Figure 22**, it can be observed that 75 per cent of households in New Builum village have adult family members working eleven to twenty days in a month, 16.7 per cent of households have adult family members working one to ten days in a month and the remaining 8.3 per cent of households have adult family members working more than twenty days in a month.

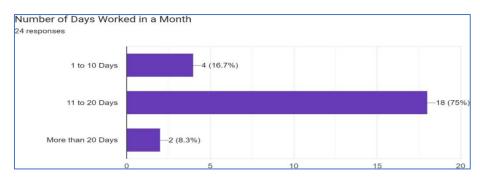


Figure 22: Monthly Working Days

vi) From Figure 23, it can be observed that 70.8 per cent of households in New Builum village have adult family members working one hundred twenty to two hundred forty-two days in a year, 25 per cent of households have adult family members working one to one hundred twenty- one days in a year and the remaining 4.2 per cent of households have adult family members working more than two hundred forty-two days in a year.

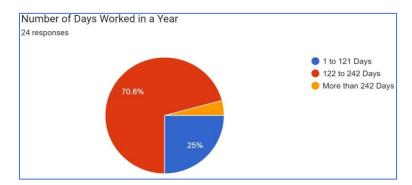


Figure 23: Annual Working Days



4. Household economic condition

The study also attempts to examine whether households in New Builum village occupy their own house or temporarily live in rented house. i) From Figure 24, it can be observed that 70.8 per cent of households live in their own house and 29.2 per cent of households live in rented homes.

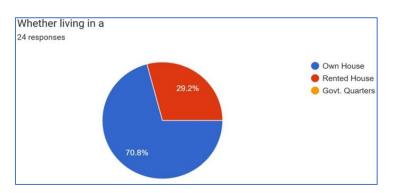


Figure 24: House Ownership

ii) From **Figure 25**, it can be observed that 62.5 per cent of households in New Builum village live in semi-pucca houses, 29.2 per cent of households live in kutcha houses and the remaining 8.3 per cent of households live in pucca houses.

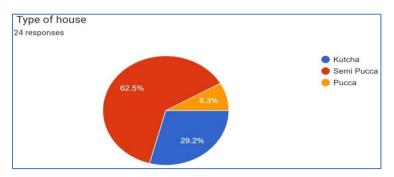


Figure 25: Types of Houses

iii)From **Figure 26**, it can be observed that majority of the households in New Builum village have access to mobile phone and refrigerator whereas other consumer durable goods such as tv, washing machine, mobile phone, two-wheeler, etc were not possessed by majority of the households surveyed.

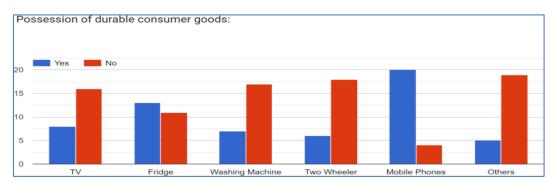


Figure 26: Possession of Consumer Durables



iv) From **Figure 27**, it can be observed that almost all the households in New Builum village have no physical assets/capital such as rice milling machines, timber processing machines, transport vehicles, etc, in their ownership. These families are entirely dependent on the availability of external work in fields and neighbouring towns for their livelihood.

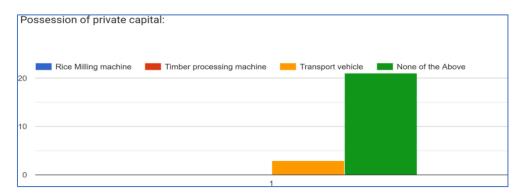


Figure 27: Possession of Physical Assets

v) From **Figure 28**, it can be observed that 70.8 per cent of households in New Builum village are engaged in daily labouring as their primary source of family income, 20.8 per cent of households are engaged in farming as their primary source of family income and 8.3 per cent of households are engaged in small business activities such as shopkeeping, tea and restaurant business, etc.

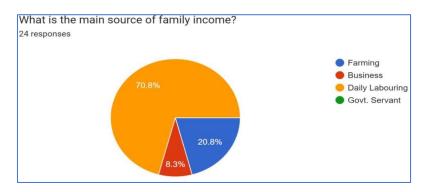


Figure 28: Source of Income

ii) In addition, from Figure 29, it can be observed that 45.8 per cent of households in New Builum village are dependent on vulnerable occupations that cannot be done regularly while 54.2 per cent of households are engaged in occupations that can be relied upon to provide a constant stream of income.

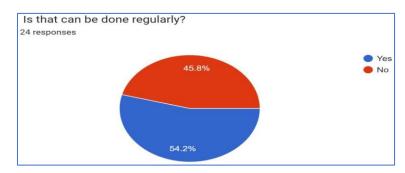


Figure 29: Regularity of Income



iii)From **Figure 30**, it can be observed that 75 per cent of households in New Builum village are engaged in occupations that they have worked at least two years in a row while 25 per cent of households are engaged in occupations that they have worked only for a year.

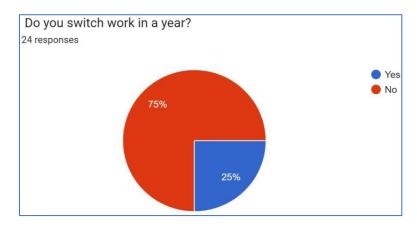


Figure 30: Switching of Occupation

iv)From **Figure 31**, it can be observed that 45.8 per cent of households in New Builum village have a monthly income of Rs. 10,000 and above, 29.2 per cent of households have a monthly income lying between Rs. 10,000 and Rs. 5,000 and 25 per cent of households have a monthly income below Rs. 5,000.

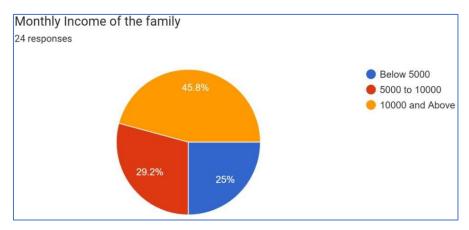


Figure 31: Family Monthly Income

v) From **Figures 32**, **33** and **34**, it can be observed that during the study period, 70.8 per cent of households in New Builum village have received grant/financial assistance in the form of NLUP, compensation and other monetary benefits from the state government while the remaining

29.2 per cent of households have not received any form of grant/financial assistance. Of those receiving grant/financial assistance, 71.4 per cent received an amount of Rs. 2,00,000 and above,

14.3 per cent received an amount between Rs. 2,00,000 and Rs. 1,00,000 and 14.3 per cent received an amount below Rs. 1,00,000.



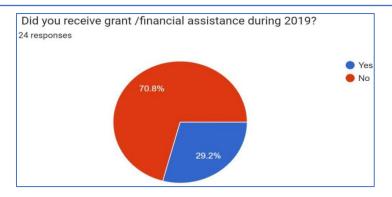


Figure 32: Grant/Financial Assistance

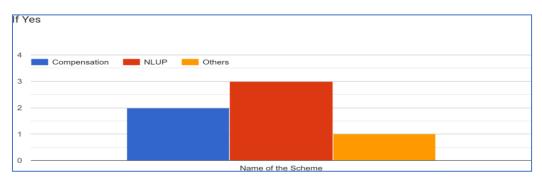


Figure 33: Types of Grant/Financial Assistance Received

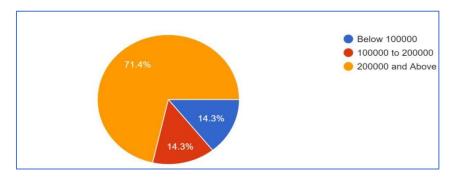


Figure 34: Amount of Grant/Financial Assistance Received

vi)From **Figure 35**, it can be observed that in addition to grant/financial assistance received from the state government, 54.2 per cent of households in New Builum village have taken business loans from banks while 45.8 per cent of households have not taken any loans from banks.

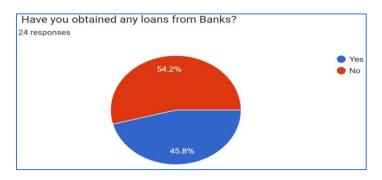


Figure 35: Bank Loan Taken



vii) From **Figure 36**, it can be observed that 95.8 per cent of households in New Builum village have worked under MGNREGS during the study period in order to supplement the family income. This is due to the fact that a large number of households are engaged in occupations that cannot be relied upon to provide a regular stream of income.

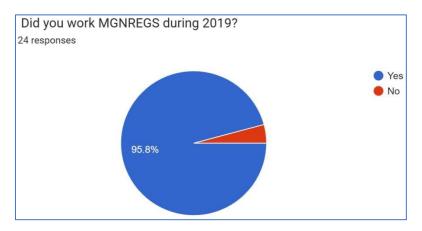


Figure 36: Household under MGNREGS

5. Proof of hypothesis

- H0: Monthly income of households is not positively related to monthly work days.
- H1: Monthly income of households is positively related to monthly work days.

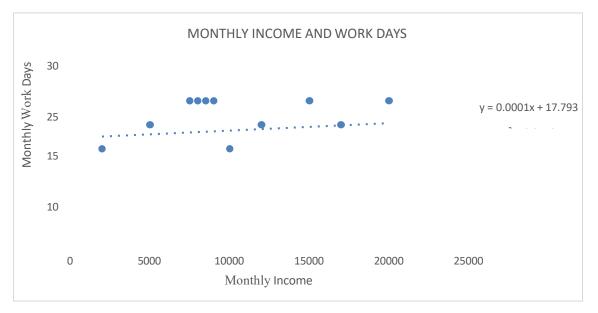
Monthly Income (Y)	Monthly Work Days (X)		
Rs. 5000	20 days		
Rs. 3800	16 days		
Rs. 17000	20 days		
Rs. 3200	16 days		
Rs. 8000	24 days		
Rs. 15000	24 days		
Rs. 12000	18 days		
Rs. 16000	24 days		
Rs. 7500	24 days		
Rs. 10800	12 days		
Rs. 9000	24 days		
Rs. 8500	24 days		
Rs. 2000	16 days		

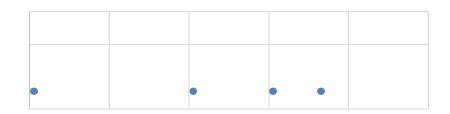


Rs. 4000	24 days
Rs. 2500	16 days
Rs. 8000	16 days
Rs. 20000	24 days
Rs. 12000	12 days
Rs. 10000	16 days
Rs. 12000	20 days
Rs. 14000	12 days
Rs. 18000	24 days
Rs. 16000	8 days
Rs. 14000	24 days

Table 3: Monthly Income and Monthly Work Days of Households

Table 3 highlights the monthly income and work days of households in Builum village. Monthly income is taken as the dependent variable and monthly work days of households as the dependent variable. A simple linear regression calculation using MS Excel yields the following result:







•••	•	•		
		••••		
			•	

REGRESSION STATISTICS	8
MULTIPLE R	0.130968656
R SQUARE	0.017152789
ADJUSTED R SQUARE	-0.027522084
STANDARD ERROR	5327.049921
OBSERVATIONS	24

ANOVA					
					Significance
df		SS	MS	F	F
Regression	1	10895444	1089544	0.38394712	0.54186323
			4	1	2
Residual	22	62430413	2837746		
		9	1		
Total	23	63519958			
		3			

The following results can be concluded:

- i. Multiple R is the correlation coefficient (R). It measures the strength of linear relationship between two variables. It is observed from the figure that the value of R (the correlation coefficient) is 0.13, which implies that there is weak correlation between monthly income and monthly work days.
- ii.R Square is the coefficient of determination. It measures how well the the proportion of variation in the dependent variable is predicted by the independent variable. Since R Square is 0.01, it indicates that 1% of the total variation in monthly income is accounted for by the change in monthly work days.

iii. It is observed from the figure that the Significance F or p value is 0.54. Since p > .05, the alternate hypothesis (H1) is rejected and the null hypothesis (H0) is accepted. This means that the monthly income of households in Builum village is not significantly determined by the number of days worked in a month. Instead, it might be dependent upon other factors such as type of work performed, nature of employment, etc.

Conclusion and Recommendations

The following important conclusions can be derived based on the findings of the study conducted in New Builum village:

- 1. Since majority of household heads surveyed are male, the study finds that in New Builum village, men are the primary breadwinner who hold positions of power and decision-making in all aspects of the village life such as politics, religion, family, etc.
- 2. 50 per cent of household heads lie between the age-group of fifty years and above, 25 per cent lie between the age group of thirty-five to fifty years with the remaining 25 per cent lying between the age group of eighteen to thirty-five years.
- 3. The majority of households have members ranging between three to six while a minority of households have members ranging between six to eight.
- 4. The number of adult family members in majority of households ranges between one to three while the number of adult family members in a minority of households ranges between five to seven.
- 5. 91.7 per cent of households in New Builum village are fully electrified whereas 8.3 per cent of households have no electric connection in their homes.
- 6. 66.7 per cent of households in New Builum village have bathroom and toilet attached to their houses whereas 33.3 per cent of households have no attached bathroom and toilet.
- 7. 100 per cent of households in New Builum village have PHE water supply connection as their primary source of drinking, cooking, washing and other domestic needs.
- 8. 70.8 per cent of households in New Builum village use LPG gas connection for all their cooking needs whereas 29.2 per cent of households still burnt wood for cooking and heating purposes.
- 9. 62.5 per cent of households in New Builum village have access to septic tank toilets with the remaining 37.5 per cent of households still using pit latrine toilets dug near their homes.
- 10. 83.3 per cent of households in New Builum Village have no access to any form of news media with only 16.7 per cent of households having access to monthly newspaper subscription.
- 11. 83.3 per cent of households in New Builum village have one to three family members using mobile phones and only 16.7 per cent of households have four to six family members using mobile phones.



- 12. 70.8 per cent of households in New Builum village are enlisted as Below Poverty Line (BPL) family while 29.2 per cent of households are not enlisted.
- 13. 45.8 per cent of households in New Builum village have one child going to school and 33.3 per cent have no children going to school. Another 12.5 per cent of households have two children going to school with the remaining 8.3 per cent having three children going to school.
- 14. 58.3 per cent of households in New Builum village have access to the village Public Distribution System (PDS) retailer while 41.7 per cent of households did not even know that village PDS retailer existed.
- 15. 100 per cent of households in New Builum village have access to the village Health Sub-Centre.
- 16. The village has only one government-run Primary School for children. For accessing Middle and High School education, households have no choice but to send their children to neighbouring towns.
- 17. 50 per cent of household heads in New Builum village are occasional workers, 33.3 per cent are engaged in primary activities, 12.5 per cent are engaged in tertiary activities with the remaining 4.2 per cent working as government servants.
- 18. 66.7 per cent of households in New Builum village have below three adult working family members and the remaining 33.3 per cent of households have between three to five adult working family members.
- 19. 70.8 per cent of households in New Builum village have adult working family members engaging in primary occupations which are non-farming related and the remaining 29.2 per cent of households have adult working family members engaging in farming activities.
- 20. 70.8 per cent of households in New Builum village have adult family members working four to six days in a week and the remaining 29.2 per cent of households have adult family members working one to three days in a week.
- 21. 75 per cent of households in New Builum village have adult family members working eleven to twenty days in a month, 16.7 per cent of households have adult family members working one to ten days in a month and the remaining 8.3 per cent of households have adult family members working more than twenty days in a month.
- 22. 70.8 per cent of households in New Builum village have adult family members working one hundred twenty to two hundred forty-two days in a year, 25 per cent of households have adult family members working one to one hundred twenty-one days in a year and the remaining 4.2 per cent of households have adult family members working more than two hundred forty-two days in a year.
- 23. 70.8 per cent of households live in their own house and 29.2 per cent of households live in rented homes.



- 24. 62.5 per cent of households in New Builum village live in semi-pucca houses, 29.2 per cent of households live in kutcha houses and the remaining 8.3 per cent of households live in pucca houses.
- 25. Majority of the households in New Builum village have access to mobile phone and refrigerator whereas other consumer durable goods were not possessed by majority of the households surveyed.
- 26. Almost all the households in New Builum village have no physical assets/capital in their ownership. These families are entirely dependent on the availability of external work.
- 27. 70.8 per cent of households in New Builum village are engaged in daily labouring as their primary source of family income, 20.8 per cent of households are engaged in farming as their primary source of family income and 8.3 per cent of households are engaged in small business activities.
- 28. 45.8 per cent of households in New Builum village are dependent on vulnerable occupations that cannot be done regularly while 54.2 per cent of households are engaged in occupations that can be relied upon to provide a constant stream of income.
- 29. 75 per cent of households in New Builum village are engaged in occupations that they have worked at least two years in a row while 25 per cent of households are engaged in occupations that they have worked only for a year.
- 30. 45.8 per cent of households in New Builum village have a monthly income of Rs. 10,000 and above, 29.2 per cent of households have a monthly income lying between Rs. 10,000 and Rs. 5,000 and 25 per cent of households have a monthly income below Rs. 5,000.
- 31. 70.8 per cent of households in New Builum village have received grant/financial assistance in the form of NLUP, compensation and other monetary benefits from the state government while the remaining 29.2 per cent of households have not received any form of grant/financial assistance. Of those receiving grant/financial assistance, 71.4 per cent received an amount of Rs. 2,00,000 and above, 14.3 per cent received an amount between Rs. 2,00,000 and Rs. 1,00,000 and 14.3 per cent received an amount below Rs. 1,00,000.
- 32. 54.2 per cent of households in New Builum village have taken business loans from banks while 45.8 per cent of households have not taken any loans from banks.
- 33. 95.8 per cent of households in New Builum village have worked under MGNREGS during the study period in order to supplement the family income.

The following recommendations are proposed based on the findings of the study conducted in New Builum village:

1. Women generally have limited educational and employment opportunities, and their role is relegated to household chores and childcare. Additionally, women have limited access to resources such as land and credit, and their traditional roles in society often prevent them from participating in community decision-making processes.



These findings reinforce the need for gender-sensitive policies and programs that aim to empower women economically and socially. These initiatives should focus on improving access to education and employment, providing women with greater control over household income, and increasing their participation in decision-making processes at the community level. Ultimately, such efforts will help to promote gender equality and improve the well-being of women and their families in New Builum village.

- 2. The majority of households in New Builum village do not own any land, buildings or equipment that can generate income for them. As a result, their livelihoods are highly vulnerable to any changes in the external economic environment, such as fluctuations in the job market or shifts in the demand for certain skills or products. Without any physical assets to rely on, households may struggle to cope with unexpected events such as illness, accidents, or natural disasters. They may also lack the means to invest in their own education and skills development, further limiting their opportunities for upward mobility.
- 3. This situation underscores the importance of creating economic opportunities in rural areas and supporting households to build and invest in their own physical assets, such as land, livestock, or tools. By doing so, such households can diversify their income sources, improve their resilience to economic shocks, and build a foundation for long-term economic security.
- 4. Without adequate medical care, residents of New Builum may experience preventable illnesses and suffer from chronic conditions. Lack of education opportunities may limit the ability of individuals to improve their skills and advance in the workforce. The absence of clean drinking water can lead to waterborne diseases and hygiene issues. Without electricity, households may struggle to complete basic household tasks and rely on inefficient and potentially harmful sources of lighting and heat. Inadequate cooking fuel may lead to health problems from inhaling smoke and increase the likelihood of accidental fires.

All of these factors can contribute to an overall lower standard of living for residents in New Builum village. Addressing these needs and improving access to basic resources can help promote more sustainable and equitable development in the community.

- 5. The majority of households in New Builum village are composed of individuals that have no stable source of employment, and may only work or earn money periodically. However, if the government of Mizoram is concerned about providing employment opportunities for these families, there are certain schemes that could be considered:
- a) Encourage entrepreneurship: The government could provide financial assistance or subsidies to individuals interested in starting a business in the village. This could include setting up small businesses such as grocery stores, bakeries, or coffee shops.
- b) Promote tourism: New Builum village is located in a scenic location and has a unique culture. The government could promote tourism in the area by developing infrastructure such as hotels, restaurants, and tourist attractions. This would provide income-generating opportunities for local residents.

- c) Develop agriculture: Agriculture is an important occupation in Mizoram. The government could develop and promote agricultural practices in the village by providing training, equipment, and subsidies. This would not only provide employment opportunities for families in the village but also contribute to the local economy.
- d) Skill development: The government could set up skill development centers in the village.

These centers could provide training in various fields such as tailoring, carpentry, and computer skills. This would help individuals to acquire skills for self-employment and entrepreneurial networks.

References

- 1. Akbarzadeh, P., & Kaboli, S., H. (2017). <u>Assessing the socio-economic effects of</u> reservoir dam construction, case study; Siahzakh in Divandareh, Iran. Geography and Sustainability of Environment, 7(2), 53-65.
- Abdullah, A., & Rahman, S. (2021). Social impacts of a mega-dam project as perceived by local, resettled and displaced communities: A case study of Merowe dam, Sudan. *Economies*, 9(4), 140-153.
- 3. Khoshrody, M., S., Azadi, H., & Pelesaraei, A., N. (2016). Analytical investigation of the effects of dam construction on the productivity and efficiency of farmers. *Journal of* Cleaner *Production*, 135(24), 549-557.
- 4. Jackson, S., & Sleigh, A. (2000). Resettlement for China's Three Gorges Dam: Socioeconomic impact and institutional tensions. *Communist and Post-Communist Studies*, 33(2), 223-241.
- Fernandes, G., W., & Goulart, F., F. (2016). Deep into the mud: ecological and socioeconomic impacts of the dam breach in Mariana, Brazil. <u>Natureza & Conservação</u>, 14(2), 35-45.
- 6. Chazireni, E., & Chigonda, T. (2018). The socio-economic impacts of dam construction: Case of Tokwe Mukosi in Masvingo province, Zimbabwe. European Journal of Social Sciences Studies, 3(2), 209-218.
- 7. Mudzengi, B., K. (2012). An assessment of the socio-economic impacts of the construction of Siya dam in the Mazungunye area: Bikita district of Zimbabwe. *Journal of Sustainable Development in Africa*, 14(4), 1-17.
- 8. Bhatti, N., B., Siyal, A., A., Qureshi, A., & Ali, I. (2019). Socio-economic impact assessment of small dams Based on t-paired sample test using SPSS software. *Civil Engineering Journal*, 5(1), 153-164.
- 9. Brown, P., H., Tullos, D., Tilt, B., Magee, D., & Wolf, A., T. (2008). Modelling the costs and benefits of dam construction from a multidisciplinary perspective. *Journal of Environmental Management*, 90(3), 303-311.
- 10. Sabir, M., Torre, A., & Magsi, H. (2017). Land-use conflict and socio-economic impacts of infrastructure projects: The case of Diamer Bhasha Dam in Pakistan. *Area Development and Policy*, 2(1), 40-54.
- 11. Faria, F., Davis, A., Severnini, E., & Jaramillo, P. (2017). The local socio-economic impacts of large hydropower plant development in a developing country. *Energy Economics*, 67, 533-544.