

# Myanmar's Planned Resettlement and Social Impact: An Empirical Case Study <sup>†</sup>

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<sup>†</sup> Presented at the 7th International Electronic Conference on Water Sciences, 15–30 March 2023; Available online: <https://ecws-7.sciforum.net>.

**Abstract:** This paper explores the planned resettlement process and the social impact induced by the Tha Htay Hydropower Project in Myanmar. Through the empirical case study, the status of direct impact on the resettled people, changes in their livelihood, policy orientation towards practical limitations, practical consequences of resettlement, and inadequate preparation for resettlement implementation were studied as verifiable evidence. In this paper, the survey data were compiled from the responses of resettled people from three resettled villages: Maewa, Payit and Yegauk, which were interpreted as the real condition of the project-affected people because a higher degree of their dissatisfaction negatively affected the project, whereas a higher degree of satisfaction led to positive effects. In this paper, a quantitative method was used to analyze the planned resettlement and its social impact. As a survey descriptive design, a simple random sampling method was utilized to collect samples from the target population with a contribution of structured questionnaires. The collected data were presented by mean and standard deviation to decide the real situation of the resettlement project. The study found that details of social impact were considered to carry out when the construction of the hydropower project began. Then, the policy constraint in the resettlement process was verified, which led to the insufficient preparation and implementation of the resettlement. To meet the future development requirements of the planned resettlement process with fewer social impacts on hydropower development projects, practical contributions and policy recommendations are made for the compensation of farmland, where the people's livelihoods are land-based, and additional livelihood packages.



**Citation:** Lin, A.T.; Yao, K. Myanmar's Planned Resettlement and Social Impact: An Empirical Case Study. *Environ. Sci. Proc.* **2023**, *25*, 6. <https://doi.org/10.3390/ECWS-7-14205>

Academic Editor:  
Slobodan Simonovic

Published: 14 March 2023



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**Keywords:** planned resettlement; social impact; resettled people; practical limitation; policy constraint

## 1. Introduction

Certain hydropower development projects, even in developed countries, have had a long-term effect on the entire human race. It is estimated that infrastructure development projects relocate approximately 15 million people across the world. About four million people are displaced each year worldwide by reservoir projects alone [1]. In Myanmar, because of its abundant land and water resources, hydropower is one of the most significant sectors and supplies the majority of the electricity distribution to locals and exports, with the help of foreign investment [2] and the country's budget allocation. In running hydropower development projects, resettlement often has the most difficult and controversial impact on infrastructure, production development, and social, cultural and environmental issues [3] when aiming to fulfill the satisfaction of all affected people. Additionally, land acquisition is an extremely complex issue, and the previous experiences of resettlement projects have caused a significant conflict and lack of trust [4]. Myanmar's land acquisition and resettlement practice for hydropower development was a combination of the methods of previous similar hydropower development projects and the general methods of national

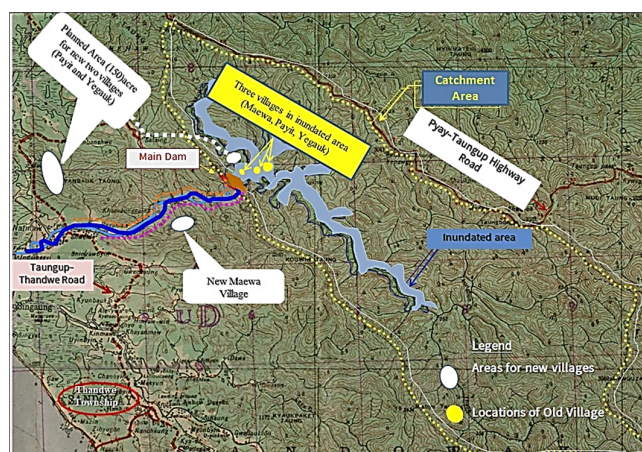
guidelines. Because of the socio-economic loss of the impacted villages and the associated people's livelihoods, the IFC recommends in-kind compensation when the displaced people's livelihoods are land-based, advising replacement land to be in the same condition or superior in a productive land for the people displaced [5].

There are 27 operational hydropower development projects in Myanmar: 9 under construction and 55 additional projects planned [1]. Only the remaining resettlement work of the villages of Payit and Yegauk, due to the Tha Htay Hydropower Project, is anticipated to be completed at the end of 2023 regardless of adding rehabilitation work, although Maewa Village was already resettled in March 2009. This work (because of which 500 households with 1591 persons were displaced to new resettlement locations in March 2009 and March 2021, respectively) is the second project running under the Ministry of Electric Power after the Upper Paunglaung Hydropower Project. All of the resettled people in the Tha Htay Hydropower Project received only cash compensation for each casual household in one million in MMK, for their loss of farmlands, perennial plants, income and other assets. Schmitt-Degenhardt asserted that a landholding of 3 acres was seen as an indicator of the minimal landholding required to reduce poverty, based on agriculture alone in Myanmar [6]. The current resettlement site was selected by the project proponent according to the resettled people's willingness to move near the Thandwe-Taungup road, but it was not the optimal site selection. Every piece of infrastructure of resettlement and the Tha Htay Hydropower Project were mainly based on the union budget, without support from any international financial institutions. During the dam construction and resettlement and severe COVID-19 outbreak, the deficit of bank transfers and the limitations from the union budget to the local bank, as well as an increase in the price of local goods, caused the life of the resettled communities to be more difficult, including a long-term improvement in children's education because parents' job opportunities were uncertain.

In this study, the resettlement and social impacts based on the responses of respondents were examined, highlighting the difference between local and international resettlement practices [7], with the aim of investigating the displaced people's options towards resettlement practice, the social impacts and their satisfaction status with the fundamental infrastructures, transportation, education level [8], healthcare services and job opportunities. Based on an empirical case study including the experiences or perspectives of resettled persons, a judgement on the real situation of resettlement and the constraints of the government policy applied for resettlement was made, since the Tha Htay Hydropower Project is the second resettlement project with national priority proposed by the government.

## 2. Tha Htay Hydropower Project and Its Regional Context

Six power plants are being constructed, with an installed capacity of 1564 MW, across Myanmar. Among them, the Tha Htay Hydropower Project is under construction, with an installed capacity of 111 MW. In Rakhine state, the most western state of Myanmar, the planned hydropower projects are Lemro 1 (600 MW) and Lemro 2 (90 MW) on the Laymro River, Kyein Ta Li (28 MW) on the Kyein Ta Li River, Mi Chaung (200 MW) on the Kaladan River, Saing Din (77 MW) on the Saing Din River, Than Dwe (39 MW) on the Thandwe River [9], and Ann (10 MW) on Ann Creek, totaling 1044 MW including Tha Htay (111 MW). Despite the eight rivers being identified as having hydropower development potential in Rakhine state, the Tha Htay River is one of the most important rivers after the Lemro River. The Thahtay River flows from northwest to west in Rakhine for around 120 km, before discharging into the Bay of Bengal at Shwe Hlay Town. At the river mouth of the Tha Htay River, the catchment area is 1293 km<sup>2</sup> and the discharge is approximately 100–120 m<sup>3</sup>/s [9]. The 111 MW Tha Htay Hydropower Project in the Thandwe District began construction in 2008; it was developed by MOEP and financed by the government and it has reached over 73% progress as of November 2022. The geographical location of the Tha Htay Hydropower project and its construction site are illustrated in Figures 1 and 2 respectively.



**Figure 1.** Geographical location of the case study area including two resettlement sites, dam construction site and the inundated area.



**Figure 2.** Construction site of the Tha Htay Hydropower Project from downstream view. (Source: survey photo).

It is a 92.5 m rock-filled dam despite having a 90.83 m design height. At first, the Norwegian Government provided a technical assistance for handling environmental and social issues, with the Tha Htay as a pilot project. Depending on an annual budget allocation from the Ministry of Electric Power, all compensations, logistics and required machinery for relocation, land clearing and every activity of the resettlement processes were the responsibility of the project proponent (DHPI). In spite of considering the completion of the project to be 2021, the construction has been ongoing due to the impact of COVID-19, the union budget deficit and the country's political situation. Now, the whole hydropower project is expected to be commissioned in the 2025–2026 fiscal year, depending on the union budget. The Tha Htay power station would be connected to the Oakshitpin-Taungup transmission line of the national power grid. For long-term improvement, it is expected to increase revenue, provide job opportunities to local people during the operation of the hydropower station, and establish small-, medium- and large-scale electricity-based industries, leading to economic development in the local region. The progress of the Tha Htay Hydropower Project and resettlement process so far is shown in Table 1.

The water level of the old Maewa Village was only 16 m above sea level. To escape from the rising water level by constructing a dam wall, Maewa Village was relocated first in March 2009, followed by a plan to relocate the remaining two villages: Payit and Yegauk, to near Mewa Village. However, those two villages had to be left because of the low water level at that time. There was the first democratically elected government of Myanmar in March 2011. The statistics of Maewa, Payit and Yegauk collected in 2008 were compiled again in March 2014. In January 2015, Maewa was compensated for the rebuilding cost of their houses and their lost properties in 2009, with it taking nearly six years for Maewa

to receive compensation. In March 2016, the project-affected people from the villages of Payit and Yegauk received compensation for their losses, such as farmlands and perennial plants, but not household compensation. The project proponent first supported the housing compensation batch by batch from 18 March 2022. As per DHPI's 2016 resettlement action plan, it was found that the housing compensation rate of Payit and Yegauk was higher than that of Maewa Village. Moreover, support for the casual household in Payit and Yegauk was about 1,000,000 kyats, while those in Maewa received about 300,000 kyats for damage.

**Table 1.** Progress of Tha Htay Hydropower Project and resettlement.

Time	Project Progressing Condition
April 2004	Preliminary survey measurements were conducted for the development of the 111 MW Tha Htay Hydropower Project.
December 2004	Myanmar Government approved the Tha Htay Hydropower Project to be implemented.
June 2005	The detailed measurements from the selected dam locations were conducted. After that, location of the dam was confirmed.
April 2008	Construction work of the project started. The inventory of the villages of Maewa, Payit and Yegauk was collected.
March 2009	Maewa Village was relocated to a new location.
March 2014	The statistics of the three villages collected in 2008 were compiled again.
January 2015	Maewa households were first compensated for the rebuilding cost of their houses and the properties they lost.
March 2016	The project-affected people from Payit and Yegauk were compensated for their losses, such as farmlands, garden land, perennial plants and so forth, except household compensation.
March 2020	The resettlement area for Payit and Yegauk was approved by the regional government.
October 2020	The inventory of the remaining two villages to be relocated was made again. Clearing the resettlement area for housing plot and road building.
March 2021	The first batch of housing compensation was given to some households from the villages of Payit and Yegauk, and 75 households from Yegauk and 153 households from Payit were relocated to the proposed resettlement area.
April 2021	The remaining 233 households from Yegauk Village moved to the resettlement area.
November 2022	73% of the whole project work has been completed but resettlement work will be complete in late 2023, except rehabilitation work.
2025-2026 fiscal year	Project commissioning is expected, but it depends on the union budget allocation

Source: DHPI (2022) and interview.

There were immense differences in the customs and cultures among the resettled communities in the relocation of the impacted people [10]. However, the resettlement area of the villages of Payit and Yegauk is 19.31 km away from the dam of the Tha Htay Hydropower Project and 25.75 km away from the original old villages, according to the field survey on the project-affected people. It is in the same district of Thandwe, closer to Shwe Hlay in Thandwe Township, which has the same culture and customs. Due to the heavy rain in the Rakhine state, the agricultural and alluvial lands located upstream of the reservoir are flooded. Now, the resettled people can go to the previously impacted villages to cultivate land for rice and vegetable farming during the implementation of the hydropower project. After impounding the reservoir, they may lose their income if they are not allowed to go to the previous villages to make their earnings.

### 3. Research Methodology

In this quantitative-approach-based research, a survey descriptive design was used to analyze the planned resettlement and its social impact. Statistical descriptive statistics are used to describe the basic features of the responses of the resettled people and present



them by mean and standard deviation, based on the statistical outcomes. A simple random sampling method was used to collect samples from the target population, with a contribution of structured questionnaires from 127 samples: 78 samples from Yegauk Village, 43 samples from Payit Village and 8 samples from Maewa Village (out of 500 households in 3 villages). The target population of the resettlement due to land acquisition for Tha Htay Hydropower Project is 1591, including 166 persons in 39 households in Maewa Village, 433 persons in 153 households in Payit Village, and 922 persons in 308 households in Yegauk Village. Both primary and secondary data were collected. For the primary data collection, a survey with a close-ended questionnaire was conducted. Then, the collected data were tested and analyzed in SPSS software, mainly focusing on the statistical data. The secondary data included those from the resettlement office of hydropower construction unit No.4, related to the inventory of displaced people affected by the project; the baseline data report; the environmental and social management report; the Resettlement Action Plan (RAP) report, including the socio-economy regarding the Tha Htay Hydropower Project; an analysis of the guidelines of IFC standards and national land acquisition, compensation and resettlement; and the rehabilitation policy regarding hydropower development.

#### 4. Findings and Discussion

According to the land acquisition findings, the impact of the Tha Htay Hydropower Project on three submerged villagers was found and is presented in Table 2. About 677.9 acres of farmland, upland, garden land and garden land in the protected forest from three submerged villages were occupied by the project proponent.

**Table 2.** Impact of the Tha Htay Hydropower Project on three submerged villages.

Items	Maewa Village	Payit Village	Yegauk Village	Total
Household	39	153	308	500
Population	166	433	992	1591
Monastery	1	1	1	3
Basic Education School	-	1	1	2
Rural Health Care Centre	1	1	1	3
Farmland (ac)	49.62	52.67	74.33	176.62
Upland (ac)	64.09	39.92	130.07	234.08
Garden Land (ac)	48.6	55.2	76.1	197.9
Garden Land in the protected Forest (ac)	26.3	26	17	69.3

Source: 2016, Statistics of DHPI's Resettlement Action Plan.

The study firstly found that the basic property infrastructures, including housing, monasteries, schools, rural healthcare centers, playgrounds, water supply systems, roads and housing for educational employees, in the villages of Payit and Yegauk, respectively, have been provided in the resettled villages by the project proponent. As per in Figure 3, there is a library but no housing for educational employees in Maewa. Additionally, there have been no healthcare employees in Maewa Village since 2016 nor in both Payit and Yegauk since 2021. The villages of Payit and Yegauk are separated in the same resettlement area shown in Figure 4 but they are in a close relationship. The people are Buddhist Rakhine people, sharing community facilities such as the community building, rural healthcare center and cemetery. Their way of life has changed differently compared to their previous lifestyle; however, the main source of their livelihood is still casual working such as bamboo cutting, livestock rising and forest product extraction.

Compared to villagers in Yegauk, people from Payit seem to be poorer in their economic situation, because most of them were affected by the flood in 2016 more severely than Yegauk villagers and they received less housing compensation when compared with their previous housing condition.



**Figure 3.** Resettlement site of Maewa Village (Source: Survey photo).



**Figure 4.** Resettlement site of Payit Village with green roof and Yegauk with blue roof.

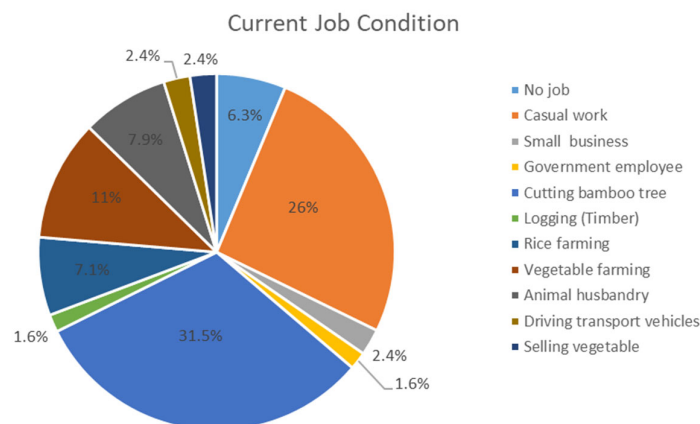
#### 4.1. Background Information of Respondents

The characteristics of 127 respondents were analyzed by gender, age, education and current job condition level according to Table 3, which shows that among 127 respondents, 46% were male and 53.5% were female. Their age was divided into three groups: 16–36 years, 37–56 years and 57–86 years. The study found that the age range between 16 and 36 was largely engaged in the survey, with 52 (41%) respondents; the second-largest group was the age range of 37–56 years, with 48 (37.7%) respondents; and in the remaining age range, between 57 and 86 years, there were only 27 (21.3%) respondents. Concerning the education factor, 56.7% of respondents were illiterate. Moreover, 33.1% and 6.3% of respondents used to go to primary and middle schools, respectively. Two (1.6%) respondents each attended high school and university education, yet a graduated person has been serving as an assistant primary teacher in Yegauk Village since before the displacement of Yegauk Village.

**Table 3.** Demographic profile of respondents.

Description		Frequency	Percent (%)
Gender	Male	59	46.5
	Female	68	53.5
	Total	127	100
Age (years)	16–36	52	41
	37–56	48	37.7
	57–86	27	21.3
	Total	127	100
Education	Illiterate	72	56.7
	Primary school level	42	33.1
	Middle school level	8	6.3
	High school level	2	1.6
	University level	2	1.6
	Graduated	1	0.8
	Total	127	100

Figure 5 describes the current job conditions of the respondents in three villages: 26.0% of respondents were casual workers and 31.5% relied on cutting bamboo trees for a living. Few respondents were engaged in rice and vegetable farming, driving transport vehicles, running small businesses, logging and serving in the government sector.



**Figure 5.** Current jobs of the respondents.

Most villagers who were working odd jobs were illiterate, and a few were peasants. Therefore, they were content with having enough food for daily consumption.

#### 4.2. Social Impacts on Resettled People from Resettlement

Regarding the satisfaction responses of residents for the infrastructure condition, out of 127 respondents, 68 (53.5%) respondents and 4 (3.1%) respondents, respectively, were satisfied with their current resettlement area located beside the Taungup-Thandwe road, which was close to the Shwe Hlay hospital and also good for children's educational development. However, 50 (39.4%) respondents were not satisfied with it because of the lack of agricultural land, cultivation land, or pastureland for their farming adjacent to the resettled area. Only five (3.9%) respondents were neither satisfied nor dissatisfied with it due to the impossibility of living alone in the old village, so they had to move to the resettled area. Concerning the housing provided, there was significant satisfaction for 94 (74%) and 3 (2.4%) respondents regarding receiving the housing compensation for building houses before relocating to the resettlement area. However, 30 (23.6%) respondents made complaints more than six times about the inadequate compensation for housing and for a difficult withdrawal compensation amount from the local bank. According to 122 respondents (96.1%), the roads were reliable; for 1 respondent (0.8%), the interconnection roads were very reliable for all seasons; and few respondents (3.1%) needed to transform the crushed-rock streets in front of their houses into reinforced concrete ones. Then, 95 (74.8%) respondents were satisfied and 2 (1.6%) were very satisfied with electricity conditions, but another 30 (23.6%) respondents from the villages of Payit and Yegauk were not happy with this as the electricity meters in their homes were without internal wiring, causing a lack of electricity access (even for domestic lighting), whereas all respondents from Maewa Village were satisfied with their access to electricity. Next, for 41 (32.3%) and 58 (45.7%) respondents, the situation of fetching water for daily household use was better than the previous conditions, while for another 28 (22.0%) respondents, it was not as good as their previous conditions since they also used to acquire spring water round the clock. However, they all complained about the difficulty of obtaining water during two months only, such as March and April, before the raining season, due to the site being 300 feet above sea level and there only being a little spring waterway in summer. On school facilities and children's educational development, 122 (96.1%) respondents and 4 (3.1%) respondents were satisfied and very satisfied, respectively. Unlike the others, one respondent could not afford to send her daughter to the high school of Shwe Hlay Town due to her daughter's academic tuition fee and the transportation charge per year. According to the field survey,

some families from Payit Village took their children to the old village with them to earn money from rice and vegetable farming, neglecting their children's education development. Regarding the healthcare situation, 120 (94.5%) respondents said that their resettled area was close to the Shwe Hlay Hospital, and they could go to any clinic for their health problems. However, according to six respondents, there had been no healthcare personnel at the rural healthcare center in Maewa for seven years, as well as for nearly two years in Payit and Yegauk. Additionally, they explained that they could not go to the hospital or any clinic without any money due to the lack of job opportunities in resettled areas.

Regarding the investigation of their relationship with resettled communities, 18 (14.2%) respondents reported their own problems between the 75 household groups and 233 household groups in Yegauk Village after the resettlement. That is, 75 household groups first moved to a new resettled area in the last week of March 2021, while the remaining 233 household groups demanded 10 million kyats of compensation for their living in the long run. This was in vain, and they had to move late to the resettled area in late April 2021, causing severe tension between the two groups, with the resignation of the latter group from Yegauk Buddhist monastery. However, such an issue was not found in Payit. Yet, for one of the village leaders from Payit Village, he was blamed by the people, who thought he favored the project proponent. Thirteen (10.2%) respondents and 95 (74.8%) respondents had a fairly good or good relationship with the same group. Compared to the relationship with their previous neighbors, for 122 (96.1%) respondents and 5 (3.9%) respondents, respectively, their neighborhood was friendly or very friendly to them. In communication with the host villages, 126 (99.2%) respondents were found to be comfortable, whereas the 1 respondent from Payit Village felt uncomfortable when seeing host villagers due to the despair for her in Payit Village. According to 92 (72.4%) and 2 (1.6%) respondents, they felt socially secure in their respective resettled village. Contrarily, 33 (26.9%) respondents, with the knowledge of theft cases, felt socially insecure in comparison with the old village experience. Concerning people's participation in religious and cultural festivals, over 40% always went to religious festivals, but they sometimes went to cultural festivals. Over 27% often participated in these festivals, while there was over 10% occasionally going to those festivals because of a lack of money.

Regarding people's participation in the resettlement process, 98 (77.2%) respondents were satisfied with it while 27 (21.3%) respondents were unhappy with the village leader's own decision in the site selection, without asking for their agreement, and 2 (1.6%) respondents did not show their satisfaction or dissatisfaction about it. To the question of compensation rate allocation, 102 (80.3%) and 2 (1.6%) respondents said that they had received the highest cash compensation compared to the previous hydropower projects, whereas 22 (17.3%) respondents were dissatisfied with it because the project proponent supported only cash compensation for all they lost, such as houses and farmlands, and as damage, provided one million in MMK for the households living on odd jobs. Such a cash compensation was insufficient for new resettled households to earn a living in the long term. One respondent (0.8%) said that she followed others because other people agreed, and thus so did she.

Then, on satisfaction with their present working opportunities, 64 (50.4%) respondents liked their current jobs for enabling farming or bamboo cutting and trading, while 62 (48.8%) respondents were fed up with it due to the high commuting cost (4500 kyats). In addition, most women were dissatisfied with their unemployment situation once being displaced to a new resettled location. This unsatisfied percentage (48.8%) was close to the percentage of respondents satisfied with their current working condition. Moreover, when finding out changes in their jobs or careers compared to their previous conditions, there was a complete change for 46 (36.2%) respondents, while a slight change was found for 52 (40.9%) respondents. Therefore, the findings pointed out that most of the villagers had changed their jobs. Among them, most women were dependent on only their husbands. When their husbands went to the old villages, they lived alone or with their children at home.



This study sought an in-depth understanding of the responses of resettled people and of policy constraints in the process of resettlement for affected households. It also attempted to identify the development gaps and opportunities in the resettlement program. The findings on impacts from resettlement inform that on average, people were satisfied with the resettlement area selection and housing, with consistently lower responses to them compared to other indicators, according to Table 4. By comparing people's satisfaction, the study found the highest mean score on educational facilities provided, with children's educational development being 4.02, while the lowest mean score on present working opportunities is 3.02. The results reveal that the respondents had more satisfaction in electricity conditions, educational facilities and children's educational development, health conditions, public participation, and compensation rate allocation, and had more consistent responses to them. Overall, the resettlement project was better than the moderate condition. However, the study reveals that the project proponents need to create more relevant job opportunities for resettled people in the long run, as a livelihood restoration plan.

**Table 4.** Satisfaction and agreement level on basic infrastructures, social protection, people's participation, compensation rate allocation and working condition for resettled people.

Questionnaires	Mean	Std. Deviation
Are you satisfied with the current resettled area selection?	3.2	1.011
Are you satisfied with housing provided?	3.55	0.879
Are you satisfied with the electricity condition at your home?	3.78	0.453
Are you satisfied with educational facilities provided and children's education development?	4.02	0.251
Do you agree that your health care condition is better, compared to previous condition?	3.9	0.433
Do you agree that you feel socially secure here?	3.5	0.899
Are you satisfied with people's participation in the resettlement process?	3.56	0.823
Are you satisfied with compensation rate allocation?	3.66	0.779
Are you satisfied with present working opportunities?	3.02	1.0

Source: Survey Data (2022).

All findings in this study are expected to contribute to practical contribution and policy recommendation. The previous studies really support our findings. These findings based on on-ground data are useful for further studies of resettlement in Myanmar's hydropower development projects.

## 5. Recommendation and Conclusions

While implementing the Tha Htay Hydropower construction project including a resettlement plan and relying mainly on the union budget allocation, there has been an increase in the focus of the domestic society of Myanmar on the environmental and social impacts of hydropower project construction, resettlement, and employment. Consequently, not only the project proponent but also financial institutions need to plan and implement an appropriate resettlement process by providing both full cash and in-kind compensations to the displaced people, who lost their land-based livelihoods. In fact, following the insufficient land acquisition and resettlement and rehabilitation policy in Myanmar, improper resettlement and severe social impact has led to resettlement conflicts between the project proponent and the displaced people. To solve these problems, this study has explored various entities of emphasis on resettlement, with fewer social impact mechanisms and policies with respect to hydropower projects. For project proponents, they should optimally identify important features of a resettlement site considering the slope, elevation, soil [11], water availability, and even agricultural resources adjacent to the resettled area, even if the site is selected by the project proponent based on the willingness of the affected villagers. A detailed appraisal of agricultural and cultivation land acquisition should be conducted

prior to resettlement by coordinating with other regional agencies such as the regional state authority, Forest Department, Agricultural Department and Department of Land Records. It is recommended that “Land for land” policy should be the preferred compensation option when livelihoods are totally land-based. In addition, other livelihood packages should be considered for resettled households so that the resettled areas have sustainable economic and social development. Without agricultural or cultivation lands and livelihood packages, resettled households may face an unsustainable livelihood in the long run. Therefore, it should be arranged to restore the socio-economic life of resettled people through livelihood activities, job opportunities and any social support. After completing the resettlement project in 2023, there should be post-resettlement monitoring and evaluation. Policymakers ought to develop resettlement guidelines to meet international standards and ensure an optimally suitable resettlement site selection prior to issuing resettlement project approval. This is needed to issue specific policies, as well as technical specifications related to land acquisition and the evaluation of social impacts and resettlement.

In this paper, based on the findings of the satisfaction or dissatisfaction of the affected people, the case study presents some essential gaps in applying the current resettlement. First, it is found that Myanmar’s resettlement policy allowed cash compensation for all losses of the displaced people from three villages. Instead, an appropriate compensation practice should be thoroughly considered by providing both a cash compensation and in-kind compensation to the displaced people, to cover their previous baseline properties when their livelihoods are land-based. However, the previous and current resettlement projects have not supported the replacement of farmlands to the resettled people. In addition, other livelihood support should be offered to the resettled community’s sustainable development because it was found that until the late implementation stage, there were no livelihood activities. Second, the project proponent should participate in any resettlement site selection to ensure it is optimal (considering the slope, its elevation, water resource, available agricultural land adjacent, transportation, job opportunities, etc.). Third, the impacted villages should not be relocated and resettled until the completion of the housing infrastructures in the resettled site. Accordingly, all fundamental infrastructures and other basic requirements need to be ready. Perennial crops should be planted in advance so that they are ready to bear fruit prior to the resettlement project. When all those resettlement issues are completed, their skilled careers may be started.

Considering all the findings and recommendations, the local authorities, the union government, policymakers, technical experts, the displaced community and the local host community need to coordinate to reach an agreement prior to a project, in order to note the potential impacts and consequences of the displacement and resettlement and develop an effective and comprehensive resettlement policy while implementing hydropower projects successfully and sustainably.

**Author Contributions:** The individual contributions are: Conceptualization, A.T.L.; methodology, A.T.L.; writing—original draft preparation, A.T.L. and K.Y.; writing—review and editing, A.T.L. and K.Y.; supervision, K.Y.; project administration, A.T.L. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** This article does not contain any studies involving humans or animals performed by any of the authors.

**Data Availability Statement:** Not applicable.

**Acknowledgments:** We would like to express a special acknowledgement to the China Scholarship Council and North China Electric Power University. Our thanks also go to all the respondents from the resettled villages for their help with a contribution to our study. Then, we thank some reviewers for their valuable and helpful comments and suggestions to substantially improve this article.

**Conflicts of Interest:** The authors declare no conflict of interest.

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