

Post-disaster Reconstruction Laws and Indigenous Adaptive Strategies in Taiwan: Focusing on Post-Typhoon Morakot Reconstruction

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Abstract

This paper examines and analyzes how the Taiwanese government and indigenous peoples responded to and recovered from natural disaster impacts, as well as their considerations and relating issues. In August 2009, the heavy rainfall of Typhoon Morakot triggered serious floods and mudslides throughout southern Taiwan and damaged many indigenous communities. After the disaster, the Taiwanese government rushed to adopt land conservation and relocation as major reconstruction methods. By designating risky lands as “Special Zones” and “Safety Doubtful Zones,” the government restricted land use and relocated a large number of indigenous people from their homelands in the mountains to the lowlands. The land zoning and relocation process was criticized as hurried, careless, and limited local participation. The relocated indigenous people also have faced legal, cultural, economic difficulties associated with displacement. In response to the official reconstruction policy, the Taiwanese indigenous peoples implemented multiple strategies to adapt to the environment changed by the disaster: relocation, reconstruction, and return. Although each adaptive strategy had advantages and disadvantages, the indigenous communities adopted the strategies according to their specific contexts. The flexible adaptive strategies are more likely to help the affected indigenous people recover from natural disaster impacts by applying their unique culture and traditional knowledge.

I. Background: An Unexpected Disaster of Typhoon Morakot

On the early morning of August 9th, 2009, a massive landslide occurred in a mountainous region of Kaohsiung Municipality, Taiwan. The large quantity of mud instantly buried the entire Xiaolin village and killed 491 people. The tragedy was triggered by the record rainfall brought by Typhoon Morakot, which struck Taiwan during August 6th to 10th. The heavy rainfall

resulted in floods and landslides throughout southern Taiwan.¹ The disaster seriously impacted the places and their residents, especially Taiwanese indigenous peoples living in the mountain areas. Many roads that had been the only routes to the indigenous communities were either blocked or washed away. The indigenous people were trapped in the remote areas, running out of food and water. Critical infrastructure and private houses in the indigenous communities were damaged or destroyed.²

While Taiwan has been frequently struck by earthquakes and typhoons, it was not foreseen that Typhoon Morakot would produce such extremely heavy rainfall in Taiwan and cause the most devastating flood in the past one hundred years. In only one day on August 8th, the rainfall in Pingtung County was 1,402 mm, the highest amount of daily precipitation in Taiwan's history.³ Moreover, while the average amount of rainfall in August is between 300 to 600 mm, the cumulative precipitation in southern Taiwan from August 6th to 10th, 2009, was more than 2,500 mm, also the highest ever.⁴ The heavy rainfall triggered enormous floods and mudslides, leaving 699 people dead and missing. 140,424 houses were damaged, among which 1,766 houses were rendered completely uninhabitable. The total economic loss reached almost two hundred billion New Taiwan dollars, or 6.75 billion US Dollars.⁵

Shortly after the disaster, the Legislative Yuan (Taiwan's legislature) passed the Special Act for Post-Typhoon Morakot Disaster Reconstruction [hereafter Special Act] to lay down reconstruction principles and loosen existing legal restrictions for swift disaster relief. Based on the Special Act, the Executive Yuan (the national administration) established the Typhoon Morakot Post-disaster Reconstruction Council [hereafter Reconstruction Council] to implement post-disaster reconstruction laws and promulgate detailed regulations.⁶ In addition to the government, people affected by the typhoon—especially the Taiwanese indigenous peoples living in mountain areas—also took actions to recover their lives and respond to the environment changed by the typhoon impacts.

¹ TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, LOVE AND HOPE BURSTING WITH VITALITY: ACHIEVEMENTS ON THE THIRD ANNIVERSARY OF POST TYPHOON MORAKOT RECONSTRUCTION VOL.1[愛與希望躍動生命力：莫拉克颱風災後重建三周年成果彙編(上)], 18, 23-28 (Kaohsiung: Typhoon Morakot Post-disaster Reconstruction Council, 2012).

² See generally Awi Mona, Climate Change, Ecological Sustainability, and Social-cultural Development of Indigenous People: the Reflection on Typhoon Morakot, 6 TAIWAN INDIGENOUS STUDIES REV. 27 (2009).

³ TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, *supra* note 1, at 13.

⁴ *Id.* TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, at 18.

⁵ *Id.* TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, at 1.

⁶ Article 4, Special Act for Post-Typhoon Morakot Disaster Reconstruction.

While the government reconstruction policies and indigenous adaptive strategies overlapped in some aspects, they sometimes differed or even conflicted. Specifically, the Special Act authorized executive agencies and local governments to investigate land conditions and consult landowners to designate deeply-struck land as “Special Zones (特定區域).” Once a parcel of land was designated as a Special Zone, the governments could prohibit residence or restrict land use. The government also encouraged residents of risky lands to relocate to safer places. Yet, many Taiwanese indigenous people were suspicious of the Special Zone designations and subsequent legal effects on their lands.⁷ They were concerned about relocation and refused to leave their homelands where they have established families, developed culture, and made a living for generations. The indigenous people have thus adopted strategies different from the government to adapt to the new conditions after Typhoon Morakot.

This paper aims to examine and compare how the Taiwanese government and the indigenous peoples responded to the typhoon impacts, as well as their ideas and considerations regarding disaster mitigation and adaptation. The primary dispute between the government and the indigenous peoples—also the focus of this paper—was land zoning and relocation policy. To discuss the issue, this paper uses a case study of the Namasia District in Kaohsiung, Taiwan, which was seriously damaged by the flooding and mudslides in Typhoon Morakot. After the disaster, residents of the three indigenous village of the Namasia District have gone through a long process of reconstruction. The author interviewed thirteen indigenous people in the Namasia District, including ten living in the mountain villages of the Namasia District and three relocated to the resettlement site on the lowland. The interviews are analyzed to understand the legal practice and local perspective of land zoning, relocation project, disaster adaptation, and indigenous lands.

II. Natural Disaster Management of the Taiwanese Government

1. Post-Typhoon Morakot Reconstruction Law and Policy

⁷ See Jenn-Chuan Chern (陳振川)& Shih-Yi Hung (洪世益), *The Strategy of Community Reconstruction after a Mega Disaster: The Case of Post-Typhoon Morakot Reconstruction in Taiwan* (大規模災害家園重建策略——以莫拉克颱風重建為例), 1(1) JOURNAL OF DISASTER MANAGEMENT (災害防救科技與管理學刊) 63, 73 (Mar. 2012).

Taiwanese reaction to the destruction of Typhoon Morakot exhibited a strong belief that humans are too weak to sustain and resist the power of nature. After the disaster of Typhoon Morakot, the President and government officials repeatedly claimed that humans could not fight against nature, and that staying away from disasters is more important than preventing disasters from happening.⁸ According to the government, separating human from nature is the best way to protect both of them. Hence the Special Act, which implemented the reconstruction plans with the aim of land conservation by applying scientific assessment technology and restricting human activities, emphasized not only reconstruction, but moving people to “safer” areas in the lowlands⁹.

The general public and non-governmental organizations [hereafter NGOs] in Taiwan raised an opinion that the indigenous people living in the mountain areas should be responsible for the disasters. Such opinion requested that, to prevent disasters from reoccurring, the government should use its authority to restrict or even prohibit human activities in the natural surroundings and ask the indigenous peoples to retreat from the mountain areas.

For example, the Buddhist Compassion Relief Tzu Chi Foundation claimed that the typhoon victims should completely relocate their villages away from the mountains and forests to let nature rest.¹⁰ Yet, the opinion was based on its experiences of disaster relief and reconstruction, but on neither geological investigation results nor surveys on the residents’ thoughts. The pressure for relocation also came from the mass media. Just four days after Typhoon Morakot hit Taiwan, without evidence, a newspaper report blamed the Xiaolin villagers for the tragedy happening to them, declaring that irrigation and exploitation of the land disturbed the balance of nature and resulted in the mudslide that buried the Xiaolin village.¹¹

In September 2009, one month after the disaster, the Executive Yuan proposed the “Basic Plan of Regional Reconstruction Prioritizing the Protection of National Land [hereafter Basic Plan]” as the framework to examine, monitor, and classify the land affected by the typhoon impacts. The government sent scientists to use modern technologies to investigate structure of

⁸ TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, *supra* note 1, at 134.

⁹ TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, *supra* note 1, at 134-174.

¹⁰ INDEPENDENT NEWS NET OF MORAKOT (莫拉克獨立新聞網), MISSING HOMES IN PERMANENT HOUSES: STORIES ABOUT PEOPLE AND PERMANENT HOUSES, THREE YEARS SINCE THE DISASTER OF TYPHOON MORAKOT (在永久屋裡想家: 莫拉克災後三年, “永久屋”與人的故事) 30-33 (2013).

¹¹ UNITED DAILY NEWS (聯合報), *The Village Destroyed: Dire Warning to Taiwan Given from Land (滅村: 大地給台灣的驚天警告)* (Aug. 13th, 2009).

the affected land, sensitivity to impacts, as well as possibility of erosion, landslides, and other disasters.¹² Based on the Basic Plan, the government established a hierarchy of different levels of risky land and land use restrictions, imposing stricter restriction on more vulnerable land to achieve the goal of land conservation.¹³

In line with this thought, when considering how to assist the typhoon victims to recover their lives, the government decided to investigate and mark out risky areas, restricting or even prohibiting land use in the areas. According to Paragraph 2, Article 20 of the Special Act, the central, municipal, and county governments could consult landowners and designate a parcel of deeply-struck land as a Special Zone, restricting residence or relocating residents. The legislative purpose was to achieve human safety and nature protection by separating people from nature. Eventually, the governments, with the help of scientific experts, examined the condition of the risky lands to designate 98 Special Zones, as well as 62 Safety Doubtful Zones (安全堪虞區域)—a problematic land zoning that will be explained in the next part.¹⁴

Based on the land designation results, the government requested and encouraged the residents of the two zones to move out. If the residents refused to leave, they might stay in their previous residence, but they would be ordered by the government to evacuated when a disaster struck.¹⁵ Required by Paragraph 4, Article 20 of the Special Act, when the governments designated an area as a Special Zone and compulsorily relocate the residents, the governments should expropriate the land and grant appropriate accommodation to the displaced people. Thus, for residents who agreed to relocate, the governments assisted them to relocate by providing rental assistance, housing subsidy, or resettlement houses built by NGOs, including but not limited to the Tzu Chi Foundation, World Vision Taiwan, and ROC Red Cross Society.¹⁶

¹² TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, *supra* note 1, at 186-199.

¹³ COUNCIL FOR ECONOMIC PLANNING AND DEVELOPMENT, EXECUTIVE YUAN (行政院經濟建設委員會), BASIC PLAN OF REGIONAL RECONSTRUCTION PRIORITIZING THE PROTECTION OF NATIONAL LAND (以國土保育為先之區域重建綱要計畫) 12-13 (2009).

¹⁴ TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, *supra* note 9, at 210; XUE-SHENG CHANG (張學聖), LAND USE REGULATION SYSTEM OF SPECIFIC AREAS AND SAFETY DOUBTFUL AREAS OF THE DISASTER AREAS UNDER TYPHOON MORAKOT (莫拉克颱風災區劃定特定區域與安全堪虞地區之土地使用管制機制探討) 1-2 (2013).

¹⁵ TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, *supra* note 1, at 210.

¹⁶ Taiban Sasala, *From Rekai to Labelabe: Disaster and Relocation on the Example of Kucapungane, Taiwan* 19 (1) ANTHROPOLOGICAL NOTEBOOKS 59, 64 (2013); YUNG-LUNG CH'EN (陳永龍) & YEN-LIANG CH'IU (丘延亮), RESIST NATURAL DISASTERS AND MAN-MADE CALAMITIES: ON HOMESTEAD RESILIENCE AND TAIWAN'S ALTERNATIVES (防天災禦人禍：原住民抗爭與台灣出路) 118 (2014).

2. Issues of Land Zoning and Relocation

Controversies and critics on the land zoning and the relocation policy arose during the reconstruction process. First, while the Special Act authorized the governments to designate Special Zones, the law also set the requirement that landowner's consent was necessary for such designation. To avoid the legal requirement and regulate lands where landowners rejected the land zoning of Special Zone, the Reconstruction Council created another land type called Safety Doubtful Zone. The land type of Safety Doubtful Zone was not authorized by the Special Act through the legislation process, so its legality and legitimacy were ambiguous and suspicious. Moreover, the government provided discriminative subsidy to residents in the Special Zones and the Safety Doubtful Zones (Table 1), while designating which zone depended on landowner's consent, but not on land condition and other substantial criteria. If the lands in both zones were the same risky, the government shall provide equal assistance to the residents to ensure their safety.

Table 1: Assistance to Resident Living on Risky Land

	Resident in Special Zone	Resident in Safety Doubtful Zone
Relocation cost subsidy	○	●
Living subsidy	○	●
Rent subsidy	△	●
Subsidy for purchasing house	○	●
Subsidy for mortgage	△	●

Note: White circle (○) represents the resident could apply for the assistance. Triangle (△) represents the resident could apply for either rent subsidy or subsidy for mortgage. Black circle (●) represents the resident could not apply for the assistance.

Source: Construction and Planning Agency, Ministry of Interior (內政部營建署):

http://morakotdatabase.nstm.gov.tw/download-88flood.www.gov.tw/special_list/990729 特定區域及安全勘虞地區遷居戶差異說明.pdf (Last visited May 14th, 2018)

The data of designating Special Zone and Safety Doubtful Zone can be used to indicate landowners' viewpoints on the land zoning policy. As mentioned above, the landowner's consent was necessary to designate a Special Zone. If a landowner did not consent, the government could only unilaterally designate the land as Safety Doubtful Zone. In other words, a Special Zone

meant that the landowner agreed with the proposed designation of Special Zone; a Safety Doubtful Zone represented the landowner's rejection of the land designation.

Table 2 shows the significantly different attitudes toward the land designation policy between the non-indigenous and indigenous landowners. Among ninety-eight damaged lands where non-indigenous people lived, nearly three-quarters (73.47%) of the non-indigenous landowners agreed to their land being designated as Special Zones. In sharp contrast, less than half (41.94%) of the indigenous landowners consented to the proposed designation of Special Zones. It is clear that, compared to the non-indigenous landowners, the indigenous peoples were more suspicious of and opposed to the Special Zones and subsequent legal effects on their lands.

Table 2: Numbers of Special Zones and Safety Doubtful Zones

	Special Zone	Safety Doubtful Zone	Total
Non-indigenous area of land	72 (73.47%)	26 (26.53%)	98
Indigenous area of land	26 (41.94%)	36 (58.06%)	62
Total	98	62	160

Source: Jenn-Chuan Chern (陳振川)& Shih-Yi Hung (洪世益), *The Strategy of Community Reconstruction after a Mega Disaster: The Case of Post-Typhoon Morakot Reconstruction in Taiwan (大規模災害家園重建策略——以莫拉克颱風重建為例)*, 1(1) JOURNAL OF DISASTER MANAGEMENT (災害防救科技與管理學刊) 63, 73 (Mar. 2012).

The land investigation and zoning process was criticized for being hurried and careless, and for limited local participation.¹⁷ While the government claimed that it would rely on scientists and scientific technologies to make reconstruction policy, the government did not truly and fully implement scientific methods to assess whether an area of land was vulnerable. Bureaucrats and scientists examined eight sites within only day, spending little time investigating land condition. Some experts visited the sites for only a few hours or relied on aerial photography to decide whether a Taiwanese indigenous village was safe or not.¹⁸

Moreover, compared to the bureaucrats and the scientists who had power to make designation decisions, local people of the indigenous villages, social scientists such as anthropologists and historians, and social workers had little chance to participate in the policy-

¹⁷ Anonymous residents of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 29th and 30th, 2017).

¹⁸ YUNG-LUNG CH'EN & YEN-LIANG CH'IU, *supra* note 16, at 122.

making process and had limited power to influence reconstruction policies.¹⁹ As the experts who had the power to investigate and designate were mostly technicians, they focused on technical issues and construction safety but neglected the specific ecological, social, cultural, and economic contexts of each village when evaluating conditions of the affected lands.²⁰

Studies have shown that Western scientific knowledge and traditional ecological knowledge both are important for human to mitigate and adapt to natural disturbance and environmental changes. Absolute belief in scientific progress and a linear thought of rational design of natural resource management would radically break with historical traditions and social background.²¹ When a national policy arbitrarily ignored modern scientific knowledge and traditional cultural wisdom, it would cause devastating results such as land degradation and environmental pollution.²² Thus, the suggestion is all stakeholders shall participate in decision-making process to jointly consider policy according to the specific contexts of the community.²³ As government officials and experts may provide scientific knowledge and administrative resources, local people can provide valuable experiences and keen awareness about the environment that they have been familiar with.²⁴

The Taiwanese government not only excluded the local people but also disregarded scientific methods when investigating and zoning the risky lands. A reasonable explanation is that the government did not really rely on scientific evidences or indigenous opinion to justify and enforce the land zoning and relocation policy. The government provided a single option to simplify choices and reduce administrative costs. Just two weeks after the disaster, at the beginning of the reconstruction process, the government immediately decided that conservation and relocation would be the main principles of reconstruction policy.²⁵ As the government

¹⁹ Jyh-Cherng Shieh (謝志誠), Jwu-Shang Chen (陳竹上), Wan-I Lin (林萬億), *Skip to Permanence without Transition? Policy-making in Post-Morakot Reconstruction (跳過中繼直達永久? 探討莫拉克災後永久屋政策的形成)*, 93 TAIWAN: A RADICAL QUARTERLY IN SOCIAL STUDIES (台灣社會研究季刊) 49, 55 (2013).

²⁰ YUNG-LUNG CH'EN & YEN-LIANG CH'IU, *supra* note 16, at 123-124.

²¹ See James C. Scott, *Authoritarian High Modernism* in SEEING LIKE A STATE: HOW CERTAIN SCHEMES TO IMPROVE THE HUMAN CONDITION HAVE FAILED, ON HIGH MODERNISM 93 (New Haven : Yale University Press, 1998).

²² See Judith Shapiro, *Introduction* in MAO'S WAR AGAINST NATURE, 1-20 (Cambridge University Press, 2001).

²³ Barrera-Bassols and Zinck, *Ethnopedology: A Worldwide View on the Soil Knowledge of Local People*, 111 GEODERMA 171, 176 (2003).

²⁴ *Id.* Barrera-Bassols and Zinck, at 177.

²⁵ Jyh-Cherng Shieh et al, *supra* note 19, at 65-66.

regarded relocation as the priority reconstruction strategy, it distributed most budgets and donations to relocation projects and fewer resources to alternative reconstruction strategies.²⁶

Ostrom and Cox point out the panacea problem: a simple presumed solution is unable to solve a wide range of problems because natural environments and resources are actually very complex. A single solution may be too precise to be flexibly adapted to each different case, or it may be too vague to provide useful suggestions.²⁷ If policy makers wanted to think beyond the panacea problem, they should consider multiple levels of social-ecological system.²⁸

In the current case, because the government did not carefully realize or consider the complex and intertwined factors, especially the unique relationship between the Taiwanese indigenous people and their homeland, the government failed to effectively and properly conduct reconstruction policies. As the government applied one uniform method to deal with reconstruction needs and issues of different villages and communities with their specific geological, ecological, historical, economic, social, and cultural contexts, problems arose. These economic difficulties and cultural challenges faced by the indigenous peoples will be explained in the following section.

III. Adaptive Strategies of Taiwanese Indigenous Peoples

The indigenous people in Taiwan are Austronesians who have lived and developed for more than 6,000 years.²⁹ Currently, sixteen Taiwanese indigenous tribes are recognized by the government, while still other indigenous peoples are seeking official and legal recognition as separate tribes. Of the recognized tribes, a total number of 553,608 indigenous peoples live in Taiwan, constituting about 2.35% of the Taiwan population.³⁰ Over half (53%) of the indigenous peoples live in mountain areas; many of them have suffered natural disasters like mudflows.³¹ During the event of Typhoon Morakot, 13,911 indigenous people were affected by the disaster

²⁶ *Id.* Jyh-Cherng Shieh et al, at 69-70.

²⁷ Elinor Ostrom and Michael Cox, *Moving beyond panaceas: A Multi-tiered Diagnostic Approach for Social-ecological Analysis*, 37(4) ENVIRONMENTAL CONSERVATION 451, 452 (2010).

²⁸ *Id.* Ostrom and Cox, at 454-458.

²⁹ See REN-GUI LI (李壬癸), TAIWAN NANDAO MINZU DE ZUCYUN YU CIIANSI (台灣南島民族的族群與遷徙) [Ethnic Groups and Migration of Taiwan Austronesian] 64 (1997).

³⁰ Censuses conducted by the Department of Household Registration, Ministry of Interior, available at <http://www.ris.gov.tw/346> (last visited: Feb 20th, 2017).

³¹ COUNCIL OF INDIGENOUS PEOPLES: <http://www.apc.gov.tw> (last visited Apr. 26th, 2018).

impacts—which was 72.5% of the overall typhoon victims.³² As the disaster changed the environment where the indigenous peoples had lived, they had to adapt to the new conditions through migrating, reorganizing communities, or changing subsistence.

Traditionally, the Taiwanese indigenous peoples migrated for certain reasons: disease and mortality, poverty, conflicts with neighboring tribes, and land infertility. Their migration was more autonomous and less due to external forces.³³ While the indigenous peoples might migrate because of environmental changes, in recent years, their migration has resulted more from state power and government policies. In fact, after Typhoon Morakot, it was less the direct disaster impacts but more the government policies that made the indigenous peoples migrate. Moreover, as the following discussion will show, not only *consequences* of the disaster were influenced by the reconstruction projects, but also *causes* of the disaster were associated with past government policies on the indigenous peoples.

The impacts of Typhoon Morakot not only shaped the government policies on land regulation but also influenced the way of life of the indigenous people who have lived there. Compared to the government policies of compulsory or encouraged relocation, many indigenous people were unwilling to leave their homelands and resettle in other places.³⁴ For the indigenous peoples, the so-called “natural disasters” are part of nature and part of their lives. In the past, when typhoons brought rains, local people still worked in their farmlands, caught fish in rivers, and took baths in rain showers.³⁵ As the indigenous people have lived with these natural disasters for generations, they may use accumulative experience and traditional wisdom to co-exist and cope with natural disasters.³⁶ For example, an interviewee observed that, when it rained, river water in the Namasia District was between clear and slightly yellow, so he knew no soil was washed and brought down.³⁷

Yet, after Typhoon Morakot, as the flooding and mudslides dramatically altered the landscape of their homelands in the mountains, the indigenous people struggled with pressure from the governments, threats of natural hazards, and difficulties of rebuilding homes and

³² TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, *supra* note 1, at 210.

³³ Taiban Sasala, *supra* note 16, at 60.

³⁴ YA-HSIANG WANG (王雅湘), CHIEN CHANG (張筓), NA-HUI YEH (葉娜慧), I-WEN T'AO (陶伊玟), AFTER HEAVY RAIN, SEEING RAINBOW (暴雨後, 看見彩虹) 114 (2012).

³⁵ Anonymous residents of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 29th and 30th, 2017).

³⁶ YUNG-LUNG CH'EN & YEN-LIANG CH'U, *supra* note 16, at 289.

³⁷ Anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 29th, 2017).

economy. Ultimately, different tribes, communities, and individuals of Taiwanese indigenous peoples choose to react and adapt to the environmental changes by different strategies, which I classify into three categories: relocation, reconstruction, and return.

1. Relocation

For the Taiwanese indigenous peoples, environmental changes—even natural disasters—are regarded as an inherent part of nature and human life. The indigenous peoples have developed strategies to adapt to the changing environment. Yet, during the event of Typhoon Morakot, without considering the thoughts of the affected indigenous people, the government choose relocation as the primary reconstruction policy and enforced relocation projects through state power and government resources. Because of the pressure from the government and destruction of their homelands, 59% of the disaster victims agreed to have their damaged houses designated as Special Zones, and that they would relocate from their homelands to the permanent resettlement houses built by the NGOs.³⁸

Since the affected Taiwanese people who agreed with relocation could receive free housing in the settlement sites, they could therefore live in safe places without spending much money. This is very important for the typhoon victims to settle down and recover their lives, especially when they suffered huge property losses from the disaster and needed assistance from the government and the NGOs. In the case of the Nangnisalu village, Namasia District, most houses in the village were destroyed or buried by the mudslides and floods. For safety concerns, most villagers decided to relocate from their mountain village to the Da'ai Community in the lowlands.³⁹

However, after the indigenous people left their homes and lands in the mountain areas, they have faced legal issues, economic difficulties, and cultural challenges associated with displacement. One of the legal issues, repeatedly complained by the interviewees, was the restriction on household registration and limitation on freedom of residence.⁴⁰ Specifically, after the Nangnisalu villagers relocated to the Da'ai Community, Shanlin District, the relocated

³⁸ TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, *supra* note 1, at 210.

³⁹ Anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 28th and 31st, 2017).

⁴⁰ Anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 29th and 30th, 2017).

indigenous people hoped to keep their domicile at the Namasia District because they wished to return their ancestral land one day in the future.⁴¹ The domicile registration also would influenced their voting rights, social welfare, health insurance, and education.⁴²

The Kaohsiung Municipality Government have requested the relocated people to change their domicile at the household registration office to conform with the Household Registration Act and the fact that they already moved out the Namasia District and currently live in the Da'ai Community, Shanlin District. The relocated people passively resisted the policy by avoiding any changes of their registered domicile, but many adults had no choice but to comply with the request in pursuit of the interests of their children. Since children were not eligible to be household head, parents of newborns must move their domicile to the Shanlin District to create a new household and register their baby.⁴³ Parents of school-age children also had to make such change, so their children could enroll and attend schools near the Da'ai Community.⁴⁴

Economically, after the indigenous people from the Namasia District moved to the Da'ai Community, they immediately faced the problem of unemployment. Before the indigenous people left their homes in the mountains, they had lived close to their farmland and practiced small-scale agriculture. Yet, moving to the Da'ai Community meant living distant from their farmlands. Hardly could the relocated indigenous people afford the cost and time of commuting a long distance every day.⁴⁵

As the relocated Taiwanese indigenous people could not maintain their previous way of subsistence, the government only granted a small amount of employment assistance. NGOs and companies that had promised to help also provided limited job opportunities near the resettlement site. As a result, the relocated indigenous people might remain unemployed, leave their homes and families to seek jobs in cities, or go back to farm their lands in the Namasia

⁴¹ Anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 28th and 30th, 2017).

⁴² Anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 28th and 30th, 2017).

⁴³ Anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 28th–31st, 2017).

⁴⁴ Anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 28th and 30th, 2017).

⁴⁵ Anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 29th and 31st, 2017).

District—an action that might lead to legal issues.⁴⁶ The relocated indigenous people violated the legal contract regarding resettlement housing because the contract required house recipients “must not return their previous residence” on the risky land.

Not only economic difficulties but also cultural challenges were significant for the relocated Taiwanese indigenous people in the Da’ai Community. First, the Da’ai Community was built by the Tzu Chi Foundation, a Buddhism missionary organization that has specific religious beliefs and disciplines, such as not killing livestock and not smoking. However, these norms conflicted with customs and rituals of some Taiwanese indigenous tribes. The relocated indigenous people were usually persuaded by Tzu Chi volunteers to not exercise their traditional culture, or they needed to adjust their habits to some extent to comply with the regulations of the Da’ai Community.⁴⁷

Another cultural contradiction happened between the residents of the Da’ai Community with a variety of backgrounds: different tribes of Taiwanese indigenous peoples, Minnan people, and Hakka people. While the indigenous people constituted the majority of Da’ai Community residents, the Minnan people and Hakka people also insisted on their own ideas of how to manage and regulate the neighborhood. Generally, the indigenous people tended to solve problems through their traditional ways, regarding family as a unit of expression and deciding issues through consensus of tribal councils. In contrast, believing the individualism of Western democracy institutions and the laws regulating neighborhood affairs, the Minnan people preferred establishing a formal management committee according to the Condominium Administration Act and deciding community issues by voting.⁴⁸ These gaps made it difficult for the residents to reach consensus on the procedures of how to solve problems of the Da’ai Community, not to mention substantial solutions for the problems.

2. Reconstruction

Although a large number of the typhoon victims living in the Special Zones and the Safety Doubtful Zones moved to the permanent resettlement houses, still 39% of the typhoon

⁴⁶ Anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 28th–31st, 2017).

⁴⁷ INDEPENDENT NEWS NET OF MORAKOT, *supra* note 10, at 200; anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 28th, 2017).

⁴⁸ INDEPENDENT NEWS NET OF MORAKOT, *supra* note 10, at 206-214.

victims insisted on staying at their homes and tried to rebuild their houses in the original sites.⁴⁹ Without much resources and assistance from the government, the Taiwanese indigenous people who stayed at their homeland tried to recover economics by themselves through various ways: small-scale agriculture, especially organic farming and vegetation; small-scale business of unique handcrafts made by their traditional skills; and ecotourism of introducing their culture and natural scenery to visitors.

For example, although the majority of members of Nangisalu village in the Namasia District were relocated to the Da'ai Community after the disaster of Typhoon Morakot, few households in the village repaired or rebuilt their homes at the same place in the Namasia District. Due to the disaster impacts, residents in the Namasia District were evacuated from the villages and sheltered in temples, churches, and military camps for about six months. After the temporary shelter, most Nangisalu villagers left their damaged houses and relocated to the permanent resettlement houses. There were about sixteen families who refused relocation and decided to reconstruct their communities in the original sites. Without much government support, the small number of people had to spend about two years cleaning debris and recovering local facilities. Also, because the human resources were too scarce, they cooked together and ate only two meals a day to use manpower in a most efficient way.⁵⁰

On the one hand, the life for the indigenous people staying at the Nangisalu village was very tough. But, on the other hand, these indigenous people had close connection and shared personal experience of the disaster, comforting and supporting one another. An interviewee, one of the few people who stayed in the Nangisalu village, emphasized the intimate relationship and support between indigenous individuals and their community.⁵¹

In addition, through the experience of cooperation, they have worked together to develop some small-scale business in restaurants and handicraft shops. For example, with the help from NGOs like "Taiwan Funds for Children and Families" and other private companies, the Nangisalu village members constructed the "Dreams Come True Hall" to host visitors, exhibit traditional crafts, and sell local specialties. They also established workshops, such as Maya Workshop and Rainbow Work Station, to provide training of traditional handcraft skills, so the

⁴⁹ TYPHOON MORAKOT POST-DISASTER RECONSTRUCTION COUNCIL, EXECUTIVE YUAN, *supra* note 1, at 210.

⁵⁰ YA-HSIANG WANG ET AL., *supra* note 34, at 120-123.

⁵¹ Anonymous resident of the Namasia District, interviewed by the author, in Kaohsiung, Taiwan (Aug. 29th, 2017).

trained indigenous women could make and sell their handcrafts to earn a living.⁵² After the disaster, the Nangisalu villagers have tried to adjust their life style and ways of subsistence to cope with the different conditions changed by the Typhoon Morakot impacts.

3. Return

In addition to the adaptive strategies of relocation and reconstruction, some Taiwanese indigenous people applied a third way to adapt to the different environment after Typhoon Morakot: return to their ancestral lands where they had lived before they were relocated by the government several decades ago. Along the history of Taiwan, many indigenous tribes were forcibly relocated for the purpose of government control, cultural assimilation, and economic development. For example, in the Japanese-rule period (1895–1945), the Japanese colonial government relocated many indigenous communities from their homelands remote in mountains to more accessible places near police stations to pacify and monitor the indigenous people.⁵³

After the Republic of China government took over Taiwan, in the 1970s, three indigenous communities in the Pingtung County—Wutai Township, Tjvatjavang village of Sandimen Township, and Kuskus village of Mudan Township—were relocated by the government to more accessible sites, so the government could strengthen its control and develop the life of the indigenous people. However, the government recklessly adopted the relocation policy and choose the resettlement sites without considering the specific social and environmental contexts of the indigenous community and opinions of the tribal people. As a result, the relocation project seriously harmed the culture and subsistence of the tribal members.⁵⁴ The relocated Kuchapogan village in Wutai Township was struck by Typhoon Wutip in 2007, and completely obliterated by Typhoon Morakot impacts in 2009.⁵⁵

Maya village in the Namasia District is another example where the Taiwanese indigenous peoples were forcibly relocated by authorities for the purpose of strengthening control and

⁵² YA-HSIANG WANG ET AL., *supra* note 34, at 124-127.

⁵³ See Taiwan Sōtokufu Ribanka (台灣總督府警務局理蕃課), translated by Institute of Ethnology, Academic Sinica (中央研究院民族學研究所), GAOSHAZU DIAOCHASHU: FANSHE GAIKUANG (高砂族調查書：番社概況) [An Investigation of the Aborigines in Taiwan: The Overview of Indigenous] 129-131, 134, 143-144, 151-153, 161, 172-173.

⁵⁴ Taiban Sasala & Jie-Ming Chen (陳傑明), *The Relocation Project of Kuchapogan: A Social-anthropological View* (好茶遷村計畫——一個社會人類學的初步考察), 2(2) TAIWAN JOURNAL OF INDIGENOUS STUDIES (台灣原住民族研究季刊) 115 (2009).

⁵⁵ INDEPENDENT NEWS NET OF MORAKOT, *supra* note 10, at 356-357.

economic development. In the long past, the Maya village was situated at the Min-quan Plateau, an area of upper land of riverbank of Qishan River. In the late 1970s, the government relocated Maya village from the plateau to its current site near roads and convenient for traffic.⁵⁶ However, when Typhoon Morakot struck, the village was flooded because it was too close to the watercourse of the Qishan River.

The disaster of Typhoon Morakot exposed the wrong decision of relocation made by past government; the government ignored the reason why the indigenous people had chosen the Min-quan Plateau for their village. The ancestors of the indigenous people lived on the upper land of the plateau because, based on their long-time experience and observation, the Min-quan Plateau was a safe place to live. The traditional wisdom passed from their ancestors taught the Maya tribal people how to choose the safe place for settlement.

After the disaster of Typhoon Morakot, residents of the Maya village wished to return their previous residence on the Min-quan Plateau before they had been relocated by the government. The tribal people first spent large efforts asking the government to loosen land use regulations on the Min-quan Plateau to pass environment assessment. The government officials and technicians did recognize that, compared to the lower land close to the Qishan River, the upper land of Min-quan Plateau was safer. Without much government assistance, Maya tribal people sought and received financial support from NGOs such as Red Cross and World Vision, as well as private companies like the Delta Electronics Foundation. After three years of efforts and struggles, the Maya village finally built new schools and community center on the Min-quan Plateau, and they continued to construct more houses for shelter.⁵⁷ By this way, the tribal members have gradually moved back to their homeland where they had lived for generations.

IV. Discussion and Conclusion

In August 2009, Typhoon Morakot caused an unexpected disaster of serious floods and mudslide in Taiwan. Facing the strong emergency and recovery needs, the Taiwanese government quickly passed the Special Act to adopt land zoning and relocation policy for post-disaster reconstruction. While the government claimed that land use restriction was for the safety

⁵⁶ YA-HSIANG WANG ET AL., *supra* note 34, at 114.

⁵⁷ YUNG-LUNG CH'EN & YEN-LIANG CH'IU, *supra* note 16, at 112-119.

of people, it did not fully apply scientific methods to investigate land conditions for zoning and regulation. Western science and technology were used to cover policy considerations like reducing administrative resource and effort. Moreover, the land zoning and relocation procedure lacked local participation. The indigenous people also criticized that the government distributed resources more to the relocation projects and less to other alternative plans.

The Taiwanese indigenous peoples affected by Typhoon Morakot have implemented multiple strategies to adapt to the new environment changed by the typhoon impacts: relocation, reconstruction, and return. For safety concerns, many indigenous people accepted the help from the government and the NGOs to move to the resettlement houses, but they have faced economic difficulties and cultural challenges associated with displacement. Other indigenous people rebuilt their houses in the original sites or returned to their ancestral land. Although these two strategies might be slow and less attractive than the option of receiving a free resettlement house, the practices kept and applied the traditional knowledge of the indigenous peoples.

After the Typhoon Morakot impacts, the Taiwanese government and the indigenous people have taken different ways to cope with the new condition. The greatest problem of the government reconstruction policy was it did not truly apply scientific technology and adequately consult the typhoon victims before making the decision of land zoning and relocation. As a result, the single official reconstruction policy failed to solve the needs and concerns of the indigenous people affected by the typhoon impacts.

In contrast, the indigenous people have adopted multiple ways to adapt to the changed environment, and each adaptive method had its pros and cons of disaster recovery. The case study of the Nangisalu District does not intend to suggest one best adaptive strategy for all cases of natural disaster adaptation, but the experience could be a lesson and precaution for improving disaster legal management before the next natural disaster strikes. Moreover, the legal framework shall have space and flexibility for each indigenous tribe to apply and adjust its adaptive strategy according to its environmental, social, historical, and cultural contexts. As the instances of Nangisalu village and Maya village show, the Taiwanese indigenous peoples were more likely to survive and recover from disaster impacts based on their unique culture and traditional wisdom.