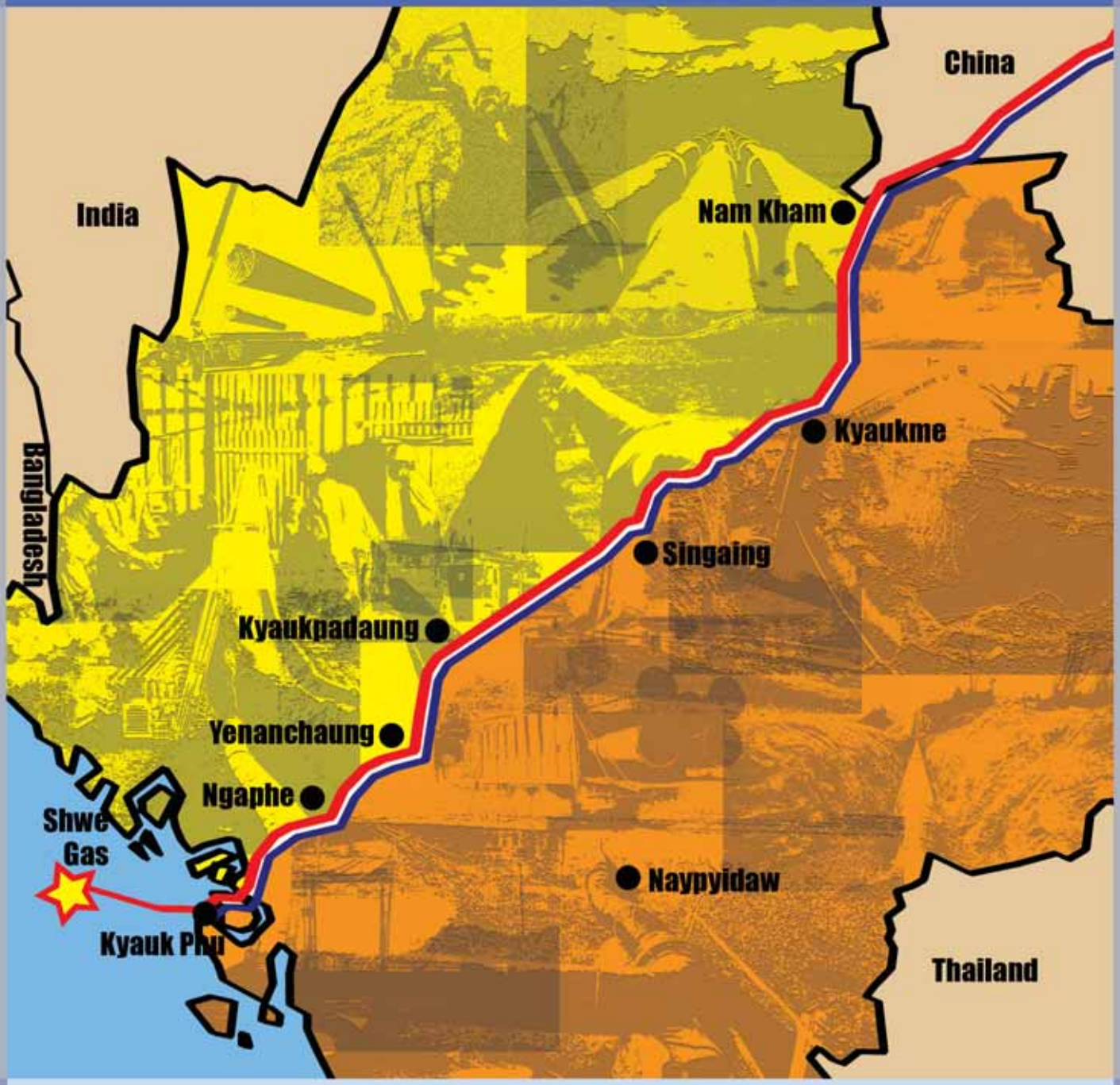
In Search Of Social Justice Along The Myanmar-China Oil and Gas Pipeline



MCPWC
Myanmar China Pipeline Watch Committee
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Myanmar-China Oil and Natural Gas Pipeline Project:

Assessing Transparency and Accountability with Regard to Social Impacts of the Affected Local Population

(ကန့်သတ်ထုတ်ဝေသည်)

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List of Abbreviations

CCDC	CNPC Chuanqing Drilling Engineering Company Limited
CF	Community Forest
CNPC	China National Petroleum Corporation
CPP	China Petroleum Pipeline Company Limited
CSO	Civil Society Organization
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
IEM	International Environmental Management Co. Ltd
MCPWC	Myanmar-China Pipeline Watch Committee
MOE	Ministry of Energy
MOECF	Ministry of Environmental Conservation and Forestry
MOGE	Myanmar Oil and Gas Enterprise
OGT	Onshore Gas Terminal
ROW	Right of Way
SEAP	South-East Asia Pipeline Company Limited
SEAGP	South-East Asia Gas Pipeline Company Limited
SEAOP	South-East Asia Crude Oil Pipeline Company Limited
SIA	Social Impact Assessment
TECAFD	Township Environmental Conservation and Forestry Department
TGAD	Township General Administrative Department
TLRD	Township Land Record Department

Foreword

When the Myanmar-China Oil and Gas Pipeline Project (Hereafter "the Project") started ground construction in 2011, it coincided with the beginnings of political and economic reforms in Myanmar. Two years later, in mid-2013, China National Petroleum Corporation (CNPC), the operator of the Project, completed the pipeline construction – as the people of Myanmar excitedly witnessed the country's ongoing reform process. During this critical time in Myanmar, the Project constructed nearly 800 kilometres of oil and gas dual pipelines, which run from the west to the north-east of Myanmar before entering the territory of China. Although the Project's progress was monitored as regards to political and human rights issues in the pre-construction and construction stages – and indeed, mainly criticized – very little research has been done on the post-construction social and environmental impact. Recognising this knowledge gap, the Myanmar-China Pipeline Watch Committee (MCPWC), the only civil society organization in Myanmar dedicated to monitoring the Project, launched a research project to understand the post-construction social impact on the affected population living along the pipeline. As a result of this research, it has published the comprehensive social research document you are now reading, entitled: *"Myanmar-China Oil and Natural Gas Pipeline Construction Project: Assessing Transparency and Accountability with regards to the Social Impact of the Affected Local Population."* This report describes in detail how a large-scale foreign direct investment project in the country's oil and gas sector generated environmental destruction and had a major social impact on the life and livelihood of Myanmar's farmers.

This research study is organized in seven chapters, of which Chapter 6 is the most important. It analyses and describes in detail the field research findings in ten sub-sections. The key focus of the research was to examine the transparency and accountability of the Project in every step of the pipeline construction. Emphasizing this theme at every step of the research process, MCPWC worked hard to deliver evidence-based social research on what actually happened on the ground. Because of the weakness of the existing legal framework in Myanmar, and the government's policy of dependence on a natural resource economy, Myanmar's farmers lack the legal protection against the loss of their farmland. Although MCPWC welcomes foreign direct investment for the economic development of the country, the organization believes that it is extremely important to monitor whether these investments are undermining the socio-economic life of the farmers who make up more than 70 per cent of the population in Myanmar. This research strongly recommends that the Project should pay special attention to initiating a livelihood development program for the farmers who are directly affected, particularly those who had small plots of farmlands and who suffered greatly from the impact of the Project.

With the reform of the country, the role of civil society organizations (CSOs) has been growing in Myanmar and, with the improving capacity of social and environmental research in this area, they are beginning to question the transparency and accountability of extractive industries in mining, oil and gas. Aware of the importance of social research as a tool to monitor whether the Project complied with international best practice, MCPWC conducted this research study with the

strong support of other organizations inside and outside the country. Throughout the field research work, the research team demonstrated their commitment to seeking social justice along the pipeline, as well as to meeting international standards, and has finally handed this research over to the citizens of Myanmar now.

MCPWC also hoped the democratic elections held on 8th November this year would elect a new parliament and government which would exercise better transparency and accountability in the country's economic development policies and practices in reality (and this hope lives on with the election victory for Daw Aung San Suu Kyi's National League for Democracy). Likewise, it is hoped that the new government will pay extra attention to reviewing the existing natural resource extraction business sector, including the Myanmar-China Oil and Gas Pipeline Project, for the best interests of the people of Myanmar. In this context, it would be worth doing this research if it contributed to the transparency and accountability of the extractive industry sector.

MCPWC would like to humbly express its sincere gratitude to the organizations and individuals who strongly supported the research process throughout. First of all, we would like to express our special thanks to the 968 affected farmers from 100 villages in six townships. Without their dedication to participating in the in-depth interviews for the research, it would have been impossible to bring it to the public.

MCPWC would also like to express our sincere appreciation towards Paung Ku, a leading CSO in Myanmar and the US-based Natural Resource Governance Institute (NRGI). Without their consistent support, it would have been impossible to accomplish this research. Also, the research team's fieldwork in six townships would not have generated good results without the thorough arrangements and support of MCPWC's local networks.

This research could also not have been done smoothly if it had not had the consistent support of MCPWC's Steering Committee and the local team members, who mapped out targeted villages, estimated the numbers of affected farmers, arranged detailed travel plans, and managed every field trip within the agreed time frame. Their commitment was extraordinary and much appreciated.

Last, but not least, MCPWC would like to express its gratitude to the research consultant and researcher who led this research project from the design to the final publication process.

Myanmar-China Pipeline Watch Committee (MCPWC)
January 8, 2016

Executive Summary

From its inception, it should have been clear to the architects of the Myanmar China Oil and Gas Pipeline Project (hereafter "the Project") that their plans would have massive impacts on communities along the pipeline route. The Project, which is operated by China National Petroleum Corporation's subsidiary namely Southeast Asia Pipeline Co. Ltd. (hereafter "CNPC-SEAP"), commenced construction at the time that Myanmar was launching political and economic reforms. President U Thein Sein's government had an opportunity to show that the reforms were reaching local communities in line with the "People-centered Development," that the President proudly espoused. In practice, however, the government – still controlled by former military generals – has relied on its old methods throughout the project's implementation. These have included abusing its power to pressure the affected population by saying that it was a "State-sponsored Project"; providing little information about the Project to the public; making the life of the affected farmers worse by working through corrupted local administrative structures; and protecting CNPC-SEAP in order to allow it implement the Project in line with its plan and suppressing those citizens who rejected the Project because of the damage it caused to their farmlands.

Since it is a joint venture project between the Government of Myanmar and CNPC-SEAP, the Chinese company has had the perception that they did not need to respect the basic rights of the affected people and have behaved as if they have the right to implement the Project at any cost. The reason that CNPC-SEAP has behaved in this way is partly because the host government allowed them to do so. The example CNPC-SEAP has set could encourage other foreign investors to take the attitude that if they wish to invest in Myanmar, they not have to take account of the rights of local people.

Foreign investments that do not respect the basic rights and wellbeing of ordinary citizens have to be regarded as "Irresponsible Investment" and the government of Myanmar should not welcome them. The new government of Myanmar that will be formed following the general election of November 8 should adopt a new policy framework on the natural resource extractive industries that promotes the development of the regions where the resources exist. Likewise, the new government should review the performance of the existing foreign investments in this sector and bring about a change in the attitude of the companies. They should take action against those companies which have caused harm to the population by issuing warnings, taking legal action or terminating the companies' business agreements.

[1] CNPC-SEAP owns the majority investment share of the Project, which is run under the new name of twin companies, namely Southeast Asia Oil Pipeline Co. Ltd. and Southeast Asia Gas Pipeline Co. Ltd. (SEAOP/GP). The term CNPC-SEAP is used to refer to "the Company" and "the Operator" in the legal documents while SEAOP/GP is the name the company uses in its public relations. Therefore, this report refers principally to CNPC-SEAP as the operator responsible for the environmental and social impacts of the Project. But it sometimes refers to SEAOP/GP because the Project uses the name in its public statements and in its dealings with local communities.

There is no doubt that the Project has had tremendous environmental and social impacts on the local communities along the pipeline route, which crosses 21 townships in Myanmar. By conducting in-depth research in six townships, Myanmar-China Pipeline Watch Committee (MCPWC) discovered many environmental and social impacts that the farmers have endured since the commencement of the Project. It would take a very long report to describe all the details recorded through the more than one thousand hours of interviews with 968 affected farmers. Thus, this report selectively describes the case studies where the evidence is strongest. The following section provides a summary of the research findings and recommendations.

Summary of Research Findings

1. **Lack of Transparency in Dealings with the Affected Population:** The farmers who were directly affected by the Project did not have access to even basic information on the Myanmar-China Oil and Gas Pipeline Project, nor did they even know the full names of the companies that operated the Project. As a result, the farmers could not anticipate the level of impacts that they actually encountered, and could not prepare in advance to cope with the challenges that affected their life and livelihoods. They did not know what the responsibilities of the Project were, nor did they have any access to justice to protect their basic rights. The worst aspect of this is the widespread deception in the land acquisition process described below. (See Section 6.1)

2. **Lack of Transparency in Land Measurement Process for the Right of Way (ROW):** Regarding the surveying and measurement of land taken by the project for its ROW, the Township Land Record Departments (TLRDs) did not follow simple and transparent steps such as: (1) measuring farmlands in the presence of the farmer; (2) recording the results in a specific form with the agreement of the farmer; (3) letting the farmer sign an agreement; and (4) and giving a copy of the agreement to the farmer. Until now, many farmers do not know the exact results of the survey of their farmlands made and used by the Project. (See Section 6.2)

3. **Dishonest Land Acquisition Process:** The Project's land acquisition working group did not explain to the farmers that the farmlands would be "permanently confiscated". This may be because they were worried that the farmers would oppose the Project if they knew this at the outset. The major points that the Project's land acquisition group conveyed to the farmers were: (1) the pipeline construction could take three years; (2) while constructing the pipelines, the farmers could not grow crops on their farmlands; (3) in recognition of that, compensation would be given to the farmers; (4) after the completion of pipeline construction, the Project would restore the farmlands for revegetation; (5) the farmers would not lose their farmlands and could restart agriculture activities as usual. In reality, the Project confiscated the farmlands permanently. (See Section 6-3-1)

4. **Transferring ROW Land Ownership Permanently to CNPC-SEAP:** The existing laws in Myanmar do not allow a "foreign-owned" company to possess an inch of land within the sovereign territory of Myanmar or to receive ownership rights transferred directly from the citizens of the country. CNPC-SEAP deliberately violated the existing laws and directly received farmlands permanently transferred to them by the farmers in townships such as Kyauk Phyu, Singaing and

Kyaukme, using the phrase "on behalf of [Myanmar Oil and Gas Enterprise] MOGE" in the written agreements that facilitated these transactions. In reality, MOGE is simply a state-owned enterprise and did not have the legal authority to permanently transfer any part of the country's territory to a foreign-owned company. (See Section 6-3-2)

5. **Nine Weaknesses in the Land and Crop Compensation Agreements:** There are nine principal weak points in these agreements: (1) although it is a national-level bilateral economic cooperation project, the Project did not use a standard format for these agreements; (2) the use of language in the agreements is also not consistent; (3) the texts in two types of agreements are different; (4) Myanmar government's tax stamps were not used except in Kyaukme; (5) the official trademark of MOGE was not used except in Chauk; (6) despite this being an international cooperation agreement, the official trademark of CNPC-SEAP was not used in the agreements in all six townships; (7) in any immovable property transfer agreements, it is normal for both parties to sign every page of the agreements, but these agreements did not follow this norm, giving corrupt officials the chance to change the document's key provisions, including the figures of the compensation amounts; (8) although the witnesses to the agreement should represent both parties, there were no witnesses from the side of the farmers and all the persons signing as witnesses in the agreement were government officials; and (9) although there was a section in the witness list of the agreements to be signed by a designated 'respected person', MCPWC's research found out that this 'respected person' was invariably the Village Head, the lowest authority of the government's administrative structure, rather than a genuinely independent party. (See Section 6-3-2)

6. **Lack of Transparency in Drafting Land and Crop Compensation Agreements and Signing without Villagers having a Chance to Read them:** (1) the Project one-sidedly drafted the land and crop compensation agreement and did not let the villagers study, discuss or consult about it; (2) at the time of signing the agreement, the authorities turned over the first pages of the agreement which contained the agreement's most important information and presented the signature page on which the farmers had to sign under the rubric of "Transferrer"; (3) the Project persuaded the farmers to sign the agreement without them fully understanding various terms and conditions written in it; (4) in some townships not one affected person received a copy of the agreement; (5) because they did not have a copy of the agreement and other related documents at hand, the farmers did not know how to assess the land types and prices, the crop types and prices, and the calculation methods used; (6) therefore, the farmers still do not know whether the compensation amounts written in the agreement were the same as the ones written on the compensation packages; and (7) the farmers did not know that they had the right to ask to read the agreement before signing it. The majority also did not dare to insist on their right to read it, and some farmers who did ask the officials that they be allowed to read the texts did not read them because the officials argued that there was not enough time. Therefore, there are lots of farmers who did not even know the title of the agreement that they signed. (See Section 6-3-3)

7. **The Affected Farmers' Discontent at the Project:** (1) Only when they received land and crop compensation did they realize the fact that their farmlands were permanently confiscated and they had been cheated; (2) the farmers strongly object to the term "Chinese-owned lands" used

by some local authorities to refer to the farmlands confiscated for the ROW; (3) the compensation payments might last for a while, but as farmlands could sustain the family livelihood for generations, many farmers say: "What we need is not money, but our farmlands;" (4) in rural farming families in Myanmar, it is customary for parents to give a plot of farmland as a wedding present to their son or daughter in order for the new couple to establish their own home and family, but affected farmers, particularly those that owned only small farmland areas, noted with regret that they no longer had land to give their son or daughter as their inheritance; (5) the farmers who had small areas of farmland were particularly dissatisfied with the Project as it forced them to become landless farmers; (6) the pipeline route divided some farmers' farmlands into two small pieces and the farmlands within the ROW area were seriously damaged; (7) the farmers became depressed and did not want to cultivate the remaining small pieces of lands that could not even yield enough rice for the family; (8) as the farmland was split into pieces as a result of the pipeline's crossing, the value of the land was reduced and nobody wanted to buy these lands near the pipeline; and (9) the Project neglected to acknowledge or address these indirect impacts on the farmers in any way. Due to the above factors, the research found that farmers lost much more than they gained through the compensation that they received. (See Section 6-4)

8. Corruption and Extortion from the Farmers' Compensation Committed by Local Authorities: The research discovered 102 corruption and extortion cases committed by the local authorities and the total amount of money involved in these cases was 92,798,000 kyats or USD $120,072.50. This is likely to be the tip of the iceberg and many farmers did not dare to share their experiences due to the fear of threats and persecution. The corruption cases took the following forms: (1) the corrupt persons extorted compensation money in the amount of tens to hundreds of thousands of kyat by claiming to have calculated compensation payments in favor of the farmers or to have added an additional decimal when measuring the land and, on this basis, insisting that they were owed a share of the money. This scenario was particularly prevalent in cases where the lands did not have a proper land ownership document. The local authorities, especially those from the land record departments exploited this weakness for their personal gain. Sometimes, they negotiated with the concerned farmer, but in many cases the farmers did not get the compensation at all because the authorities took the money by pretending to award it to "a ghost name" that never existed in the village and then pocketing it themselves; (2) When animal pasture and village common lands were crossed by the pipeline, but the lands were not owned by an individual farmer according to the existing land laws of the country, corrupt officials changed the status of the land to 'farmland', registered the land as the property of a certain individual and then split the compensation money with this person; (3) they extorted a percentage from every farmer's compensation money (e.g. two per cent in Kyaukpadaung) on the pretext that this was to pay for the costs of food and beverages for the Project's compensation working group; (4) the farmers whose compensation took the form of a large package of small currency notes could only count their money once they returned home and at that point discovered that the amount was less than the figure written on the package; (5) they extorted money using pretexts such as the need to take a contribution for school fund, village administration office fund, village development fund, etc.; and (6) they extorted money on the basis that this comprised a signature fee, recompense for the fatiguing nature of the officials' work, and costs for their travel, food, fuel, etc. (See Section 6-4-1)

9. Constructing the Pipeline after Destroying Farmlands: The creation of pipeline infrastructure was such a vast undertaking that the Project first had to destroy the established livelihoods of the local communities before beginning the actual construction. In a country that relies on an agriculture-based economy, the Project constructed oil and gas pipelines via the massive destruction of the agriculture lands that are the lifeline and livelihoods of the farmers. Although the government of Myanmar and CNPC-SEAP often talked up the benefits of the Project, they hid the environmental damage and the widespread impacts on the livelihoods of the farmers that the Project engendered. They frequently justified this damage by referring to the compensation given to the farmers. (See Section 6.5)

10. Job Opportunities Created by the Project: The Project's information booklet mentioned that the Project employed 489,825 Myanmar workers. The statistics look impressive and imply that the Project created many new job opportunities for the citizens of Myanmar. However, when studying the situation on the ground, it transpires that Myanmar citizens were mostly employed in undertaking manual labor such as digging and carrying soil, sand, stones, and cement, working as night watchmen, cleaners, and cooks, etc. in the construction sites. They were hired as temporary daily workers only for the construction period and were laid off after the pipeline construction. The jobs opportunities that have lasted beyond the construction phase of the Project have been largely confined to work as pipeline watch guards and as guards for valve stations. Professional jobs such as driving and maintaining machines, and pipeline engineering have been taken by Chinese nationals. (See Section 6.5)

11. Negligent Excavation Techniques Damaging Farmland: The CNPC-SEAP claimed to be applying a method of pipeline construction termed "excavation and backfilling in layers" but the actual practice on the ground was very different. When the research team interviewed the farmers, they said that the Project used backhoe machines to dig the soil without separating the top soil and sub soil. This caused major disturbance to the soil; resulting in significant reductions in crop yield that still prevail even three years after the completion of pipeline construction. No scientific study on the disturbance of soil properties within ROW has been undertaken since the pipeline construction was completed. (See Section 6.6)

12. Negligence resulting in Damage outside the ROW: There are three types of damage caused to the farmlands outside of ROW during and after the pipeline construction in the mountainous part of Ngaphe Township in particular. The first type of damage concerns the fact that when making the pipeline track on the mountain slope, the Project simply pushed the earth down to the orchards on the lower part of the slope. The second type of damage outside ROW is that when constructing the pipelines on the mountain slopes or hilly grounds, the soil formation was substantially disturbed and the ground on top of the pipeline route was piled up by the project's labourers and its machines. With Myanmar experiencing heavy rains during the monsoon season, the high ground within the ROW has been substantially eroded, and mud and stones have been displaced to the farmlands on the lower ground. The third type of damage outside ROW has been caused by the pipeline route crossing natural streams and the irrigation water channels, affecting the farmlands that rely on these water sources. (See Section 6-7)

13. Prioritizing the Completion of Project and Using Compensation as a Means to Offset the Damage: (1) CNPC-SEAP focused only on completing the construction of the pipeline on time; (2) the Project did not calculate possible damage outside ROW that might be caused by the pipeline construction nor did it draw up or implement a mitigation plan; (3) the Project did not inform the local communities in advance about possible damage outside ROW; (4) the Project did not consult with the affected farmers regarding appropriate compensation in case of damage occurring outside ROW; (5) the Project did not use the same calculation method to give compensation for the damage within and outside ROW; (6) the Project did not take enough protective measures to guard against soil erosion along the pipeline routes. Taking all these points into account, the quality of EIA and SIA conducted by CNPC-SEAP must be called into question. (See Section 6-7)

14. Lack of a Scientific Study on the Environmental Destructions: The research found that the pipeline construction destroyed the soil quality of farmlands, forests and fresh water resources. Although the Project repaired some of the basic infrastructure that was damaged after the pipeline construction, this was not restored to its original condition. As the natural environment will take many years to recover from the damage caused and the livelihoods of the local farmers are much reliant on the environment, these interrelated impacts need to be studied systematically. If a scientific study on the damage caused in terms of soil quality, fresh water resources, and forests were carried out systematically, this would provide useful lessons for the future development projects. Evidence-based research findings could be used to educate companies, officials and local people and offer a basis for regulations on what to do and what not to do in order to conserve the natural environment. (See Section 6.8)

15. Using Money as a Means to Address Environmental Destruction, rather than Compensatory Offsets: Since the outset of the pipeline construction, the Project should have followed a mitigation plan to reduce the environmental damage caused to the minimum level. In cases where such damage was unavoidable, the Project should have taken responsibility for providing compensatory offsets for the environment that they destroyed. For example, if a forest was damaged by the Project, the company should have launched a conservation project for a forest elsewhere as a form of compensatory offset, instead of simply giving money to the forestry department. In cases where the farmlands have been damaged by the Project, the company has the responsibility not only for giving compensation for the lost crops, but also repairing the damaged farmlands using machines and equipment until they are restored to a condition in which farmers can grow their crops to the same level of productivity as before. If the Project had followed this approach, it would have generated sustainable benefits for the regions along the pipeline. However, to have undertaken such mitigation measures, the Project would have needed to deploy labour and equipment, and invest sufficient money and time. Providing cash payments offered a short cut means of evading responsibility for remedying the damaging impacts of the pipeline's construction. The company has relied on this approach throughout the course of the Project so far. (See Section 6.8)

16. Problems created by the Disposal of Construction Waste Materials: MCPWC's research found that the Project's biggest waste-related impact was the construction camps that were deserted irresponsibly. The Project mentioned in its information booklet and in the land lease

agreements that the Project had the responsibility for cleaning and clearing all of the equipment and materials related to the pipeline construction on the lands that they leased temporarily and they had to restore the ground to the state it was in before. In practice, the Project did not comply with this condition at all. In the construction camp in Kyaukme, for example, the Project irresponsibly dumped bottles that had contained highly toxic chemicals which could have extremely damaging long-term impacts on local water resources and aquatic life. After the completion of the pipeline construction, the Project left construction-related waste scattered across the farmlands adjacent to the pipeline route including stones, cement bags, pieces of metal used for welding etc. Moreover, garbage such as Styrofoam lunch boxes, empty beer bottles, drinking water bottles, plastic bags, etc. were also dumped by the construction workers on the farmlands. Following the Project's construction phase, farmers have had clear the waste and prepare the land so that they can re-cultivate it. In some cases, the construction workers had buried the waste under the farmlands and when the farmers ploughed their fields these waste materials reappeared, disrupting the cultivation process, according to the farmers. (See Section 6.9)

17. CNPC-SEAP's Concern for the Safety of the Pipeline: Regarding the security of the pipelines, CNPC-SEAP has appointed security personnel who are villagers living along the pipeline route and they are responsible for checking whether the concrete blocks marking the pipeline trench and communication poles suffer damage as a result of natural causes or sabotage by local people. In addition, the Chinese staff posted to the pipeline control stations have carried out patrols on a weekly or monthly basis along the pipeline using motor vehicles, according to the pipeline security personnel interviewed by the research team. As shown in Figure 29, CNPC-SEAP also posted concrete warning signs "Pipeline Facilities Protected under Law; Severe Punishment on Pipeline Destruction" along the pipeline route. The warning signs offer evidence that the Project was well aware of the opposition of local communities to the pipeline construction and was worried that they would destroy the pipeline facilities. (See Section 6.10)

18. Local People's Concerns about the Safety of the Pipeline: The pipeline could be susceptible to damage caused by natural disasters as well as by human interventions. CNPC-SEAP could demonstrate its accountability to local people by providing them with information about emergency response plans in the event of accidents affecting the pipeline. However, instead of providing such useful information, the government and the company have focused on issuing notices about restrictions on local communities which have an intimidating effect. (See Section 6.10)

19. No Direct Assistance Program to the Livelihoods of the Affected Farmers: In order to show that the local population also benefits from the Project, CNPC-SEAP made financial donations to local development activities. According to a company brochure about the Project, CNPC-SEAP undertook field observation in 100 villages along the pipeline and spent USD $20 million on constructing 45 schools, two orphanage schools, 21 village health clinics, a water tank and pipeline network for the villages in Maday Island, and electrification in Kyauk Phyu Township. However, there were few assistance programs that directly benefited the affected farmers who lost their farmlands and livelihoods. CNPC-SEAP should undertake the following measures: (1) repair the farmlands damaged by the Project; (2) provide technical assistance to the affected farmers until they

can regain the same yield from these farmlands as they experienced before the advent of the Project; and (3) revoke the permanent confiscation of farmlands within the ROW area and return them to the farmers. (See Section 6.10)

Recommendations

Recommendations to the Government of Myanmar

1. The people of Myanmar have been deprived of opportunities for socio-economic development over decades of military dictatorship. If the Thein Sein government had been genuine in its promises to conduct political and economic reforms to remedy this situation, it should have paid attention to ensuring positive changes in the socio-economic situation of the people living in rural areas where foreign investment projects were being implemented. This would have been in line with the "People-centered development" policy that President Thein Sein often spoke of in his public speeches. According to this policy, the local population who are directly affected by foreign investment projects should be those project's first beneficiaries and they should also be treated as the project's primary stakeholders. Any foreign investments that are jointly implemented with the government should provide project information to the local people in a transparent manner and should outline a specific program for sharing some of the project's benefits for the wellbeing of the affected population. Likewise, there should be a problem-solving mechanism involving the government, the company and the local people to discuss and resolve any challenges and difficulties that arise during the implementation of the project. Myanmar-China Oil and Gas Pipeline Project should have adopted these approaches. However, in practice the economic reforms under the leadership of President U Thein Sein one-sidedly focused on benefiting foreign investors. Meanwhile the lives of poor local farmers have become more difficult. **This report recommends that Myanmar's government should abandon economic policies that neglect the rights and wellbeing of the people.**

2. CNPC-SEAP claim to have used high quality materials in the pipeline construction as well as advanced technologies such as supervisory control and data acquisition (SCADA) systems to monitor the functions of the pipeline 24 hours a day. They claim that the Project would be able to detect even a small irregularity in the functioning of the pipeline and go and fix it immediately. This implies that that the safety of the pipeline should not be a concern because the materials and the systems used by the Project met international standards, and there is not risk of any accidental leaks or explosions along the Myanmar-China Pipeline. But if that is really the case, why did CNPC-SEAP permanently confiscate a long strip of land 800 kilometers in length and 30 meters in width which resembles a demarcation line that cleaves Myanmar in two? In trans-boundary oil and gas pipeline projects in other countries, pipelines also cross forests, mountains, and rivers. But the companies concerned have generally used helicopters when they needed to access and maintain the pipeline, and, in order to reduce impacts on the environment and livelihoods, did not confiscate on a permanent basis the farmlands on which the local population depended. **Therefore, this report recommends that the Myanmar government gives back to the farmers the land that the Project has permanently confiscated from them.**

3. Getting the land survey and measurement process right ahead of the pipeline construction was crucial to the Project's ability to ensure that the affected farmers did not suffer any unfair losses. The Land Record Department (LRD) was the main agency of the Myanmar government responsible for carrying out the task. However, the land record data held by the Township Land Record Department offices (TLRD) are different from the actual land ownership situation on the ground. Therefore, when the TLRD conducted its land measurement survey, it should have done so only in the presence of the owners of the farmlands and the TLRDs should have recorded the results in a specific survey form and given a copy of the document to the farmland owner immediately. Although it would have been easy to carry out this process in a transparent manner, the TLRDs did not do it. This produced conditions in which corrupt government officials manipulated the process for their personal profit. **This malpractice should be investigated and perpetrators of corrupt acts should be prosecuted with the full force of the law.**

4. According to Myanmar's existing laws relating to land and property, there is a clear restriction that prevents a citizen or a citizen-owned entity from permanently transferring farmlands directly to a foreigner or a foreign-owned company. If the Myanmar government needs land to implement a project jointly with foreign investors, they must first acquire the land by providing fair compensation and should lease to the company the land for a set period of time in accordance with the foreign investment law. However, in the case of Myanmar-China Pipeline Project, the government did not follow legal procedures and allowed the China-owned CNPC-SEAP to directly receive, in the form of a permanent transfer, farmlands from the farmers under the rubric "on behalf of MOGE" – the form of words used in the land and crop compensation agreements gathered as evidence by MCPWC. Thus, CNPC-SEAP acquired the right to own the land area used for the pipeline route for at least 50 years, effectively dividing the country into two parts. **This is a serious concern from a national security point of view, and this report recommends that the ultimate ownership of the land within the Right of Way area should be fully retained by the Government of Myanmar.**

5. The Project said that they transparently paid land and crop compensation to affected people and pointed to the fact that they conducted this process via a series of public ceremonies. However, MCPWC's research has uncovered numerous cases of extortion, corruption, and irregularities behind the scenes. True transparency is not about holding a choreographed public ceremony; it is about engaging openly with affected people and treating them with honesty and respect throughout the project's lifetime. Because of the dishonest behaviour of officials in the compensation process, there have been many disputes conerning land and crop compensation in all six townships surveyed. MCPWC's research also found that this derived from entrenched patterns of poor governance in the local administrative structures. **This report recommends that a special investigation committee should be formed to investigate the extortion, corruption and irregularities acoss the entire compensation process.**

6. Along the pipeline route, the environmental damage caused impacted thousands of acres of farmlands, reserved forests, community forests, animal pastures and water resources. The Project gave compensation to farmers for damage to their farmlands and to the authorities in the township forestry departments or village heads for the damage to reserved and community forests. However,

the compensation for the community forests, animal pasture and fallow lands was appropriated by the village heads and MCPWC's research found evidence of widespread corruption associated with these transactions. **Given that these compensation paymentsare public funds, the research recommends that those who used them for their personal profit should be investigated and punished according to the law.**

7. The Myanmar government should have set up an independent expert group to examine the whole process of the pipeline construction and the question of whether the company complied with internationally accepted environmental standards. Such a group could have helped minimize the impacts on the environmental resources such as land, water and forests as well as the livelihoods of the farmers. Instead of constructing the project with due attention to conservation of the natural environment, the Ministry of Energy, the responsible ministry of the host country, appointed "special officers" who were mostly military personnel and subjected the farmers to intimidation and threats if they opposed the project. Also, farmers suffered from the oppressive behavior of the township authorities who abused their power to intimidate and coerce them during the pipeline construction process. **This report argues that a governance system that respects the will of the people and derives from democratic elections is needed to ensure that foreign investments are fully transparent and accountable.**

Recommendations to CNPC-SEAP

1. Although Myanmar-China Oil and Gas Pipeline Project is comprised of two companies – namely SEAOP and SEAGP – which were formed by the shareholder companies in China, Myanmar, South Korea and India, CNPC-SEAP is the operator of the Project, holding a majority share in both companies, and is responsible for both positive and negative impacts of the Project. CNPC-SEAP must take responsibility for the weaknesses, corruption and irregularities that occurred in the pipeline construction, as it was the company that was responsible for undertaking the necessary due diligence and imposing the requisite safeguards to prevent such problems from occurring. As an international corporation investing in the oil and gas sector, CNPC-SEAP must have studed the political, economic and administrative situations in Myanmar. CNPC-SEAP should have not taken advantage of such weaknesses as the inadequate legal mechanisms, corrupt administrative structures and the innocent mindset of the rural farmers. **This report recommends that CNPC-SEAP should now take on the role of a responsible investor that brings benefits to the people of Myanmar while reaping fair profits from the Project.**

2. At this time Myanmar is undergoing a political transition to democratic system of governance and is trying to establish an administration that respects the will of the people. **This report recommends that foreign investment companies, including CNPC-SEAP, should also change their mindset. They should abandon the idea that if only they can get a business licence**

from the central government and establish good relations with the regional authorities, they can operate with impunity and ignore the rights of local people. If CNPC-SEAP or other such investors are unwilling or unable to take on this change in approach, this research suggests that they are increasingly likely to encounter opposition from the local population who are supported by civil society organizations which have been rapidly gaining strength through the democratic transition.

3. The new government that will be formed following the elections held on November 8, 2015 will most likely seek to establish a more transparent and accountable governance system. **Therefore, this report recommends that CNPC-SEAP should get ahead of the game and disclose its EIA and SIA reports to the public to demonstrate the company's commitment to greater transparency before it is forced to do so.** This would be form of enlightened self-interest on the part of the company; generating a 'win-win' outcome that would boostCNPC-SEAP's reputation and benefit the people of Myanmar.

4. **CNPC-SEAP should conduct a post-construction EIA and SIA in order to ascertain the extent of environmental damage caused and implement a remedial plan as a priority.** Doing this would be far more effective in terms of improving the company's image than handing out donations in places that are not directly related to the Project.

5. The Project did not apply international standards when it constructed the pipeline across people's land and the research found that farmlands have been and remain severely damaged as a result. Although the Project gave compensation to the farmers covering a period of five years, the recovery of the soil following the disturbance it has suffered will take significantly longer. **Therefore, the research recommends that the Project should consider giving compensation or providing agricultural assistance to the affected farmers until their farmlands get back to their normal condition and level of productivity.**

6. In international pipeline projects, the oil and gas pipeline companies typically set up a a local development fund and establish an implementation body that undertakes social developmentprogramsthroughtripititecooperationinvolvingthegovernment,thecompanyandlocalcivil society groups. This body implements remedial measures in response to the damage caused along the pipeline and goes about it in a transparent manner. **This report recommends that CNPC-SEAP should similarly implement the remedial measures to restore damaged farmlands, forests and water resources in cooperation with local civil society organizations.**

7. Although CNPC-SEAP made donations in the townships along the pipeline routes to build new schools and clinics, the company did not implement a program that directly supports the livelihoods of the affected farmers. **This report highlights how the most affected farmers are those who owned very small parcels of farmland and stresses that these people are the ones that the Project should pay most attention to when it comes to supporting to local livelihoods.**

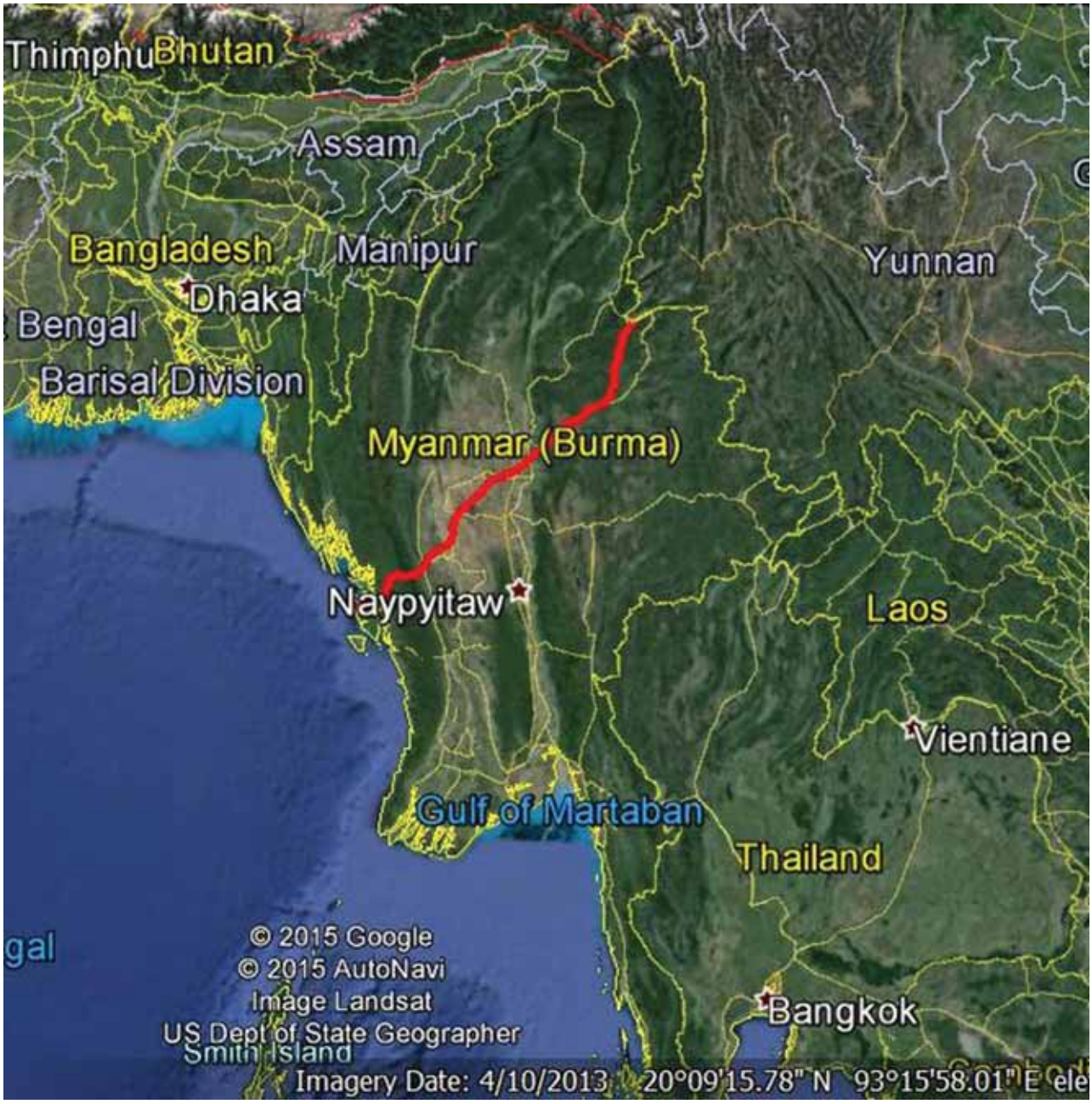
CNPC-SEAP and MOGE's Responses to the Research Findings

When conducting the field research work, the research team found that the injustices that the affected farmers underwent during the pipeline construction were much more profound and complex than anticipated. However, despite the depth of data provided by its 968 interviews, MCPWC did not write this study based on the testimony of affected farmers alone; the research team also undertook thorough field observations, collected the data along the pipeline, and analyzed the findings systematically. Also, the team intended to take account of and incorporate the official response of the Project in this report and the research team tried its best to engage with officials from CNPC-SEAP and MOGE. The team explained to them the purpose of the research and shared some key research findings with the concerned officials from both parties. The team tried several times to make contact and waited patiently for formal responses to the questions that this research raised, and to the research findings.

MCPWC tried many times to contact MOGE and the Ministry of Energy, as the shareholder of the Project on the side of Myanmar government to seek their response to the research findings. Although MOGE replied to say that they received the research questions and would answer all of them, the agency did not respond in time before this report went to print. Therefore, this research has not been able to include the official reactions of the government. Likewise, MCPWC tried to contact representatives from CNPC-SEAP to seek an official interview with them for this research, and the research team ultimately had a chance to meet a Chinese staff member and a Myanmar translator from the company's public relations department.

Although MCPWC requested to meet the company representatives at their office for a formal meeting, the Chinese staff member refused this request and insisted on meeting outside the office. He also declined to give his full name and office address and refused to provide any official contact details, including email address, to enable future communication between MCPWC and CNPC-SEAP. He also declined to answer the research questions directly. Though MCPWC tried hard to include the opinions of the government and the company in a fair manner, the latter proved reluctant to cooperate or demonstrate even a minimal degree of openness. This first-hand experience reinforced the conclusion of the research team that the Project's operations in Myanmar are fundamentally lacking in transparency and any real willingness to be accountable to the public at large.

MCPWC did not conduct this research for its own interests. As one of a broad spectrum of civil society organizations in Myanmar, MCPWC believes it has a responsibility to urge the government of Myanmar to be transparent and accountable to the people in all actions, including its facilitation of foreign investments, and to demonstrate a commitment to sharing the benefits of these investments with the people of the country. This research is an attempt to describe the extent to which the public administration system has been corrupted over a period of decades and how much the citizens were repressed under the prevailing system of government. It also demonstrates the extent to which foreign companies investing in the natural resource / extractive industries have been exploiting the country's natural resources and taking advantage of the corrupt governance system without benefiting the people of the country.



Map 1: Myanmar-China Oil and Gas pipeline route
Source: MCPWC's pipeline route study using Google Earth

Chapter 1: Introduction

The energy trade is one of the most lucrative businesses in the world. For a developing country like Myanmar, the revenues earned from the energy trade could become the backbone of the country's economic infrastructure development and a trans-boundary oil and gas pipeline project could be one of the biggest infrastructure development projects in the country. Likewise, for a fast-industrializing country like China, energy sufficiency and security is one of the central strategic economic policies designed to help the country become the top economic superpower in the world. As part of building so-called "Pauk Phaw" dependency relations with China in recent decades, Myanmar's military junta agreed to build a trans-boundary oil and gas pipeline to China — the first-ever significant strategic economic cooperation between the two countries. The two government leaders stressed that the Project would generate mutual benefits for the people of the two countries.

In the past two decades, Myanmar relied very much on China for diplomatic and economic assistance. While the international community imposed various economic sanctions on Myanmar due to the former military junta's repression and human rights violations, China gave diplomatic support. For that, China gained huge economic opportunities, without competition, in resource-rich Myanmar, which found difficult to access for financial investment from the global market due to the heavy economic sanctions. Taking this opportunity, China became the top investor in Myanmar, and the junta dearly welcomed its neighbour. One of the fastest economically developing countries in the world, China's energy necessity has been ever-increasing, and the country has invested heavily in the energy sector in Myanmar, a country which is rich in natural gas and hydropower.

Myanmar started the export of its natural gas through constructing trans-boundary gas pipelines in the late 1990s. The natural gas discovered in Yadana and Yetagon gas fields offshore from the southern Thaninthaye (formerly known as Tenesserim) coastal region was exported to Thailand through a pipeline from Kanbout in Dawei District to the border of Kanchanaburi, Thailand in 1998. It was done under military rule in Myanmar, and no social research could be done to study the environmental destruction and socio-economic impact on the local communities due to the pipeline construction. However, UNOCAL , an American oil company which was a shareholder in the project, was sued in the United States due to its negligence of the issues of forced labour and human rights violations during the pipeline construction.

Myanmar-China Oil and Gas Pipeline Project is the second trans-boundary project that the former military government initiated by signing a bilateral agreement with China. This Project involves a 793-km long gas pipeline and a 711-km long oil pipeline within the territory of Myanmar. The sheer size and scale of this pipeline means there could never have been any doubt that the Project's impact on the environment and livelihoods of the farmers living alongside it would also be huge in size and scale, compared with the 67-km long Myanmar-Thai gas pipeline.

[2] Unocal Settles Burma Lawsuit: http://www.rfa.org/english/burma/burma_unocal-20041218.html newcoys_20100621.pdf

Given the scale of an oil and gas pipeline infrastructure construction, government and companies should follow internationally accepted best practices to conduct the Right of Way (ROW) study several years before the actual pipeline construction begins. Along with the study of ROW, environmental and social impact studies, including checking the historical and cultural sites, are usually conducted in parallel to make sure the ROW will have a minimal impact on the environment and socio-economic life of the locals, particularly indigenous people. As a result of these pre-construction activities for pipeline projects, they have to deal with local communities living along the pipeline route, and it is important to disseminate detailed information about the project, so the local people know well in advance if they face any direct impact from the project. This gives them enough time to study and calculate the benefits and losses of the project on their own lives. For example, if the project would confiscate farmland, the affected local farmers and land-owners could prepare to negotiate with the company regarding a fair compensation price and to make sure the company would be responsible for restoring the farmland soil after construction. Also, the company could win the support of the local people when the actual pipeline construction began through fair negotiations with the locals, who would come to the table equipped with a full awareness of the project. However, did this Project take these steps?

Did the Project treat the local farmers with honesty and dignity? How seriously did the Project care about the wellbeing of the affected local farmers, particularly when compared with the huge profits it is likely to generate for decades? Did the Project provide full information about the pipeline in advance? Did the Project treat the local farmers in the land acquisition process in a fair and transparent manner? Did the Project take full accountability for the environmental and social impact it would have? Did the Project fulfil the aspiration of Myanmar's government to become a member of the Extractive Industries Transparency Initiative (EITI), by promoting its transparency and accountability standards in line with EITI? This is the right time to find out all the above issues. Therefore, MCPWC initiated a research project to try to answer these questions and to publish the research findings for the study of the government of Myanmar, the companies involved in the Project, and the citizens of this country.

Chapter 2: Research Goals, Objectives and Methodologies

The Project was constructed between 2011 and 2013. The pipeline started from the western part of Rakhine State, passing through Magwe and Mandalay Regions, and ended in the northern part of Shan State, crossing 21 townships on its way. According to the information booklet released by SEAOP/GP, it conducted an Environmental Impact Assessment (EIA), including a Social Impact Assessment (SIA), before the construction of the pipeline. However, the Project did not release the EIA report for public study. Therefore, the people of Myanmar have not, so far, been informed about how much of the natural environment of their country has been destroyed by the pipeline's construction – not to mention how many people's livelihoods, mainly farmlands, have also been decimated.

MCPWC formed as a local civil society organization in 2012 to address the social injustice that Myanmar's rural farmers faced during the pipeline construction. MCPWC monitored the

pipeline construction throughout and was very much aware of the disputes between the Project's implementers and the local farmers in terms of land acquisition, compensation, and impact, including the destruction of agricultural lands, environment and water resources. Although the Project has been completely constructed for nearly two years now, the affected people are still suffering its consequences. However, neither the government of Myanmar nor the universities existing along the pipeline route have initiated an independent study of the environmental and social impacts of the Project to address these consequences and inform the people of their research findings.

To bridge this knowledge gap, MCPWC launched this research project to assess to what extent the Project was transparent and accountable for the environmental and social impact that it created; to truly understand the severity of this impact on the affected farmers; and finally to inform the government and the people of the research findings. The researchers chose six out of 21 townships that the pipelines passed through in Myanmar and conducted the research for one year, starting from December 2014 through to November 2015. They set two goals and three objectives, developed research methodologies, and outlined a seven-step implementation as follows:

Research Goals

Short-term Goal: To systemically understand the social impacts of the Myanmar-China Oil and Natural Gas Pipeline Project and to produce a comprehensive research report for the study of the government of Myanmar and its citizens.

Long-term Goal: To build community-based social research skills within the MCPWC network and continue to expand social impact research studies in the oil and gas sector.

Research Objectives

Objective 1: To identify how much the affected population was given access to the project information and to identify how transparent the compensation process for the Project was.

Objective 2: To examine to what extent the Project implementers followed the internationally accepted standards in terms of environmental and social protection during and after the pipeline construction.

Objective 3: To measure the post-construction impact on livelihoods and other significant social challenges faced by the affected communities.

Research Methodologies

This research project was systematically prepared and conducted in seven steps. To explain these steps briefly, Step 1 is the preparation stage, in which MCPWC's Steering Committee discussed the study in detail with the research consultant and outlined the research plan, the implementation time frame, and the criteria for the research team members, before finally forming the research team. MCPWC's Coordination Office, based in Mandalay, led this research project and formed the research team with 17 members, who were selected from its networks in the pipeline-crossing townships. MCPWC's research team was then trained by an independent social research consultant who designed this research process and supervised the research team throughout the project.

In Step 2, MCPWC reviewed its previous monitoring experience on Myanmar-China Oil and Gas Pipeline construction and identified the main research problems and research sites. In the research training session, the team learned the research methodologies and developed a set of field research questionnaires. At this stage, the research training applied the following methods: a "self-participation" approach, in which all team members must actively participate in the process; a collective decision making and responsibility approach, in which the team members were trained to value collective action and responsibility; a researching, learning and analysing approach, in which the team must learn how to develop all three skills in the process; a daily computer data entry approach, in which all team members must work on the interviews during the day and then enter the data into the computer by the end of the day in order to maintain the data quality and accuracy; and finally an on-site review approach, in which the whole team reviewed all their activities and experiences before leaving the research site.

In Step 3, the research team conducted pilot testing of the research questionnaires in Yenanchaung and Singaing townships to make sure the questions were practical and useful. This found that 95 per cent of the questions were very useful, and the team revised the remaining 5 per cent to simplify the questions. The research findings from the two pilot-testing sites were very valuable and supported the future field research work.

Step 4 was the main part of the research project involving field research data collection in four townships, representing two States and two Regions through which the pipeline passed. Throughout the field research work, the team had to work very hard every day and night to conduct interviews and to complete the computer data entry process. A data verification process to verify the information gathered was also completed between the research team and MCPWC's local members, who were knowledgeable about their own township situations. This was an essential step to control the data quality and accuracy.

In Step 5, after the completion of the field data collection, the research team returned to Mandalay, where MCPWC is based. The team began to conduct township-level data analysis sessions in which the team sorted and analysed the data and wrote preliminary research findings for

each of six townships. With the close supervision of the research consultant, the team was able to complete Steps 1 to 5 exactly as planned.

In Step 6, the research consultant wrote this comprehensive research report by combining the research findings, which had been systematically collected and analysed, from all six townships. While writing the final report, the research consultant also conducted Step 7, which mainly involved consulting with environmental, legal and chemical experts to verify the research findings. The detailed implementation steps and time frame are provided in the chart below.

Table 1: Research project implementation steps

Research Activities	Steps	Days	Duration
❖ Discussions on research plan, forming a research team and the necessary preparations	Step 1	30 Days	Nov – Dec, 2014
❖ Review pipeline projects, identify research problems, select research sites and develop research questionnaires	Step 2	10 Days	Jan 25 – Feb 3, 2015
❖ Pilot testing in two townships	Step 3	10 Days	Feb 18 – 27
❖ Field research work in four townships ❖ Kyauk Phyu Township, Rakhine State ❖ Ngaphe Township, Magwe Region ❖ Kyaukme Township, Shan State ❖ Kyaukpadaung Township, Mandalay Region ❖ Drawing plan for analysis session	Step 4	60 Days 15 Days 15 Days 15 Days 13 Days 2 Days	Mar 25 – Jun 27 Mar 25 – April 8 April 20 – May 4 May 22 – Jun 5 Jun 15 - 27 Jun 29 - 30
❖ Analysis session on the township-level research findings	Step 5	15 Days	Jul 1 - 15
❖ Writing research report in Burmese ❖ Writing research report in English	Step 6	60 Days 50 Days	Jul 25 – Sept 23 Sept 24–Nov 12
❖ Interview and consultations with individuals such as lawyers and chemists as well as other organizations	Step 7		July - September
Total Number of Days		**235 Days**	

Chapter 3: Myanmar-China Oil and Gas Pipeline Project Background

On 16 June 2009, a Memorandum of Understanding to construct the Myanmar-China Oil Pipeline was signed in Beijing between Myanmar's Ministry of Energy and China National Petroleum Corporation (CNPC), witnessed by the former military regime's Vice Senior General Maung Aye, for Myanmar, and the former Vice President Xi Jinping (now the President of the People's Republic of China). One year later, Myanmar Oil and Gas Enterprise (MOGE) and CNPC signed a Shareholder Agreement on South-East Asia Oil Pipeline Co. Ltd. and Right and an Obligation Agreement on South-East Asia Gas Pipeline Co. Ltd. at the witness of Burma's President Thein Sein (then Prime Minister) and China's Prime Minister Wen Jiabao on June 3, 2010. It marked the beginning of the Project in Myanmar.

CNPC is the biggest corporation in the oil and gas sector in China and has constructed oil and gas pipelines across the country. It constructed the 4000-km long West-East Gas Pipeline I in 2002–2004, the 2000-km long West Crude Oil Pipeline in 2005–2006, and the 4843-km long West-East Gas Pipeline II (WEGP II) in 2008–2010 in China (Peng Shi, 2015: 1995). Given the timeline of its pipeline construction projects in China, it is assumed that CNPC started to construct the Myanmar-China Oil and Gas Pipelines in 2011–2013 soon after the completion of WEGP II. In this Project, the first element of the pipeline consisted of the construction of a 100-km under-sea gas pipeline from the offshore Shwe Gas Project, which landed on the coastline of Ramee Island in the outskirt area of Kyauk Phyu Township, and ended at the Onshore Gas Terminal (OGT). This section of the pipeline was constructed by Shwe Consortium, in which Daewoo International Corporation is the operator and owns the majority share of the project. The gas exported to China will be distributed by OGT (Shwe Project, 2011). Therefore, the 793-km long Myanmar-China gas pipeline began its route from OGT and the 771-km long Myanmar-China oil pipeline from Maday Island in Kyauk Phyu.

Table 2: Shareholders in the Myanmar-China Oil and Gas Pipeline Project

SEAGP	Share (%)	SEAOP	Share (%)
CNPC-SEAP	50.9000	CNPC-SEAP	50.9
Daewoo International Corporation	25.0410	MOGE	49.1
ONGC Videsh Ltd.	8.3470		
MOGE	7.365		
GAIL India Ltd.	4.1735		
KOGAS	4.1735		

Source: Htin Aung, Director General, Energy Planning Department (March, 2012)

[3] MOU signed for the Myanmar –China Oil Pipeline. Available from: http://www.cnpc.com.cn/en/nr2009/201209/158fda19e17c4b88bb8e6a9fbd6eb972.shtml

[4] Myanmar-China Oil and Gas Pipeline project commenced. Available from: http://www.cnpc.com.cn/en/nr2010/201209/87c06752bbf947218243e39c8bb242af.shtml

According to the information in Table 2, CNPC South-East Asia Pipeline Co., Ltd. (CNPC-SEAP) invested and owned the majority share in the Myanmar-China Oil and Gas Pipeline Project, which was constructed by establishing two companies: South-East Asia Oil Pipeline Co. Ltd. and South-East Asia Gas Pipeline Co. Ltd. (Hereafter "SEAOP/GP"). Therefore, CNPC-SEAP had the decision-making authority as the operator of the Project. It is also responsible for the design, construction, operation, expansion, and maintenance of the oil and gas pipelines.

In the 21th Century, China became the second biggest economic superpower in the world, and energy sufficiency and security also became major strategic challenges for the country to maintain this status. As such, China's leaders viewed the Project as an important scheme for the country's energy security and for securing its place in regional geopolitics. Hu Jintao, former president of China, expressed his concerns about the fact that 80% of the country's imported crude oil relied on the Strait of Malacca at the Central Economic Work Conference, held more than a decade ago, in November 2003. Since then, the Chinese government sought ways to reduce the country's dependence on the Strait of Malacca. Bo Kong, Professorial Lecturer and Director of the Global Energy and Environment Initiative at Johns Hopkins University School of Advanced International Studies (SAIS), wrote a paper titled "The Geopolitics of Myanmar-China Oil and Gas Pipeline," in which he analysed why the Chinese government decided to implement the Myanmar-China Oil and Gas Pipeline Project as follows:

> *Hu's concerns were interpreted as a signal that the central government in Beijing was anxious to tackle the country's "Malacca dilemma," ushering in a marketplace of ideas. These included four competing proposals: (1) opening up a Kra Canal that would link the South China Sea to the Indian Ocean by cutting across the Thai Isthmus, (2) building an underwater oil pipeline below the line that the Kra Canal would travel, (3) constructing an inter-Asian rail system that could carry oil to China, and (4) building an oil pipeline to Western China from Pakistan or Bangladesh. (Bo Kong, 2010: 58)*

In early 2004, Li Chenyang, Qu Jianwen and Wu Lei, three professors from Yunnan University School of International Relations, started a research project to investigate the possibility of an alternative pipeline route from Sittwe in Rakhine State to Kunming, the capital city of Yunnan Province, which borders with Shan State in Myanmar. They proposed the idea to the State Council of China through the Yunnan provincial government, according to Professor Bo Kong. The three Chinese scholars gave five reasons to build the Myanmar-China Oil Pipeline:

> *(1) it would enable China's crude imports to skirt the Strait of Malacca; (2) an oil pipeline from Myanmar to Kunming would be at least 1,200 kilometers (km) shorter than the shipping route to Guangzhou via the Strait of Malacca before piping oil to south-western China; (3) financing the pipeline construction would limit the influence other countries might have on Myanmar and turn the country into a strategic buffer zone for China; (4) the*

[5] SEAGP was registered in Hong Kong on June 25, 2015 and the register number is 1473010. Available from: http://www.cr.gov.hk/docs/wrpt/weekly_

history, current status, and future prospect of Myanmar-China relations would guarantee the security of the pipeline; and (5) building the pipeline would be cheaper than other alternatives because there is already a 400-km-long railway in operation and plans to build a railway to connect the remaining 500 km between Sittwe and Kunming. (Bo Kong, 2010: 58)

The proposal of the three scholars from Yunnan University got the attention of the Chinese Communist Party Central Committee and the university provided a research fund of 200,000 renminbi ($24,155) to study the feasibility of the proposed Myanmar-China Oil Pipeline in 2004. In April 2006, a report titled "Recommendations from the Yunnan Delegates about Building the Myanmar Oil Pipeline and Building Refinery and Petrochemical Bases in Yunnan Province" was signed by 91 delegates from Yunnan Province and submitted to the meetings of the National People's Congress and the Chinese People's Political Consultative Council, according to Bo Kong (2010: 59).

In the same year, when the Chinese government began to explore the possibility of the Sittwe-Kunming oil pipeline construction, Shwe Gas Project operated by Daewoo International Corporation discovered a natural gas reserve on the offshore block A1 and A3 in Rakhine State. Myanmar's former military regime sought an opportunity to sell Shwe Gas to neighbouring countries such as India, China and Thailand. According to information released by MOGE in July 2011, the regime first planned to pipeline Shwe gas to Sittwe through the construction of an undersea pipeline, and export it to one of three neighbouring countries via a pipeline, for which the regime considered four possible routes.

Map 2: Four options to sell Shwe Gas to neighbouring countries
Source: MOGE (July, 2011)

[6] Shwe Natural Gas Project, Myanmar. Available from: http://www.offshore-technology.com/projects/shwe-natural-gas-project/

According to the information from MOGE in the above Map 2, Myanmar considered two pipeline options to export natural gas to India, either via an undersea pipeline crossing the Bay of Bengal or an on-land trans-boundary pipeline crossing the northeast of India. The third pipeline route considered was to export gas to China via a Sittwe-Kunming gas pipeline, a slightly different route from the actual pipeline route constructed in 2011–2013. The fourth pipeline route was the most unlikely option: to export gas to Thailand by constructing an undersea pipeline passing through the Ayarwaddy Delta offshore to the Gulf of Martaban.

India was the first neighbouring country to import Shwe gas to Kolkata, but as the pipeline had to cross the territory of Bangladesh, the governments of the three countries tried to negotiate Myanmar-Bangladesh-India gas pipeline project and failed to reach an agreement (Chandra, 2012). Eventually, after reaching an agreement with Myanmar government to buy Shwe gas, China expanded its initial plan in Myanmar to construct dual oil and gas pipelines from the country.

Chapter 4: International Practices in Oil and Gas Pipeline Construction

Myanmar began to export natural gas to Thailand by constructing a trans-boundary gas pipeline in 1998. Myanmar-China Oil and Gas Pipeline is the second trans-boundary pipeline for the country. However, when the research on this new project was conducted, MCPWC was unable to source the official environmental and social impact assessment reports published by the companies already invested in the oil and gas sector in Myanmar. It is because the country did not have environmental law until 2012 and foreign investors were not necessary to submit EIA and SIA report to the government as a requirement to win a business concession. Also, few independent research reports have been seen to assess the impact on the natural environment, as well as on the livelihoods of local people, in the post-construction period of the first pipeline. Therefore, this research adopted international standards on trans-boundary pipeline construction in Asia, Africa and Latin America from the book "Oil and Gas Pipelines Social and Environmental Impact Assessment: State of the Art" compiled and edited by Robert Goodland (2005), a former president of the International Association of Impact Assessment (IAIA). Despite differences in location and the time period of construction in the example projects used in this book, it remains a useful resource because the problems associated with trans-boundary pipeline construction are similar globally. According to the research undertaken using this book, trans-boundary oil and gas pipeline construction must follow at least the eleven points outlined as follows:

(1) Environmental and Social Assessment (ESA): When constructing a trans-boundary oil and gas pipeline, an environmental and social assessment is a must. An ESA should be conducted with the following five objectives: (a) to prevent the impacts; (b) to minimize the impacts that cannot be entirely prevented; (c) to mitigate residual minimal impacts; (d) any residual minimized impacts should be fully compensated or offset such that the impacted people and environment are better off with the project; and (e) to explore the potential benefits to society, especially the affected people. (Goodland, 2005: 5)

(2) Selecting Right of Way (ROW): The first and most effective way to minimize the environmental and social impact of pipeline construction is by selecting the Right of Way (ROW) carefully. Before selecting a proposed pipeline route, an ESA should be conducted as early as possible. Only then can the route of the pipeline be selected properly, by considering the ESA recommendations. If the investors in a pipeline construction project hire a so-called "third party" company to conduct the ESA, the pipeline route then depends very much on how careful the investors are to minimize the environmental destructions – that is, how much they consider the ESA in deciding on the pipeline route. It is obvious that the investors do not care about the ESA and the potential impact of the pipeline at the outset if it is conducted after selecting the ROW.

(3) Places that should not be affected: A trans-boundary pipeline must avoid passing though places such as homes and communities, particularly where indigenous minorities are living; fish-breeding places in rivers and creeks; ancient cultural heritage sites; historic places; reserved forests; etc. If the pipeline is constructed in a straight line for many kilometres, other than when it is located in a desert, it can be assumed that the project did not conduct an ESA. Although it is true that constructing the pipeline in a straight line might limit the affected areas, if it is straight it means the pipeline is very unlikely to avoid the places it should avoid. If the pipeline avoids these places, its route may be longer, but the project would effectively reduce its impact. In oil and gas pipeline projects, foreign investors and their sub-contractors often lack knowledge on the history, culture and customs of indigenous minorities, environmental settings, and livelihoods of the local people in the countries they invest in. Therefore, from the beginning of designing the project, the host country has to make sure of the inclusion of an ESA. The project can then effectively minimize its impact if the ESA was conducted properly.

(4) Consider access roads that have a big impact: One of the most effective ways to minimise the impact on the environment for these kinds of projects is to construct the oil and gas pipelines closely in parallel with existing road or rail infrastructure. If this is done, the project then does not need to construct access roads to transport huge pipes, construction machines and materials, because it can use the existing transportation infrastructure. If the pipeline route is located far away from existing transportation infrastructure and instead crosses farmlands, forests, mountains, and rivers, the project will need access roads to transport construction machines and materials. In that situation, the project would have to clear the ROW to use as an access road, or build separate access roads for reaching the ROW. Building separate access roads will have more impact on the environment and on agricultural lands.

(5) Pipeline Construction Period: It is hard to minimize the impact of a project if the pipeline construction period is long. Generally, a trans-boundary pipeline construction takes from two to three years. Given the long construction period, sometimes there can be permanent environmental damage, including the unsalvageable destruction of agricultural lands. Therefore, a post-construction Environmental and Social Impact Assessment (ESIA) should be conducted as part of the Environmental Management Plan (EMP) to know the extent of the environmental destruction, and to help draw up a practical restoration action plan.

(6) Land Use in Right of Way: In international pipeline construction projects, the land area for the Right of Way of the pipeline is usually between 15 to 30 metres, depending on whether the project will construct one or two pipelines. How systematically the project used the land can determine the extent of the impact on the environment and soil properties within ROW. Systematic land use in ROW is also proof that the project carefully constructed the pipeline to minimize the impact. A post-construction ESIA usually focuses on the land use in ROW to measure the extent of environmental and agricultural land destruction. A sample of a systematic land use during pipeline construction is shown below.

Figure 1 shows how the 30-meter ROW is systematically used in three sections: the trench area, the piling area of top soil and sub soil, and an area for pipeline construction machines and vehicles. When digging in the trench area, the method of separating top and sub soils in layers is done to an international standard to protect the destruction of soil properties in agricultural lands. Due to this method of systematic land use in ROW, growing crops within ROW would not be unduly disrupted, which would mitigate the impact on the livelihoods and income of rural farmers.

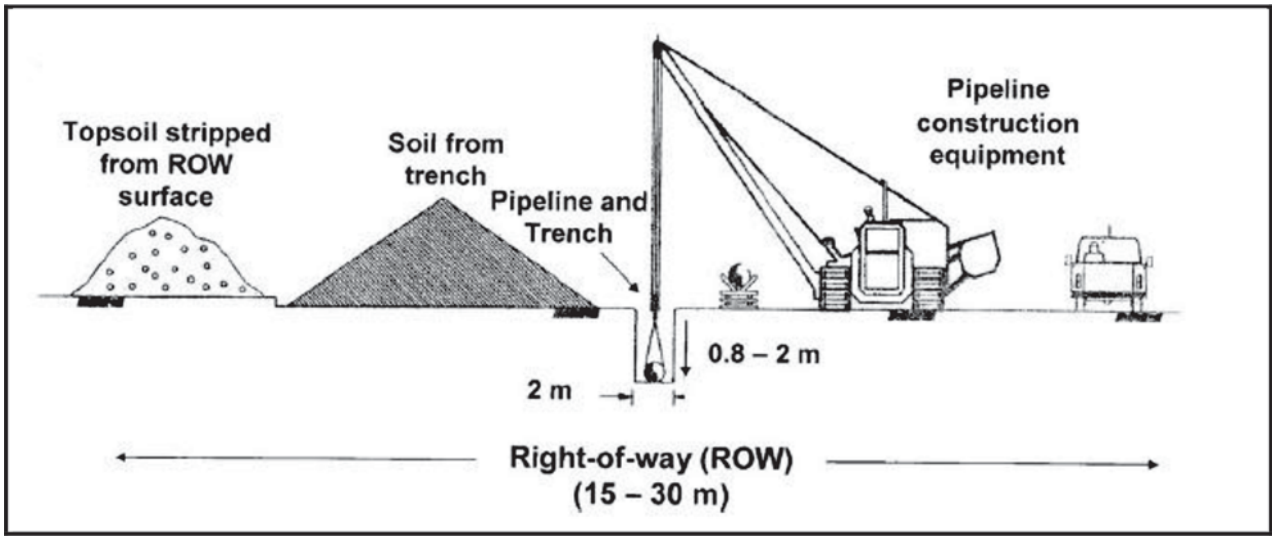


Figure 1: A sample of land use management within the ROW
Source: Desserud, P. (2010), Journal of Environmental Management, p. 2564

(7) Compensatory Offsets: If there are no other options but to cross a reserved forest or a national park, it is a good strategy for a pipeline project to establish a similar forest or national park in another location – which is not less valuable than the existing ones – to compensate for the loss and offset it to some extent. For instance, when ExxonMobil Oil Company's Chad-Cameron trans-boundary pipeline crossed parks in Africa, the company built two national parks larger than the ones the pipeline crossed.

(8) Pipeline Maintenance: As oil and gas pipelines are long-term economic projects, the operators need to make sure what kind of technologies they will use to maintain and repair the pipeline if needed. Nowadays, thanks to technological advancements, the pipeline projects set up control centres and 24-hour monitoring technologies can be installed after the pipeline construction, so the project can immediately know about or uncover even a minor technical problem occurring along the

pipeline. If the pipeline is constructed away from transportation infrastructure and needs to be repaired, the project can use a small helicopter to fix the problem in time. Therefore, there is no need to build access roads on the ground to reach the pipeline route in case of problems, significantly reducing the permanent impact on agricultural lands and the natural environment.

(9) Monitoring Pipeline Construction: While constructing the pipeline, there are several monitoring bodies that oversee the activities of construction companies, especially sub-contractors, to avoid unnecessary impacts. These monitoring bodies could be from the financial institutions which provided loans to the project, the two governments of the trans-boundary pipeline, or independent civil society organizations (CSOs). For instance, in the case of the Chad-Cameron oil pipeline, the World Bank monitored the pipeline construction to ensure it was constructed in line with the Bank's standards, because it was financed by the Bank. Moreover, the governments of Chad and Cameron, as well as two independent organizations, monitored the pipeline construction.

(10) Environmental Management Plan (EMP): The Environmental Management Plan (EMP) should be drawn before the pipeline construction, and all parties – including investors, construction companies and sub-contractors – should follow the agreed guidelines. The EMP to conserve and manage the environment along the pipeline is a long-term action plan that needs to establish a reasonable budget, shared from the profits of the project. When the EMP is implemented, the implementation body should make sure to include stakeholders such as governments, companies and CSOs. It also needs to make sure that the process of using the EMP budget must be not only transparent, and subject to a regular auditing by independent audit firms, but also must publish its activity report for public study.

(11) Community Development Fund: As part of sharing the profits of the oil and gas business with the local communities along the pipeline, the pipeline companies should set up a community development fund to help projects such as rural electrification, solar energy installation, clean drinking water, schools and clinic building construction, and livelihood development programs. Companies usually promote their Corporate Social Responsibility (CSR) through getting involved in these projects. However, it is very important that the assistance should directly go to the affected communities.

If a trans-boundary oil and gas pipeline project was implemented in line with the above-mentioned eleven points, through a transparent and meaningful consultation and with the co-operation of the government, business and civil society sectors, it would turn out to be not only an economically profitable project but also one which cared for the local society and the environment. The research findings in the following Chapter (6) will answer whether the Myanmar-China Oil and Gas Pipeline Project was constructed in line with the above-mentioned eleven points.

Chapter 5: Overview of Field Research Sites

MCPWC carried out this field research project in six townships in two states and two regions in which the Project was constructed. The selected townships for the research sites were: Kyauk Phyu in Rakhine State; Ngaphe and Yenanchaung in Magwe Region; Kyaukpadaung and Singaing in Mandalay Region; and Kyaukme in northern Shan State. The field data collection was conducted from February to June in 2015. The research targeted only the affected farmers whose farmlands had been lost, and who had suffered direct impacts as a result of the project. The research team mainly conducted in-depth interviews with the targeted farmers individually, using the questionnaire sheet. On some occasions, focus group discussions were formed when the numbers of affected farmers who wanted to join the research activities were more than the research team expected.

The data regarding the field research size is provided in Table 3, below. The numbers of the affected farmers are only a selective representation for the purposes of this research. In fact, the actual numbers of the affected population in these townships are more than the ones in this chart. In this chapter, the research will provide an overview of the different geographical settings and socio-economic situations in each research township along the Myanmar-China Oil and Gas Pipelines, based on the direct field observation of the research team.

Table 3: Number of villages and households interviewed during field research

State/ Region	Township	No. of Village	No. of Farmer	Household Members		Total House-hold Members	Confiscat-ed Farmland (Acre)[1]	Total Compensat-ion Value (Kyat Mil)[2]
				M	F			
Rakhine	Kyauk Phyu	21	175	451	486	937	258.90	5,269.70
Magwe	Yenanchaung	8	54	157	161	318	54.86	1,972.69
	Ngaphe	19	200	514	513	1,027	217.11	9,163.11
Mandalay	Singaing	11	63	157	174	331	66.30	3,369.81
	Kyaukpadaung	21	265	597	707	1,304	222.56	5,480.31
Shan	Kyaukme	20	211	496	487	983	194.45	9,350.63
		100	**968**	**2,372**	**2,528**	**4,900**	**1,014.18**	**34,606.25**

Source: MCPWC field research data

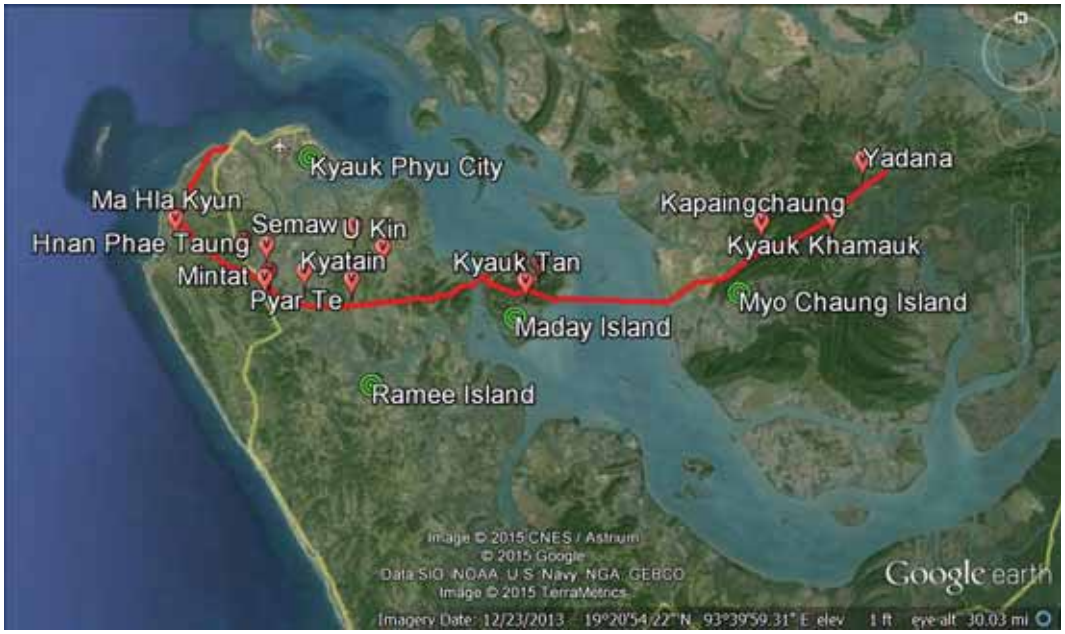
[7] The figures did not include the data that the pipeline route destroyed 20 acres of community forest in Ngaphe Township and 24 acres of Ko Kwe reserved forest at the foot of Popa Mountain in Kyaukpadaung Township.newcoys_20100621.pdf

[8] The figures of compensation value in the chart were provided by 968 farmers interviewed for this research. These figures were not the official numbers released by the government of Myanmar or SEAOP/GP. There has so far been no official data for compensation available publicly.

5.1. Kyauk Phyu Township, Rakhine State

Kyauk Phyu is located in Ramee Island in Rakhine State and is the town where the Myanmar-China Oil and Gas Pipeline Project started. Natural gas from Shwe Gas Project was first transported by undersea pipeline from the offshore offloading point in the Bay of Bengal. The 100-km long undersea pipeline landed on shore about 3 kilometres away from Kyauk Phyu Airport, in the south-western part of Kyauk Phyu City, and ended in the Onshore Gas Terminal (OGT). This pipeline was constructed by Daewoo International Corporation, which owns 51% of Shwe Gas Project and led the project as operator. CNPC bought 80% of the natural gas from Shwe Gas Project and Myanmar's state-owned MOGE bought 20% for domestic use.

The Project constructed a gas pipeline only in Ramee Island, and the pipeline then travelled to Maday Island, east of Ramee Island, where CNPC constructed a deep-water seaport and an oil storage farm. When the gas pipeline reached the eastern part of the island, it started to run in parallel with the oil pipeline. Maday is a small island which is home to four villages. The villagers are fishermen and gardeners. CNPC imports crude oil from the Middle East, stores it in oil storage tanks in Maday Island, and then transports the oil to Yunnan Province in China via the new trans-boundary pipeline. The Project constructed a single gas pipeline for 22 kilometres and used 20 metres (66 feet) of land for ROW. For the ROW dual oil and gas pipelines, it used 30 meter (100 feet). The pipeline was again constructed under the seabed between Maday and Myo Chaung Island and then entered into Ann Township.



Map 3: Right of way and field research villages in Kyauk Phyu
Source: MCPWC research team data, using Google Earth

Map 3 shows the pipeline route in Kyauk Phyu and the villages where the research team conducted the field research work. While conducting the field research in Kyauk Phyu, the research team traveled to 14 villages in Ramee Island, three villages in Maday Island and three villages in Myo Chaung Island. The team was able to interview 175 households which were directly affected by the Project. A total of 258.90 acres of their farmlands were used for the pipeline's

construction. The farmlands in Maday Island were the most affected because CNPC constructed a water reservoir, a deep-water seaport, a 12-tank oil farm, and an operation office compound, as well as the land acquisition for ROW.

The main livelihoods in the affected villages in Kyauk Phyu are agriculture and fishing. The villagers grow seasonal crops such as rice, beans, sunflowers, vegetables, watermelon, etc. They also grow fruit orchards such as mangoes, cashew nuts, jack fruits, pineapples etc. Villagers located along the coastline earn their income by fishing in shallow waters with small boats. The construction of a deep-water seaport affected local fishing businesses, but the Project only gave compensation for the agricultural lands they used and neglected the impact on fishing families.

When the pipelines landed on Myo Chaung Island, the Project destroyed the saltwater protection dyke (locally known as "Kari") to construct the pipeline. The dyke was built and maintained by the local villagers to protect several hundred acres of paddy fields which the villages on the island relied for their food security. The pipelines next pass through the paddy fields and cross the area where natural Pyinkado (Xylia dolabriformis) forests exist. Pyinkado is a valuable hard wood in Myanmar, and the local people use it for house and ship building. The researchers found that the Project had an impact on agricultural lands, forests and fishing activities in Kyauk Phyu.

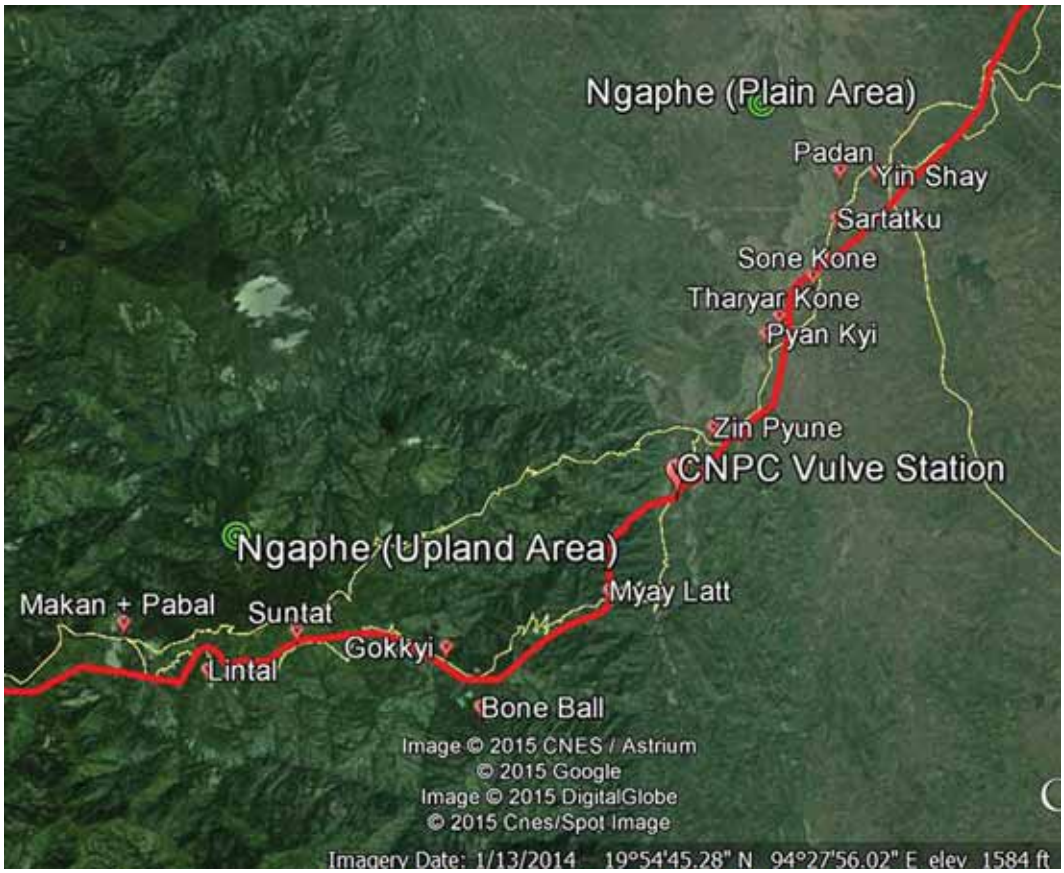
5.2. Ngaphe Township, Magwe Region

Ngaphe is located in Magwe Region, bordering with Ann Township, Rakhine State. The two townships are linked with the Min Bu – Ann Highway, crossing Ann Valley. The border of Magwe Region starts near Ann Valley. The geographical landscape in Ngaphe is divided into two parts: the mountainous and plains areas. The mountainous area borders with Ann Township and the highest mountain is "Nat Yaykan", which is about 5,000 feet high. The pipeline route in that part runs up and down, from one mountain to another, and finally reaches the plains area. Map 4 shows the pipeline route in the mountainous and plains areas, as well as the locations of the field research villages along the pipelines.

Ngaphe not only has a differing geographical landscape, but also variable population groups and economic activities. Asho Chin people, an ethnic minority group, live in the mountainous area and Burmans live in the plains area. Although both societies rely on agriculture for their main livelihoods, the types of agricultural activities are quite different due to the geographical landscape. In the mountainous area, Asho Chins traditionally cultivate fruit orchards on the slopes of the mountains, in which they grow coffee, orange, lime, pineapple, mango, jack fruit, banana, pepper, macadamia, etc., while in the plains area, the Burmans grow paddy, beans, chilli, tomato, watermelon and vegetables.

The research team was able to conduct field research work in a total of 19 villages (10 villages in the mountainous area and 9 villages in the plains area) in Ngaphe. The team interviewed 200 affected farmers and fruit orchard owners who lost 217.11 acres of land due to the pipeline

construction. The research found the pipeline construction had an impact on paddy fields, fruit orchards and forests. Particularly, the pipeline construction in the slopes of the mountainous area caused landslides, destroying fruit orchards outside the pipeline route.



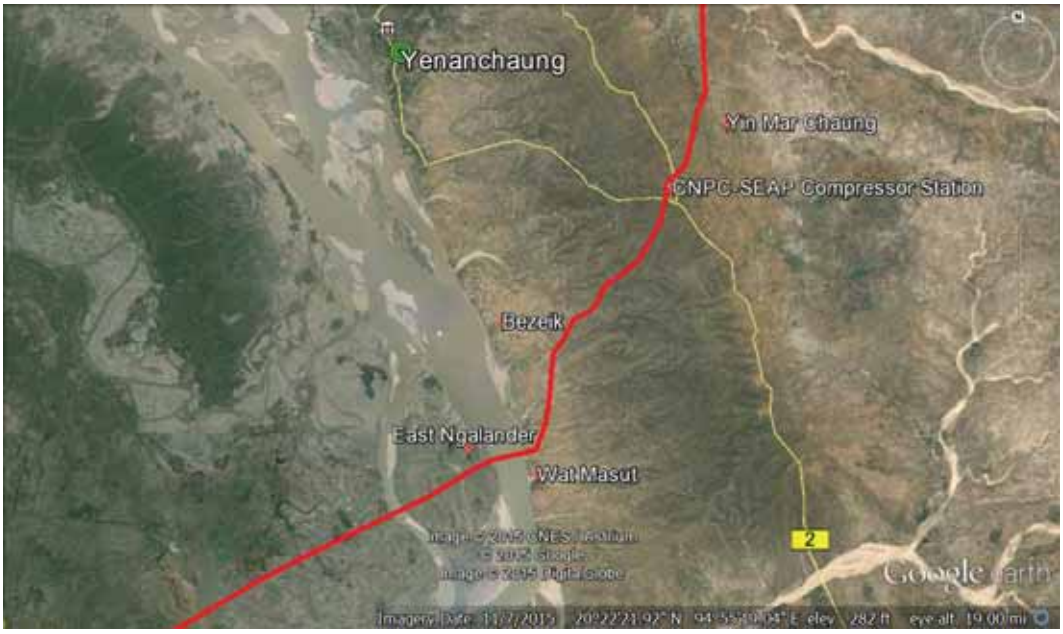
Map 4: Right of way and field research villages in Ngaphe
Source: MCPWC research team data, using Google Earth

5.3. Yenanchaung Township, Magwe Region

Yenanchaung is a town located in the dry zone of the country. The pipeline route continues to run from Ngaphe to Yenanchaung by passing through Pwint Phyu and Saku townships in Magwe Region. In Yenanchaung, the pipeline crosses Ayarwaddy River, the longest river in the country, along the riverbed. The river is a lifeline for communities living on both sides of the river, because the fertile alluvial land of the river banks is good for growing crops while many families depend on fishing in the river itself for their income. As the town is located in the dry zone, many of the farmers rely on growing beans and vegetables such as sesame, peanut, bean, corn, sunflower, and onion for their livelihoods. Palm, mango and toddy palm trees are other income sources.

When this research was carried out, the research team first conducted a pilot test in Yenanchaung. Therefore, the team interviewed 54 households in eight villages, although there are more affected villages in the area. During the field research trip, some affected farmers living in the villages located in Pwint Phyu and bordering with Yenanchaung also joined the research activities to share their experiences about the Project, which confiscated 54.86 acres from 54 farmers in the

area. The research team also observed the pipeline route crossing Ayarwaddy River. The above Map 5 shows the pipeline route and the locations of field research villages in Yenanchaung.



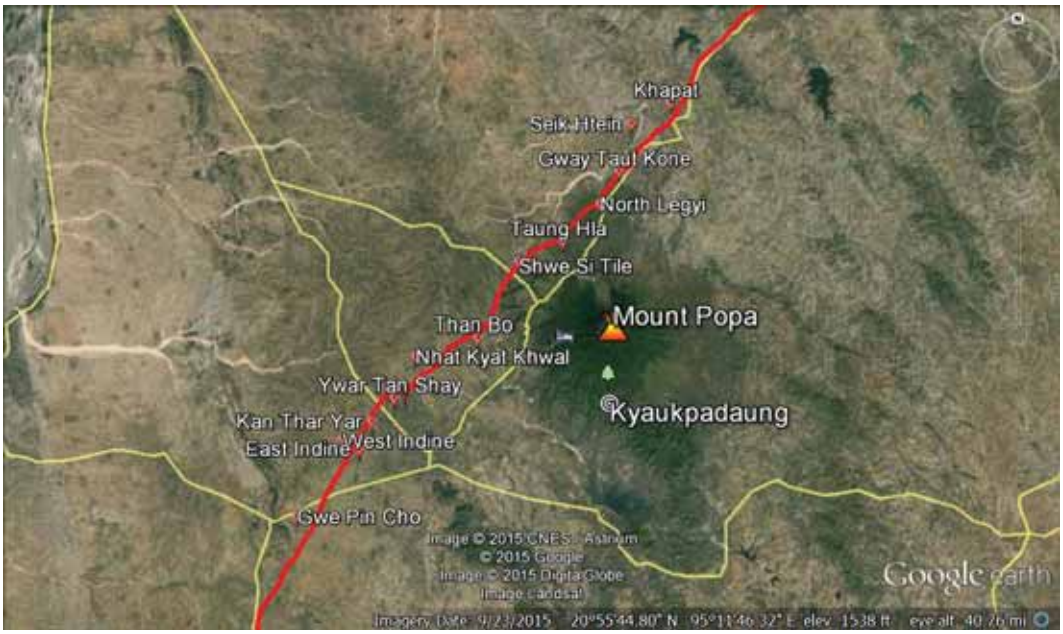
Map 5: Right of way and field research villages in Yenanchaung
Source: MCPWC research team data, using Google Earth

5.4. Kyaukpadaung Township, Mandalay Region

Kyaukpaduang is located in Mandalay Region, bordering with Yenanchaung and Chauk in Magwe Region. When the pipelines enter into the territory of Mandalay Region, they start from Kyaukpadaung. The pipelines cross fertile agriculture fields and Kokwet reserved forest near Mount Popa. Because of the efforts of forest conservation around Mount Popa, Kyaukpadaung is a particularly green town, with many perennial trees, despite its location in the dry zone of the country. Toddy palm forests spread across the town while huge tamarind trees line up along the roads of the town. As in other rural towns, Kyaukpadaung is also an agricultural location, growing mainly sesame and peanut crops that depend on rain water to produce sesame and peanut cooking oil. In cold season, the farmers grow beans and vegetables. The toddy palm and tamarind products are other major sources of income. At the foot of Mount Popa, there are also orchards growing dragon fruit and mango on a commercial scale.

As the town is located in the dry zone, the fresh water sources are limited, and the urban residents in Kyaukpadaung Township depend on natural streams rooted in Mount Popa for their drinking water and for household use. In rural areas, villagers have relied on man-made ponds that store rainwater for drinking and other uses since the era of the Myanmar kings. When the pipeline was constructed in Kyaukpadaung, several ponds were affected, directly or indirectly, because the pipeline route either crossed the middle of a pond or the water channels entering the pond. As a result, the capacity of these ponds to store rainwater reduced significantly, and the villagers faced water shortages, particularly in the summer season. MCPWC research team was able to conduct field research in 21 villages in Kyaukpadaung, and interviewed 265 households which were directly affected by the Project. In total, 222.56 acres of their farmlands were used for construction of the

pipeline. Moreover, the pipeline crossed Kokwet reserved forest, clearing at least 21 acres of the forest. Map 6 shows the pipeline route and the locations of the villages where the research team conducted field research work.



Map 6: Right of way and field research villages in Kyaukpaduang
Source: MCPWC research team data, using Google Earth

5.5. Singaing Township, Mandalay Region

The pipeline route passes through Taungtha, Natogyi and Kyaukse, and enters into Singaing. Singaing was the second pilot testing location after Yenanchaung for this research project. After the successful outcome of the pilot tests in these two townships, MCPWC conducted a larger field research project in Kyauk Phyu, Ngaphe, Kyaukpadaung and Kyaukme. The research team travelled to 11 targeted villages along the pipeline and interviewed 63 affected farmers from whom the Project confiscated 66.30 acres of farmland. Unlike the pipeline crossing in the Ayarwaddy River, at this location the Project built a bridge to let the pipeline cross over the river. As in Kyaukpadaung, the pipeline passes through fertile agriculture lands, then crosses Myint Nge River before heading up to the mountainous Pyin Oo Lwin Township.

In Singaing, the Myint Nge River is very important for the farmers living nearby because the water is used for agriculture by pumping it into the paddy fields via the irrigation channels. The farmers in the town grow crops twice a year and also have fruit orchards. The farmers grow paddy in the rainy season as well as sesame, peanut, sunflowers, cotton, wheat, corn and variety of beans. In fruit orchards, they grow mango, lime, banana and palm. Like other townships on the pipeline route, Singaing is an agricultural town and the water resource is very important for the farmers. Due to the pipeline construction, some irrigation channels were destroyed. Although the Project later repaired these water channels, the farmers say the channels are not as good as before.

Map 7: Right of way and field research villages in Singaing
Source: MCPWC research team data, using Google Earth

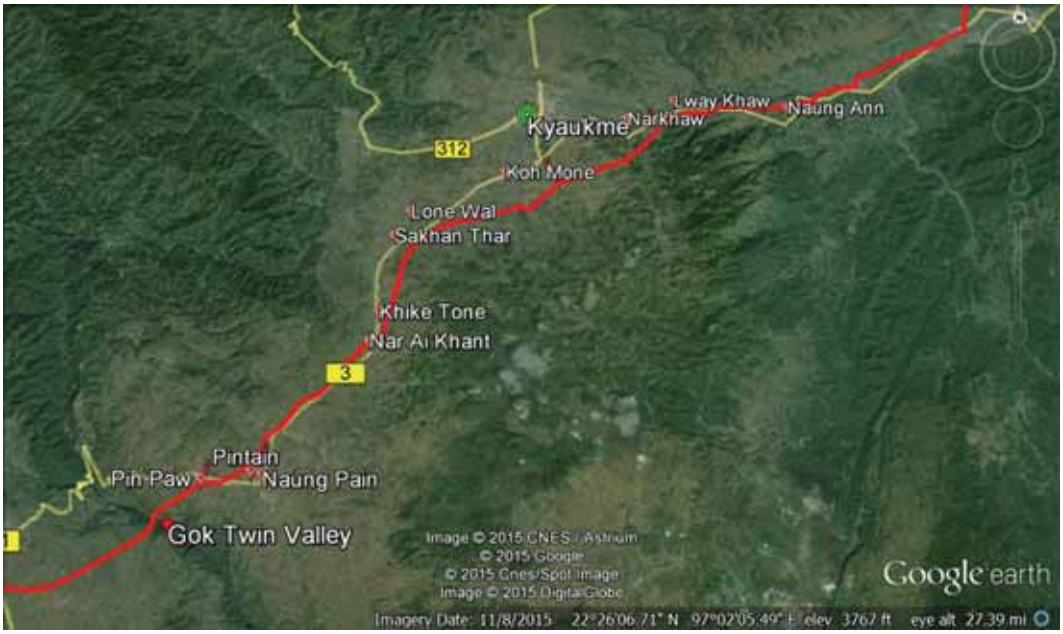
5.6. Kyaukme Township, Nothern Shan State

Kyaukme is located in Northern Shan State. The Myanmar-China Oil and Gas Pipelines run up to the mountainous area after crossing Myint Nge River, passing through Pyin Oo Lwin and entering into Naung Cho Township in Northern Shan State. The pipelines cross a steep "V-shape" valley called "Goktwin" on the border between Naung Cho and Kyaukme. The pipelines were constructed near a historic bridge called "Gok Hteik", which was built by the British more than 100 years ago. The research team conducted field data collection in 20 villages in Kyaukme and interviewed 211 farmers. In total, 194.45 acres of their farmlands were directly affected by the Project.

Although Kyaukme is located on the Mandalay-Lashio-Muse highway, which is a major border trade route between Myanmar and China, the town is just a transit point for the border trade and agriculture is the major livelihood for the Shan and Palaung (aka) T'ang ethnic groups living in the town. Although the hills in Kyaukme were previously covered by forests, they have largely been transformed into cornfields. The locals sayKyaukme's fields have already been colonized by "888", a brand name of corn seed for chicken food produced by Charoen Pokphand (CP), the largest agriculture and livestock company in Thailand. The company opened a branch office to do contract farming in Kyaukme. Apart from the corn plantations, the farmers also grow buckwheat, sugar cane, soy bean, peanut, tomato, and mustard leaves. They also grow tea plantations.

The Project constructed pipelines in the steep valley of Gok Twin and protected the route with a concrete wall to prevent erosion. However, the local villagers said land erosion occurred in areas along the pipeline route that are not protected by the concrete wall. For emergency maintenance purposes, CNPC-SEAP also built a concrete access road to the valley in the middle of farmland in 2015. The farmers living nearby pointed out that the road was not included in the initial

agreement, which guaranteed that they would be able to grow crops within ROW after the pipeline construction, and demanded more compensation from the company, because the access road construction meant that they lost their farmlands permanently. However, the company said that as they already compensated the local people for the lands within the pipeline route, they could build the road without providing additional compensation. In Chapter 6, the report will provide the detailed field research findings on how the Project was implemented.



Map 8: Right of Way and Field Research Villages in Kyaukme
Source: MCPWC research team data, using Google Earth

Chapter 6: Research Findings and Analysis

This research was carried out to assess the transparency and accountability of the Project in the implementation process and to find out the social impact on the affected local people of Myanmar. The research focused on studying the social impact on the farmers living along the pipeline route who were directly affected by the construction. As the socio-economic situation of an agricultural society is closely linked with natural resources which surround the community such as land, water and forests, the research tried to study the environmental damages caused by the Project as well. Based on MCPWC's monitoring experience on the pipeline construction, the research team identified ten areas the investigation needed to address. In this chapter, the research outlines in detail the findings of field research work in ten subtitles.

6.1. Accessibility to Project Information

Myanmar-China Oil and Gas Pipeline Project commenced on June 8, 2010 after CNPC and MOGE signed a Shareholder Agreement and the Rights and Obligations Agreement on the Project. MCPWC completed the field data collection in six selected townships and interviewed 968 directly affected farmers for this research on June 27, 2015. Therefore, the research team assumed that five years after the Project began, the affected farmers would know a lot about it. However, according

to the field research findings, the basic knowledge that the farmers had about the Project was still minimal, and when and how they learned about the Project varied significantly.

Figure 2 shows that 44.11 per cent of the farmers interviewed by this research team first learned about the Project when they asked the Project's staff, who entered into their farmlands to measure the Right of Way (ROW) and marked the route with small red flag poles without seeking permission from the land owners. In total, 26.24 per cent of people knew about the project from the local authorities such as MOGE, the Township General Administrative Department (TGAD), the Township Land Record Department (TLRD), and Village Headmen. Their fellow villagers were the source of the information for12.70 per cent, and 8.67 per cent of the farmers only learned about the Project when staff from the TLRD came to measure their farmlands for land acquisition – quite late on in the process. Only 1.03 per cent of the farmers said they knew about the Project through news reports in the state-owned newspapers. Therefore, showing when and how the farmers first learned about the pipeline project proves that neither the government of Myanmar nor CNPC-SEAP disseminated the project information transparently or effectively to affected farmers living along the pipeline construction route.

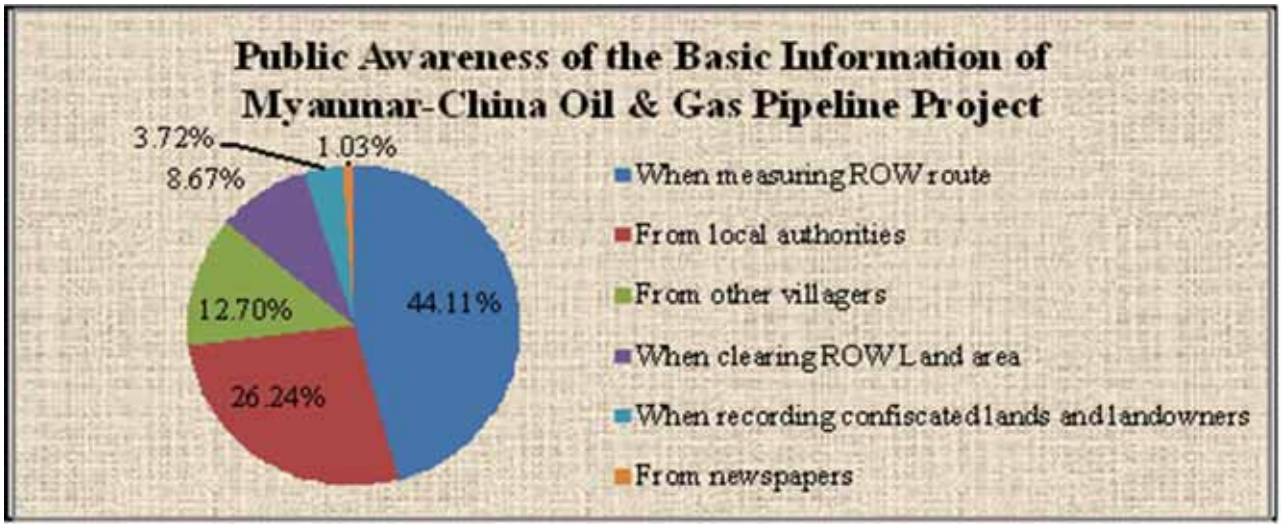


Figure 2: A study result of public awareness of the project's basic information
Source: MCPWC field research data

According to the research findings, the first groundwork of the Myanmar-China pipeline construction was to measure the Right of Way (ROW) and CNPC-SEAP began to conduct this task in late 2010. The researchers found that measuring the pipeline route and marking it with small red flag poles was done without the prior permission and consent of the farmers and local landowners. In some cases, the farmers said they saw Chinese men wearing red suits (staff from CNPC-SEAP) enter their farmlands without asking permission and begin measuring the land. When the farmers asked what they were doing, the Chinese workers answered, via a translator, that this was a state-sponsored project jointly carried out by the government of Myanmar. Given this fact, it can be assumed that CNPC-SEAP and MOGE, the owners of the Project, regarded the task of pipeline route measurement as a technical matter, and at that stage, nothing to do with the local communities. In fact, as selecting the pipeline route would decide the destiny of the farmers and their farmlands, it was essential that the Project consulted with the farmers at that point.

The research findings show that all the farmers interviewed by the research team only knew the pipeline as "the Chinese Pipeline Project." Apart from that, the farmers did not get any information about the profile of the foreign companies involved, the nature and extent of oil and gas pipeline construction, and the start and end dates for the construction. They were also not given enough information to calculate how much the pipeline construction could destroy their farmlands and affect their livelihoods and incomes. There is no evidence that CNPC-SEAP disseminated the Project information or conducted consultations with the affected communities along the pipeline route prior to the construction.

Therefore, the farmers, who experienced or heard of previous horrible stories where farmlands were simply taken by state-sponsored development projects, without compensation, under the rule of the former military government, were worried about losing their farmlands and threw away the small flag poles or moved them to other places. Later, the local authorities explained they would receive compensation for their farmland and would not lose the right to farm after construction was complete. When the pipeline construction was almost finished in May 2013, SEAOP/GP distributed an information pack about the Project entitled "Myanmar-China Oil and Gas Pipeline Project Booklet." The research team thoroughly reviewed the booklet and have some analytical points to make later in this document on the differences between words and deeds based on the research findings in the relevant topics and sections.

The researchers found that local farmers had different understandings over which country or company had invested in and constructed the Project. There were farmers who said it was China that had invested in and constructed the Project, or it was a Myanmar-China joint investment, or a Myanmar-India joint investment, or even a Myanmar-India-China joint investment. The reason they knew about the Project's investors and contractors was that the project was not built by CNPC-SEAP itself, but by sub-contractors. Except the India-based Punji Lloyd Co. Ltd., all of the other sub-contractors are subsidiary companies of CNPC, which is the main investor and operator of the Project.

According to the research findings, the 205-km long pipeline section in Kyauk Phyu, Ann and Ngaphe was constructed by Punj Lloyd Co. Ltd. China Petroleum Pipeline Bureau (C.P.P) , a subsidiary company of CNPC, constructed the pipeline section in Yenanchaung, Chauk, Kyaukpadaung and Singaing townships, while CNPC's other subsidiaries such as Daqing Oilfield Construction Group Ltd. and CNPC Chuanqing Drilling Engineering Company Limited (CCDC) constructed the pipeline in Northern Shan State, including Kyaukme Township. Therefore, the farmers in these townships gave different answers on who was involved in the project, based on what they saw on the ground. However, when the research team asked whether they knew any of the above-mentioned companies' full names, the farmers did not know them at all.

The research team also studied whether the Project systematically consulted and collected the opinions and consent of the affected farmers regarding the selection of the pipeline route, the extent of the impact on their livelihoods, and the degree of soil disturbance which was likely as a result of the pipeline construction. According to the booklet distributed by SEAOP/GP, the Project conducted an Environmental Impact Assessment (EIA), including a Social Impact Assessment (SIA), in

accordance with the Equator Principles and the World Bank Guidelines (SEAOP & SEAGP, 2013: p. 20). In the booklet, the Project said it tendered for the EIA and hired IEM based in Bangkok, Thailand. However, IEM then hired Yangon-based companies such as Resource and Environment Myanmar Ltd. (REM) to conduct the EIA, and Myanmar Marketing Research and Development Co. Ltd. (MMRD) to conduct the SIA. REM also says on its website that it conducted "ESHIA for Myanmar China Gas Pipeline Project" in 2010. Despite conducting the EIA in 2010, CNPC-SEAP has still not exposed the report for public study (to date). As such, the research team asked 968 farmers in six townships whether the Project interviewed them and collected any information from their communities. The results can be seen below, in Figure 3.

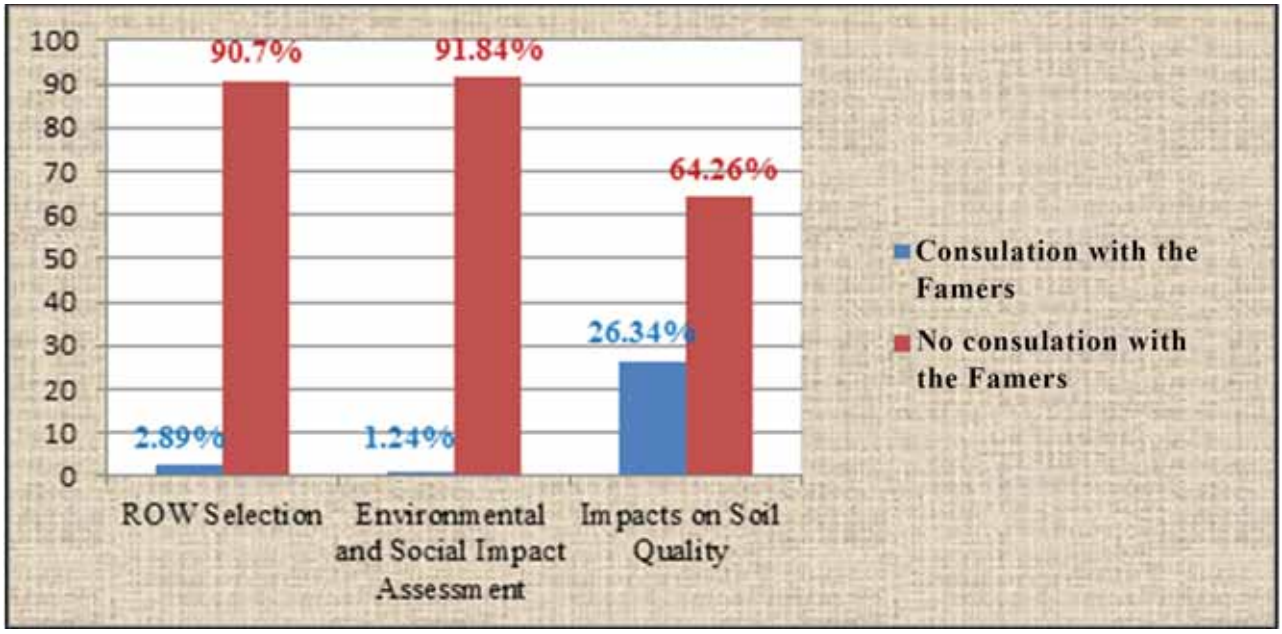


Figure 3: A study result of ROW selection and ESIA implementation
Source: MCPWC field research data

According to the findings shown in Figure 3, more than 90 per cent of the farmers said they never experienced either an interview or a consultation with the Project regarding the ROW selection and the social impact assessment. Some of the farmers said they had been asked about information such as types of crops and yield rate. They understood that this was not because the people asking the questions wanted to know the farmers' socio-economic situation, but rather to record this information as part of the compensation process. Due to the lack of project information, 64.26 per cent said they had not been consulted about how much the soil quality around the pipeline would be destroyed, and – perhaps due to the fact that many of the affected local people had never experienced anything like

[9] Punj Lloyd's Myanmar-China Oil & Gas Project. Available from: http://www.punjlloyd.com/landmark-projects-gallery/myanmar-china-oil-gas-pipeline-project
[10] China Petroleum Pipeline Bureau. Weblink: http://cpp.cnpc.com.cn/gdjen/gjyj/201408/dfde2e2a44874f848bc4a2f59cfbdc34.shtml
[11] Daqing Oilfield Construction Group Ltd. Weblink: http://dqyt.cnpc.com.cn/dqen/index.shtml
[12] CNPC Chuanqing Drilling Engineering Company Limited. Weblink: http://ccde.cnpc.com.cn/ccde/
[13] Resource and Environment Myanmar Ltd. Weblink: http://www.enviromyanmar.net/projects.html
[14] Myanmar Marketing Research and Development Co. Ltd. Weblink: www.mmrdrs.com

this before – could not imagine the huge scale of the pipeline construction. Although 26.34 per cent said they imagined their farmlands could be damaged due to the pipeline construction, they also said they did not know how bad the level of destruction could be.

Rural agricultural methods in Myanmar are so primitive that the farmers still widely use ox-carts and htaw-lar-gyi (small trucks imported from China) for growing and transporting crops from farmland to market. Working as farmers for their whole lives, they had never seen such a sudden arrival of huge oil and gas pipeline equipment, bulldozers and cranes into their farmland, nor witnessed how the machines could clear the crops and change the ground into a fallow land. At that point, the farmers said that they began to realise how huge the extent of destructions could be. The farmers did not know that the Project should do a scientific study of soil quality before and after the pipeline construction, but they knew very well the facts: that the Project did not strip and pile top soil and sub-soil separately, and simply dug the pipeline trench with soil digging machines, mixing up the soils in the backfilling process. Therefore, the crop yield has been very low to date since the Project's construction. The research team also conducted direct field observations in the six townships and compared what happened on the ground with what SEAOP/GP said in its booklet. Regardless of what the booklet said, what the construction companies actually did was simply refill the soil, causing the top soil and sub-soil to be replaced upside down, before they adjusted the surface ground to become flat. They did not take responsibility for the soil disturbance and low crop yield (see section 6.4 for the details of the soil disturbance).

In short, the agreements for the Project were signed between Myanmar and China during the rule of the former military regime in Myanmar. This regime used to conduct top-down economic development projects without public consultation, and never exposed the project information to the public. However, when the Project began its ground works, it was at the same time that Myanmar's new government also launched political and economic reforms. The new government talked loudly about promoting transparency and accountability for "good governance." But, the fact that this Project was implemented without the knowledge of the affected local farmers, who had little access to the project information, proves that the new government's policies and words did not clearly match up with what they actually did in the implementation of the Project. Also, the research team found that CNPC did not provide basic, transparent information on the project in advance, nor did they provide information on the implementation steps and their accountability to the affected local communities. Therefore, the farmers had no way of knowing even the name of CNPC-SEAP or SEAOP/GP. As a result of the complete lack of information, the farmers faced serious consequences: firstly, they could not prepare to cope with the impact of the Project, and secondly, they did not know what their rights were. They also lacked the ability to negotiate with the companies or to protect their rights.

6.2. Land Confiscation

After measuring and marking the ROW as the first step in the ground construction process, the Project started its land acquisition process in two ways: permanent and temporary land acquisition. As a single gas pipeline was constructed in Ramee Island, the Project used a 20 metre width strip of ROW for a 22-km long pipeline section from Maday Island, the dual oil and gas pipeline used a 30 metre width strip of ROW for the 771-km long pipeline section up to the border town of Namkhan in Northern Shan State. The project also conducted land acquisitions for six gas process stations and 28 gas valve stations, plus five oil compressing stations and 31 oil valve stations. The Project also rented some land for the construction base camps, the pipeline stockpiling yards and storage for the construction materials, using temporary land acquisition.

The booklet published by SEAOP/GP outlined four policies for land acquisition: 1) Land acquisition must be conducted in accordance with Myanmar laws; 2) A Land Acquisition Working Group would be formed together with the Ministry of Energy (MOE), MOGE, regional governments and CNPC-SEAP; 3) the Project would not confiscate agriculture lands if at all possible; 4) the pipeline route must avoid Buddhist monasteries, pagodas, schools, cemeteries, wild life sanctuaries, etc.; and 5) the Project must use the lands only after giving compensation directly to the farmers (SEAOP & SEAGP, 2013: p. 24). However, the booklet was distributed only in May 2013 and the farmers did not know at all about the company's policies during the land acquisition process – which, of course, took place in 2011 and 2012.

During field research work in six townships, MCPWC found out that the majority of land confiscated for the Project was farmland. Although the pipeline route avoided crossing villages, to prevent people from resettling to other places, it did not avoid crossing farmland outside the villages. Therefore, the Project had an impact mainly on the farmlands which were the major livelihoods of the rural farmers. Land acquisition working groups were formed at the township level and the members of the group were representatives from CNPC-SEAP, MOE, MOGE, TLRD and TGAD, Village Track Administrators and Forest Department Officers (where the pipeline crossed forests). However, the land acquisition process – such as measuring the land area, classifying the type of land and the soil quality, mapping out the actual land area to be used, and recording the land title, the location, and the owner – was conducted by staff from TLRD in cooperation with the heads of the village tracks.

As the processes of land acquisition and compensation are interrelated to each other, like two faces of a coin, the research team carefully studied this process. Only if the land acquisition process were carried out step by step in a transparent manner, would it make the compensation process smooth. That is why the research focused on five points: first, whether the land acquisition policies and procedures were properly explained to the farmers before the process began; second, whether the farmlands were transparently measured, in front of the owner; third, whether the measurement was recorded in a land measurement form, and whether a copy of the result was given to the farmers right after the measurement; fourth, whether there were any disputes on the land measurement; and fifth, whether there was any compensation paid before the pipeline construction began.

The experience of the local people in the land acquisition process varied very much, and the results are summarized in Figure 4. According to the research findings, 72.93 per cent of the farmers said that before the land acquisition process began, the working groups did not explain to them well in advance about the procedure of land acquisition, including the compensation policies and methods. Another 23.34 per cent of the farmers said that the village or township authorities in some townships called ad-hoc meetings and just explained the facts: that it was a state-sponsored project and the farmers must allow the pipelines to pass through their farmland, and compensation would be given for the construction period. The farmers said the meeting was not a form of consultation.

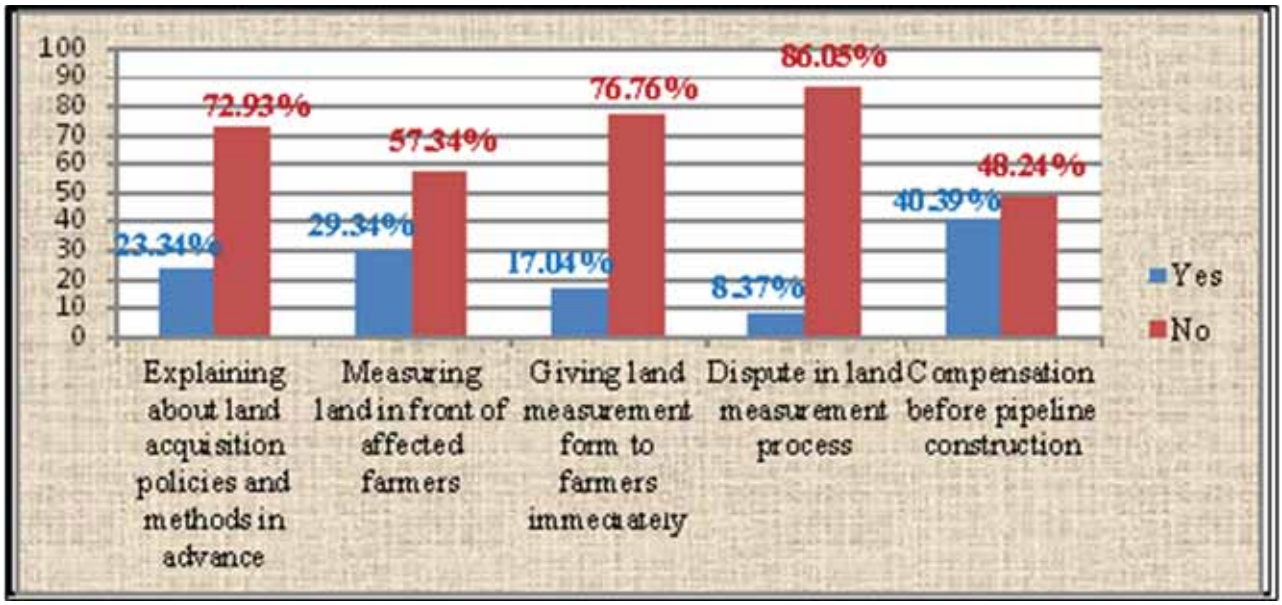


Figure 4: A study result of the land acquisition process
Source: MCPWC field research data

At this point, it was important for the team to research how transparently the land acquisition working groups provided detailed information of the policies and procedures of land acquisition to the farmers in the meetings. The farmers were convinced by officials from MOGE and the township authorities that the pipeline construction would only take three to five years, and the farmers would get compensation for that period. The officials stressed that the Project would just use the farmland to bury pipelines and the farmers would not lose these farmland, because they could farm again after the construction period ended. When the farmers signed the land and crop compensation agreement, they did not have a chance either to read the text of the agreement or realise that, in signing, they had permanently relinquished their right to use the farmland. Only when they received the land rights document, “Form 7”, issued by TLRD – which already deducted the land area used for ROW from the farmer’s original land area – or heard from other farmers who received a copy of the agreement months later, did they realize they had been cheated. Many farmers still did not know about it years later. Only when the MCPWC research team explained to the farmers about the text of the agreement, did they realise that they had lost the ROW land (see the details of signing the agreement in Section 6.3).

Although Chinese company staff from CNPC-SEAP and officials from MOE and MOGE appointed as part of the land acquisition working groups in each township participated, the land measurement and documentation process was mainly conducted by TLRD in cooperation with the village track administrative bodies. When the field research work was conducted at 100 villages in six townships, the research team was able to interview the former heads of village tracks who participated in the process as members of the working group. According to their experiences, the township land acquisition working group only informed them the date they would measure the farmlands the day before they came. Therefore, the village track heads did not have enough time to hold a meeting and inform the affected farmers about the land measurement news properly. What they did instead was just announce the news to the whole village, by using a loudspeaker on the roof top of the village head's house. The research team found that there is a loud speaker in every village head's house and it is still often the communication tool used to announce village affairs publicly. Therefore, those who were in the village to hear the announcement were able to watch the working group measuring their farmlands, but for those who were in the field or outside the village at the time of the announcement, it was a different matter. They did not hear of it at all, and so could not know when their farmlands were going to be measured.

According to the research findings, 29.34 per cent of the interviewees witnessed the land measurement, while 57.34 per cent experienced land measurement in their absence. The research team found that the village heads did not properly inform the farmers about the land measurement and instead just helped TLRD staff measure the farmlands and list the measurement results together with the landowner's name, mainly by using existing land records from the TLRD and village office. This practice was particularly found in Kyaukme and Kyaukpadaung townships and scattered around in other townships, too. In fact, it is an ethical and good practice to measure and record farmlands in front of the landowners, and to let them know the measurement results immediately and transparently. It is very suspicious that this simple practice was not applied, and it led to corruption in the compensation process. Therefore, due to the lack of transparency in the land measurement process, the research discovered many irregular cases associated with compensation.

According to the research findings, only 17.04 per cent of the farmers knew the land measurement result immediately, and half of them only knew it because they asked the TLRD staff to tell them the result. So 76.76 per cent of the farmers did not know the results because they were not in the fields at that time, or the TLRD staff did not inform them in advance about the measuring. Therefore, when the research team asked about disputes on land measurement, 86.05 per cent of the farmers said there had not been any – probably because they were not there - while 8.37 per cent said they had demanded the TLRD staff measure the land again because they thought it was not correct. However, the staff re-measured only if the farmer paid money for this service.

According to the compensation policies described in the booklet published by SEAOP/GP, the pipeline construction works should begin only after compensation was paid to the farmers. However, the compensation was actually given to the farmers in two instalments: one at the beginning of the construction and another before the completion of construction. According to the research findings, 48.24 per cent of the farmers said they got the first instalment of the compensation only after the company cleared their farmland for pipeline construction, but40.39 per

cent of the farmers said they received the compensation before the pipeline construction began. At this point, the research found some irregularities in the payment of the second instalment of compensation. There were incidents in which the farmers received a significantly lower payment than the agreed amount, with the excuse that the compensation had been miscalculated. The farmers said they were not satisfied with that excuse, but they had to accept it because they had already received the first instalment.

In conclusion of this section, the research analyzed the following points: first, at the stage of the land measure process, the Project's land acquisition working group did not explain to the farmers that the farmlands would be "permanently confiscated". This could be because they were worried the farmers would oppose the Project if they knew this sooner. Second, the TLRDs in all six townships did not practice a simple and transparent process such as measuring the farmland in front of the farmer, recording the results in a specific form with the agreement of the landowner, letting the farmer sign, and giving a copy of the document to them. Until now, many farmers still did not know the exact measurement results of their farmland, because the Project did not give them an official copy of either the land measurement document or the compensation agreement. Third, the research found that most of the disputes and corruption on compensation occurred around land which did not have a land entitlement document. These lands included village commons, shifting cultivation lands, animal pastures, firewood forests, agro-forestlands, etc., as well as many farmlands inherited by farmers from their ancestors without document. Taking advantage of these weaknesses, the corrupt local officials either negotiated with the concerned farmer to get his own profit from the compensation, or instead used his position and power to enlist a "ghost name" (a name belonging to nobody) to deceitfully receive compensation money without the farmer's knowledge. In Section 6.4, the research will describe these corruption cases in detail.

6.3. Land and Crop Compensation Agreements

Land acquisition for the Project was carried out for two purposes: permanent and temporary land use. The land use for the ROW, the compressor stations and valve stations were confiscated permanently, and the government of Myanmar allowed foreign-owned CNPC-SEAP to own these lands legally, according to the booklet titled "Myanmar-China Oil and Gas Pipeline Project Booklet" (SEAOP & SEAGP, 2013: p. 25). The land and crop compensation agreements received and studied by the research team also states that the farmers had to relinquish their farmlands to CNPC-SEAP. The temporary land use was for living quarters for foreign construction workers, places for stockpiling pipelines and machines, and storage buildings for the construction materials for the three-year construction period. After the completion of the pipeline construction, these temporary lands were to be given back to the land owners in their original condition, meaning that all the materials related to the Project must be cleaned up properly and the land must be returned back to its original state as farmland. Either the permanent or temporary land use must be agreed by signing a contract agreement between the Project and the landowners.

In this Project, CNPC-SEAP mostly used permanent land, and this research looks at how the Project carried out the permanent land acquisition for ROW. Theoretically, it was agreed by both representatives of the MOGE or CNPC-SEAP and the individual farmers signing a land and crop compensation agreement. Therefore, the research team conducted hundreds of in-depth interviews with the farmers and studied the following points to see if this took place, such as: whether both parties were mutually consulted over the text of the land and crop compensation agreement; whether the farmers were allowed to study the text of the agreement before signing it; whether the Project gave a copy of the signed agreement to the farmers for their evidence; whether the farmers fully understood the language and composition used in the agreements; whether the calculation methods and amounts of land and crop compensation were clearly described in the agreement; and whether the farmers legally possessed the right to use their farmland. The results are described in Figure 5.

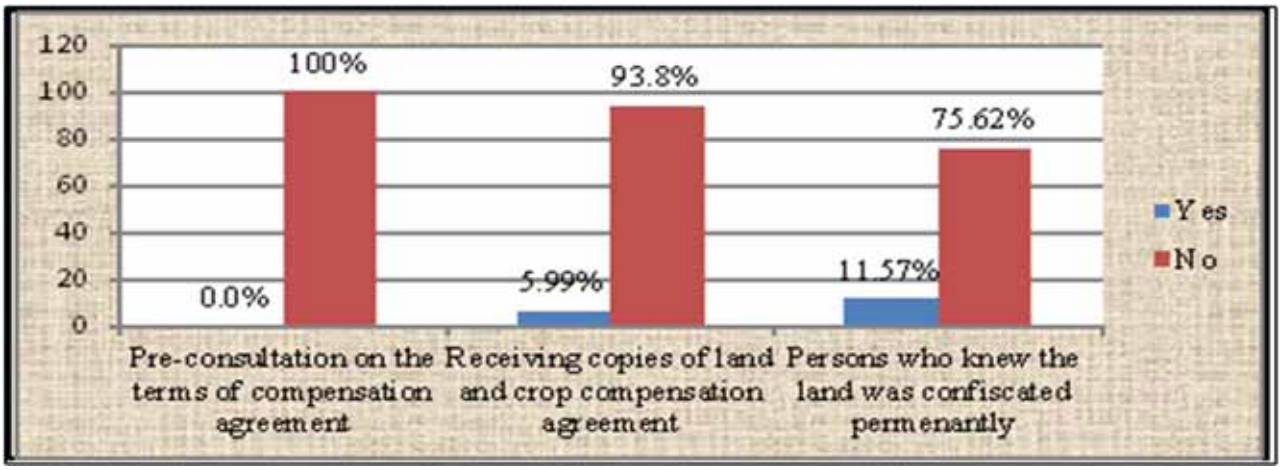


Figure 5: A study result of the land and crop compensation agreement
Source: MCPWC field research data

According to the research findings, the 968 farmers interviewed by the research team answered unanimously that the text of the land and crop compensation agreements were written by the Project, without any consultation with the farmers. Until now, none of the affected farmers in Ngaphe and Kyaukpadaung townships had a copy of the agreement at all. Some farmers in Yenanchaung, Singaing, Kyaukme and Kyauk Phyu received a copy of the agreement at different times, such as three months, six months, or even more than one year after they signed it. Only then did they realise that their farmlands were being taken away for generations.

The research findings show that 93.8 per cent of the farmers have still not received a copy of the agreement. Only 5.99 per cent have their copy. Until now, 75.62 per cent of the farmers questioned believed that they still owned the farmland used for the 30-metre ROW, and just 11 per cent received a copy of the agreement and knew they had to completely relinquish their farmlands for generations. There were a few elderly farmers (e.g. Shan, Ta'ang or Palaung, Asho Chin and Rakhine) in their 70s and 80s who were not able to speak Myanmar languages, and found it hard to give a clear response to the question.

Moreover, the research also found differences between the words and deeds of the Project both during the land measurement process and in the signing of the land and crop compensation agreements.

6.3.1. Differences in Policies and Practices of Pipeline Construction

The land acquisition for the Project had to be carried out in accordance with Myanmar laws. As the representatives of the government of Myanmar, the government officials from MOE and MOGE, TLRD and TGAD explained about the Project to the farmers in some ad-hoc meetings. In such explanations, the major points were: (1) The pipeline construction could take three years; (2) While constructing the pipelines, the farmers could not grow crops on their farmland; (3) For that, compensation would be given to the farmers; (4) After completing the pipeline construction, the Project would restore the farmland to the local people for re-vegetation; (5) The farmers would not lose their farmlands and could then re-start agricultural activities as usual. Therefore, considering these facts, the farmers thought that the Project would just bury the pipeline under their farmland, and they would get compensation for the construction years without losing their lands forever. Thus, the farmers said they agreed the terms verbally explained by the local authorities.

At the actual moment of payment for the land and crop compensation, the farmers found that the money was given in two instalments. The compensation ceremony was held in various places such as the Township General Administrative Office, the Village Track Administrative Office, Damayone (Buddhist religious place), schools, monasteries, etc., and the farmers in one village tract after another were given compensation. The Project's land acquisition working group members, including representatives from CNPC-SEAP, the officials from MOE and MOGE, the officials from TLRD and TGAD, Heads of Village Tracts and Villages, and farmland owners, were present at these ceremonies. The representatives from sub-contractor companies hired by CNPC-SEAP also took part.

Figure 6: A farmer from Singaing Township signing the compensation agreement (Left) and a farmer from Thibaw Township receiving the compensation money (Right)
Source: SEAOP/GP's Myanmar-China Oil and Gas Pipeline Project booklet (May, 2013)

The farmers remembered that the authorities told them that only if they signed the land and crop compensation agreement, would they receive the compensation money. So they had to sign an agreement they did not get a chance to see or read. Some farmers did not even know what kind of document it was, and simply said: “I had to sign on a paper.” At the time of signing the agreement, the authorities already turned down the first pages of the agreement (which contained the most important information) and opened the signature page in which the farmers had to sign under “Transferrer.” The compensation money was packed with yellow envelopes or black plastic bags, and a photograph was taken when the farmer received the compensation. The farmers did not see the text of the agreement in the first few pages, and did not know that they had the right to ask for a thorough reading of the document before singing it. They also did not dare to ask for their right to read it. Some farmers did ask the officials to read the text, but it was rejected, with the excuse that time was limited. Therefore, there are lots of farmers who did not even know the title of the agreement. In Figure 6, a woman farmer from Singaing Township can be seen signing the agreement, and the first pages are already folded. The photo shows exactly the situation that the farmers described to the research team.

Figure 7: Envelopes and plastic bag used to pack compensation money in Ngaphe
Source: MCPWC field research data

In fact, it was the responsibility of the Project authorities to allow the farmers to read the agreement in detail, until they fully understood it. The authorities were also responsible for instructing the farmers not to sign the document without first reading it thoroughly. But the research team found that the Project did not do this. Therefore, the compensation process was not transparent at all, regardless of the fact that the compensation was given in public ceremonies.

Also, as shown in Table 4 below, the farmers recalled the words of intimidation they received as pressure to sign the agreement.

Table 4: Intimidation experienced by affected farmers in compensation process

Intimidation Experienced by Affected Farmers in Kyauk Phyu

- "If you do not sign the agreement, we will confiscate your farmland without compensation.
- "You must accept compensation without any complaint. If not, you will not get it."
- "If you do not sign the agreement, you will be kept in jail and the farmland will be confiscated."

Intimidation experienced by Affected Farmers in Ngaphe

- "Your farmlands can be confiscated without compensation, but we show our mercy by giving it to you. Have you ever seen such a large amount of money?"
- "Take it when we give you, or you will not get it later."

Intimidation experienced by Affected Farmers in Yenanchaung

- "What you own is just land for [burying] your body, the rest is owned by the State."
- "We asked for more compensation for the sake of the farmers, we are with you."

Intimidations experienced by Affected Farmers in Singaing

- "Sign the agreement or you will be sued."
- "The pipeline will cross your farmlands, no matter whether you accept compensation or not."
- "Take whatever we give, or we will definitely construct the pipeline regardless of your acceptance."

Intimidations experienced by Affected Farmers in Kyaukme

- "The pipeline will definitely cross, whether or not you accept compensation."
- "If you do not sign the agreement, your farmlands will be confiscated freely."

Source: MCPWC field research data

6.3.2. Differences in Compensation Agreements

MCPWC research team studied the land and crop compensation agreements in four out of the 6 townships where the team conducted field research work. Also, the team had the chance to interview some affected farmers who live in Htan Chauk Pin and Zecho Pin in Chauk Township, and also studied copies of the agreements from that township. The two villages exist on the border with Kyaukpadaung. According to the research findings, the agreements in Yenanchaung and Chauk were written in Myanmar language only, but the other agreements from Kyauk Phyu, Kyaukme and Singaing were written in two languages: English and Myanmar. In Table 5, there is a detailed comparison of the two different agreements.

Table 5: A comparison of the two different compensation agreements

Land and Compensation Agreement written in Myanmar language (Yenanchaung and Chauk) (Unofficial Translation)	Land and Conpensation Agreement witten in English-Myanmar languages (Kyauk Phyu, Kyaukme, Singaing) (Extract from Original Texts)
Title: Agreement Bond relating to the Transfer and Relinquishment of the Right to Use Land or the Right to Farming and the Crops	*Title:* Agreement Bond relating to Transfer and Relinquishment of the Right to Use the Land and/or the Crops
Date of Signing on Agreement Yenanchaung: October, 2011 Chauk: September, 2011	*Date of Signing on Agreement* Kyauk Phyu: March and June, 2010 Singaing: August, 2010 Kyaukme: February and April, 2012
Paragraph 1: Between U/Daw…… and Myanmar Oil and Gas Enterprise on behalf of the Myanmar-China Oil and Gas Pipeline Project Shareholder Companies and Countries (hereinafter "MOGE") mutually agree upon:	*Introduction Paragraph:* By and Between U/Daw…...of the first part and CNPC South East Asia Pipeline Co. Ltd., International Corporation having its registered office at Changping District, Beijing, China (hereinafter called "Operator") of the other part agree as follows:
Paragraph 1-A: hereby agrees and accepts the transfer to MOGE, of the entirety of TRANSFERRER's interests, rights, and privileges pertaining to the PLOT thereof.	*Paragraph 1:* …hereby consents, agrees, and accepts the transfer to the Operator of the South-East Asia Gas Pipeline Co. Ltd., Joint Venture Partners acting on behalf of MOGE (hereinafter called "COMPANY"), of the entirety of TRANSFERRER's interests, rights, and privileges pertaining to the PLOT thereof.
Paragraph 1-B: TRANSFERRER acknowledges and agrees the rates in connection with compensation.	*Paragraph 2:* TRANSFERRER acknowledges…the rates in connection with compassionate compensation.
Paragraph 1-C: TRANSFERRER acknowledges and agrees that there are no liabilities by way of Government taxes… and he/she assumes all responsibility for any liability arising thereafter.	*Paragraph 3:* TRANSFERRER declares that there are no liabilities by way of government taxes…and he/she assumes all responsibility for any liability arising thereafter.
Paragraph 1-D: TRANSFERRER acknowledges and agrees that he/she fully receives in two instalments the compensation relating to the transfer of the right of use of the Land and the crop from	*Paragraph 4:* TRANSFERRER acknowledges that he/she has received from COMPANY in adequate and full compassionate compensation relating to the right of use of the Land and/or the crop, the

Myanmar-China Oil and Gas Pipeline Project, consisting of: (1) Compensation in value of (x.xx) acres of land xxx,xxx/- (2) Compensation for the permanent transfer of the right for farming (including the value of lost crops) xxx,xxx/- (3) Total amount x,xxx,xxx/- (amount in words) Furthermore, he/she acknowledges and agrees that the above compensation is the one and only payment and he/she hereby pledges not to demand any additional compensation for the permanent transfer of the entire rights pertaining to the PLOT.	total sum of Kyat x,xxx,xxx/- (amount in words) Consist of: (a) xxx,xxx/- (amount in words) for the permanent transfer and relinquishment of the right to use the land; (b) xxx,xxx/- (amount in words) for the crops compensation and others relating to the permanent transfer and relinquishment of the right to use the land. Furthermore, he/she understands and accepts that this compensation is the one and only payment he/she will receive relating to the use of the plot by the COMPANY. Therefore, he/she hereby pledges not to demand for any additional compensation from COMPANY for the permanent [transfer] of right of use of the land and/or the crops.
Paragraph 1-E: TRANSFERRER acknowledges and agrees that the above-mentioned PLOT is transferred to MOGE permanently with Form *La Na* (39). After the completion of the pipeline construction project, the right for farming will be given to the TRANSFERRER, but he/she really understands, accepts and agrees that MOGE will never ever give compensation for the loss of crops due to the repairment of oil and gas pipelines, no matter how many years it lasts.	Not included
Paragraph 1-F: Hence, as TRANSFERRER has already received the first instalment of the land and crop compensation at the day of signing this agreement, the entire rights, interests and privileges of the Land are relinquished now after signing this agreement. TRANSFERRER agrees that the Land and the entire rights relating to the	Not included

Land are transferred to MOGE.	
Paragraph 1-G: TRANSFERRER agrees that the Pipeline Project can begin in the Land at the day of signing this agreement.	Not included
Paragraph 1-G: TRANSFERRER knows that at the day of signing this agreement, he/she does not own the Land that is transferred to Myanmar-China Oil and Gas Pipeline Project. TRANSFERRER pledges that he/she will not do anything at all such as growing perennial trees, building houses, digging underground water or ponds, burning bushes, etc.	Not included
Not included	*Paragraph 5:* TRANSFERRER acknowledges that the above mentioned sum of compassionate compensation x,xxx,xxx/- (amount in words) has been disbursed in the presence of TGAD with their full knowledge of the circumstances, by the COMPANY representatives, who have put their signatures below in concurrence.
Not included	*Paragraph 6:* Therefore, TRANSFERRER hereby declares that he/she relinquishes any and all of his/her interest, rights, and privileges in, or in connection with the PLOT and/or the crops thereon, in consideration of the compassionate compensation received, and furthermore declares that he/she will vacate and give up peaceful possession of the PLOT upon five (5) days notice in writing by CAMPANY.
Paragraph 2: In Witness whereof the parties and witnesses have hereunto set their hands in concurrence to this agreement, the day, month and year first above written.	In Witness where of the parties and witnesses have hereunto set their hands in concurrence to this agreement, the day, month and year first above written.
TRANSFERRER _____ Name:	*TRANSFERRER* _____ Name:

ID No.: Position: Address: *RECEIVER* _____ On behalf of Myanmar Oil and Gas Enterprise U…….. (Director - Administration) Myanmar Oil and Gas Enterprise	ID No.: Position: Address: *COMPANY* _____ Name: Chinese Name ID No.: Chinese ID Position: Director or Land Expropriation Coordinator Address 1: South-East Asia Crude Oil Pipeline Co., Ltd. (in Kyauk Phyu) Address 2: China Petroleum Pipeline Bureau (in Singaing) Address 3: South-East Asia Gas Pipeline Co., Ltd., and Daqing Construction Group. Co., Ltd., or CCDC Co., Ltd. (in Kyauk Me)
WITNESSES CNPC, CPP MOE, MOGE TGAD, TLRD Village Tract Administer Village's Respectful Person	*WITNESSES* MOE, MOGE TGAD, TLRD Village Tract Administer

Source: MCPWC field research data

When comparing the above-mentioned two types of agreements, the research found that there are differences in the structure as well as the text of the agreements. The agreement written in Myanmar was formed of three pages, and the first two pages were covered with text. At the end of the second page, it was a place for the signatures of "Transferrer" and "Receiver." The third page is for those to sign as witnesses. The farmer signs in the place of "Transferrer" while an official from MOGE signs in the place of the "Receiver." The witnesses are representatives from CNPC and C.P.P, MOE, MOGE, TGAD, TLRD, a Village Tract Administrator and a respectable person from the village, who is usually Village Head.

The English-Myanmar agreement was written in two columns, in which the right column is in English and the left column is in Myanmar language. The agreement was formed of five pages and the first three pages were covered with the text. On the fourth page, one finds the conclusion paragraph and signature places for "Transferrer" and "Company." The farmer signs in the place of "Transferrer." But in the place of "Company", it is signed by different companies, such as a Chinese company official from SEAOP in Kyauk Phyu, a Chinese company official from C.P.P. in Singaing, two Chinese company officials from CNPC's subsidiary Daqing Construction Group Co. Ltd. or CCDC Co. Ltd., and SEAGP. The witnesses are representatives from MOE, MOGE, TGAD, TLRD and Village Tract Administrator.

There are nine weak points in these agreements: (1) Although it is a national-level bilateral economic cooperation project, the Project did not use a standard format for the agreement; (2) The use of language in the agreements is not unified; (3) The text in the two types of agreements are different; (4) Myanmar government tax stamps were not used except in Kyaukme; (5) The official trademark of MOGE was not used except in Chauk; (6) Despite being an international corporation, the official trademark of CNPC-SEAP was not used in the agreements in all six townships; (7) In any immovable property transfer agreement, it is the norm that both parties have to sign every pages of the document, but these agreements did not follow the norm – giving a corrupt person the chance to change the document's important facts, including the figures of the compensation amounts; (8) Although the witnesses should be from both sides, there are no witnesses from the side of the farmers and all the people signing as witnesses in the agreement are the government officials; and (9) Although there was a name of a respectable person in the witness list of the agreements, the research team found out that the person was actually the Village Head, the lowest authority of the government's administrative structure.

The most important point is that the existing laws in Myanmar did not allow a "foreign-owned" company to receive an inch of land within the sovereign territory of Myanmar, nor any ownership rights, directly from the citizens of the country. However, CNPC-SEAP wittingly violated the existing laws and directly received the farmlands permanently transferred by farmers in townships such as in Kyauk Phyu, Singaing and Kyaukme, using the phrase "on behalf of MOGE" in the agreements. In fact, MOGE is just a state-owned enterprise and does not have the legal authority to permanently transfer any part of the country's territory to a foreign-owned company.

6.3.3. Comparing Compensation Agreement with Existing Laws

The research studied whether the above-mentioned agreements are in line with existing laws in Myanmar. The first legal document that should be referred to is the "Constitution of the Republic of the Union of Myanmar 2008", in which Article 37/a stipulates: "The Union is the ultimate owner of all lands and all natural resources above and below the ground, above and beneath the water and in the atmosphere in the Union" (Constitution of the Republic of the Union of Myanmar, 2008: 10). Therefore, it would appear that the farmland in Myanmar is owned by the State. However, at this point, it must be made clear that the term "The Union" does not refer to the government, but to all

citizens living in the country. Article 4 of the Constitution makes this point clear: "The Sovereign power of the Union is derived from the citizens and is in force in the entire country." Although the government has the responsibility to manage the country's natural resources in order to develop the country economically, it should be in accordance with the desire of the people. This is effectively what Article 4 of the Constitution means. Regarding the management of land resources, there are existing laws which strictly control land ownership between citizens and non-citizens, or foreigners, and the government is responsible for following not only the law but also the spirit of the law.

Therefore, it should be clearly explained whether SEAOP/GP is a citizen-owned or a foreign-owned company under the legal term defined in the law "The Transfer of Immoveable Property Restriction Act 1987." Article 2/c of this states that "Foreigner-owned company" means a company or partnership organization whose administration and control is not vested in the hands of the citizens of the Union or whose major interest or shares are not held by citizens of the Union." As CNPC-SEAP owns 50.90 per cent of the shareholders in SEAOP and SEAGP, and is also the Project's operator, having the right to manage and decide its design, construction, operation, expansion and maintenance, the two companies are foreign-owned, according to the law.

As the definition of "Immoveable Property" in Article 2/d of the law includes land and buildings and items constructed on that land, it can also refer to farmlands used by the Project. In Article 3, the law states: "No person shall sell, buy, give away, pawn, exchange or transfer by any means immovable property with a foreigner or foreigner-owned company". In Article 4, it states: "No foreigner or foreign owned company shall acquire immovable property by way of purchase, gift, pawn, exchange or transfer". Therefore, the law prohibits both citizens and foreigners from selling, buying and transferring the land between them. However, Article 15 stipulates: "The provisions of this Act do not apply to companies or organizations that have relevant beneficial contracts with the state." This means that if a company signs a business agreement with the government and needs to use a plot of land to run the business, the government can lease the land owned by the State. But if the land use is related to foreign investments, the government should only allow the company to use the land in accordance with the foreign investment law.

Therefore, the new Foreign Investment Law enacted by the Union Parliament (or Pyidaungsu Hluttaw) on November 2, 2012, includes a chapter titled "Right to Use Land" and uses only the term "to lease the land" in the whole chapter. Likewise, the Ministry of National Planning and Economic Development enacted the Foreign Investment Bylaw on January 31, 2013 and Chapter 15 of the law is some detail about the "Right to Use the Land." Article 97 of the bylaw states: "With the prior approval of the Government of the Union of Myanmar, the Commission (referring to Myanmar Investment Commission) may allow the investor to lease the land in order to do business from a person who has the right to lease or use the following lands: (1) the state-owned land; (2) the land owned by a government department or organization; and the private-owned land."

[15] The generals from the successive military regimes to the present government used the two terms interchangeably and took all the lands they wished – for the sake of national interest.

Farmland can be categorized as state-owned land, according to the above three types of land. But in reality, the farmlands are practically owned by millions of farmers, who use the resources for their livelihoods, and the government cannot freely manage the lands as it wishes just because all land is state-owned, regardless of the socio-economic life of the farmer. On March 30, 2012 the Union Parliament enacted a new "Farmland Law", which includes the rights and conditions of the farmers. In Chapter 3, "Rights Relating to Permitted Farms", Article 9/b gives farmers the "right to sell, pawn, lease, exchange, or donate, in whole or in part, the right for farming in accord with prescribed disciplines." However, the farmers cannot use these rights to deal with foreigners directly and their rights are further curtailed in Article 14, which states: "A person who has the permission of right for farming should not be sold, pawned, leased, exchanged or donated to any foreigner or organization containing foreigners without the permission of the State Government."

If farmland is to be used for other purposes, for a long-term national project, Article (29) stipulates: "In the long-term national interest of the State, the respective implemented Ministry shall utilize the farmland for the Project, by the permission of the Cabinet of the Union Government after getting the remarks of the Central Farmland Management Body." If it is a joint venture foreign investment project between the government of Myanmar and a foreign-owned company, the company has to lease the farmland from the government, via a long-term contract. To lease the farmland to the company, the ministry concerned must first give fair compensation to the farmers in full before the land acquisition, and then secondly must lease the lands to the company by signing a long-term land lease contract.

At this point, neither the Farmland Law nor the Foreign Direct Investment Law states that a foreign-owned company investing in a joint venture project can receive the "permanent transfer" of farmlands from the farmers directly through a pattern of payment as "compensation." In reality, this was simply buying the farmland directly from the farmers. CNPC-SEAP, the main investor and operator of the Myanmar-China Oil and Gas Pipeline Project, directly received the permanent transfer of farmlands from the pipeline-affected farmers by giving them compensation for their land and crops, according to the evidence shown in the English-Myanmar bilingual agreement entitled: "Agreement Bond relating to Transfer and Relinquishment of the Right to Use the Land and/or the Crops". This is not in accordance with the existing laws in Myanmar.

After analysing the procedures of land and crop compensation used for the Project, the research team found that the Project carried out the land acquisition process in a situation in which the affected farmers lacked legal knowledge and did not know either their legal rights or their right to legal protection. There are a number of points that prove the Project was not transparent at all in this process, and they are: (1) the Project did not let the farmers know, transparently, that their farmlands were being confiscated permanently; (2) the Project drafted the land and crop compensation agreement without allowing the farmer to study, discuss or consult on it; (3) the Project allows the farmers to sign the agreement without them having any knowledge of the various terms and conditions written in it; (4) In some townships, not a single farmer received a copy of the agreement; (5) Therefore, the farmers did not and could not know whether the compensation amount written

in the agreement was the same as the one written on the compensation package; and (6), due to not having a copy of the compensation agreement or related documents, the farmers did not know how to categorize the land types and prices, the crop types and prices, and the calculation methods.

The research team also studied why the Project needed to confiscate the farmlands for the ROW permanently. It found that they did so with the reasoning that the land was needed so the pipelines could be maintained properly for their safety and smooth operation. At this point, the Project said it uses a system called "Supervisory Control and Data Acquisition (SCADA)", which has the capacity to monitor the pipeline function 24 hours a day and uses quality equipment for the safety of the pipeline, according to the information booklet published by SEAOP/GP. If the pipeline experiences a problem, even just a small leak, the system is able to detect the problem area and one of the Project's maintenance centres can immediately fix it. Given the use of advanced technologies in the pipeline construction and ongoing maintenance, the research team surmised that the Project might not often need to maintain the pipeline route, and if necessary, it might not need to maintain the entire 793-km long pipeline route. Therefore, the Project did not need to confiscate farmlands within the ROW permanently. Internationally, trans-boundary pipeline projects systematically construct pipelines in order not to damage soil quality from the beginning of the construction, and if it does become necessary to maintain the pipeline, the operators use helicopters to fix the problem area quickly (See Chapter 5). Likewise, after completing the pipeline construction, the international standard is to restore the affected farmlands for the farmers, so that they can continue their farming activities. By doing so, the international oil and gas companies practice an integrated strategy of poverty reduction in their global pipeline projects, to avoid contributing to a rise in poverty in rural areas.

6.4. Compensation Process and Problems

The land acquisition and compensation processes were interrelated in the Myanmar-China Oil and Gas Pipeline Project. Chapter 6.3 focused on a detailed analysis of the land and crop compensation agreement as well as the conditions in which the farmers had to sign it. While measuring farmlands for the land acquisition – and in many cases, ever since – the Project did not transparently let the farmers know about the details such as the type of land, the grade of soil quality, the crops and yield rates, the different prices of lands and crops, and the calculation method for compensation. In this chapter, the research will focus on the conditions under which the farmers had to receive compensation. Also, the research will focus on investigating how various local authorities extorted money from the affected farmers' compensation. The research will also document some irregular cases and disputes related to the compensation process.

According to the research findings in Figure 8, the majority of farmers interviewed for this document did not know the exact figure of the compensation written in the land and crop compensation agreement even though they signed it. However, 94.32 per cent of those interviewed said they did know the figure written on the packet of compensation money they eventually received. Just 4.25 per cent of the farmers have seen both figures, only after receiving a copy of the agree-

ment sometime after signing it. At that point, they checked that the two figures were correct and corresponding, but nobody knew whether the compensation amount was fair, because the agreement did not describe in detail the method of calculation.

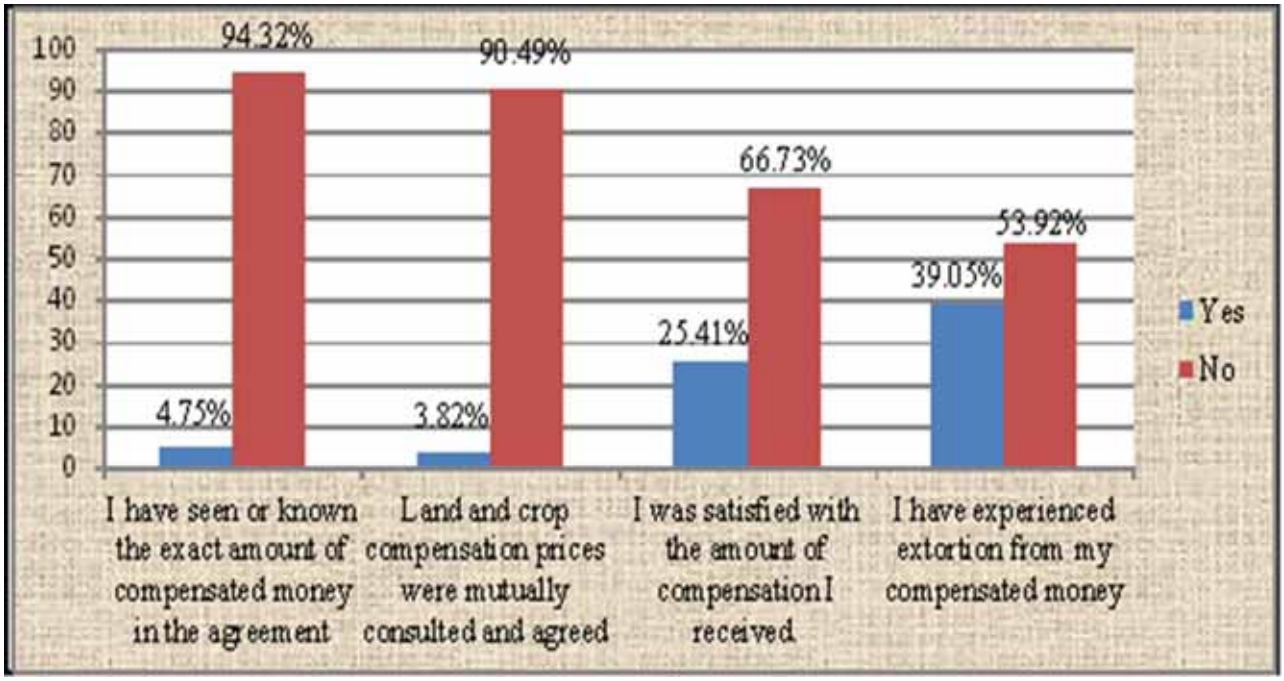


Figure 8: Problems associated with the land and crop compensation process
Source: MCPWC field research data

Just over ninety per cent of the farmers said the Project neither consulted nor agreed with them on setting the price of land and crops, while 3.82 per cent said that the local authorities called ad-hoc meetings in which they simply let them know the prices that the Project had already set. In Myanmar, there are at least five types of land – paddy fields, the land for seasonal crops, orchards, alluvial land and forest land. Among them, the soil quality of paddy and seasonal crop lands are divided into R 1, 2, 3 and Y 1, 2, 3, meaning that R1 and Y1 have high soil quality with the best price, while R3 and Y3 are low soil quality, with the lowest price. However, these categories are only on paper, and the TLRD has no standard price for different lands in practice.

Regarding the price of confiscated land, Dr. Aung Moe Nyo, Member of Parliament of the Lower House for Pyint Phyu Township, officially asked the Ministry of Energy at a parliamentary session held in September 2012, because the pipeline route crosses the township he represents. Minister U Than Htay replied as follows: "As there was no standard land price acre in the TLRD and other township-level institutions, the township authorities consulted with Village Tract and Village Heads, respectable people in the communities and the farmers in order to get no less than the current negotiated price, and after that, they set the land price." However, as we have already seen, the answer of the Minister and the findings of this research are sharply different. In fact, the township authorities asked village heads and brokers who buy and sell farmland in the townships to provide their proposed land prices and then set the land prices without consulting with the farmers, according to the majority of farmers interviewed by the research team.

When the research team asked if they were satisfied with the compensation, 66.73 per cent of the farmers said they were not satisfied, while 25.41 per cent said they are. The research team found that the feelings of dissatisfaction were not only based on the low sums of compensation received, but also on other practical reasons. These were: (1) Only when they received land and crop compensation, did they realise that their farmland was being permanently confiscated and they had been cheated; (2) the farmers felt angry at the words "Chinese-owned lands" used by some local authorities, referring to the confiscated farmland for the ROW; (3) the compensation money could be used for a while, but as the farmland could sustain the family livelihood for generations, the farmers said: "What we need is not money, but our farmland"; (4) For rural farmer families, there is a tradition that the parents usually give a plot of farmland as a wedding present to their son or daughter in order for the new couple to build their own family, but the affected farmers, particularly those who owned only a small area of farmland, unhappily said they no longer had any lands to give their son or daughter as their inheritance; (5) the farmers who had a small area of farmland before the Project were particularly unsatisfied with the process, due to becoming landless farmers as a result of it; (6) the pipeline route divided the farmer's farmland into two small pieces, and the farmland within the ROW was seriously damaged; (7) the farmers became depressed and did not want to grow crops on small pieces of land that could not even yield enough rice for the family; (8) As the farmland became fractured due to the pipeline crossing it, the value of the land was reduced, and nobody wanted to buy the lands near the pipeline; and (9) the Project neglected these indirect impacts on the farmers completely. As such, the research team found that the farmers lost much more, in many different ways, than they received in compensation.

Separately, lacking compassion toward the poor farmers, some corrupt members of the Project's land and crop compensation working groups extorted money from the farmers' payments using various reasons. In total, 39.05 per cent said they experienced such extortion – though those who did not represented 53.92 per cent of the total interviewed. At this point in the research process, while asking the farmers this question, the research team found that many were reluctant to answer it due to their concerns over potential repercussions. This could explain why the percentage who said "No" to this question is larger than those who said "Yes." Some farmers came to the research team again after they answered how much they had been forced to pay a corrupt village head or a staff from the TLRD, and requested the team not to expose their cases to the public for fear that they could face persecution later. However, some farmers asked the research team to use their names and photos openly in order to make their cases known publicly. This research document will continue to examine the extortion problems in the following Sub-section, 6.4.1.

[16] Ministry of Energy, Minister Office, Letter No. 1-1 Energy (1) (4262), September 14, 2012, page 3

6.4.1. Extortion from the Compensation Money for Personal Benefit

In this section, MCPWC's research team is able to document, in detail, extortion cases committed by corrupt members of the Project's compensation working groups when they carried out the land and crop compensation process. The research team cannot document extortion cases in the two pilot research townships, Yenanchaung and Singaing, because the team had very limited time in these regions and many detailed interviews to conduct. However, extortions case happened in four townships, such as Kyauk Phyu, Ngaphe, Kyaukme and Kyaukpadaung, and the research team was able to document them, and will explain further below.

The methods used to extort money from the farmers' compensation payments, according to their own personal experiences as told to the research team, can be summarised as follows: 1) the corrupt people extorted compensation money in amounts of tens to hundreds of thousands of Kyat, because they said that they calculated compensation money in favour of the farmers, or they added an additional decimal to the land measurement; 2) they extorted a certain ratio of money, between thousands and millions of Kyat, because animal pastures and fallow lands were listed as agricultural lands in order to get compensation; (3) they extorted a percentage from every farmer's compensation money (e.g. 2 per cent in Kyaukpadaung) to pay for the costs of food and beverages for the Project's compensation working group; (4) in cases where farmers got a large package of compensation in small currency notes, and thus could only calculate their money at home, they then found that the money was less than the figures described on the packet; (5) they extorted money from the farmers for reasons such as the school fund, the village administration office fund, the village development fund, etc.; and (6) they extorted money for reasons including a signature fee, a cost for tiredness, or costs for their travel, food, fuel, etc.

Table 6: Extortions from the farmers' compensation for personal profits

Township	No. of Villages	No. of Farmers/Cases	Extorted Money Amount in Kyat	Extorted Money Amount in USD[a]
Kyauk Phyu	9	28	52,343,000.00	65,428.75
Ngaphe	18	29	6,711,000.00	8,388.75
Kyaukme	12	22	27,964,000.00	34,955.00
Kyaukpadaung	10	23	5,840,000.00	7,300.00
TOTAL	**49**	**102**	**92,798,000.00**	**120,072.50**

Source: MCPWC field research data

a Exchange Rate: 1USD = 800 Kyat (Note: this was the government's official exchange rate at that time.)

Although a long list of extortion and corruption cases was documented in detail by the research team, the team decided to describe just a summary of the extortion cases in Table 6 in the document for public study, in order to avoid adverse effects for the concerned farmers. These cases happened at the township and village level, and the list is only the tip of the iceberg, considering that

the pipeline route crossed 21 townships in two states and two regions. Moreover, there are many farmers who did not dare to speak out about how much they had to pay and to whom they paid, according to the research team's first-hand experience. Likewise, the research team did not put on the list some farmers who said they paid because they were willing to pay or they have "saydana" in Myanmar language. For this research project, the intention to investigate the extortion cases and make them public is just to assess the Project's impacts on the affected farmers as described in the research objectives earlier. In some corruption cases in which local government departments and staff were involved, the local authorities conducted investigations, but took very little effective action against the corrupt officials.

Apart from the extortion cases, the research found irregular cases that were rooted in the weaknesses of the land acquisition process, such as the inaccuracy in recording land measurement results and a lack of transparency. These problems included: (1) When allotting compensation, the farmers who were genuinely working on the lands did not get compensation because unknown land owners appeared and claimed it was his or her land, and took the compensation; (2) Although there were no land plots and landowners' names owning these lands in reality, they were on the compensation list and took money; (3) The farmers who were genuinely working on the undocumented lands did not get the compensation and someone else took it by listing his or her name in the compensation list; and (4) the compensation for the village's common lands were received in the name of village heads, but nobody know where or how the money was then used. The research team has investigated these cases and will now describe them case by case.

6-4-2 Permanent Land Use Compensation Problems in Kyauk Phyu

In Kyauk Phyu, the research team found several problems related to disputes over land and crop compensations. Traditionally, the villages in Myo Chaung Island preserve the forests adjacent to their paddy fields because the forests are a source for fresh water. They also grow fruit orchards there as a type of agro-forest. Although the farmers kept the receipts for paying their farmland taxes as documents to prove their ownership of the farmland, they had no such documents for the fruit orchards. The research team found that most of the compensation problems which happened in the township were due to the corrupt officials who took advantage of this weakness for their own benefit. Disputes happened between two parties: the farmers on one side, and the local authorities who conducted land acquisition on the other side. This research paper will document below six major case studies among the disputes in the township.

[17] The term "Saydana" could be translated into "Generosity" in English.

Case Study 1: The Case of the Fruit Orchard in the Upper Land of Tay Kyaun (a.k.a) Lat Kwa Tain Kar Ye

Tay Kyaun (a.k.a) Lat Kwa Tain Dyke (locally known as Kar Ye) is located at Kapaing Chaung village, Myo Chaung Island. Before the pipeline was built, the dyke protected about 750 acres of paddy fields from saltwater intrusion. The paddy fields are a rice bowl for Kapaing Chaung Village, which has relied on them for many generations. The dyke was first built during the time of the parliamentary government in the 1950s, after Myanmar became independent from the British. It has been hit many times by monsoon storms which come in from the Bay of Bengal in rainy season. In 2010, Giri Cyclone hit Myo Chaung Island and destroyed the dyke, which was later repaired with the assistance of international and local donors. While the storm-hit paddy fields were ready to grow rice again in 2011, another storm hit the dyke and destroyed it. But it was not a natural storm this time, but rather the Myanmar-China Oil and Gas Pipeline that crossed the dyke and the paddy fields. The Project destroyed not only Kar Ye, but also the Kar Ye Association, which was formed by 161 farmers who owned the paddy fields equally and maintained the dyke between them.

The case began when the Myanmar-China Oil and Gas Pipeline reached Myo Chaung Island from Maday Island via an undersea route. When it reached the land, the pipeline crossed the paddy fields through Tay Kyaun Dyke. The pipeline was built across the fertile paddy fields and then went up to the upper land of the island, where natural Pyinkado hardwood forests exist. The pipeline crossed four creeks that run through the paddy fields as well as the Pyinkado forests that the farmers protected. The farmers who are members of the Kar Ye Association not only had the right to farm in the paddy field but also to protect the forests adjacent to the fields and prevent logging. Alongside the Pyinkada forests which they worked to preserve, the local people said they grew fruit orchards in the area as a means of earning extra income. In fact, it was a sustainable, environmentally-friendly local economy which is often seen in the rural areas of Myanmar.

When the research team interviewed U Mg Hla, a leader of the Kar Ye Association, he explained that using the pipeline route information the department received in advance from the Project, Kyauk Phyu LRD Deputy Chief U Wai Ba San and a member of his staff, Moe Linn Tun, collaborated with some villagers to transform some of the upper land area adjacent to the paddy fields into banana plantations. At that time, the villagers did not even know whether the pipeline would cross the village. When the pipeline construction works began on the island, they saw the pipeline route pass through the banana plantation which had just been cultivated, and the villagers realized why the lands had been transformed into banana plantations. The Kar Ye Association expected and hoped that these areas belonged to all Kar Ye members and the members would receive an equal share of the compensation money. However, the association heard that the compensation payments for these banana plantations were received and shared instead by LRD staff, as well as some villagers, because they jointly invested in the plantations. About the same time, a member of the Kay Ye Association found by chance a document on the roadside that someone seemed to have dropped

[18] Kar Ye is a local name of “Dyke” that was constructed by the villagers to prevent saltwater from intruding into the rice fields.

accidentally, and realised from this that there had been a business agreement about the land, formed between LRD staff member U Moe Linn Tun on one side and villagers including U Hteik Lone Chay, U Mg Sak Kay, and U Kyaw Phe on the other. The four villagers were not members of Kar Ye Association. The agreement described how the payments would be split between the two parties, with U Moe Linn Tun set to receive 60 per cent while the three villagers received 40 per cent. The signatures of LRD Deputy Chief U Wai Ba San and Head of Ghin Gyi Village Tract U Mg Soe Win were on the document as witnesses, with the stamp of the village tract on the contract.

Kar Ye Association knew the total amount of compensation for the disputed land area was 47,160,000 Kyat, which was divided into three payments: the first payment was 8,000,000 Kyat, the second payment was 15,580,000 Kyat, and the third payment was 23,580,000 Kyat. On 27 October 2011, five leaders of the Kar Ye Association led by U Mg Hla sent a complaint letter to the township and district LRD offices, demanding that the compensation should be equally allocated to the 161 farmers. On 30 October 2011, Kyauk Phyu LRD Chief called the five Kar Ye leaders to investigate the case. Although the five Kar Ye leaders presented themselves at the office, the LRD Chief did not ask them anything and instead brought U Mg Mg Soe, a member of the association who knew nothing about the case, into a room for the investigation. The LRD Chief also did not conduct an investigation on the ground. The five leaders just sat outside the office and then eventually went back to the village. U Mg Hla said that he was not satisfied with the behaviour of the LRD Chief and believed that it was not a proper investigation. However, some of the compensation money – a total of 18,810,000 Kyat – was given to 57 members of the association. Each member got 330,000 Kyat. Nobody knew who took the other part of the compensation, which totalled 28,350,000 Kyat. But, coincidently, the research team found that the two portions of money met the 6:4 ratio described in the agreement between U Moe Lin Tun and the three villagers.

Before, Kar Ye Association had been very united, but now it was divided into two factions. One group was made up of the 57 people who had received compensation, and the other was made up of 104 people who had not received compensation. In order to try to retrieve the missing 28,350,000 Kyat for these remaining local people, the 104 members of the association jointly signed a letter and submitted it to the TGAD – but to no avail, as U Mg Hla later told the MCPWC research team.

Case Study 2: A Case Study of Three Farmers in Yadana Village, Myo Chaung Island

In this case study, the pipeline route crossed orchards owned or farmed by three farmers: U Tun Win Oo, U San Htay and U Thein Tun, who live in Yadana Village in Myo Chaung Island. U Tun Win Oo worked in the paddy field and the orchard owned by his mother-in-law Daw Ma Soe Khine. The paddy field owned by Daw Ma Soe Khine is located in Plot No. 74 in Field No. 338 of Yadana Village. U Thein Tun farmed land owned by his mother Daw Yai Nu Phyu, and her paddy field is located in Plot No. 32 in Field No. 338 of the same village. U San Htay's paddy field and orchard is next to Daw Yai Nu Phyu and Daw Ma Soe Khine's. According to interviews with the three farmers,

[19] The MCPWC research team received a copy of the agreement as evidence for the research.

[20] In the original copy of the agreement received by the research team, it states the ratio as 6 per cent and 4 per cent.

a four-member land measurement team led by TLRD Deputy Chief U Wai Ba San with TLRD staff U Moe Lin Tun, the then-Village Tract Head U Mg Mg Shein and U Mg Thein Han, came to Yadana Village to measure the three farmers' lands for the pipeline route. They also recorded the types and numbers of trees within the ROW in November 2011.

When the team was measuring the lands, U Tun Win Oo was in his orchard and witnessed their activities, but U San Htay and U Thein Tun were not there. During the compensation payment ceremony, the three farmers noticed that their names were not on the list. They went to the TGAD and asked Administrator U Kyaw Thu Soe (a retired army captain) whether he could tell them who took away their compensation, but they ended up just being asked by the Administrator: "Who took it?" Although the farmers requested the Administrator investigate the case, he merely replied that he could not do it. Therefore, they made a complaint at TLRD, but the office replied that the farmers had to do it by themselves. Finally, they went to the home of U Wai Ba San, who measured their lands and recorded the trees, and asked him why they did not get compensation. He said he did not know about it and could not do anything at that time.

On 15 May 2012, the farmers sent a complaint letter to the Rakhine State Chief Minister and the Special Investigation Department to investigate and solve the case, but to no avail. Later on, U San Htay found out that U Mg Thein Han, who was a member of the land measurement team, took U San Htay's orchard compensation in his name. When U San Htay met him face to face and asked him about it, U Mg Thein Han promised that he would give the second instalment of the compensation to U San Htay, in a bid to calm him down – but he when that money arrived, he did not give it to U San Htay either. U Mg Thein Han took 1,500,000 Kyat for the orchard that was owned by U San Htay. U Tun Win Oo and U Thein Tun do not yet know who took their compensation payments, and how much they were. Although U Mg Thein Han was not a resident of Yadana Village, he pretended that he was the owner of the orchard and took the compensation money, but still did not face a lawsuit against him.

Case Study 3: Compensation Disputes in Kapaing Chaung Village, Myo Chaung Island

Daw Than Than Tin, who lives in Kapaing Chaung village, bought some farmland owned by her fellow villager U Kyaw Mya Thein 20 years ago and has worked on it ever since. Although Myanmar's former laws on agricultural farmland did not officially allow farmers to sell their land, usually a farmer mortgaged or sold their lands to another farmer partly or wholly due to financial problems, and the deal was done in front of some witnesses without any legal documentation. When the pipeline passed through the farmland owned by Daw Than Than Tin, knowing the weakness of the legal ownership from the perspective of Daw Than Than Tin, the former owner of the land U Kyaw Mya Thein saw an opportunity. He collaborated with the head of Ghin Gyi village tract U Mg Soe Win and TLRD Deputy Chief U Wai Ba San to put his name as an official landowner on the compensation list, instead of Daw Than Than Tin's name. Then, U Kyaw Mya Thein took the first instalment of 2.4 Million Kyat of compensation money.

Daw Than Than Tin knew U Kyaw Mya Thein's deception and made a formal complaint four times to U Mg Soe Win, but no action was taken against him. Therefore, she sent another complaint letter to the District LRD office. Only then, an investigation team led by TGAD Deputy Chief U Kyaw Nu came to the village and investigated the case. The team found out the case history by asking in the neighbourhood of Daw Than Than Tin, but did not ask her directly. The neighbours confirmed that Daw Than Than Tin was the actual owner of the land. On February 20 2012, a team composed of TGAD Chief U Kyaw Thu Soe, TLRD Chief U Aye Win Soe and Special Officials from MOGE U Ohn Khine and U Hla Maw held a meeting with the two farmers involved in the case at the Township General Administrative Office in Kyauk Phyu, and solved the dispute in favour of Daw Than Than Tin. TLRD Chief U Aye Win Soe announced the decision that Daw Than Than Tin should get the second instalment of the compensation, without addressing the issue of the first instalment taken by U Kyaw Mya Thein. (Note: MCPWC received a copy of the meeting note as evidence). However, when the second compensation payments were distributed in the village, contrary to the official decision, U Kyaw Mya Thein still took nearly half of the compensation payment (1,255,000 Kyat) and Daw Than Than Tin received just 1,355,000 Kyat. She sent a complaint letter stating that she had not received the full compensation from the second payment to the township administration office. However, they said it is none of their business and could not do any more about it. As Daw Than Than Tin is a widow and has to take care of her blind parent, she had to give up the case in the face of the negligence of the authorities.

Case Study 4: Forced Extortion after Compensation at the Jetty in Kyauk Phyu

When the Project gave the first instalment of compensation to the villagers in Kapaing Chaung Village, in a ceremony held at the Office of Township General Administration, five villagers (namely Daw Ma Win Nu, U Kyaw Thein, Daw Ma Mar Lar Ye, Daw Ma Kyaw Thein and Daw Ma Win Tin) received their compensations and returned home. On the way back home, they were sitting in a boat at the jetty in Kyauk Phyu. Before the boat left, TLRD Deputy Chief U Wai Ba San, TLRD staff member U Moe Linn Tun and Ghin Gyi Village Tract Head U Mg Soe Win, as well as U Tun Win, came on board and searched their bags without reason. Then, they forcefully extorted a total of 4.9 million Kyat from the compensation payments of the five farmers. The money taken was 1.5 million Kyat from Daw Ma Win Nu's compensation, 1.5 million Kyat from U Kyaw Thein's, 1 million Kyat from Daw Ma Mar Lar Ye, 500,000 Kyat from Daw Ma Kyaw Thein, and 400,000 Kyat from Daw Ma Win Tin. The five farmers filed their case at Kyauk Phyu Police Station immediately and the police spoke to four witnesses who were on the boat: U Mg Tin Maung, U Than Maung, Mg Win Myint and Ma Tin Shwe Oo. They all confirmed that the case was true. Therefore, the police station brought the case to the township court in Kyauk Phyu, but the court investigated the plaintiffs and turned down the case without investigating the defendants. Then, the five farmers hired a lawyer and brought the case to the District Court, but the judge turned down the case again. The five farmers believed that U Wai Ba San and his colleagues used money and their personal connections with the authorities to block the farmers' attempts to bring the lawsuit against them. As a result, the farmers neither got back their money, nor did they find justice for their case.

Due to the accusations of extortions and corruptions, including the case of the five farmers, U Wai Ba San and U Mg Soe Win were later subject to an internal investigation by their respective departments. Due to his misdeeds, U Wai Ba San was suspended from his position and transferred to Yanbye Township next to Kyauk Phyu. As a result of the accusations that he abused his power and extorted money from the farmers' compensation, U Mg Soe Win was also investigated by a township investigation team and removed from his position. However, he did not face any legal action, according to the interviews the research team did with the present village head U Than Maung and the villagers.

Case Study 5: Taking compensation for farmlands that exist only on the map, but not on the ground

While conducting field data collection in Kyauk Khamauk Village, Myo Chaung Island in Kyauk Phyu Township, the MCPWC research team discovered three strange cases. The nature of these cases is that there were three plots of farmlands on the compensation list, but they all existed only on the map, and not on the ground. During interviews with six farmers from Kyauk Ka Mauk village, namely U Aung Soe Win, U Zaw Zaw, U Mg Than Khin, U Soe Aye, U Mg Htin Kyaw, and U Aung Thaung, they explained these strange cases in detail. On 29 May 2012, the Project held a ceremony to pay compensation to the affected farmers in Kyauk Khamauk Village at the Office of Township General Administration in Kyauk Phyu. TGAD Chief U Kyaw Thu Soe presided over the ceremony and gave the compensation payments by reading out the list, where the names of the farmers appeared in line with the serial numbers of the field and land plot registered at the TLRD.

Case Study 5.1: While distributing compensation payments to the farmers, U Kyaw Thu Soe called the name "U Linn Min Ko" together with the number of the land plot. However, the villagers in Kyauk Khamauk knew full well that this person was not their fellow villager. Also, they knew that the number of the land plot called by the TGAD Chief was the one theoretically between land owned by U Aung Soe Win and U Mg Htin Kyaw, and it did not exist on the ground. At that point, U Mg Than Khin stood up and said that there was nobody with such a name in the village, and the farmland did not exist either. Therefore, the TGAD Chief simply put aside the compensation money package prepared for U Lin Min Ko and continued his work, without checking the error with the TLRD officials attending the event. Because of that unexpected case, the villagers from Kyauk Ka Mauk noticed that there was a land plot and landowner on the compensation list that had never existed in the village in real life, and wanted to find out more.

To solve the puzzle, U Aung Soe Win and U Mg Htin Kyaw felt that the case could be somehow related to their land, and decided to measure their farmlands used for the pipeline construction. The two farmers found that, although the Project used 0.80 acres of land owned by U Aung Soe Win, he only received 2.05 million Kyat of compensation for 0.50 acres. Similarly, the Project used 1.17 acres of land owned by U Mg Htin Kyaw, but the compensation amount was the same as that paid to U Aung Soe Win. Until that point, U Mg Htin Kyaw had not known the official figure of how much of his land had been confiscated by the Project because he did not get a copy of the compensation

agreement. Therefore, it could be concluded that someone had created a new land plot by taking some decimals from the lands of U Aung Soe Win and U Mg Htin Kyaw, just on the map, and listing the owner's name "U Lin Min Ko" in order to get some compensation money. However, the TGAD Chief did not know about this, and called the unknown name and land plot. Thus, the villagers learned of the case by chance.

Case Study 5.2: This is a similar case to the one described in Case 5.1. In this case, there was a new land plot created on the map between the farmlands of U Mg Than Khin and U Zaw Zaw, but it did not exist on the ground. After TGAD Chief U Kyaw Thu Soe called U Mg Than Khin and gave him his compensation payment, the next serial number of the land plot was the one owned by U Zaw Zaw. Thinking it was his turn, U Zaw Zaw stood up and was going forward to collect the payment, but the Chief called the name "U Kyaw Linn Tun" and his land plot register number. U Kyaw Linn Tun took 1 million Kyat for his compensation. U Kyaw Lin Tun is the son of Kyauk Ka Mauk Village Head U Kyaw Thein, and everybody in the village knew he had no farmland of his own. U Mg Than Khin and U Zaw Zaw were very surprised to find out about a new land plot that did not actually exist between their farmlands, but they did not reject the case immediately. Later on, when they arrived back at the village and asked U Kyaw Linn Tun about the case, he said he just took the compensation in his name, but had to give all the money to U Wai Ba San, LRD Deputy Chief, when he left the ceremony. After 20 days, U Mg Than Khin and U Zaw Zaw decided that the case was related to their lands and sent complaint letters to TLRD, TGAD, former Chief Minister U Hla Maung Tin of Rakhine State Government, and U Ba Shin, Member of Parliament for the Lower House in Kyauk Phyu Township. Due to their complaint letter, when the second instalment of compensation was paid to the villagers, U Mg Than Khin and U Zaw Zaw received and shared 500,000 Kyat for the land that was actually created on the map by taking some parts of their farmlands. However, neither farmer got back the 1 million Kyat taken in the name of U Kyaw Linn Tun.

Case Study 5.3: In another similar case, there was a new land plot created on the map between the farmlands of U Soe Aye and U Aung Thaung with the name of the landowner "U Khin Maung Shwe", in Kyauk Ka Mauk village. Coincidentally, there is another person with the same name among the affected farmers. Thinking it was his turn, he moved forward and received the compensation, but found out that the identification card numbers were different. Therefore, as he did in previous cases, the TGAD Chief put aside the compensation package for the unknown U Khin Maung Shwe. In the second instalment of compensation payments, the unknown U Khin Mg Shwe was still on the list and his name was called again. At that moment, U Mg Than Khin stood up and said: "This U Khin Mg Shwe does not exist in this village and there is no farmland between the lands of U Soe Aye and U Aung Thaung." U Mg Than Khin recalled that the above three case studies happened in a single day, and he was the only one who stood up and made complaints about it. The officials became annoyed with his behaviour and asked him to leave the room as soon as he got his compensation, although he wanted to stay to witness what happened to the compensation packages which allegedly belonged to the unknown people.

Case Study (6) Compensation Dispute on Orchard in Si Mhaw Village, Ramee Island

When the MCPWC research team interviewed affected farmers in Si Hmaw Village, Ramee Island, Rakhine State, it found the case of U Chan Hla Oo, an elderly farmer in the village. He was born and made a living as a farmer in Si Hmaw Village, as other farmers did for generations, without having any official ownership documents. When the research team asked how the villagers recognized and respected the territory of each farmer's farmlands and associated orchards, U Chan Hla Oo explained: "According to the tradition of village life, no one would dare to cut down a tree in someone else's compound. It is an unspoken way of the traditional method of ownership in village life." Therefore, there was no dispute over land ownership for many generations until the Myanmar-China Oil and Gas Pipeline Project came into the village.

As part of the land acquisition process for the Project in Si Mhaw Village, U Chan Hla Oo's 0.60 acres of orchard was confiscated. The orchard was located on a bit of higher land, right above his paddy field, and he grew banana and plum trees. He also looked after some naturally grown Pyinkado (a valuable hardwood in Myanmar) trees in his orchard yard. When the first instalment of the compensation was paid, U Chan Hla Oo's family noticed that U Wai Lin Kyaw, a son of U Kyaw Wai, who worked as a clerk of TGAD in Kyauk Phyu, had received 2.2 million Kyat (half of the total compensation 4.4 million Kyat) as the owner of the orchard. Then, U Chan Hla Oo's daughter Daw San Shwe Aye tried to investigate why the compensation payment for her father's orchard was listed in another person's name. She found out that a group of people led by Daw Soe Soe Win, and another four people who did not live in Si Mhaw village, had applied for the right to use the land for a project to grow a perennial tree plantation at the TLRD. The designated land area included the orchard land of U Chan Hla Oo, without his knowledge. The TLRD issued Form 105, which was to confirm the location of the designated land area. As Si Hmaw Village is part of Sittaw Village Tract, Daw San Shwe Aye asked the Head of the Village Tract U Mg Khin Nu about the case and he admitted that he had signed the application. When it was time for the second instalment of compensation money to be paid, Daw San Shwe Aye officially claimed that the land was her father U Chan Hla Oo's orchard and he was entitled to get the compensation. She presented her petition to TGAD Chief U Kyaw Thu Soe and officials from MOGE, but the authorities took no action on it. At the time of conducting this research, the local villagers still have not seen a person called Daw Soe Soe Win, or seen where she lives. They assume U Wai Lin Kyaw could have received the compensation on behalf of Daw Soe Soe Win.

6.4.3. Permanent Land Use Compensation Problems in Ngaphe

In Ngaphe, the research team found most of the problems associated with the compensation of permanent land acquisition occurred in the mountainous part of the area, which is home to Asho Chin ethnic group. Among the problems, the research highlighted two significant cases, as described below.

Case Study 1: Compensation Disputes on Community Forest (CF) at Myay Latt Village

Myay Latt is a village in Bone Baw Village Tract, where ethnic Asho Chins live. Recently, the local residents have suffered from a rise in temperature in the area due to deforestation. The area, part of mountainous Ngaphe, was once covered with dense forests and the weather used to be quite chilly. To stop further climate changes, the Asho Chin ethnic community in Myay Latt formed a committee to establish a community forest (CF) in order to prevent their location from suffering further deforestation. The committee submitted an application to the Ministry of Forestry to establish a CF in 100 acres of forest land from "Mann" reserved forest, and the Ministry approved and issued a permission document in March 2006. Since then, Myay Latt CF Committee managed the CF by dividing it into two sections: reserved forest for 70 acres, and agro-forest for 30 acres. The committee grew valuable teak trees and also conserved valuable hardwood trees such as Pyinkado, Ingyin, and Thit Yar as well as Thit Seit, Kadi, Thitsay (used in lacquerware), Phann Khar and Mango. The CF committee had a good relationship with the Township Environmental Conservation and Forestry Department (TECAFD) in terms of submitting the CF's conservation plans and receiving technical support from the TECAFD. Furthermore, as one of the CF committee leaders Salai Mauk Mauk Kyaw told the research team in an interview, the committee was able to manage the CF independently because it was an entity that was not affiliated to the TECAFD.

When the CF members realised the pipeline route would pass through the CF, they contacted the District and Regional ECAFD through the TECAFD, and sent an objection letter. They said oil and gas pipelines should not be allowed to cross the CF and the Project should not be allowed to confiscate the land within the CF for the scheme, but their attempts failed. Instead, the committee conducted and documented a land measurement process, and counted the types and numbers of trees along the pipeline route within the CF. The CF committee allowed the TECAFD to negotiate with the Project over compensation, given its good relationship with the department. But to help with the process, the CF committee documented in detail the 20 acres of CF land and trees that were within the ROW, and demanded total compensation of 130 million Kyat (which is equivalent to 6.5 million Kyat per acre).

The committee did not yet know the results of the negotiations with the Project in terms of compensation when the machines began to clear the CF forest for the pipeline route. When the committee rejected the actions of the Project, an official from MOGE exposed the fact that the Project had already given 42 million Kyat to the TECAFD and asked the CF leaders to deal with that department. Only then did the committee realise that the TECAFD had already received the compensation money for the forest without letting the CF leaders know about it. The CF leaders then discussed the issue with the local authorities and an Indian official from Punj Lloyd Co. Ltd., the company responsible for the pipeline construction in the area. The Indian official was surprised to find that the CF leaders were able to communicate directly with him in English, and asked the local authorities in public why they had been led to believe that the local people in the mountainous regions were uneducated. At this point, the CF leaders realised the behaviour and attitude of the local authorities, who, it seemed, looked down on their own citizens and instead favoured the company officials.

The CF committee was not satisfied with the action of the TECAFD and sent a complaint letter to President Thein Sein. The Ministry of Environmental Conservation and Forestry (MOECAF) in Naypyidaw instructed its regional office in Magwe to solve the issue. TCEAFD Chief U Kyaw Myo Min discussed the situation with the CF leaders, and made the offer that they would allocate 22.9 million Kyat of the compensation to the CF committee. During the discussion, the CF leaders discovered the compensation value given to the lost trees within the CF, and realised with dismay that the value of a teak tree with a 6-inch radius trunk had been set ridiculously low, at 50 Kyat per tree. CF leader Salai Mauk Mauk Kyaw said the TECAFD calculated the amount of compensation without any consultation with the committee. The CF committee felt that the teak trees they had nurtured for years were almost priceless in their calculation, and felt outraged. They refused to accept the compensation deal offered by the TCEAFD. The problem had still not been solved when the researchers' fieldwork was conducted in Myay Latt Village in April 2015.

Case Study 2: Innocent Farmer Receiving Prison Sentence Due to the Project's Miscalculation on Compensation

The Myanmar-China Oil and Gas Pipeline crossed farmland owned by U Tun Shwe, a farmer who lives in Kywe Talin Village, Bone Baw Village Tract, in the mountainous part of Ngaphe. He duly received the compensation allocated to him at the compensation ceremony held in a school in Thar Yar Kone Village. U Tun Shwe, an ethnic Asho Chin, is illiterate. When he received compensation from the Project, he did not get a copy of the agreement. Therefore, he did not know the compensation amount written in the agreement – and would not have been able to read it even if he had seen the document – and instead accepted the 4 million Kyat as calculated by the Project authorities.

U Tun Shwe immediately used most of his compensation money to pay back his debts, money he had borrowed in the past to ensure his family's survival. The rest of the money was used for maternity care costs for his wife and new-born baby. However, about two weeks later, an official from the MOGE told him to come to the house of Village Head U Kyaw Lwin. He explained that they had miscalculated his compensation and given U Tun Shwe 4 million Kyat, but the correct amount was just 400,000 Kyat. Therefore, the MOGE official demanded the return of the extra 3.6 million Kyat. U Tun Shwe explained that he had already used most of the compensation money to pay back debts, and only 800,000 Kyat remained in his hands. The official warned him that if he could not pay back the extra money to the Project, he would be arrested and put in jail. U Tun Shwe and his wife Daw Nwe Nwe Win were arrested in Gok Gyi police station and the police did not allow Daw Nwe Nwe Win to breastfeed her one-month-old baby. Daw Nwe Nwe Win could not tolerate the unacceptable situation and called for help from her relative Daw Cho (aka) Daw Kyu Kyu San, who is a lawyer living in Pwint Phyu Township. When the lawyer contacted Gok Gyi police station by phone and said Daw Nwe Nwe Win was not related to the case and should be released, she was released after living in the police custody for one day and one night.

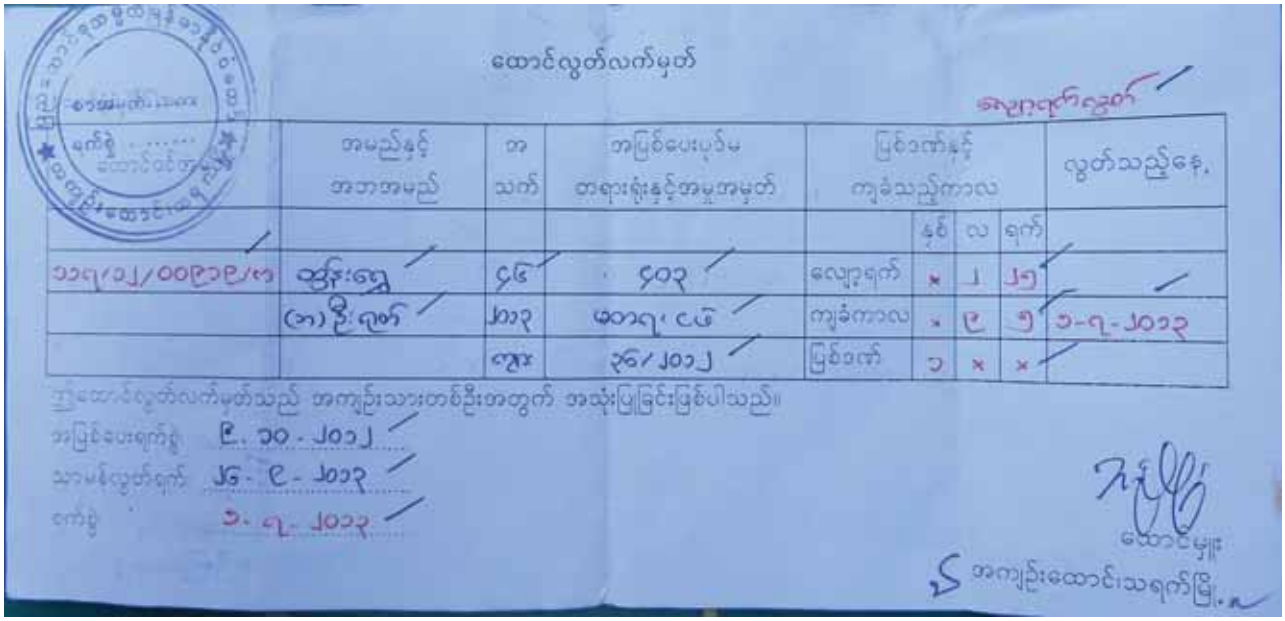


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Figure 9: U Tun Shwe's prison release document
Source: MCPWC field research data

The police also later released U Tun Shwe and brought him to the house of TLRD staff member U Ohn Myint in Padan Village Tract, where Gok Gyi police chief U Tin Maung Win and an MOGE official asked him to find 3.6 million Kyat within a week, or be sentenced to prison. After a week, U Tun Shwe could not find the money, and was sentenced to one year in prison according to Article 403 of the Criminal Code on October 9 2012. He served his prison term for nine months and five days at Thayet Prison, and was released on July 1 2013. U Tun Shwe told the research team that his case was totally unfair: he served a prison sentence because he simply accepted what he was paid. The authorities did not take action against the person who wrongly calculated the compensation.

6.4.4. Permanent Land Use Compensation Problems in Kyaukme

When the Myanmar-China Oil and Gas Pipeline passed through Kyaukme Township, Northern Shan State, it crossed a community firewood forest, common land and a cemetery. The village heads received compensation for these lands. However, the village headmen did not publicly announce that they had received the compensation, or where and how the money was used. The farmers interviewed by the research team expressed their doubts over the village headmen's behaviour and lack of transparency in managing the compensation money as a fund for the village. MCPWC research team was able to investigate three cases in Kyaukme and describes the findings as follows:

Case study 1: Compensation Issue with Community Lands in Bu Khar Village

The community firewood forest in Bu Khar Village is the main household fuel source for the whole village. As the pipeline route crossed the firewood forest, the villagers knew that the Project gave compensation for this. It was listed in the name of Village Headman U Aik San (aka) U San

Aw. When the research team interviewed U Kyaw Nyunt, an affected farmer at Bu Khar Village, he shared his experiences from the day of the compensation payment. U San Aw was called to receive the compensation, but an official from MOGE saw him and said: "Ok, we will pay you later!" Then, the authorities paid compensation to all the other affected farmers, leaving U San Aw behind. Seeing this strange behaviour, U Kyaw Nyunt did not return home even after he had received the compensation, and continued to wait in the room. In the end, he saw both U San Aw and his son Mg Kyaw Zwe receive the compensation. After that, in a village meeting, U Kyaw Nyunt asked U San Aw about the compensation money for the firewood forest. He said he just received 1.5 million Kyat, and the rest was given to MOGE and LRD officials.

The villagers at Bu Khar found out that U San Aw received compensation not only for his own farmland, but also for the firewood forest. Moreover, he also managed to get the compensation payment for some fallow land at the hilltop of the village with his son's name, Mg Kyaw Zwe. On May 23 2015, the MCPWC research team visited the house of U San Aw to verify this information and interviewed U San Aw and his son Mg Kyaw Zwe. Mg Kyaw Zwe denied answering to the team, saying that he did not know anything about it and only his father knew about it. When the team interviewed U San Aw, he also tried to avoid the questions and pretended that he could not remember anything about the issue, including the amount of compensation he had received. When the team again asked him the number of land plots for which he had received compensation, he said he got money for two land plots: one in his name, and another in his son's name. U San Aw added that he gave the land to his son as a wedding present.

As Bu Khar Village is within the administration of Narr Khaw Village Tract, the research team managed to meet U Sai Li, who was the Head of Nar Khaw Village Tract and involved in the compensation process at the time of the payments. He had retired from his posts by the time he was interviewed by the research team in 2015. Luckily, U Sai Li had made a list of the farmers who received compensation in the whole village tract and he allowed the research team to copy the list. Therefore, the team found out that U San Aw received compensation for three plots of land in the list. According to the document, U San Aw received 2,486,136 Kyat for 0.56 acres of farmland that he owned, 3,640,677 Kyat for 0.81 acres of firewood forest under his name, and 2,841,504 Kyat for 0.64 acres of fallow land under his son's name. Therefore, U San Aw received nearly 6.5 million Kyat for the village common lands, but he said the village only got 1.5 million Kyat and the rest of the money was given to officials from MOGE and TLRD. Until this research was done, the villagers did not know the detail of the 6.5 million Kyat owned by the community.

Case study 2: Compensation Issue over Community Land in Pin Paw Village

The Myanmar-China Oil and Gas Pipelines passed through Pin Paw Village's common land and the village received 12 million Kyat as compensation. U Myint Naing, the-then village head, received the compensation on behalf of the village, but did not inform the villagers that he received the money. Several months later, the village began to suspect him and approached one of the officials who were responsible for the Project's construction site in Kyaukme to ask whether they had already given the compensation payment for the village's common land. Only then did the villagers

find out that U Myint Naing took the compensation. The villagers asked him to explain about the compensation in a public meeting and U Myint Naing had to admit to them that he had already used most of the money to build a village library and a public rest house in the village monastery. When the MCPWC research team met U Myint Naing at his home to verify this information, he confirmed that he received more than 10 million Kyat twice, and explained about it in front of the villagers. He transferred 3 million Kyat to U Zawtika, an elderly person respected and trusted by the village.

However, the villagers knew that the construction of the village library was funded by the government and did not believe what U Myint Naing said. Also, U Zawtika, who received 3 million Kyat from U Myint Naing, did not use the money for the village's development activities. As the compensation money should have been used for the village's public fund, the research team found that the villagers were not satisfied with their village leaders because they did not use the fund transparently for development activities.

Case study 3: Compensation Issue over Community Land in Chaung Chauk Village

Myanmar-China Oil and Gas Pipelines passed through 0.5 acres out of 4 acres of farmland owned by Chaung Chauk Village as common land. U Aik Kyaw, who is a farmer from the village, rented the land and had grown crops on it for the past 20 years. Therefore, U Aik Kyaw was listed as the beneficiary for the compensation, and received 3.46 million Kyat from the Project. However, as soon as he received the compensation, U Sai Kyaw Hla, the village head of Chaung Chauk Village, took the money from U Aik Kyaw, saying it was village-owned land. He gave back 1.26 million Kyat to U Aik Kyaw and seized the remaining 2.2 million Kyat. The MCPWC research team tried to approach U Sai Kyaw Hla for an interview about the case, but did not get access to him. Until the research team's work took place in Chauk, the villagers did not know that the village head had taken the compensation money in this way. The township authorities tried to give copies of the compensation agreement to the affected farmers at Chaung Chauk Village, but they went via U Sai Kyaw Hla, and when the farmers asked him to redistribute them the copies, he bluntly said that he had burned all these agreements. Therefore, the farmers in the village did not get any documents at all.

6.4.5. Temporary Land Use Compensation Problems

The Myanmar-China Oil and Gas Pipeline Project also needed land on a temporary basis, to store construction materials in a warehouse, to set up staff living quarters and to stockpile pipelines. Therefore, CNPC-SEAP and its sub-contractors rented land owned by locals, mostly on three-year contracts. However, as seen in the permanent land use acquisition processes, there were disputes over compensation for the temporary land rental as well. The MCPWC research team found disputes concerning temporary land use in Kyauk Phyu, Ngaphe, and Kyaukme townships.

Case Study 1: Problem with Rental Land for the Project's Base Camp in Kyauk Phyu

In 2011, CNPC-SEAP, the main investor and operator of Myanmar-China Oil and Gas Pipeline Project, and its sub-contractor India-based Punj Lloyd Co. Ltd., rented 24.16 acres of

land for establishing a base camp in Kat Thabyay Village, Kyattain Village Tract in Kyauk Phyu. CNPC-SEAP used 14 acres of the land to build warehouses to store construction materials, and Punji Lloyd used 10.16 acres of the land to build living quarters for the company's staff and construction workers. The land area was next to paddy fields owned by ten farmers, including Field No. 474, Plot No. 46/3; Field No. 499, Plot No. 50; and Field No. (OSS) Plot No. 43/1 in the village tract. The lands used for the base camp were vegetable gardens and animal pasture lands that ten farmers had used for generations. These ten farmers are: U Phyu Nu Aung, U San Thar Kyaw, U Tun Hla Tin, U Ba San Aye, Daw Ma Pu Khine, U Mg Hla Myint, U Wae Aung, U Mg Wai Daung, U Chin Taung and U Mg Mg Aye. The ten farmers had ownership documents for the paddy fields, but could not apply for ownership documents for the vegetable gardens and animal pasture at the TLRD.

According to a copy of the land rental agreement received by MCPWC, the 24.16 acres of land was described as vacant and fallow land, and the companies rented it at a price of 1.8 million Kyat per acre from August of 2011 to December 29 2013. The total rental cost was 20,548,080 Kyat. In the agreement, the land owner was Lt. Col. San Maung, a retired navy officer who used to be stationed at Danyawadi Navy Headquarters in Kyauk Phyu. But he did not sign the agreement, and the in-service Navy Sergeant Tun Aung Kyaw signed it on his behalf. Having farmed these lands for generations, the farmers were very surprised to see that Lt. Col. San Maung had somehow become the landowner. When MCPWC interviewed U Phyu Nu Aung and U San Thar Kyaw on behalf of the ten farmers, they said they had never seen Lt. Col. San Maung. Only when the Project started did he emerge as the landowner and claim the 20.5 million land lease fee. The farmers filed complaint letters to the local authorities, but to no avail.

Knowing that the farmers had sent complaint letters to the authorities, Sergeant Tun Aung Kyaw met with them and threatened them with jail if they continued their actions against Lt. Col. San Maung. When the farmers demanded a share of the compensation, he gave 100,000 Kyat to each person for the loss of their crops, according to U Phyu Nu Aung and U San Thar Kyaw. In December 2013, the land rental period ended. The ten farmers sent an appeal letter to President Thein Sein to get back their rights to the land, but nothing happened.

In the above case study, the research team found that the land had been described as vacant and fallow in the agreement, but was actually used by the farmers as vegetable gardens and animal pasture. Even if the land had been vacant and fallow, which it was actually listed as in the records of the TLRD, it was within the boundary of a village and managed as village common land. As such, if the government or the operators wanted to use such a large area of land for the Project, the village should have benefitted from the rental fee for the village's communal fund. But with the arrival of the Project, a retired navy officer suddenly appeared as the owner of these vacant and fallow lands. His unexpected ownership claim of this land should be investigated. At the time of signing the agreement in 2011, the new law and bylaw for Virgin, Vacant and Fallow Lands had not been enacted yet and the question is how an individual navy officer owned 24.16 acres of vacant and fallow land in Khat Thabyay Village – where he did not live – and which law allowed him to own this land. Moreover, animal pastures in rural areas are very important as food for cows and buffaloes, both of which are widely used in agriculture. Nobody would be allowed to own such a piece of land and the village

instead kept it as common land to feed the animals. The case of the ten farmers in Kyattain Village Tract, and Lt. Col. San Maung, was well known in Kyauk Phyu, but the township authorities did not take any action on it. The questions behind the case should be investigated.

Case Study 2: Problems with the Farmland Used for the Project's Base Camp in Padan Village, Ngaphe

India-based Punj Lloyd Co. Ltd., a sub-contractor which constructed parts of the pipeline, rented land to use as a base camp in Padan Village Tract in Ngaphe. U Tun Khin and U Shwe Pauk, who live in Padan Village, owned five and six acres respectively of the land rented by Punj Lloyd. At that time, U Aye Min and U Soe Myint, the sons of U Tun Khin, alongside U Myint Ngwe, the son of U Shwe Pauk, had inherited the farmlands and were making a living as farmers. The farmlands are located beside Min Bu-Ann Highway and were still being used as a base camp, storing construction machines, at the time of conducting this field research. Figure 10 shows the location of the base camp.

Figure 10: Base camp of Punj Lloyd Co. Ltd in Padan Village, Ngaphe
Source: Google Earth

Both U Tun Khin and U Shwe Pauk have owned the land for generations, and had legal documents which proved their right to farm. But in the early 2000s, the military government launched the Jatropha plantation project for biofuel nationwide, and the two farmers' lands were confiscated by the township authorities without any compensation. Their children continued to farm the rest of the land. After the end of the military government's rule, the Jatropha project ended and the present

government gave back the confiscated farmlands to the farmers who originally owned them. The children of U Tun Khin and U Shwe Pauk had high expectations that they would get their land back.

When interviewed by the research team during the field trip to Padan, U Myint Ngwe remembered that in mid-2011, he assumed he would get the land back soon because U Kyaw Shwe, the Head of Padan Village, sent someone to inquire about the land owned by his father, U Shwe Pauk. Soon after the inquiry, U Myint Ngwe found out that a hut was being built on the land and made a complaint to U Kyaw Shwe. The village head asked him to prepare ownership documents, including land tax receipts, and vaguely said he would help him. U Myint Ngwe heard nothing about it for a month. Then U Myint Ngwe and U Aye Min went to the TLRD in Ngaphe to meet TLRD Chief U Myint Thu to talk about their confiscated farmland. U Myint Thu replied that it was vacant land, not U Aye Min or U Myint Ngwe's land. The two farmers explained to the TLRD Chief the history of their land, how it had been owned by their fathers for generations and they still had the land tax receipts. They also explained how their lands had been confiscated for the Jatropha plantation project. Then, the two farmers argued that the farmland should have been restored to their ownership at the end of military rule, because there was no more Jatropha project, but the TLRD did not accept it. When the land was cleared to build a base camp for the Project in December 2011, U Myint Ngwe wrote another complaint letter to U Myint Thu, but nothing happened.

When the two farmers found out that the base camp was being built by Myanmar-owned Parami PTE Ltd., they sent a letter by fax to the company in December 2011. As a result of this letter, the township authority formed an investigation committee made up of Police Officer U Kyawt Tin, LRD Deputy Chief U Myint Wai, and Manager Daw Ohn Mar Aung from the Myanmar Agricultural Department, and investigated the case of the two farmers on December 24 2011. The committee also spoke to U Wa as a witness, because he used to rent the farmland of U Shwe Pauk and worked as a farmer before he became a village head in Padan in 1974 in the era of the Burmese Socialist Programme Party (BSPP). U Wa worked as village head for 14 years until 1988 and confirmed that U Shwe Pauk had owned the farmland since then. However, nothing happened after that investigation either. Therefore, U Myint Ngwe wrote another complaint letter to the MOGE, and U Win Naing Swe from MOGE and the TLRD Deputy Chief U Myint Wai came to meet him again. U Win Naing Swe said U Myint Ngwe first needed to apply for the document "Form 105" at the TLRD, and he must have it to hand when discussing the case. Then, the compensation could be given. But when U Myint Ngwe applied for Form 105, which is the document showing a farmland's location on a map alongside the name of the owner, TLRD Chief U Myint Thu refused to issue it to him. He said there was another person named U Kyaw Shwe, a current village head, who had applied to get the compensation for the five acres that had formerly been the Jatropha plantation, and this man would get compensation for that land. As a last resort, U Myint Ngwe sent a fourth complaint letter to the Chief Minister of Magwe Regional Government to solve the issue, but no action was taken.

On 2 February 2015, U Myint Ngwe and U Aye Min sent another letter to the Land Use Management Committee in Ngaphe Township, appealing to get back their farmland. On 11 March,

the TLRD called U Aye Min and his brother U Soe Myint to come to the office and said that the department had already given back the farmland to its original owner, and asked them to sign a document saying they were aware of this. However, U Myint Ngwe had still not got back his farmland when the research team interviewed him in April.

Based on the interviews with U Myint Ngwe and U Aye Min, as well as careful analysis of the documents presented by the two farmers, the MCPWC research team believes it is clear that the two farmers used to own the farmland before the military's confiscation. As they have adequate evidence to prove their families originally owned this farmland, the two farmers should benefit from the land rental fee for using the land from Punj Lloyd Co. Ltd. once there was no more Jatropha plantation project on the land. Instead, the TLRD helped the village head get compensation for the Jatropha plants on the land where there was no longer a Jatropha project. The TLRD also rejected the Form 105 application submitted by U Myint Ngwe. Punj Lloyd continued to use the land for the company's base camp until 2015 and it is not clear who benefitted from the rental fee for the land in this period. Finally, the case represents the lack of justice and compassion towards two farmers who lost the rights to work on their farmland twice: first to the military regime for the Jatropha project, and secondly to the Myanmar-China Pipeline Project.

Case Study 3: Problems with the Farmlands Used for the Project's Base Camp in Gok Gyi Village, Ngaphe

Punj Lloyd Co. Ltd. rented the football field at Gok Gyi Village Tract to build a base camp during the pipeline construction in the mountainous part of Ngaphe. The football field land was owned by Daw Tin Tin Khine and U Hnin, who are the residents of Gok Gyi Village. In 2001, the village authorities requested the use of the land from the two villagers so they could build a football field for a football competition between ten villages in the village tract. Although the two villagers agreed to the request, they still held the official ownership of the land. However, when the football field was rented to Punj Lloyd Company, the two land owners were neither informed nor given any compensation. When the MCPWC research team interviewed Daw Tin Tin Khine, she explained as follows.

In 2001, U Kyar, the late head of Goatgyi Village Tract, asked Daw Tin Tin Khine if he could use her land to build a football field because there was no football field in the village tract composed of ten villages. Daw Tin Tin Khine, a headmaster of Bonbaw village tract's primary school, willingly allowed the authorities to use the land as her contribution to the village. The land is located at the back of her house and it was used as a football field for ten years, until 2011. U Myo Myint Naing was head of the village tract when the Project started to construct the pipelines in mountainous Ngaphe in 2011. He rented Punj Lloyd the football field to build a base camp for the company without the knowledge of the original landowners. In return, he negotiated with the company to replace the football field on new vacant land, to build an earth road connecting the village and another village, and to construct a drinking water tank and water pipelines. Also, he received 1.5 million Kyat as the rental fee from the company.

Daw Tin Tin Khine, the land owner of the football field, was neither informed nor given any rental fee when the field was rented to the company. Therefore, she was not satisfied with the actions of the village head and filed a complaint at the TLRD in Ngaphe. However, the TLRD recommended that she negotiated the matter directly with the village tract head. Therefore, Daw Tin Tin Khine and U Hnin discussed the matter with U Myo Myint Naing. He said the land entitlement had already changed through a Form 105 application at the TLRD, and asked the two villagers what amount of money they wanted. U Hnin demanded 5 million Kyat for his land, but U Myo Myint Naing said he could pay only 400,000 Kyat. Daw Tin Tin Khine did not want any compensation – just her land.

On 26 April 2015, the MCPWC research team conducted field research at Gok Gyi Village Tract and, as can be seen in Figure 11 below, the campsite now held only empty buildings and was deserted. U Myo Myint Naing was no longer the village head. U Zaw Naing Oo, son of the former village head U Kyar, had assumed the village head position. U Than Win Khine, son of Daw Tin Tin Khine, visited Gok Gyi during his holiday while he was stationed as a police officer Tiddim's Police Station, Chin State. On behalf of his mother, he tried to solve the issue by discussing it with U Zaw Naing Oo. The new village head offered 500,000 Kyat as compensation for the football field, but Than Win Khine did not accept this, and instead insisted that his family got their land back. The land dispute is still going on.

Figure 11: Campsite deserted by Punj Lloyd in Gokkyi Village, Ngaphe
Source: MCPWC field research photo document taken on April 26, 2015

6.5. Project-driven Losses and Opportunities for the Affected Farmers

It is an economic model in developing countries that governments rely on foreign investment to establish large-scale economic projects as a means to develop the country. The governments usually highlight the benefits of welcoming foreign investment, such as the inflow of new capital, the transfer of technology, and new job opportunities. When creating the Myanmar-China Oil and Gas Pipeline Project, the Myanmar government said the country would benefit from the Project in a number of ways, including via the two million tons of crude oil and 100 MMCFD per year that would be paid as a transit fee for the oil and gas pipelines. The government said this would contribute a lot to the electrification and industrialization of the country. Also, the country would earn a huge chunk of foreign currency as state revenue for selling natural gas produced by Shwe Gas Project. It is true that the gas sale will generate considerable amounts of revenue, in terms of foreign currency, that the government very much needs. However, the government rarely mentioned what kind of benefits the Project would have for the affected farmers who had to allow the pipelines to cross their farmlands, particularly when compared with what they had lost to the Project. Therefore, this section describes the research findings on whether the farmers gained or lost more overall as a result of the Project.

The pipeline infrastructure was so huge that before it even began construction, it seemed that the Project first had to annihilate the established livelihoods of many local communities by taking away their land. In a country that relies on an agricultural economy, the Project could only construct its oil and gas pipelines after the massive destruction of agricultural lands that are the lifeline and livelihoods of the farmers. Although the government of Myanmar and CNPC-SEAP often pointed out the benefits of the Project, they hid the environmental damages and the widespread impact on the livelihoods of the farmers that the Project would have. They often justified this damage by giving compensation to the farmers. Throughout the pipeline route of almost 800km, the use of farmland was mainly for the 30m ROW. Therefore, it could be assumed that the farmers would lose about 1 acre of land and the impact would not be great. However, as there are many farmers in Myanmar who only own a small plot of land, often less than 5 acres, the problem was not as simple as it originally seemed. In Figure 12, the research team compare the size of the farmland owned by the affected farmers before and after the pipeline construction.

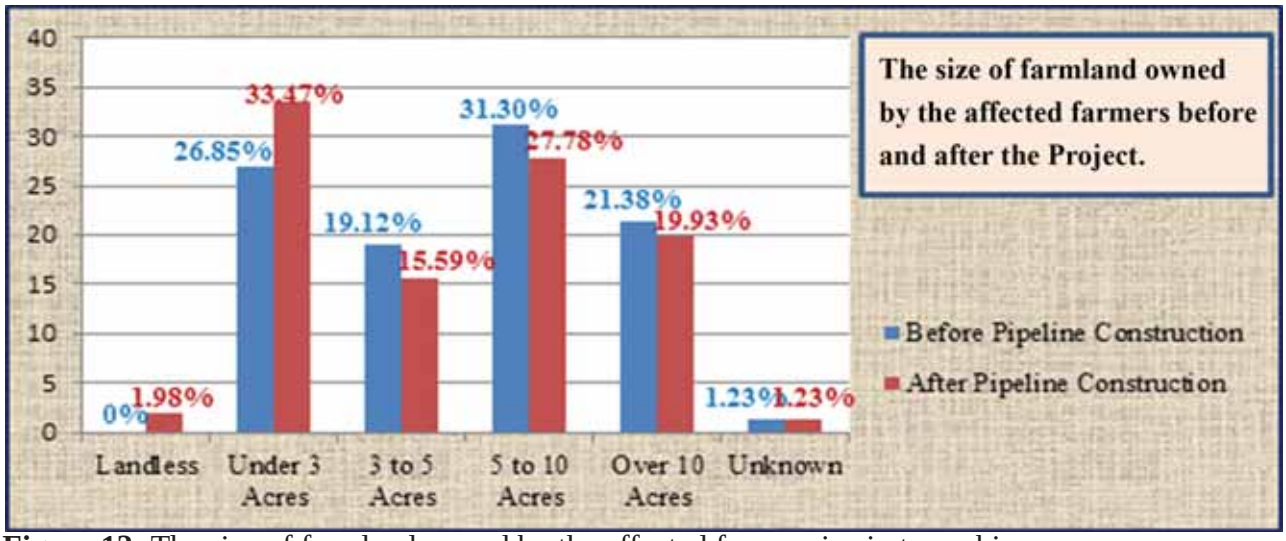

Figure 12: The size of farmland owned by the affected farmers in six townships
Source: MCPWC field research data

According to the data on the farmers' farmland ownership collected by the research team, there were four types of farmers: smallholder farmers, owning both under three acres and three to five acres; farmers with medium-size holdings, owning five-10 acres; and large-landholder farmers, owning over 10 acres. The reason that the smallholder farmers were divided into two types – under three acres and three to five acre owners – is that the research intended to identify the farmers who had been most affected by the Project. The research found that there were no landless farmers before the pipeline construction. But after the construction, 1.98 per cent (or 19 farmers) became landless. The number of farmers who owned less than three acres increased by 6.62 per cent (or 64 farmers). Therefore, those who were landless or owned less than three acres represents 35.45 per cent of all the farmers interviewed by the research. As such, one third of the farmers and their families can be classed as the most affected by the Project. Apart from the damage and loss of the farmland within the ROW, the smallholder farmers now find it hard to grow crops on the pieces of land they have left, which cannot even provide enough food for their families. If a farmer wanted to sell their remaining land, nobody would buy it because the land is near to the pipeline route and has no ownership guarantee for the future. Also, the price would be much lower because the land would be in small and fractured pieces.

To get a visual sense of how the farmlands became fragmented after the pipeline route passed through, the researchers interviewed the farmers in detail and drew up at least six patterns of the pipeline-crossed farmlands, as shown in Figure 13 and 14. If the 30m pipeline route was located fully within a farmer's farmland, there were two major problems. The damage to the soil property would be major, while the farmer's remaining land area would be divided into two small pieces, as shown in Figure 13. For farmers with small farmlands, it is hard to make a living with these two smaller pieces of land. As a result of the manner in which the pipeline crossed many areas of land, as in the patterns shown in Figure 13, many farmers with medium-size holdings became smallholders, and large land-holding farmers were left with medium-size holdings.

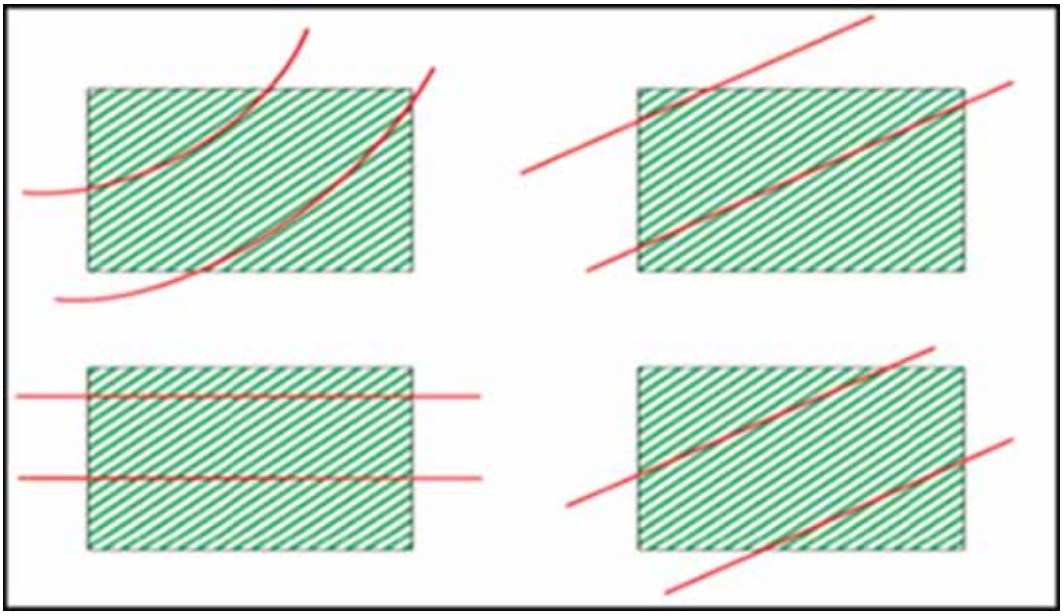

Figure 13: Sample of pipeline-crossed farmland with a large impact
Source: MCPWC field research data

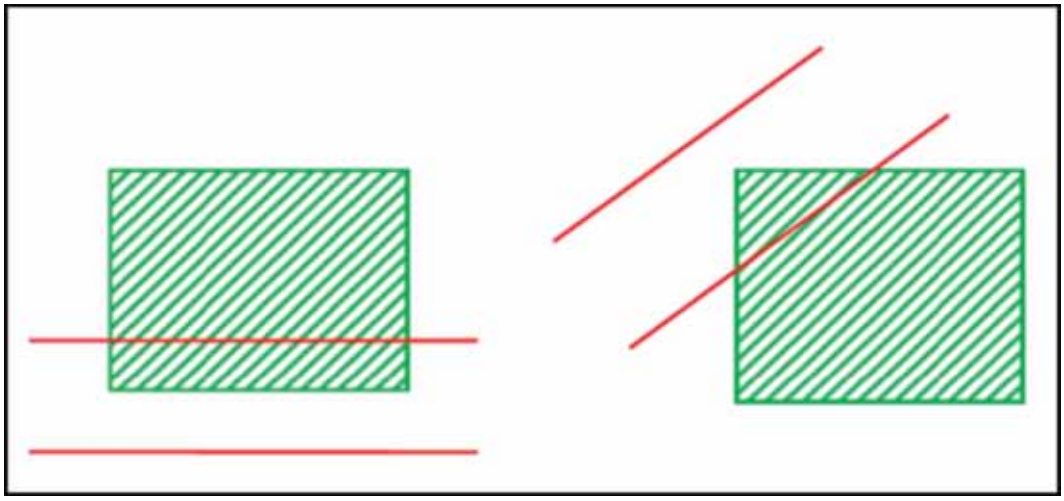

Figure 14: Sample of pipeline-crossed farmland with a small impact
Source: MCPWC field research data

As shown in Figure 14, if just part of the 30m pipeline route crossed a farmer's farmland, it caused less damage to the agriculture activities. However, as the pipelines passed through vast farmland areas, if one farmer lost just a small part of land, his or her neighbour would definitely have lost a larger part. These findings show how the citizens first lost their farmlands before the government – or Myanmar citizens – ever benefited from the Project.

The Project's information booklet published by SEAOP/GP mentions that the Project employed 489,825 Myanmar workers. The statistics look impressive: the Project created many new job opportunities for the citizens of Myanmar! However, when studying the situation on the ground, the Myanmar citizens were mostly employed in manual labour jobs, such as digging and carrying the soil, sand, stones, and cement, or as night-watch men, cleaners, or cooks, etc., in the construction sites. They were hired as temporary daily workers for the construction period and were laid off after the pipeline construction. The jobs which remained long-term were as pipeline watch guards and guards for valve stations. For professional roles such as driving and maintaining machines or conducting the pipeline engineering works, the jobs were taken by Chinese workers. During the field research work in Yenanchaung, the MCPWC research team interviewed two officials from the MOGE office. According to their information, the Project's gas compressor station in Yenanchaung was operated by Chinese staff from CNPC-SEAP and the Myanmar member of staff sent as a liaison officer by the headquarters of MOGE in Yangon was changed every month. Thus, the MOGE staff did not have enough time to learn anything about the operation of the compressor station and the transfer of technology was, in reality, a myth. The professionals working in the operation stations along the pipeline were Chinese, while the positions of security guards, night-watch men and cleaners were Myanmar citizens.

6.6. Impact on Agricultural Lands within the Right of Way

The booklet published by SEAOP/GP highlighted the fact that the Project would "restore the farmland as it was before" after the pipeline construction was complete (SEAOP & SEAGP, 2013: p 23). This would mean that when digging the trench of the pipeline, the top soil and sub soil would be removed separately, and separately piled up. In the backfilling process, the trench would be filled first with the sub soil and then covered with the top soil, so that the soil properties of the farmland were protected. Building in this way is an international standard that many oil and gas pipeline companies apply in other countries. This section studies whether CNPC-SEAP actually practiced this method as they promised to in the booklet.

When the MCPWC research team conducted field data collection in the six selected townships, the team not only interviewed the affected farmers but also carried out direct observation along the pipeline. The team walked the pipeline route and studied the pipeline trench and the soil condition within 30 meters. Therefore, the research team was able to study the impacts within and outside the 30m ROW. In this chapter, the research will mainly focus on the damage within the ROW, and it is necessary to study the patterns of land use within the ROW during the pipeline construction in order to understand the damage. Therefore, based on the findings of the direct observation in the field, the research team drew two samples of the land use patterns during construction and within the ROW in Figure 15.

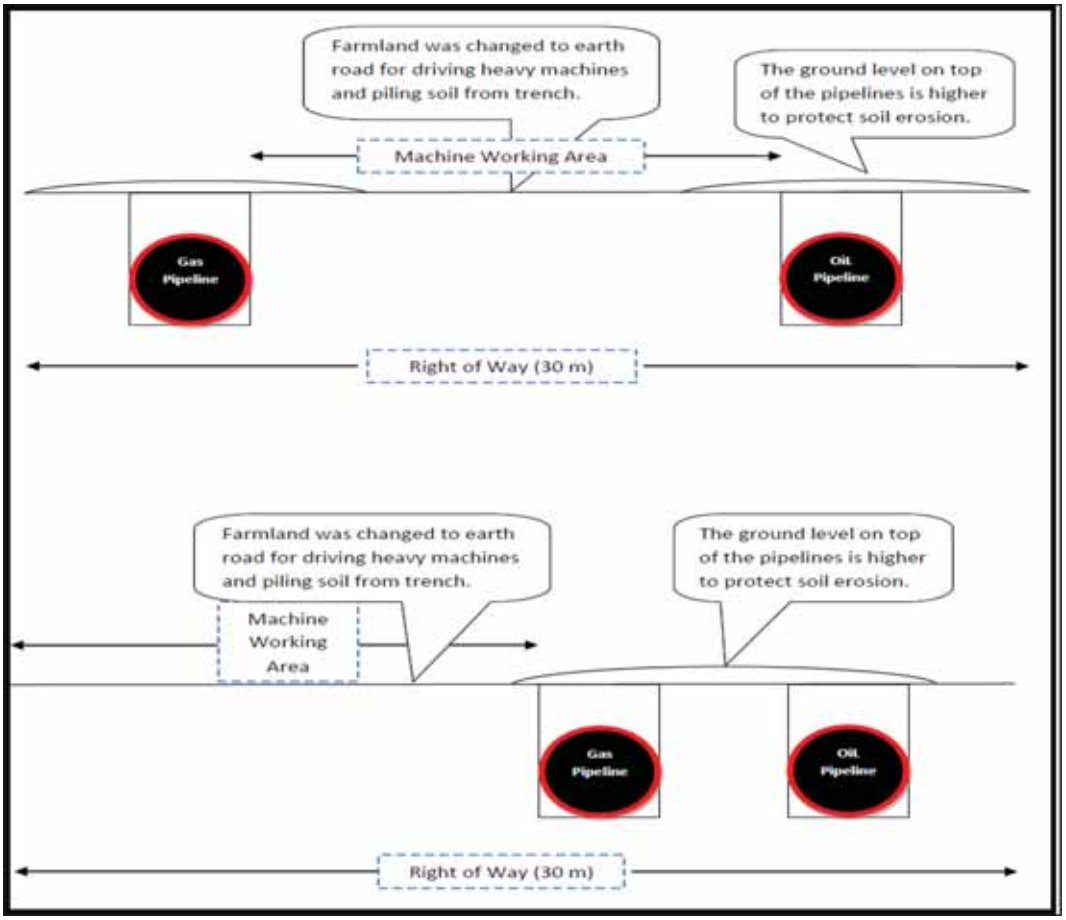

Figure 15: Sample of land use within the 30-m ROW
Source: MCPWC field research data

Figure 15 was drawn according to the findings of the direct field observation as well as interviews with the farmers. In the areas made up of plains, the two pipelines were built at a distance from each other, as shown in the picture above. In the mountainous area, both pipelines were built next to each other due to the topography of the mountain slope. When observing the land use within the 30m ROW, there were two major areas: the pipeline trench and the machine working area. The machine working area was also used for piling up soil after digging the trench. The pipeline route crossed mostly farmland, far away from transport infrastructure such as motorways and railways. Therefore, the Project first cleared land within the ROW to build an access road in order to carry heavy construction machines, pipelines and materials. In some locations, the Project constructed access roads from the existing motorway to reach the ROW. For instance, an access road was built to carry heavy machines to the construction site near the river bank where the pipelines were constructed under the riverbed of the Ayarwaddy River in Yenangchaung Township. In some places, after the pipelines were buried, the ground right above the pipelines was filled back higher than the ground level in order to prevent from rainwater erosion. But the farmland ground could not be as flat as before.

Figure 16: Situation of farmland seen in Google Earth and on the Ground

Source: Google Earth Image (December 25, 2013) and the Photo taken by the MCPWC research team (May 29, 2015)

Based on the findings above, CNPC-SEAP's method as explained in the leaflet, of "excavation and backfilling in layers", was very much different to the actual practice used on the ground. When the research team interviewed the farmers, they said the Project used Backhoe machines to dig the soil without separating the top soil and sub soil, resulting in a significant reduction of crop yield due to the disturbance of soil properties. The soil has not yet recovered, three years after the pipeline was built. In Figure 16, the research team also compares the satellite image of the ROW taken by Google Earth in 2013 with the photo taken by the research team in 2015. The satellite image of the pipeline route is located near the Mandalay-Lashio highway in Kyaukme Township. The image shows how the pipeline route crossed the agriculture fields, dividing the land into two pieces. The second image of the pipeline route was taken by the research team in the same location during field data collection in the town. The images were taken nearly one and a half years apart. The farmland used for the pipeline route has been transformed into a road and the farmers cannot re-plant there. No scientific study on the disturbance done to the soil properties within the ROW has so far been completed after the pipeline construction.

Therefore, the MCPWC research team studied the results of a scientific research project conducted by a group of Chinese scientists from the Chinese Academy of Sciences in Beijing on the impairment of soil quality along oil and gas pipelines in China. The scientists conducted the research in three sites along three-paralleling pipelines including WEGP I & II (West-East Gas Pipeline I & II) and WCOP (West Crude Oil Pipeline), which was more than 4,000km in length from the western to eastern part of China. CNPC, which built the Myanmar-China Oil and Gas pipeline, constructed these pipelines with PetroChina. After the completion of WEGP II in 2010, CNPC continued to build the Myanmar-China Oil and Gas Pipeline in 2011–2013. After doing scientific research on the soil quality along the pipelines in China, the Chinese scientists concluded as follows:

> *Soil systems provide critical support for farmland productivity… This study discovered that the effects of pipeline installation on soil properties were mainly evident within the pipeline corridor. The level of impairment in different zones followed the pattern of trench>piling and working areas>20 m… Our results indicate that soil rehabilitation may be complete 6 years after the completion of a pipeline installation project. However, there may be exceptions, as in the case of WEGP I where the incomplete cleanup of building materials and lack of follow-up mitigation measures hindered the progress of soil restoration. (Peng Shi, 2014: p. 1833 – 1834)*

As the Chinese scientists studied pipelines constructed by CNPC, it is currently the most relevant reference for what probably happened along the Myanmar-China Oil and Gas Pipeline route. At this point, if the Myanmar government and academic network seriously cared about the wellbeing of the farmers, they would do research on the impairment of soil quality in the affected farmlands in this country. However, there is no sign that the government has conducted such a research study, even two years after the completion of the pipeline construction – perhaps because the Project regards the lands within the ROW as its own, and as such no longer belongs to the farmers.

The farmers who wanted to grow crops again within the ROW after the pipeline was finished had to invest their own money and labour to restore their farmlands. Some farmers who received

large amounts of compensation money could afford to rent agricultural machines to repair the land. Farmers who received small amounts of compensation could not afford to rent machines and took time and manpower to restore their impaired lands. It was also seen that some farmers who valued their farmlands as equally important as their lives became depressed when they experienced their farmlands turning to fallow land. The farmers who were very much attached to their farmlands tried hard to grow crops within the ROW, but they lost money and labour due to the very low yield of the crops as a consequence of the soil quality impairment. Also, it is ridiculous that the Project allowed farmers to grow crops within the ROW, because Chinese staff from CNPC-SEAP regularly patrols along the pipeline route using motor vehicles.

6.7. Impact on Agricultural Lands outside the Right of Way

The damages outside the ROW are in some cases much wider than the damages within the ROW. The research found there were no preparations taken to prevent farmland outside the ROW from any overflow impact of the pipeline construction. Also, although the Project set the local price and the number of years for land and crop compensation for farmlands within the ROW, they did not use the same practice on the affected farmlands outside the ROW (probably in order to reduce compensation costs). The damages outside the ROW are mostly found in the mountainous parts of the pipeline route, especially in the mountain range of Rakhine Yoma in Ngaphe.

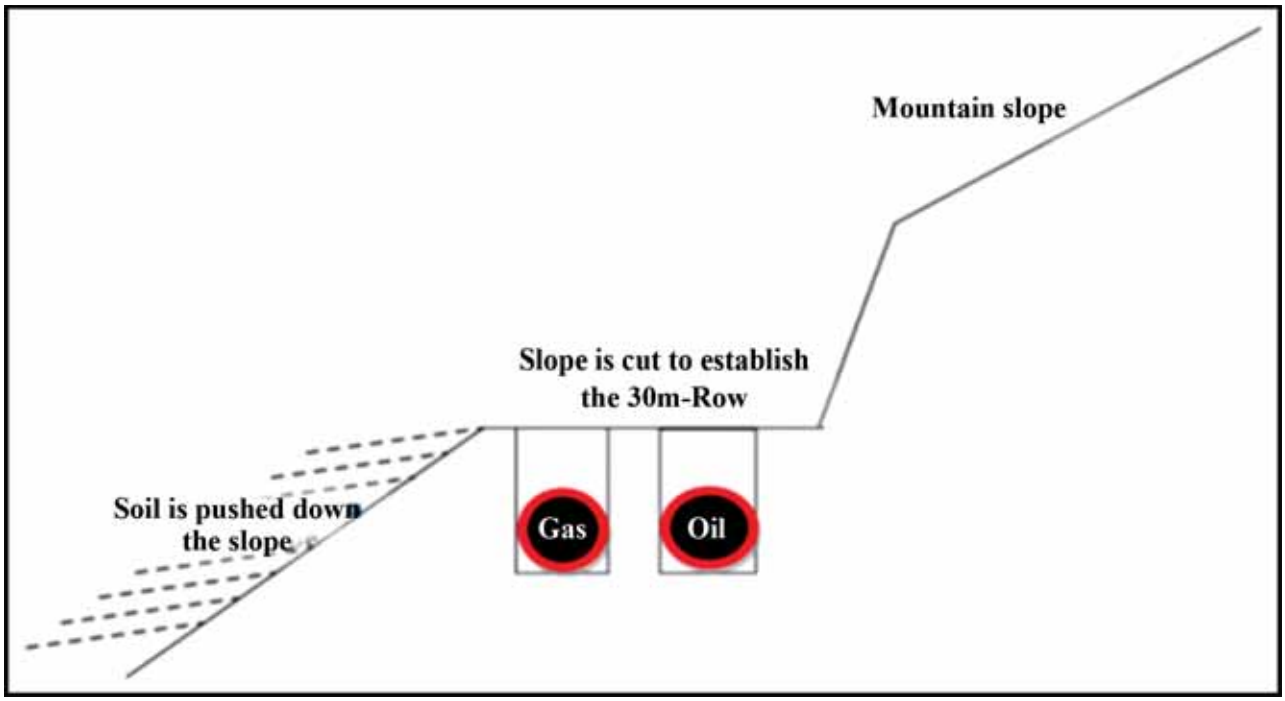

Figure 17: Model of pipeline constructed in hill slopes in Ngaphe
Source: MCPWC field research data

There are three types of damage on farmland outside of the ROW which occurred during and after pipeline construction in the mountainous part of Ngaphe Township. As shown in Figure 17, the first type of damage is that, when making the pipeline track on the mountain slope, the Project simply pushed the earth down to the orchards on the lower part of the slope. Therefore, Asho Chins living

in mountainous Ngaphe suffered from double impact, on their orchards both within and outside the ROW, and the damages outside the ROW were larger than the ones within the ROW.

Asho Chins mainly cultivate coffee in the mountain slopes in Ngaphe and they also grow a variety of fruits in their orchards such as lime, orange, pomelo, and grapefruit. Although the company gave compensation for the damage outside the ROW, they did not use the same method of calculation and pricing that they did for farmland within the ROW. For instance, the compensation price for a coffee tree within the ROW that was already producing coffee beans was 32,000 Kyat per tree. If one acre of the coffee plantation was affected by the Project, the owner could get compensation at least 8 million Kyat. There were different prices for other fruit trees. But outside the ROW, the Project used the fixed price of 3.9 million Kyat per acre for the affected orchards, no matter what kinds of trees are planted. As such, the compensation was significantly lower than within the ROW, which – the research team would suggest – is why the Project used different methods, to reduce the burden of compensation costs.

Figure 18: Research team observing the pipeline route in a hill slope in Ngaphe
Source: MCPWC field research data

The second type of damage outside the ROW is that when constructing the pipelines on mountain slopes or hilly ground, the soil formation was largely disturbed and the ground on top of the pipeline route was filled back by men and machines. Therefore, in a country which has a heavy monsoon rainy season, the high ground within the ROW was eroded hugely, and mud and stones were deposited on the farmland on lower ground. This damage could be seen not only in Ngaphe, but also in Kyauk Phyu and Kyaukme townships. For farmers who experienced the second types of damage, the Project gave compensation on a yearly basis but did not take responsibility for restoring the impaired farmlands using machinery and equipment. For some farmers whose land was damaged

seriously due to the tons of spill-over mud and stones, the land could not be restored by any farming equipment they possessed and therefore, they could not grow crops on their land anymore.

The third type of damage outside the ROW occurred when the pipeline route crossed natural streams and irrigation water channels, affecting farmland which relied on these water sources. For example, a worst case scenario is shown in Figure 19. It shows an irrigation water channel built around the mountain slopes to carry water from Gok Chaung (in English, a stream) to feed 100 acres of paddy fields in Upper and Lower Kung Lann in Zin Pyone village tract, which is located on the border between the plains and mountainous parts of Ngaphe Township. When some parts of the channels collapsed, repair was difficult because there was no more space on one side of the channel. The channels were damaged in 2011 as a result of the construction of the pipelines and the farmers have not been able to grow paddy in their fields again until now.

Figure 19: Reparing damaged irrigation channel in Zin Pyong village, Ngaphe
Source: MCPWC field research data

When the MCPWC research team conducted field research in April 2015, the team found that the water channels were in the process of repair, with a budget of more than 30 million Kyat from the development fund of Magwe Regional Government. In the two pictures shown in Figure 19, the above photo shows the ongoing construction of an iron-framed water channel which bridges two existing water channels on each side of a valley, to supply water to the paddy fields in Upper Kung Lann. The photo below shows the existing water channels that the farmers dug around the valley's walls in order to divert the water from Gok Chaung. The iron bridge of the water channel was built to supply water for about 50 acres of paddy fields in Upper Kung Lann. However, when the research team observed the bridge construction and surrounding area, it found that in a place 100 feet ahead of the iron bridge, the water channel had completely collapsed and it was impossible to repair the channel. This means that the paddy fields in Upper Kung Lann will not get water in spite of the completion of the iron bridge. When the research team interviewed an engineer in charge of the construction area regarding this issue, he said he was only responsible for building an iron-frame bridge to connect two parts of the existing irrigation network, not for repairing damage in other parts of the channels. The research team also found that near the iron bridge there was another installation, an underground water channel designed to supply water to the paddy fields in Lower Kung Lann. During the period of producing this research, Lower Kung Lann was able to get access to irrigation water due to the new underground connecting channel, but Upper Kung Lann has not yet got access to the water and is still unable to grow paddy.

After observing the damage outside the ROW, this research concludes: 1) CNPC-SEAP only focused on the issues caused by the Project during the construction of the pipeline, and not afterwards; 2) the Project did not calculate the possible damage outside the ROW which could be caused by the construction of the pipeline, or draw up a mitigation plan to be carried out in the event of damage; 3) The Project did not inform local communities in advance about the possible damage outside the ROW; 4) The Project did not consult with affected farmers regarding compensation in case of damage outside the ROW; 5) The Project did not use the same calculation method to give compensation for damage caused within the ROW and outside it; 6) The Project did not take enough steps to prevent soil erosion along the pipeline routes. Taking all of these points into account, the quality of the EIA and SIA conducted by CNPC-SEAP must be questioned.

Two years on from the completion of the pipeline, CNPC-SEAP now only repairs problems that could directly affect its operation. But the Project does not seem to care about repairing the farmlands that were damaged due to the spill-over mud and stones from erosion along the pipeline route. The CNPC-SEAP's attitude that any damage related to the Project could be fixed by giving money as compensation is contrary to what was said in the information booklet. Myanmar already faces many climate-related disasters such as storms, flood, and landslides. There is a risk of more landslides and erosion problems along the pipeline route as a result of the lack of preventative steps taken by the Project – and this will continue if nothing more is done.

6.8. Impact on the Environment and Rural Infrastructure

The second biggest impact of the pipelines in Myanmar, after the damage done to farmland, is what happened to the forests and rural water resources. MCPWC was able to study these damages through direct field observation and photo documentation, as well as comparing images taken on the ground with satellite images retrieved from Google Earth. As this research focused the Project's social impact on local farmers, the team did not conduct a scientific study on the damage done to the natural environment. However, if a scientific study on the damage done to the soil quality, the fresh water resources, and forests could be carried out systematically, it would be good to learn lessons from this for future development projects. Evidence-based research findings could educate companies and governments alike, and help them form regulations over what to do and what not to do in order to conserve the natural environment.

In the six research townships – Kyauk Phyu, Ngaphe, Yenangchaung, Singaing, Kyaukpadaung, and Kyaukme – the research team was able to document how the pipeline route passed through agricultural fields in areas of plains, and forests in the mountainous areas, as well as crossing rivers, creeks and ponds. For instance, thousands of naturally-grown Pyinkato trees, which provide valuable hardwood, useful in house and ship buildings, were cut down to clear the pipeline route in Myo Chaung Island, Kyauk Phyu Township. The pipeline crossed from steep valleys to mountain tops in the West Yoma mountain range in Nga Phe Township, damaging natural forests along the pipeline route. It also passed through the riverbed of the Ayarwaddy River in Yenanchaung Township. Unlike the pipeline crossings in the forest, it was hard to take accurate photographs documenting the footprint of the damage in the river. However, the research team was able to record the collapse of the dyke in the river's west bank where the pipeline crossed.

In Kyaukpadaung, the pipeline passed near the foothills of Mount Popa. When the pipeline crossed Koe Kway research forest near Mount Popa, which has an important role in the climate of the dry zone in upper Myanmar, the Project cleared more than 20 acres of it. In the hilly regions of Ngaphe and Kyaukme, the fresh water sources from natural streams are the lifeline of local communities, but were damaged by the pipeline construction. Moreover, the village infrastructure – wells, ponds, roads, cemeteries and animal pasture – were all damaged by the pipeline's construction. If the damage was serious, the Project repaired the problems, but the villagers said that the repairs never restored their area back to normal.

In Figure 20, a satellite photo retrieved from Google Earth shows how the pipeline route passed through rice fields and creeks in Myo Chaung Island, Kyauk Phyu Township. The two photos below were taken by the research team on the ground. On the island, which is surrounded by seawater, the paddy fields have to be protected by the dyke (locally known as Kar Ye) from saltwater intrusion. The dyke was built and maintained by the hard work of local villagers over generations. As the paddy fields rely on a supply of rain water, the water storage and release systems were connected with the local creeks as a network. However, after the pipelines were buried, the soil was replaced in the ground haphazardly, leaving it higher than the surrounding paddy fields, which resulted in blocking the rain water from flowing into the paddy fields and dividing the creeks into two parts as shown in the satellite photo. Therefore, the pipeline construction not only seriously damaged the

paddy fields used for the ROW, meaning the farmers could not grow paddy within that area anymore, but also affected the irrigation system of 750 acres of surrounding paddy fields. In Figure 20, the photos of the damaged paddy fields on the ground are presented in comparison with the satellite photographs.

Figure 20: Pipeline route crossing local creeks in Myo Chaung Island, Kyauk Phyu
Source: Google Earth image (December 23, 2013) and photos taken by the research team (March 29, 2015)

Figure 21: Pipeline route crossing Pyinkado (Xylia dolabriformis) forest in Myo Chaung Island, Kyauk Phyu

Source: Google Earth image (December 23, 2013) and a photo taken by the MCPWC research team (March 27, 2015)

In Figure 21, the satellite photograph from Google Earth shows how the pipeline route crossed Pyinkado forest in Myo Chaung Island. The photo below the satellite picture shows the pipeline route, and was taken by the research team during the field observation. Along this pipeline route, thousands of Pyinkado trees were cut down during construction. Apart from teak, Pyinkado is the most valuable hardwood in the country. It is widely used for building houses and ships in the coastal regions in Myanmar. The local farmers protected the Pyinkado forest, but also nurtured their own orchards in the forest as well. They grow paddy for their own family, as a stable source of food, and make a living by selling the fruit from their orchards. The villagers on Myo Chaung Island are poor, but their lifestyles are in harmony with the natural environment. Although it is true that Myanmar could earn a lot of money from overseas as a result of the Project, it is also certainly true that the work has had a negative impact on the local people, considering the cost of the environmental destruction.

Figure 22: Pipeline route crossing West Yoma Mountain Range in Ngaphe

Source: The photos were taken by the MCPWC research team in Kyaukme on April 30 and May 1, 2015

In Figure 22, the photos were taken by the research team during the field research work in the mountainous part of Ngaphe Township in April 2015. In the first photo, the pipeline route climbs down from a mountain of West Yoma. Forest was cleared along its route, which then passes under the Minbu-Ann highway and continues to go down a steep valley before again climbing up another mountain. The second photo shows a distant view of the pipeline route passing three mountain tops. The third photo shows the pipeline route built horizontally on the mountainous slope by cutting down into the ground to make a flat pipeline route. The forests in the West Yoma in Ngaphe, including "Mann" reserved forest, were hugely affected by the construction of the pipeline.

As well as farmlands, forests and mountains, in Yenangchaung Township the Myanmar-China Oil and Gas Pipeline also crossed under the riverbed of the Ayarwaddy River, which is the lifeline of the country. When constructing the pipelines under the Ayarwaddy River, the Project built two main pipelines and two additional pipelines. To prevent erosion of the river bank, the Project also built a dyke above the pipelines on the west bank of the river. In Figure 23, the satellite image retrieved from Google Earth shows the locations of the river-crossing pipeline route and the dyke on the west bank of the river. The photo in the middle was taken by the research team during field research in February 2015, and the third photo below was taken by MCPWC while checking the collapse of the riverbank in September 2015. The photos show that the dyke gradually eroded, and then finally collapsed.

The research team interviewed affected farmers in Wat Ma Sok Village, located on the east bank of the river, and Ngar Landar Village, located on the west bank of the river. The researchers also interviewed fishermen in these villages. According to their experiences, in the past, the fishermen on the river could easily catch different varieties of fish which bred in different seasons; but during the pipeline construction, the water was polluted and the ground became very shaky due to the heavy drilling machines, which damaged the fish breeding grounds under the riverbed. Therefore, it became much more difficult to fish in the river and some seasonal fish species probably moved their breeding grounds to other parts of the river. Whether the ecosystem of the river has changed or not due to the pipeline construction should have been thoroughly studied before and after the pipeline construction. But the research team did not find any evidence on whether the Project conducted a post-construction environmental impact assessment related to the damage done to the Ayarwaddy River.

Figure 23: Pipeline route crossing Ayarwaddy River

Source: Google Earth image on 13 January 2014. The photo in the middle was taken by the MCPWC research team on 20 February 2015 and the photo below was taken on 9 September 2015

In Figure 24, the photos were taken by the research team during field research in Kyaukpadaung Township in June 2015. The photo shows that the pipeline route crosses either right through the middle of a freshwater pond, or the main waterways through which rainwater usually flows into the ponds. Kyaukpadaung is a town located in the dry zone of the country and the freshwater resource is very much limited. The ponds shown in the picture are used as rainwater storage facilities for drinking water and other household water use by the villages. The ponds were built on lower ground, so the rain water could flow from higher ground to the ponds. Several villages rely on each pond's water for drinking and household use for the whole year. Therefore, the villages protected the waterways to the ponds so as not to block the flow of rainwater. According to the local villagers, some ponds were more than a century old as they were built while Myanmar still had a monarchy. These ponds are the most important source of freshwater for the villages in Kyaukpadaung.

The first photo in Figure 24 shows a freshwater pond near Khin Mon Village. The pipeline route crossed the main waterway through which rainwater flows into the pond. The problem is that after construction of the pipeline was finished and the soil replaced, the workers left the ground over the pipeline route higher than the normal ground level, blocking the waterway so the pond receives less rainwater than before. Similarly to the problem described above, the second photo shows how the pipeline crossed the water ways of the pond called "Pho Kan Min Kan," which is used by Ta Nga Kan Village and surrounding villages. The third photo shows the pipeline cross the middle of a pond near Gwe Pin Cho Village. Although the Project repaired the ponds, the local farmers say the repaired ponds are not the same as they used to be because the Project did not systematically study and fix them. Sometimes, the repaired pond was left in much worse state than before. For instance, when the Project repaired the damaged waterway that flows to the pond near Ta Nga Kan Village, they also excavated ground from the middle of the pond to get more storage capacity of the pond. But after digging, they did not put the soil on the bank of the pond as the villagers requested, and simply piled it in the middle of the pond with the excuse that there was no truck to carry the soil. Therefore, the soil that was excavated from the pond became a small hill in the middle of the pond, and blocked the flow of rainwater into the pond.

After the Myanmar-China Oil and Gas Pipeline passed through the farmland in the vast plains areas in Mandalay Region, it again started to climb to the mountains in Pyin Oo Lwin Township. There is a steep V-shaped valley, namely Gok Twin, in the border between Naung Cho and Kyaukme. In Figure 25, the satellite image shows that the pipeline crossed the valley just one kilometre above Gok Hteik Bridge, which connects the two edges of the valley. The bridge was built in the early 1900s during the British colonial period and is now a historical heritage landmark, more than 100 years old. When the pipelines were buried under the slope of the steep valley, they were covered by a concrete wall to protect from landslides and erosion in the rainy season. Also, as seen in the picture below, the Project built a concrete motorway which was nearly three kilometres long on the nearby farmland, to provide easy access to the valley in case emergency repairs were needed.

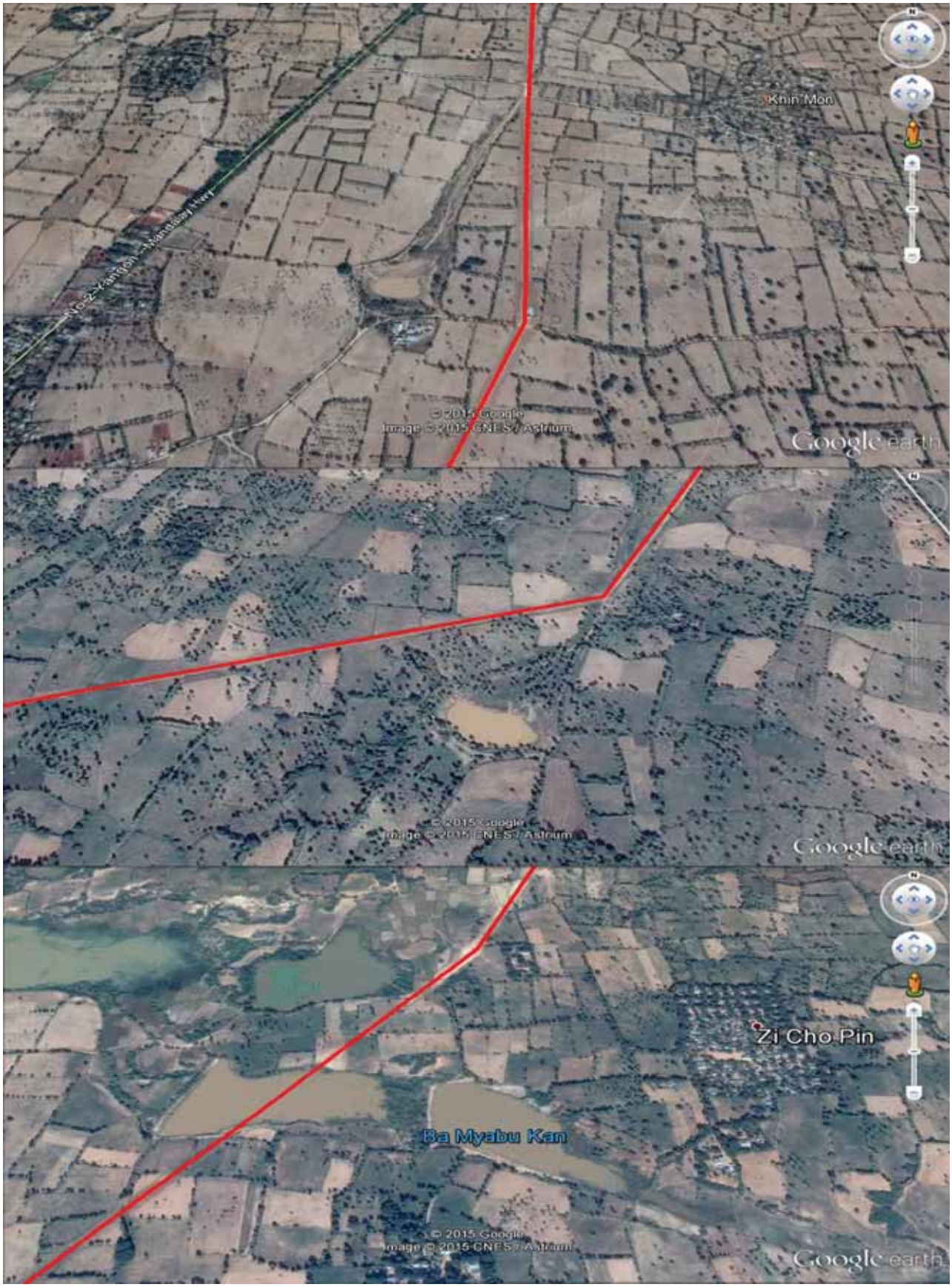

Figure 24: Pipeline route crossing public ponds in Kyaukpadaung
Source: Google Earth images (December 13, 2013 and February 8, 2014)

Figure 25: Pipeline route crossing near historic Goke Hteik bridge in Kyaukme
Source: Google Earth image (March 4, 2014) and a photo of new concrete road photo built within the ROW and taken by MCPWC research team (February 20, 2015)

Although the concrete motorway was built within the 30m ROW, it permanently divided the farmlands into two parts in Pin Paw Village. Therefore, the farmers opposed the road construction. Moreover, when the officials confiscated the farmlands for the ROW, they promised that the farmers would be able to grow crops on their lands again after the completion of the construction of the pipeline However, in reality, they ignored the farmers' objections over the road building, responding that the lands within the ROW were already compensated for and owned by the Project.

In conclusion, this research has found that construction of the pipeline destroyed the soil quality of farmlands as well as doing damage to forests and fresh water resources. Although the Project repaired some of the basic infrastructure that was damaged after the pipeline was built,

they did not return it to its original condition. As the damage done to the natural environment will take many years to recover from, and the livelihoods of the local farmers rely greatly on the environment, the chain reaction of this damage needs to be systematically studied. CNPC-SEAP focused on ensuring the pipeline was completed in time, instead of trying to reduce the social and environmental impact on the affected farmers. They did not also implement a plan to mitigate the environmental destruction.

From the outset of the pipeline's construction, the Project should have had a mitigation plan to reduce the environmental damages done to the absolute minimum level possible. If the damage was unavoidable, having a plan to mitigate it would have been the right way to show the Project's responsibility, for example by offsetting the environmental destruction or repairing the damaged farmland using machines and equipment until it was able to be cultivated again. In doing so, the Project would have generated sustainable benefits for the regions along the pipeline. However, the Project would have to have used labour and equipment, money and time for these mitigation steps, and compensation is an easier way to avoid responsibility for all the consequences associated with the construction-related damages. The host government only focused on the profit that would be generated by the Project, but was too weak to carry out field monitoring programmes which would have prevented environmental damage along the pipeline route, or to take effective legal action against the companies if their irresponsible practices were uncovered.

6.9. Problems with Construction Waste

It is crucial to manage waste properly and systematically, not only in this pipeline project, but also in everyday life. Most importantly, managing chemical waste wisely when the chemicals could have a long-term impact on the environment is a must. There are two types of waste in this pipeline project: the construction waste and the waste generated by the construction workers. Of the two types of waste, the construction waste is the one which could have many harmful effects on the environment and on the local communities.

According to field research in the six townships, the MCPWC research team found that problems caused as a result of construction waste were mostly found in Kyauk Phyu Township, Rakhine State, where the Project built crude oil storage tanks, a deep-water seaport, an Onshore Gas Terminal, and other basic infrastructure. As well as the pipeline construction itself, the waste coming from those construction sites was massive. Moreover, the campsites along the pipeline route were ultimately left deserted, effectively as waste sites. In Kyaukme Township, the research team found bottles containing two types of toxic chemical that were used to connect the pipelines before the pipelines were buried. These chemical bottles were irresponsibly abandoned in the camp.

To build the crude oil storage tanks, a hill in the eastern seaside of Maday Island was demolished to create a flat ground area, and the excess stones were disposed of into the sea. The stones which were tipped onto the seabed in an area where local fishermen often worked greatly affected

their livelihoods, because they frequently had to replace or repair damaged fishing nets that got hooked on the stones. Moreover, coral reefs under the sea were blown up to clear the waterway for huge crude oil tankers to approach the deep seaport, affecting the breeding ground of a valuable fish species named Katkuyan (locally known as Nga Latt Kwa), which was already nearly extinct around Maday Island, according to the fishermen and fish traders in Maday Island. The Katkuyan fish has such a high market price that all the fishermen on the island usually focus on fishing Katkuyan in the season between December and March, and they can earn a lot of income from catching that particular species. If a fisherman can catch one Katkuyan, he can get tens of hundreds of Kyat per fish, based on its size and weight. But the compensation that the farmers received from the Project was only for land and crops, not for the loss of the fish species.

The living quarters of workers in the Onshore Gas Terminal construction campsite discharged smelly waste water and sewage directly into the local stream near Ohn Taw village, outside Kyauk Phyu City, causing odour and water pollution downstream in 2011. When the villagers made a complaint about the issue, tensions rose between the community and the authorities. When Rakhine State Government was planning to arrest the villagers, U Ba Shein, a Member of Parliament for the Lower House, intervened personally. He investigated the situation on the ground and contacted U Hla Maung Tin, the-then Chief Minister of Rakhine State Government, and explained that the villagers' complaint was true and valid. The research team asked the MP whether he discussed the issue in Parliament. U Ba Shein said he submitted a proposal of investigation at the Lower House about the issue of four pregnant women living in Mala Kyune who had miscarriages within a month, but to no avail.

As shown in Figure 26, when the MCPWC research team conducted field data collection in Maday Island in March 2015, they documented the irresponsible disposal of ruined containers in which Chinese workers lived during the deep seaport construction, as well as finding other waste such as plastic bags and bottles, beer and whisky bottles, etc., scattered near the sea shore.

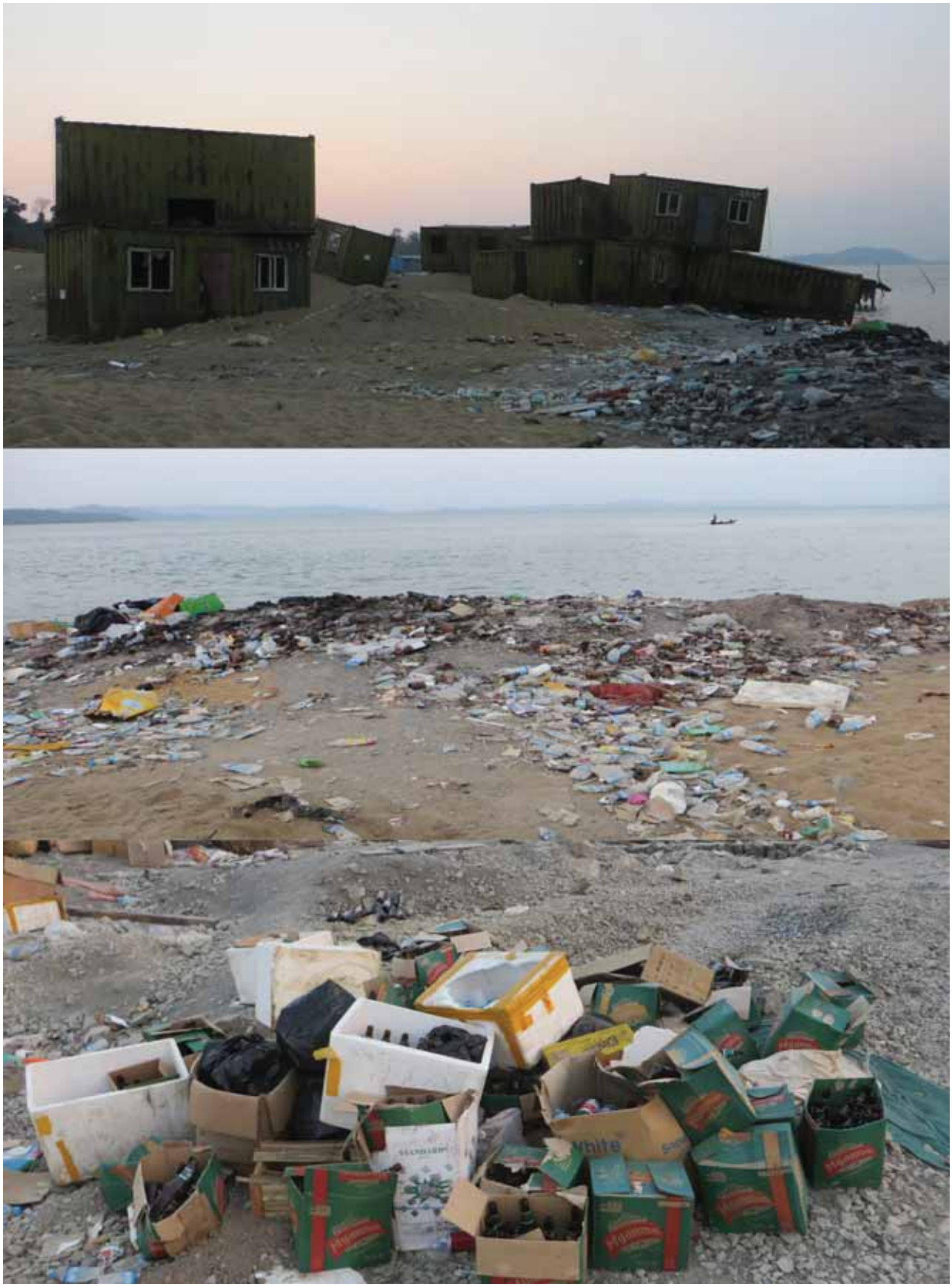

Figure 26: Waste materials scattered near deepwater seaport in Maday Island

Source: The photos taken on the beach of Maday Island by the MCPWC research team on 30 March 2015

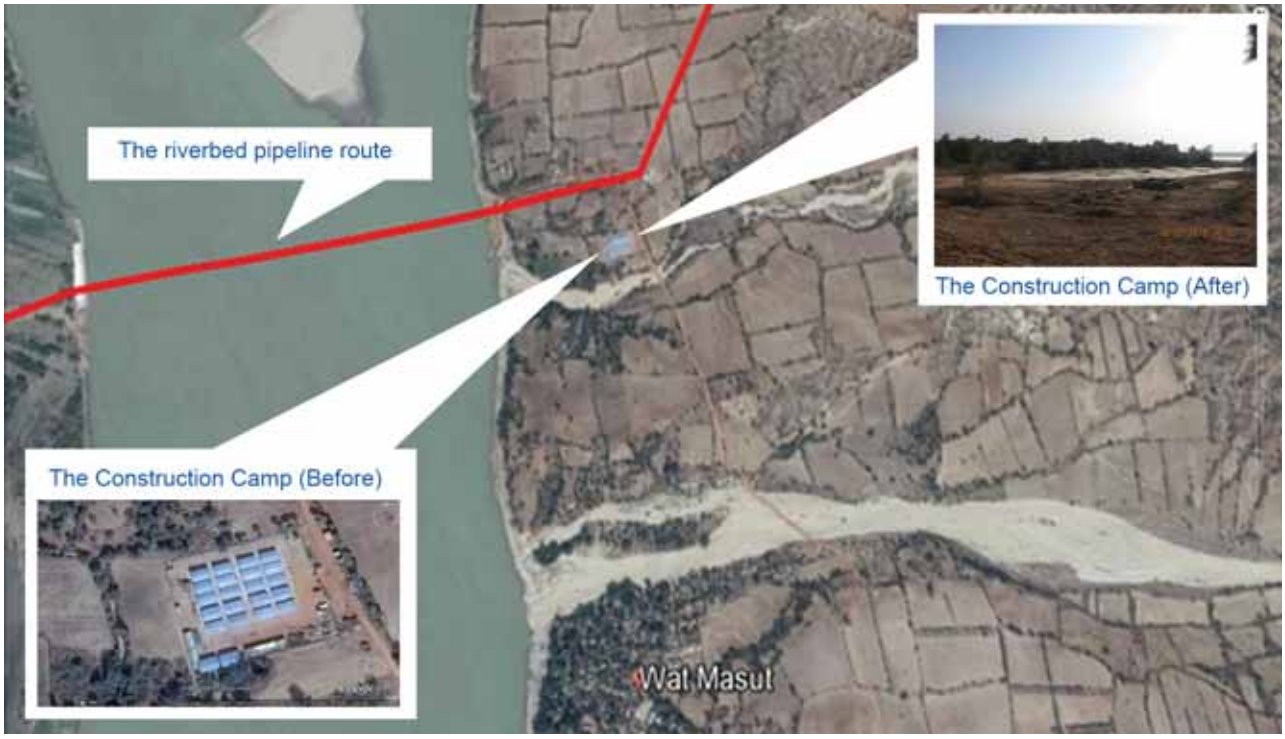

Figure 27: Pictures of a construction camp near Ayarwaddy River
Source: Google Earth images (January 13, 2014) and the ground photo taken by the MCPWC research team in Yenanchaung (February 18, 2015)

The research found that the Project's biggest waste was the construction camps, many of which were deserted in an irresponsible fashion after the pipeline was completed. SEAOP/GP said in the project information booklet and in the land lease agreements that the Project was responsible for cleaning and clearing all of the equipment and materials related to the pipeline construction on the lands that they leased temporarily, and they also had to restore the ground as it was before. The Project did not comply with this condition at all. In Figure 27, satellite images retrieved from Google Earth show the location of a camp used during the construction of the pipeline under the riverbed of Ayarwaddy River in Yenanchaung. Another photo taken by the research team during direct observation work on 18 February 2015 showed the concrete foundation of the camp still in place. That campsite is located near Wat Ma Sok Village. After the pipeline construction was finished, the workers just left the camp without clearing the ground to restore it to its original condition. The landowner cleared the buildings on the ground and sold the building materials to the villagers. However, as the campsites had concrete foundations, the farmers did not have the right machines to turn the ground back into farmland, leaving the ground useless. Although the landowner received the land rental fee for two or three years, he or she lost the farmland for ever. This research found deserted construction camps not only in Yenanchaung, but also in Kyauk Phyu, Ngaphe and Kyaukme.

From late May to early June 2015, MCPWC research team conducted field research work in Kyaukme Township, Northern Shan State. On 2 June 2015, the team observed the Project's deserted campsite near Lone Wae Village. In Figure 28, the satellite image shows the location of the campsite on the roadside of the Mandalay-Lashio Highway. At the back of the campsite, the research team found three containers which were used to store construction materials. The containers were all open

and the team found pipeline construction materials in one of the containers. Among these materials, the team found "Heat Shrinkable Sleeves" that were used to cover the connecting points of the pipelines, alongside bottles containing the chemical adhesive used together with the Sleeves.

The team found two types of chemical bottles with the code numbers S1301-M Part A and S1301-M Part B, produced by a Netherlands-based company called "Seal for Life" and distributed by a US-based company called "Berry Plastics." The instruction sheets showing how to use the two bottles and precautions for use are available on the websites of the companies. The information sheet describes the toxic chemicals contained in the bottles as "water hazard class 3 or extremely hazardous for water" and contains the warning line "long-term adverse effects in aquatic life". The information sheet instructed the user to inform the relevant authorities if even a drop entered the sewage or water channels. It also says it is imperative that any chemical waste is disposed of in accordance with official regulations and never discharged into the sewage or water. However, after the completion of the pipeline construction, the Project did not dispose of these chemical wastes properly and left the bottles inside the container in the campsite in an irresponsible fashion. Only when MCPWC informed the authorities in Kyaukme about the case did the Project come to clear the chemical bottles in the camp.

Figure 28: Container and chemicals deserted in a construction camp in Kyaukme
Source: Google Earth images (December 25, 2013) and photos taken by the MCPWC research team in Kyaukme (June 2, 2015)

[21] As the satellite image was taken in December 2013, it only shows two containers.

[22] S1301–M Epoxy Primer: Available from http://www.berrycpg.com/covalence/detail.aspx?id=221&brand=

[23] Seal for Life: http://www.sealforlife.com/products/covalence.html

[24] Berry Plastics: http://www.berryplastics.com/products/protection-solutions/seal-for-life

The research found that the local farmers had no knowledge of chemical waste and were not even familiar with the term “chemical.” The pipeline construction area was regarded as a restricted area and local people were not allowed to enter, so they did not know chemicals were being used in the construction sites. After the construction of the pipeline was complete, construction waste was scattered in farmland adjacent to the pipeline route – stones, cement packages, the used welds, etc. Moreover, garbage such as Styrofoam lunch boxes, empty beer bottles, drinking water bottles, plastic bags, etc. were also dumped by construction workers in farmlands. After the construction period, the farmers had to clear the waste and prepare the land so that they could grow crops on it again. In some cases, the construction workers buried the waste under the farmland, and the farmers said that when they ploughed their farmland the waste reappeared, disturbing the farming process.

6.10. Concerns over the Safety of the Pipeline and Local Development Activities

This is the last section of the field research findings. In this section, the research team studied how much the farmers knew about the safety and security mechanisms of the pipelines and asked what their concerns are on these issues. Also, the team studied how much the farmers knew about the community development activities initiated by CNPC-SEAP. According to the research findings, what worried the farmers most was the potential for accidental leakage or even an explosion of the oil and gas pipelines which crossed near their villages, either due to natural or man-made disasters. Although the farmers are eager to find out more about the danger and how they could prevent it or, worst-case scenario, prepare for it, they have been unable to find any information released by CNPC-SEAP or the government of Myanmar.

Concerns over the Safety of Pipeline: CNPC-SEAP appointed security personnel, villagers who live along the pipeline route, to regularly check whether the concrete blocks marking the pipeline trench or any communication poles have been damaged by natural causes or destroyed by the local people. Also, Chinese staff from the pipeline control stations patrol weekly or monthly along the pipeline using motor vehicles, according to the pipeline security personnel interviewed by the research team. As shown in Figure 29, CNPC-SEAP also posted concrete warning signs saying: “Pipeline Facilities Protected under Law; Severe Punishment on Pipeline Destruction” along the pipeline route. The warning signs are evidence that the Project fully realised the opposition of the local communities to the pipeline, and worried that the local people could destroy the pipeline facilities.

Figure 29: Warning signs of severe punishment for pipeline destruction
Source: The photos were taken by the MCPWC research team in Yenanchaung on February 18 and 20 2015)

The research team also found that in July 2013, MOGE issued an instruction letter to township and village administrations, together with a seven-point document outlining "dos and don'ts" along the pipeline route. According to the document seen by the research team, one significant restriction written in Paragraph No. 3 is that in the 20-metre land area adjacent to each side of the pipeline route, nobody is allowed to excavate soil, dig holes or begin mining operations to build schools, hospitals, theatres, restrooms, train stations, markets, parks, offices, public buildings, fuel storage tanks or stations, or electricity transformer stations, etc. As a result of that restriction, the Project not only confiscated the lands for the ROW permanently, but also restricted many conditions in the 20m land area on both sides of the pipeline route, affecting the economic value of this land. However, local authorities did not distribute this instruction document to the affected communities along the pipeline route, so the affected farmers did not know about the restriction.

Figure 30: Soil erosion of the pipeline route at Nat Yaykan Mountain, Ngaphe
Source: The photos were taken by MCPWC in September, 2015.

Myanmar has recently undergone a number of major natural disasters. In 2008, Cyclone Nargis hit the Ayarwaddy Delta, causing unprecedented destruction in the history of the country. In 2010, Giri Cyclone hit Rakhine State, causing massive destruction again. In 2015, severe landslides and flooding across the country occurred due to strong monsoon rain. For instance, the pipeline reappeared due to a landslide in Nat Yay Kan Mountain in Nga Phe Region, as shown in Figure 30. As the oil and gas pipelines also pass through the dry zone of the country, such as Magwe and Mandalay regions, the forest fires which often occur in summer are another possible threat to the safety of the pipeline. When the MCPWC research team conducted field research in Kyauk Padaung in June 2015, there was a forest fire near the pipeline in Gway Taunt Kone Village. The local farmers pointed out that nobody from CNPC-SEAP or the local authorities came to check the accident. Only one pipeline watch guard came to check it whether it could endanger the pipeline, according to the farmers, who said they were living in fear. The team also saw forest fire warning signs posted on the roadsides of the township.

The pipeline could have been damaged due to natural disasters as well as human action. As Myanmar is an agricultural country, farming is the livelihood for many people in the villages. The farming methods are still not modernized, and the "slash and burn" method is widely practiced across the country. Although the local authorities prohibited burning within the ROW, it is very difficult to eradicate this traditional slash and burn method which is an important step in the ground preparation for seasonal crop cultivation. In May 2015, when the MCPWC research team conducted field research work in Kyaukme, the team witnessed the slash and burn practice as shown in Figure 31. There have not yet been any accidents due to the practice. However, it would be a good way to show the accountability of the Project if CNPC-SEAP reduced the concerns of the local communities by providing information of an emergency response plan for any pipeline accidents. Instead of providing useful information, the government and the company sent out messages of restriction and intimidation to local communities.

Figure 31: Slash and burn practice on farmland within ROW
Source: The photos were taken by the MCPWC research team on June 1, 2015.

Local Development Activities: In order to show that the local population also benefits from the Project, CNPC-SEAP made financial donations to local development activities. According to the booklet published by SEAOP/GP, the Project conducted field observation in 100 villages along the pipeline and then spent USD $20 million building 45 schools, two orphanage schools, 21 village health clinics, a water tank and pipeline network for the villages in Maday Island, and an electrification system in Kyauk Phyu Township. From that budget, the electrification in Kyauk Phyu Township alone cost USD $10 million and the rest of the budget was spent mostly on constructing education and health buildings. The MCPWC research team also studied the Project's local development activities in the various field research townships and found that the Project donated a lot of money in Maday Island – but it was a very different situation in Myo Chaung Island, located east of Maday Island. While the school buildings were useful for village education, the health clinics were mostly closed due to the absence of health workers or medicines, according to the farmers interviewed by this research. However, there were few assistance programs that directly benefited the affected farmers who lost their farmland and livelihoods. To really help the situation, CNPC-SEAP should do the following: 1) Repair the farmland damaged by the Project; 2) Provide agricultural assistance to the affected farmers until they can regain the same yield from the farmlands as before the pipeline project began; and 3) Give back the farmlands within the ROW to the farmers, instead of confiscating them permanently.

Chapter 7: Conclusion

This research has comprehensively studied and described the social impacts on the affected farmers living in the villages along the pipeline route. The research has generated a wide range of findings and insights through field research in one-third of the 21 townships crossed by the pipeline within a timeframe of one year. If MCPWC had been able to conduct this research in all the townships affected, there is no doubt that far more social impacts would have been discovered. In fact, it is essential that this kind of comprehensive social impact analysis for the whole pipeline route be done in the future.

From the beginning of the discussion between Myanmar and China regarding implementation of the Myanmar-China Oil and Gas Pipeline Project through to the completion of the Project, the people of Myanmar had access to very limited information on the Project. Although it was one of the biggest natural resource extraction ventures in the country, President U Thein Sein's administration did not disclose even basic information about Project to ordinary citizens. It is evident that the government did not respect the people's right to know about the affairs of the country. As a result, foreign investors did not respect the rights of the people either. These realities stand in stark contrast with the policy of "People-centred Development" trumpeted by the government.

Because of the lack of transparency in this very large-scale economic project, there have been a wide range of adverse consequences ensuing, of which pervasive corruption has been arguably the worst. This research uncovered clear evidence of corruption cases at the village and township levels which demonstrates that those involved were serving officials of government departments. The victims in these cases were innocent farmers who had reason to fear them. It is a near certainty

that corruption relating to the Project was occurring at the higher levels of the administration also. Myanmar must effectively tackle the deeply rooted culture of corruption in society if the country wants to develop.

With the transition to democracy, Myanmar has begun to change its economic policies and the scope of its commercial relations with the outside world has been expanding as well. Meanwhile, confident that they could reap big profits from natural resource-rich Myanmar within a short time frame, foreign investors have driven a boom in natural resource extraction in the country comparable to a 'gold rush'. However, farmers who are trapped in their rural village existence know little about the changing economic dimensions of the country. In this context, if the government does not transparently disclose information on major economic development projects and educate the citizens, there will be growing discontent and a backlash against large-scale projects that could lead to social instability and affect the economy.

It is very important that Myanmar government has a genuine commitment to developing the country. If the government had had a strategic plan to work for the regional development, it would have provided full information to the local communities and would likely have won their support. If citizens were convinced by the government's efforts, they would not have rejected them. Although Myanmar could earn a large amount of foreign currency revenue through the implementation of Myanmar-China Oil and Gas Pipeline Project, nobody knows to what extent the government is willing to use the profits of the Project to reinvest in the development of the rural communities along the pipeline route. Meanwhile, the tangible reality with which local people have been confronted has been the accelerating seizure of farmlands which are essential for their survival.

For its part, CNPC-SEAP secured the right to own the land used for the pipeline route for a period of decades by deliberately circumventing the restrictions imposed by Myanmar's laws. Equally striking is the Myanmar government's complicity in this chicanery. Although it is understandable that foreign investors need land to invest in Myanmar, the size of land that the Project secured was excessive: an 800-km long land strip that divided the country into two parts. Myanmar farmers have been forced to permanently transfer these lands to CNPC-SEAP, a company from neighbouring China; something that, from the point of national security, should not have been permitted. Why could the government of Myanmar not retain ownership of the land on behalf of its citizens, particularly given that this was a joint venture project? China's efforts to influence Myanmar politically and economically are well known and this report strongly recommends that CNPC-SEAP's ownership of the land used for the pipeline route be rigorously reviewed in light of the negative national security implications.

In conclusion, as the Project has already been constructed and operated, the best way forward would be for the government of Myanmar and CNPC-SEAP to restore the confiscated lands to the farmers that owned them and to prove that they are sharing the benefits of the Project with the affected communities by launching local development programs. In this regard, the priority areas that the Project should focus on are, firstly, restoring the damaged farmlands through technical assistance, including provision of mechanized equipment, until the farmers regain the same agricultural yields they enjoyed before the Project started. Moreover, the Project should provide livelihood assistance to the affected farmers and launch a conservation plan for the forests damaged due to the pipeline construction.

Finally, MCPWC as a civil society organization commits to monitor the Project and inform the people whenever any irregular situation occurs along the pipeline, and believes it is the responsibility of the CSO community in Myanmar to do this. Myanmar is now in a transition towards establishment of a democratic society. In this situation, foreign companies which are interested in investing in the natural resource extraction sector should establish relationships with the population based on transparency and respect. The people of Myanmar are the owners of the natural resources of the country and they should be the first to benefit from them.

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Land Nationalization Act (1953)

Foreign Investment Law (2012)

Foreign Investment Bylaw (2013)

Farmland Law (2012)

Appendix (1)

List of Research Team Members

Researchers and Authors

1. U Zaw Aung
2. Daw Khin Nwe Cho

MCPWC Research Team Members

Name	Position	Township
1. U Ye Thein Oo	Coordinator, Team Leader	Kyaukse
2. Daw Khin Moh Moh Win	Finance Officer	Mandalay
3. Mai Thuzar Khine	Program Assistant	Ngaphe
4. Myo Linn Zaw	Member	Kyauk Phyu
5. Zaw Min	Member	Ann
6. Salai Than Naing Oo	Member	Nge Phe
7. Daw Linn Linn Htay	Member	Nge Phe
8. Daw Khin Mar Win	Member	Nge Phe
9. U Zaw Min Naing	Member	Yenangyaung
10. U Thet Paing Kyaw	Member	Yenangyaung
11. U Tin Aung Zaw	Member	Pwint Phyu
12. U Soe Thu	Member	Taungtha
13. Daw Khin Malar Win	Member	Kyaukse
14. U Nay Zaw	Member	Singaing
15. U Than Zaw	Member	Tataoo
16. U Thaung Naing Oo	Member	Pyin Oo Lwin
17. Mai Than Hteik	Member	Namkham

MCPWC Leaders and Members Supporting Field Research Trips

Name	Position	Township
1. U Thant Zin	Steering Committee	Minbu
2. U Kyaw Wai	Steering Committee	Kyaukme
3. U Shwe Lay	Steering Committee	Ngaphe
4. U San Tin	Steering Committee	Kyauk Phyu
5. U Htun San	Steering Committee	Natogyi
6. U Nay Myo Khaing	Township Leader	Singaing
7. U Tun Naing	Township Leader	Kyauk Phyu
8. U Kyaw Win Swe	Township Leader	Kyaukpadaung

9. U Kyaw Khaing Htun	Member	Yenangyaung
10. U Banyar	Member	Singaing
11. U Nyi Lin	Member	Kyauk Phyu
12. Sai San Htun	Member	Kyaukme
13. U Aik Kwel	Member	Kyaukme
14. U Pyae Phyo Kyaw	Member	Kyaukme
15. U Min San	Member	Kyaukpadaung
16. U Aung Hein	Member	Kyaukpadaung

Appendix (2)

Research Questionnaires

I. Information on the Pipeline Construction

1.1. When did you know about the pipeline project? From where did you get the information? (E.g. Village authorities, newspaper, radio, etc.)

1.2. Do you know who built the oil and gas pipeline? Who are the investors in the project?

1.3. Did you know in advance where the pipeline would cross your village? And if so, when?

1.4. Did the Project study the social and environmental conditions of the local community? When? And who did the study?

1.5. Did the Project consult with the local community on choosing the route of the pipeline in your village? How?

1.6. Can you imagine what has changed on the ground because of the pipeline construction? How did you know about it?

II. Information on Land Acquisition Process

2.1. When and how did you know that your land was within the Project construction area? Who told you?

2.2. Did the Project consult with the landowner before his or her land was confiscated for the project? (E.g. by sending an official from the company or MOGE and township or village administrative authorities)

2.3. Was there any land measurement conducted before the pipeline construction began? Who measured the lands? Did they inform the land owners?

2.4. During the land measurement activities, were there any disagreements regarding the actual land area that was going to be confiscated? How did they solve it?

2.5. When did you know the actual land area the Project would confiscate from your land? Who told you?

2.6. The pipeline was supposed to be built only after a mutually satisfactory agreement was signed regarding compensation for the confiscated land. Did this happen?

III. Information on Land and Crop Compensation Agreement

3.1. Did they allow you to study the Land Confiscation Agreement? Did they give you enough time to study it? Did they discuss the facts included in the Agreement with the landowners?

3.2. Where did you sign the Land Confiscation Agreement and who witnessed the event? Did you agree to sign it by yourself? Did anyone lure or threaten or force you to sign the agreement?

3.3. How many languages were used in the land confiscation agreement? Did the local people (e.g. the ethnic Asho Chin, Shan, Rakhine, T-aung) fully understand the facts written in the agreement?

3.4. Did the agreement clearly describe the fact whether they had confiscated the land temporarily or forever? Did they give compensation for both land and orchards separately or together? Did you receive compensation for both?

IV. Information on Compensation

4.1. Did they calculate the compensation for land and orchards separately or together?

4.2. Did you get the entire compensation at once or in instalments? How many instalments did they give you to compensate for the loss of your land and orchards?

4.3. Did you get the compensation in full? Or were there any deductions from your compensation for causes such as the village fund or any other purposes?

4.4. When deciding the rate of compensation for the lands and orchards, did both parties mutually consult with each other and agree on them? Or who decided the rates?

4.5. How many times did you sign the compensation process? (e.g. when measuring the land, calculating for the compensation, giving compensation and/or giving up the right to own your land entirely)

4.6. Are you satisfied with the compensation that you received? If not, why are you not satisfied?

4.7. How did you use the compensation money for the sustainability of your family income and livelihood?

V. Information on Livelihoods and Job Opportunities

5.1. Did the locals get any jobs in this project? What kinds of jobs did they get?

5.2. Were there any problems between the Chinese and the local labourers or local citizens? How were the problems solved? And who solved those problems?

5.3. Did the Project damage the public facilities (e.g. local road, bridge, lake, water sources, cem etery, religious building, etc.) during the pipeline construction in your community? How did it affect your life and livelihoods?

5.4. Has there been any direct impact on your family's socio-economic condition because of the pipeline project?

VI. Information on Land Management within the 30-metre Right of Way

6.1. During the pipeline construction, did they dig and remove the top soil separately? And did they systematically cover the top soil in the upper layer after the pipeline was installed?

6.2. Did the Project allow you to grow crops within the 30-metre ROW? If yes, did you get the same yields as you had before?

6.3. Was the title of the land within the 30-metre ROW changed from agricultural land (e.g. in accordance with Land Law Section 30 A and B)?

VII. Information on Damages outside the 30-metre Right of Way

7.1. Did you get a rental fee or compensation for using your land which was outside the 30-metre ROW for the project?

7.2. Did they pile up muddy soil outside the 30-metre ROW? What kind of damage did it cause to your farmland? Did you get compensation for that damage?

7.3. Was there any acquisition of public land areas within and outside the 30-metre ROW? For what reason did they confiscate the land? Did the Project give compensation for using these lands? (E.g. animal pasture, fallow land, cemeteries, etc.)

VIII. Information of Impacts on Environment and Rural Infrastructure

8.1. Did the pipeline construction damage the local infrastructure such as wells, lakes, roads, bridges, etc., and did they repair the damage to the original condition?

8.2. Did the pipeline construction damage the natural environment and did they repair it to the normal condition?

8.3. During the pipeline construction, did the company or construction workers, foreign and local alike, conduct any other activities such as extracting and trading minerals, rare herbal plants, antique materials, and hunting animals and their parts, etc.?

8.4. Did the Project extract natural resources (e.g. extracting stones from the mountain and sand from the rivers, storing and using fresh water from the community water outlets and logging trees, etc.) to use in the construction project? What kind of impact did you observe? Who extracted those resources?

8.5. Was there any irreversible damage done to the natural environment around your community? Did the damage affect your life and livelihoods?

IX. Information on Construction Waste Management

9.1. Did the Project dispose of the waste materials from the pipeline construction systematically during and after the Project? Where did they dispose of them? Did this affect the community?

9.2. Did the Project use any chemicals during the pipeline construction? Have you heard of any negative impact on the environment?

9.3. Did the Project dispose toxic chemicals systematically in a safe place? Do you know of any impact on humans or animals due to the negligence of the company? What kind of impact did you see?

X. Information on the Safety of the Pipeline

10.1. After the completion of the pipeline construction, are there any problems along the pipeline? If there is any damage, did the company maintain it well? Did the damage affect the environment, local community, and animals?

10.2. Was there any case of resettlement due to the pipeline route being close to a house or yard?

10.3. Has there been any information on precautions or prohibitions disseminated to educate the local communities with regard to the safety of the pipeline? Do you know any emergency ar rangements in place if there was any danger occurring along the pipeline?

10.4. Please tell us about your opinions or feelings on this pipeline project if you want to.

Appendix (3)

Photo Documents of the Research Activities

MCPWC Leaders and Research Team Members

1. Photo documents of field research work in Kyauk Phyu, Rakhine State

Caption: The research team observes the ground situation of the pipeline route in Myo Chaung Island.

Caption: The research team travels from Myo Chaung to Maday Island by boat in the early morning.

Caption: The research team conducts interviews with the affected farmers in Kyauk Khamout in the morning.

Caption: In the same place, the research team entered the collected data at night.

Caption: On the way to U Kin Village, the research team repairs the ground to make it possible for cars to pass by.

Caption: The research team discusses the situation with U Ba Shin and township officials from National League for Democracy in Kyauk Phyu.

2. Photo documents of field research work in Ngaphe, Magwe Region

Caption: An MCPWC Steering Committee member explains to the affected farmers about the research activities.

Caption: The research team meets the officials of the township government departments led by TGAD Chief in Ngaphe Township.

Caption: MCPWC research team interviews the affected farmers in Tharyar Gone Village individually.

Caption: The research team collects data from each affected farmer with a set of questionnaires.

Caption: The research team observes the construction site where workers repaired the irrigation channel destroyed by the pipeline in Zin Pyune Village.

Caption: The research team conducts a direct field observation on the pipeline route constructed in the hill slope near Gok Gyi Village, Ngaphe.

3. Photo documents of field research work in Yenanchaung, Magwe Region

Caption: The research team on the bank of Irrawaddy River at Wat Masut Village before observing the pipeline's river-crossing points.

Caption: The research team observes the pipeline's river-crossing point on the West bank of Irrawaddy River.

Caption: The research team observes the pipeline route near Ngar Landar Village at the West bank of Irrawaddy River.

Caption: The research team interviews an affected farmer at Wat Masut Village.

Caption: The research team interviews affected farmers at Yin Mar Chaung Village.

Caption: The research team interviews affected farmers at Ngar Landar Village.

4. Photo documents of field research work in Kyaukpadaung, Mandalay Region

Caption: The research team explains to the farmers about the research activities.

Caption: The researcher interviews an affected farmer at Shwe Si Tile Village.

Caption: The research team observes the pipeline route that crossed the farmlands at Tanga Kan Village.

Caption: The research team interviews a villager about Khin Mon Pond, which was affected by the Project.

Caption: The researcher talks with farmers at Tanga Kan Village about the kinds of seasonal crops, labour wages, etc.

Caption: After conducting field research work in Kyaukpadaung, this was the review session of the research team in which each member shared their experience.

5. Photo documents of field research work in Singaing, Mandalay Region

Caption: With the permission of Mon Pin Village Head, the research team interviews affected farmers at the office.

Caption: While interviewing an affected farmer, others were interested in the research and listened to the interview.

Caption: The research team interviews affected farmers at Taw Ma Village about their experience during the Project.

Caption: The team interviews affected farmers at Pattar Village about their experience during the Project.

Caption: The research team conducts the data collection and data entry at the same day.

Caption: After observing the pipeline's river-crossing point in Myitnga River, the team took a documentary photo.

6. Photo documents of field research work in Kyaukme, Shan State

Caption: The research team interviews affected farmers at Naung Pane Lay Village.

Caption: The team member interviews an affected farmer at Sakhan Thar Village.

Caption: The research team records the experience of an affected farmer at Naung Ann Village.

Caption: The research team takes a photo of a new concrete access road from Pin Paw Village to Gok Twin Valley.

Caption: The research team conducted data entry at night after collecting data at day time.

Caption: After conducting field research work in Kyaukme, this was the review session of the research team in which each member shared their experience.

Myanmar China Pipeline Watch Committee
MCPWC
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