



# THE IMPACT OF GAS PIPELINE PROJECTS AND THEIR CORPORATE SOCIAL RESPONSIBILITY PROGRAMS: In Yephyu Township, Tanintharyi Region, Myanmar

Aung Lwin



Understanding  
Myanmar's  
Development

RESEARCH  
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# The Impact of Gas Pipeline Projects and their Corporate Social Responsibility Programs Development Challenges in Yephyu, Tanintharyi Region, Myanmar

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International Development Research Centre  
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## Foreword

Myanmar is undergoing an exciting and often unpredictable time of transformation on many fronts after decades of isolation. Outsiders have only a limited understanding of the complexities, dynamics and the depth of change taking place—affecting the social, environmental, economic, and governmental spheres, and directly impacting the livelihoods and practiced culture of the peoples of Myanmar. How are they actively taking part in their country's developmental process, and in the face of what obstacles? In this pivotal moment, Myanmar's need for both mind- and manpower to help fill the gaps of data and research on critical development issues has never been greater.

RCSD has established the Understanding Myanmar's Development (UMD) Fellowship program, supported by the International Development and Research Centre (IDRC), Canada, to enhance the knowledge of Myanmar's development, strengthen the research capacity of Burmese researchers, and encourage them to become actively engaged in the study of development policy and practice. The fellowship seeks to promote sustainable academic exchange and dialogue among researchers from Myanmar, Thailand, and other GMS countries. Under this program, 30 fellowships have been awarded to mid-career researchers in their respective areas of social and economic change, agriculture, environment and climate change, health and health care systems, and social media and innovations.

This piece of research by Aung Lwin exemplifies what the Understanding Myanmar's Development Fellowship program is all about. As someone who was born and raised in an area where

three major gas pipelines were constructed, Aung Lwin has brought a unique local perspective to his examination of the impacts of these pipeline projects and their respective CSR programs. As a dedicated community activist, Aung Lwin has the trust of local people and was able to gain excellent research access to villages in the project areas. The insights and recommendations from this research paper make a significant contribution to the current debates surrounding large-scale infrastructure projects in Myanmar. At a time when Myanmar is experiencing an influx of foreign direct investment as well as renewed access to financing through multilateral financial institutions, a sober examination of how infrastructure development projects implemented under Myanmar's previous military dictatorship impacted local people is paramount. Through highlighting both the positive and the negative impacts from such projects and their CSR programs, Aung Lwin is aptly able to harvest lessons learned and point to best practice going forward.

*Chayan Vaddhanaphuti, PhD*  
*Director, RCSDS*

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My sincerest heartfelt thanks goes to Dr. Aung Zaw Moe, supervisor of the Community Development Department of the Yadana CSR program, who encouraged me to apply to this program and allowed me to take a period of leave once I was accepted. I would also like to say thank you to Dr. Aung Zaw Win, program manager of the Yadana CSR program, for providing me with relevant data. In addition, my deepest gratitude goes to the villagers from Ohnbinkwin, Migyaunglaung (old), and Daminseik for giving me the opportunity to spend time in their villages and to interview them. Their knowledge and experience was crucial to this research, and provided a deeper understanding about the issue.

Last but not least, I would like to express my sincerest gratitude to my mother, brothers and sisters, friends and UMD fellows for encouraging me to keep studying and striving for future academic opportunities. I will never forget your great support and inspiration.

## Abstract

Starting in the 1990s, Myanmar's former military junta negotiated foreign investment deals to construct three major natural gas extraction and pipeline projects in Tanintharyi Region: the Yadana (1995), the Yetagun (1996) and the Zawtika (2011) projects. At a time of economic sanctions and international isolation, the export earnings from these projects provided Myanmar's then military dictatorship—State Law and Order Restoration Council / State Peace and Development Council—with a desperately needed source of foreign currency.

The arrival of these large internationally-financed infrastructure projects also had significant impacts for the people living in the project areas; both positive and negative. The Yadana, Yetagun and Zawtika gas pipeline projects provided some direct benefits for local people; namely, economic benefits from project-related employment and new opportunities to start small and medium sized businesses, as well as greater stability in a region long-affected by armed conflict. There were also negative impacts for local people; including the construction of new military camps in the area, forced labour due to increased troop presence, forced relocation and land-grabbing, landlessness, disruption of traditional livelihoods, and environmental degradation.

The CSR programs connected to the three gas pipeline projects also resulted in various positive and negative impacts to local people. The CSR programs benefited local communities; mainly in the areas of infrastructure development, improvement of health and education facilities, economic development, and capacity and institutional development. There were also some negative impacts

from the CSR programs; namely the loss of voluntary spirit among community members, a growing dependency on CSR programs to provide for development needs (rather than looking to the government), and a ‘charity’ model rather than a ‘sustainable development’ model.

With the current growth of foreign investment - and related CSR programs - entering Myanmar across a range of sectors now is an important time to study the impacts of past foreign investment projects on local communities so as to take advantage of lessons learned and discard failed policies.

Researched and written by a scholar from the affected area, this paper offers a unique perspective on the impacts of these projects and their respective CSR programs through participant observation and extensive interviews with local people and project stakeholders. In addition to examining the impacts on local people, some of the wider environmental, socio-economic and cultural transformations resulting from the pipeline projects are explored. The paper concludes with a list of recommendations to improve the implementation of large-scale infrastructure projects, and related CSR programs, in Myanmar.

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# 1

## INTRODUCTION

Since 1995, three major natural gas extraction and pipeline projects have been implemented in the Kanbauk area of Tanintharyi Region, the southern-most region of Myanmar. The three pipeline projects are the Yadana, the Yetagun and the Zawtika. All three projects involved the extraction and transportation of natural gas to Thailand by pipeline. All three projects were financed and implemented by international companies in cooperation with Myanmar's military dictatorship regime – the State Law and Order Restoration Council (SLORC), later changed to the State Peace and Development Council (SPDC). All three projects have had significant impacts on the people living in the project areas.

The objective of this paper is to identify and understand the significant changes that have been experienced by local people in Tanintharyi Region due to the arrival of these three natural gas extraction and pipeline projects, and their respective CSR programs. The research conducted for this paper was framed by the research question: “To what extent did the Yadana, Yetagun and Zawtika natural gas extraction and pipeline projects and their respective CSR programs impact the lives of the people living in the area?”

The Yadana, Yetagun and Zawtika gas pipeline projects have resulted in both positive and negative changes for the people living in the area. The arrival of the projects directly resulted in a number of benefits for local people; namely, new project-related employment opportunities and new business opportunities which

lead to economic growth in the region. There were also a number of negative impacts for local people, including new military camps (Army and Navy) built in the area during project construction, forced labour, forced relocation and land-grabbing, disruption of livelihoods, landlessness, and pollution.

The three CSR programs connected to the three gas pipeline projects also brought various benefits to the communities in the project areas, mainly in the areas of infrastructure development, socio-economic development, and capacity and institutional development. There were also some negative impacts of the CSR programs; namely the loss of voluntary spirit among community members, a growing dependency on CSR programs to provide for development needs (rather than looking to the government), and a 'charity' model, rather than a 'sustainable development' model.

### **Overview of the Three Natural Gas Extraction and Pipeline Projects**

The development of these three natural gas projects happened in two distinct phases: the Yadana and Yetagun Projects in the mid-90s, and then the Zawtika Project in the late aughts (see Table 1 for the timeline). The construction of the Yadana Project infrastructure was started in 1995. The Yetagun Project infrastructure construction started in 1996. In 2011, the construction of the Zawtika infrastructure began.

**Figure 1** Truck transporting gas piping to Kanbauk



**Figure 2** Road construction by the gas pipeline company near Daminseik



**Table 1** Timeline of Yadana, Yetagun & Zawtika Project Development

Year	Event
1992	Yadana exploration starts
1992	Yetagun exploration starts
1995	Yadana infrastructure construction starts
1996	Yetagun infrastructure construction starts
1998	Yadana production starts
2000	Yetagun production starts
2007	Zawtika exploration starts
2011	Zawtika infrastructure construction starts
2014	Zawtika production starts

The companies implementing these natural gas extraction and transportation projects setup Corporate Social Responsibility (CSR) programs alongside each project. The three CSR programs had some notable similarities and differences.

The Yadana Project CSR program was implemented in 33 villages. According to the Myanmar Ministry of Energy, the Yadana CSR program is the largest oil sector CSR program, with US\$35.66 million expenditure since it began in 1995.<sup>1</sup> The program had six main categories of intervention: Community Development, Public Health, Infrastructure, Microfinance, Agriculture and Veterinary.

The Yetagun Project CSR program was implemented in 26 villages. The program focused on early childhood education, with an expenditure of US\$10.53 million since it began in 1998.

The Zawtika Project CSR program was implemented in 28 villages. The program focused on education and infrastructure development, with an expenditure of US\$3.34 million since it began in 2009.

### **Human rights concerns**

A number of international non-governmental organizations and local activist groups have documented a range of human rights

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1 <https://www.mmmtimes.com/business/16163-ministry-reveals-csr-history-for-country-s-largest-oil-and-gas-firms.html>

abuses associated with these natural gas extraction and transport projects. The major human rights complaints relate to the displacement of villages for pipeline construction, and land grabbing and forced labour by the Burmese military (Tatmadaw) based in the area to provide security during the construction of the project infrastructure.

At the time when these pipeline projects were initiated Myanmar was under a military dictatorship, and people did not dare to express their concerns or speak-out in opposition to the projects. With the 2010 election and subsequent creation of the nominally civilian-led government of President Thein Sein, there was some movement towards political and economic reform and the perception of local people regarding these type of large-scale projects changed dramatically. The 2015 election and creation of the NLD-led government with Aung San Suu Kyi as State Counsellor continued the reform process. The current period in Myanmar is characterized by reform and increasing space for citizens to actively engage government in the public sphere, and is thus a fortuitous time to study the socio-economic impacts of the infrastructure development projects initiated under the previous military dictatorship. To properly understand the impacts of such projects, it is important to study the perceptions and experience of the people living in the project areas who were directly and indirectly affected.

### **Objectives of Research Project & Research Question**

The objective of this research project is to identify and understand the significant changes that have been experienced by local people in Tanintharyi Region due to the arrival of the three natural gas extraction and pipeline projects and their respective CSR programs. Based on the research findings, this paper aims to make recommendations regarding the implementation of extractive industry CSR programs in Myanmar.

The sub-objectives of this research project are:

To understand the impact of the gas pipeline projects on the livelihoods of local people and the local economy.

To examine the positive and negative changes resulting from the CSR programs related to the pipeline projects; in terms of environment, economy, and social and cultural transformations experienced over the two decades since the project infrastructure construction began.

To explore the evolving relationships among the key actors (local community, government and the CSR program staff) before and after the 2010 election.

The research question is: to what extent did the Yadana, Yetagun and Zawtika natural gas extraction and pipeline projects and their respective CSR programs impact the lives of the people living in the area?

## Methodology

### Research site selection

This paper is based on research conducted over the period of October 2013 to September 2014. Research was conducted in four project-affected villages in Yebyu township of Tanintharyi Region, Myanmar. The names of the four villages are: Kanbawk, Ohnbinkwin, Migyaunglaung (old), and Daminseik. These four villages were chosen as research sites because of their different histories, livelihood-bases, and experiences concerning the implementation of the gas pipeline projects. Table 2 outlines the rationale employed in the selection of these four research sites.

**Table 2** Rationale for selection of research sites

Village	Rationale for selection
Kanbawk	Kanbawk is the biggest village in the area, and functions as a hub for the surrounding villages. All three of the CSR program offices are based here. The location and geography of Kanbawk offers ease of access to surrounding areas as well as to and from the area, and thus many migrant workers choose to settle there. It functions as the major trading centre for the area, with a market and infrastructure such as a hospital.

Daminseik	Daminseik is located on the coast of the Andaman Sea. All three gas pipelines come ashore here, thus the village is the starting point of the onshore pipeline route. Fishing is a major livelihood activity in Daminseik village.
Ohnbinkwin	Ohnbinkwin is where the company headquarters for all three of the gas pipeline project operators are located. In this area, the number of people who received pipeline project related compensation is the highest. The village is home to many of the people who worked on the gas pipeline projects, including many migrant workers. Almost all of the beer shops the area are found here.
Migyaunglaung (Old)	Migyaunglaung (old) village was one of the last villages located along the gas pipeline route as it approaches the Thai-Myanmar border. The village was relocated a few years before the Yadana pipeline project construction started due to serious fighting between government troops and ethnic armed groups in the area. Many villagers were forced to work for the military camps which were set-up in the area to provide security for the pipeline projects.

### Data collection methodology

This study utilized mostly qualitative data collection methods; namely structured and unstructured individual and group interviews, participant observation, and field visits and stakeholder meetings.

Interviews were conducted in the four selected research villages; using both one-on-one and group discussion settings. The interviews focused on the perceptions of local people regarding the gas pipeline projects in the area, and on the socio-economic impacts of the gas pipeline construction and the three CSR programs.

Participant observation was conducted by attending meetings and social events, as well as engaging in informal conversations with people during overnight stays at the research villages. The insights gained through these participant observation activities were essential for gaining background information and historical context.

Field visits and stakeholder meetings included: visits to three CSR programs; attending meetings between villagers and government

officials; attending meetings between villagers and company representatives; and a visit to the Dawei Special Economic Zone (DSEZ) site. Insights gained through the field visits and stakeholder meetings provided a fuller understanding of the relationship between the local people, government and the private sector in these type of foreign investment projects.

**Table 3** Summary of data collection methods

<b>Research method/ Village name</b>	<b>Individual interviews</b>	<b>Group interviews and discussions</b>	<b>Participant observation activities</b>	<b>Field visits and stakeholder meetings</b>
Kanbauk	11	4	12	4
Daminseik	9	7	11	2
Migyaunglaung (old)	9	4	9	2
Ohnbinkwin	20	7	14	2
<b>Total</b>	<b>49</b>	<b>22</b>	<b>46</b>	<b>10</b>

Data collection activities consisted of: 49 individual interviews; 22 group interviews and discussions; 46 participant observation activities; and 10 Field visits and stakeholder meetings. Effort was made to include people from multiple ethnic and linguistic groups, including ethnic Karen, Mon and Tavoyian. Interviews were conducted in Tavoyian (Dawei) language in Kanbauk, Ohnbinkwin and Daminseik villages, while Burmese language was used in Migyaunglaung (old) and other locations. A wide range of people were included in the data collection activities, including former and current Village Communication Committee (VCC) members, Village Bank Committee (VBC) members, Vet Auxiliaries (VA), Village Health Workers (VHW), Village Early Childhood Care and Development Committee (VECCDC) members, village agricultural representatives, fishermen, animal breeders, money lenders, teachers and school principals, scholarship students and their parents, village administrators, village level township clerks,

religious leaders, workers from the gas pipeline projects, restaurant and beer shop owners, 88 Generation members (Kanbauk region), National League for Democracy members (NLD - Kanbauk office), Gawpaka<sup>2</sup>, Arrudana (Kanbauk region), and civil society organizations and activists from the study villages and Dawei.

Interviews were also conducted with senior staff from three CSR programs and township level government officials. In addition, CSR officers from the Dawei Special Economic Zone (DSEZ) project were interviewed in order to provide a comparison with different CSR operations.

## **Conceptual Framework**

The four conceptual categories used for this paper are: livelihood; attitude; decision-making; and corporate social responsibility.

### **“Livelihood”**

In the broadest sense, the concept of livelihood is understood as how local people meet the requirements for their lives; either by providing for themselves or earning an income. For this paper our understanding of the concept of livelihood is informed by DFID’s Sustainable Livelihoods Framework; with livelihood consisting for four major elements: the assets people draw upon; the strategies they develop to make a living; the context within which a livelihood is developed; and those factors that make a livelihood more or less vulnerable to shocks and stresses.<sup>3</sup> An important aspect of livelihood is security from physical violence, thus the role of peace and conflict on the local peoples’ quality of life was a key concern of this study.

This study examines the livelihood challenges faced by local people before, during and after construction of the gas pipelines. The various projects initiated by CSR programs are a key area of

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2 A group of people that collection donations and organize events at Buddhist monasteries. They are trusted by monks and villagers.

3 [http://www.unisdr.org/files/16771\\_16771guidancenoteonrecoveryliveliho.pdf](http://www.unisdr.org/files/16771_16771guidancenoteonrecoveryliveliho.pdf)

study since their stated aim is the improvement of the livelihood of local people in the pipeline area.

### **“Attitude”**

A key focus of this paper is the changing attitudes of local people before and after the initiation of CSR programs. Local people’s perceptions of the gas pipeline projects and contribution of their CSR programs to the development in the area are the key metrics by which changes in “attitude” are measured in this paper.

### **“Decision-making”**

The concept of “decision-making is informed by two key metrics: access to information and participation.

#### *Access to information*

The concept of ‘access to information’ represents the ways that local people receive and understand information about the gas pipeline projects. The degree to which local people have access to essential information concerning pipeline construction plans or CSR programs is an important metric for measuring the role of local people in decision-making processes. Importantly, examining access to information at different stages of project implementation will be key to determining local people’s decision-making power throughout the life of the pipeline projects.

#### *Participation*

Participation describes the degree to which local people are actively involved in decision-making processes that directly or indirectly impact their communities. Key areas of focus for this paper are the participation of local community members in decision-making processes related to compensation, CSR program activities, and the reporting of pipeline-related human rights abuses.

### **“Corporate Social Responsibility”**

The concept of Corporate Social Responsibility (CSR) refers to the idea that private sector companies are to be held accountable and

engage in responsible business practice. CSR is used to describe a wide range of activities by private sector companies relating to the impacts of their business practices, including environmental, economic and social impacts in the region where they work. There is no universally agreed definition of the term CSR. Different companies have different perspectives on the goals and limits of CSR. In practice, the CSR interventions of different companies vary widely, with their strategies often described in their corporate codes of conduct.

It should be noted that CSR is recognized as being strictly voluntary initiatives, which companies may or may not choose to implement in a particular host community. CSR activities are fundamentally different from activities required by government laws and regulations. That being said, the existence of strong regulatory frameworks tends to encourage more comprehensive CSR initiatives. In recent years more companies have begun to see 'responsible business' as a competitive advantage. Host community themselves have also become more aware the disadvantages of private sector investments – especially in extractive industries – and have started to more actively criticize and pressure companies to take responsibility for the impacts of their business practices.

In Myanmar, there are not many examples of 'best practice' relating to CSR activities. Very high-risk and environmental damaging mega-projects – such as Ayeyarwaddy Myintsonne dam and Dawei Deep Sea Port projects – were introduced without genuine public consultation or plans for the companies to take responsibility for the impacts of their business practices. Moreover, Myanmar lacks comprehensive a legal framework or code of conduct for both local and foreign investors which would indicate that companies should be serious about responsible business practices.

**Figure 3** A Karen family opening betelnut in Migyaunglaung old village



### **Significance of the Research**

To date, there has been a decent amount of research done on the Yadana project – as the first project in the area – but less so regarding the Yetagun and Zawtika projects. This study aims to fill that gap.

Multiple qualitative research studies concerning the Yadana gas pipeline project were conducted by Earth Rights International (ERI) based in Thailand since the beginning of the project. Myanmar-based scholars have also conducted studies relating to the Yadana project. For example, Yi Aye and Tun Myint of the Yangon Institute of Economics wrote a quantitative research paper titled "Social development through human investment in Kanbauk area of Tanintharyi Division." Naw Pe The Law also submitted a research paper concerning the socio-economic program of Yadana project in Kanbauk towards the completion of a Master of Science in Regional and Rural Development. Much of the existing research on the Yadana project has focused on the socio-economic impacts of the gas pipeline or the Yadana CSR program; with research findings linked to international norms and high-level social theories.

The approach of this paper is significant because the focus has been broadened to include the Yadana, Yetagun and the Zawitka. The socio-economic impacts of all three projects are considered. An examination of the three separate CSR programs is conducted to determine the extent to which socio-economic, infrastructure,

livelihood, and social and culture transformations for the local community occurred due to the CSR programs.

A second significant aspect of this research project is that many different types of people were interviewed, including those who have different experiences of and different relationships to the three gas pipeline projects. This wide range of interviewees brought novel insights into the impacts of the projects and their CSR programs.

A third significant aspect of this research project is that the pipeline projects are examined in relation to the long-standing armed conflict in the Tanintharyi Region as well as in relation to human right abuses perpetrated against local people.

The final and most significant aspect of this research project is that the researcher was born and raised in the study area; meaning that the research was conducted by a local person. This is a significant difference from previous research on this topic, and enables greater access to local perspectives. The majority of the interviewees – except for the senior CSR program staff and government officials – were local people who have lived in the area since before the gas pipeline projects arrived. These people have experiences and perspectives on the gas pipeline projects and the CSR programs which are often ignored. Due to the researchers personal connection to the research area, this paper is a valuable contribution to the body of knowledge – despite not engaging with high level social theories – because it is an authentically bottom-up research initiative.



# 2

## BACKGROUND

### Introduction to the Research Area

The four village research sites – Kanbawk, Ohnbinkwin, Migyaunglaung (old), and Daminseik – are located in Yephyu Township, Tanintharyi Region, Myanmar. There are more than 40 villages around the area, but the four villages selected (see Table 2) as research sites are in the area where the gas pipelines cross and where the CSR programs are operating.

**Figure 4** Map of research site villages *Source: Bangkok Post*



Source: EarthRights International

POSTgraphics

After Myanmar's 2010 elections and semi-civilian government, one of the reform measures that reached the village level is that township level authorities formed Village Development Committees in every village. In all of the four selected research villages these committees meet with the CSR program staff and work together for the implementation of the development projects.

### **Kanbawk village profile**

Kanbawk is the biggest village among the four selected research villages. According to the Kanbawk administrative office records, the population is over 9,800 and there are approximately 1,900 households. Most of the people living in Kanbawk are of the Tavoyian (Dawei) ethnic group (a branch of Burman), although some ethnic Mons and Karens also live there. Most of the villagers are Buddhists, with a minority being Christians and Muslims. In addition to Buddhist temples, churches and mosques there are Hindu and Chinese temples in the village. Like most villages in Myanmar, there are also some villagers in Kanabuk who believe in spiritualism (Nat worship).

Kanbawk is home to one of the largest mines in Myanmar, a tin and tungsten mine. Prior to the 1990s, the livelihood of most people from Kanbawk depended on mining. The mine is operated by the Myanmar Ministry of Mining, and many of the permanent staff at the mine live in Kanbawk. Some villagers also operate their own small-scale open cast and underground mines. They sell tin and tungsten to the Ministry of Mining at a price fixed by the government. At that time, a viss (approximately 1.6 Kgs) of tin and tungsten was priced at 60 Kyats, and that was enough to feed a family of 4-5 members. Most big stores in Kanbawk were owned by people of Chinese heritage. Hindus and Muslims were often involved in the breeding of goats and cattle. The livelihood of Tavoyian (Dawei) people often depended on cultivating vegetables and cash crops such as coconut, cashew nut, and betel (areca) nut.

### **Ohnbinkwin village profile**

Ohnbinkwin is the nearest village to the pipeline company local headquarters. The population of the village is approximately 4,200.

Most villagers are Tavoyian (Dawei) while the others in the village are Burman. Most villagers are Buddhist, and there are two monasteries in Ohnbinkwin. There are no followers of Hindu, Muslim, Chinese or Christian religions in the village.

Prior to the arrival of the gas pipeline projects, most people made their living by doing agriculture (growing paddy and seasonal vegetables) and mining. Some conducted taungyar (shifting rice cultivation) in the hillsides of the surrounding mountains. Fishing was also a major livelihood for the people living near a small local river Heinzel chaung which flows into the Adaman Sea. Ohnbinkwin fish paste (ngapi) is one of the famous fish pastes from the area. Some people engage in buying and selling of local cash crops such as betel (areca) nuts, coconut and cashew nuts. The tropical fruits such as pineapples, mangoes, mangosteen and durian are also plentiful in Ohnbinkwin.

### **Daminseik village profile**

Daminseik is a small fishing village located next to where the gas pipelines come ashore. There are over 430 permanent households in the village and the permanent population is approximately 2,980. The majority of the villagers are ethnic Mons, with the rest being Tavoyian (Dawei). All residents are Buddhist. In the early 1990s, there were only 50 to 60 households in the village. By the late 2000s, the population had expanded significantly due to the arrival of migrant workers who work in the local fishing industry. Most of these migrants are from Ayeyarwaddy Region and Mon states.

In the past, there were many families whose livelihood depended on agriculture. The vegetables and cash crop they produced were sold to people from nearby villages. Villagers had to walk to Kanbauk or other villages to sell their produce. Despite the distance from Daminseik to Kanbauk being only 13 miles, villagers needed to spend all day walking because of bad road conditions.

### **Migyaunglaung (old) village profile**

Migyaunglaung (old) is the final village along the gas pipeline

route before it crosses into Thailand, this is why it was selected as a research site for this paper. There are two villages in the area with the name Migyaunglaung: “old” Migyaunglaung and “new” Migyaunglaung. Many villagers relocated from the old to the new Migyaunglaung in 1993 and 1994 during armed conflict between Burmese Army and the KNU. Old Migyaunglaung village was the site of heavy armed clashes. The war divided the village into two parts.

All villagers from Migyaunglaung (old) are Karens. They all are Christians. The villagers’ livelihood depends on agriculture. The villagers also cultivate betel (areca) nut, coconut and cashew nut. Some villagers engage in buying and selling of the village produce to other villages, while some mountainous people do taungyar (shifting rice cultivation). Fish are plentiful in Dawei River which crosses through the center of the village. Villagers can easily catch enough fish for household use in the river, however no villagers depend on fishing as a source of income.

**Figure 5** Workers driving past the camp for CPP, one of the contractors of Zawtika project



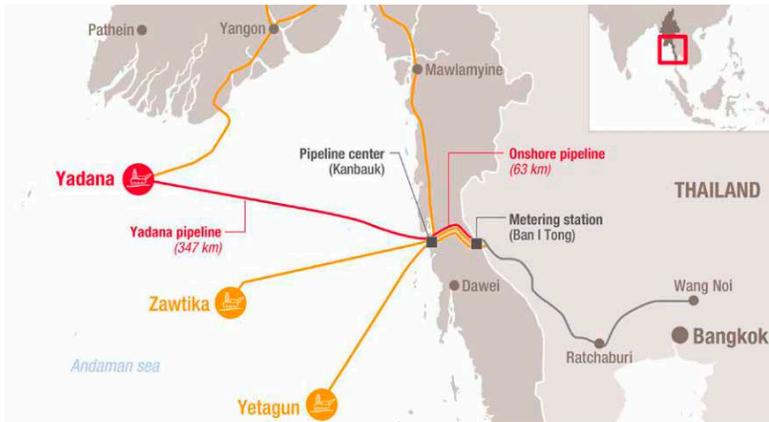
## Introduction to the Three Pipeline Projects

The section below provides a detailed overview of each of the three natural gas extraction and pipeline projects – Yadana, Yetagun and Zawtika – in the chronological order of their construction. Table 4 provides a summary of the implementing companies and ownership stakes for each project.

**Table 4** Overview of three natural gas projects in Kanbawk, Tanintharyi Region, Myanmar

<b>Project name</b>	<b>Implementing companies</b>	<b>Ownership stake</b>
Yadana  (offshore blocks M5 & M6)	Total S.A. (France) [Operator]	31.2%
	Chevron Corporation / Unocal (USA)	28.3%
	Petroleum Authority of Thailand Exploration and Production Company Ltd. (Thailand)	25.5%
	Myanma Oil and Gas Enterprise (Myanmar)	15% <sup>1</sup>
Yetagun  (offshore blocks M12, M13 & M14)	Petronas Carigali Myanmar (Malaysia) [Operator]	40.91%
	Myanmar Oil and Gas Enterprise (Myanmar)	20.45%
	PTTEP International Limited (Thailand)	19.32%
	Nippon Oil Exploration - Myanmar (Japan)	19.32% <sup>2</sup>
	Texaco (USA) [withdrew in 1997]	50%
	Premier Oil (United Kingdom) [withdrew in 2002]	30%
Zawtika  (offshore blocks M12, M13 & M14)	PTTEP International (Thailand) [Operator]	80%
	Myanma Oil and Gas Enterprise (Myanmar)	20% <sup>3</sup>

**Figure 6** Map of pipeline project infrastructure *Source: Total SA*



## The Yadana project

### *Project basics*

The Yadana project (offshore blocks M5 and M6) was initiated when Total and MOGE signed a MOU for the project on 9 July, 1992. The main project infrastructure was constructed from late 1995 to mid-1998; including the offshore gas facilities, a pipeline operation center, a gas metering station, a 346 km subsea pipeline (36-inch diameter), and a 63 km onshore pipeline from the coast to the Myanmar-Thai border. The Yadana project's offshore gas field is located in the Andaman Sea approximately 60 km off the coast of Myanmar's Irrawaddy Division. The actual gas production started in July 1998, and the expected field life is 30 years.

Despite the Yadana field being significantly closer to the coast of Irrawaddy Division than to the coast of Tanintharyi Division (60 km versus 346 km), the longer subsea pipeline option was selected because Thailand agreed to purchase most of the gas from the Yadana project under a long-term purchase agreement so it made sense for the undersea pipeline to come ashore close to the Myanmar-Thailand border.

### *Investors*

There are four investors in Yadana project: Total S.A. (French; operator; 31.2%), Unocal (USA; 28.3%), Petroleum Authority of Thailand Exploration and Production (Thailand; 25.5%) and the state-owned Myanma Oil and Gas Enterprise (Myanmar; 15%). The Chevron Corporation took over Unocal's stake in the project through an acquisition in 2005. As the project's largest shareholder and project operator, Total S.A. is responsible for implementing the project's CSR programs, as well as all working procedures and standards such as health, safety, environment and ethics.

### *Legal troubles*

In 1996, a lawsuit in US federal court was brought against Unocal by a group of Myanmar residents.<sup>4</sup> The plaintiffs alleged that they had suffered human rights abuses such as forced labor, murder, rape and torture by the military during the construction of the Yadana gas pipeline. Since Unocal was a stakeholder in the project, it was argued that they should be held responsible for these abuses. Unocal and the plaintiffs reached an undisclosed out-of-court settlement under which Unocal agreed to provide financial compensate and to engage in various development initiatives in Myanmar. The settlement was accepted by the court and the case was closed in 2005.

While people around the world knew about this lawsuit and settlement agreement, most people living in the gas pipeline area were unaware of both the lawsuit and the settlement agreement. Local people refer to the Yadana project as "Total."

### **The Yetagun project**

#### *Project basics*

The Yetagun project (offshore blocks M12, M13 and M14) is the second natural gas offshore project developed in Myanmar

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4 <https://business-humanrights.org/en/unocal-lawsuit-re-myanmar>

following the Yadana gas transportation project. Exploration began in 1992, and the construction of the project infrastructure started in 1996. The main project infrastructure are a 210 km subsea pipeline (24-inch diameter) and an approximately 60 km onshore pipeline. The offshore pipeline comes ashore nearby the Yadana pipeline, and the follows the same onshore route to the Myanmar-Thailand border. Yetagun project gas production started in May 2000.

### *Investors*

The Yetagun project is a joint venture between Texaco (United States; 50%), Premier Oil (United Kingdom; 30%) and Nippon Oil (Japan; 20%). In 1997 and 2002 respectively, Texaco and Premier Oil withdrew from the project, with Petronas (Malaysia) becoming the project operator. At present, the operator of Yetagun project Petronas's stake is 40.9%, PTTEP's stake is 19.3%, MOGE's stake is 20.5% and Nippon Oil's stake is 19.3%.

Similar to the Yadana project, all operations of the Yetagun project are led by the operator Petronas, and therefore local people refer to the project as "Petronas."

## **The Zawtika project**

### *Project basics*

The Zawtika gas field (offshore block M9) is located in the Gulf of the Martaban Sea, approximately 300 km south of Yangon and 240 km west of the Tanintharyi Region coast. The Petroleum authority of Thailand Exploration and Production (PTTEP) is the operator of the project, and owns an 80% stake in the project. Myanmar Oil and Gas Enterprise (MOGE) owns the remaining 20%. A 300 km long gas pipeline (28-inch diameter) is now exporting nearly 80% of the natural gas from this project to Thailand. The subsea pipeline is approximately 230 km while the 70 km of onshore pipeline follows the same route as the Yadana and Yetagun pipelines.

PTTEP discovered the Zawtika field in 2007, after drilling seven exploration wells. The field development plan was submitted to MOGE in late 2011, after which infrastructure construction started. Gas production from the Zawtika field started in late 2014. The Zawtika project is referred to as “PTTEP” by local people.

### Introduction to the Three CSR Programs

Each of the three natural gas extraction and pipeline projects – Yadana, Yetagun and Zawtika – set-up its own CSR program. While the three CSR programs share many similarities, they also have significant differences. The following section examines each of the three CSR programs in chronological order of when it was established.

**Figure 7** School in Daminseik village provided by Yadana's CSR Program



**Figure 8** Bridge under construction at the entrance of Ohnbinkwin village



### **The Yadana CSR program**

The Yadana CSR program<sup>5</sup> consists two streams of activities: activities in Kanbawk and activities in Yangon. The focus of this research paper are the CSR activities implemented in the Kanbawk area. The Yadana project CSR program was launched in 13 villages in Kanbawk area in 1995. In 2001, 2005 and 2012 the program extended its beneficiaries to 33 villages around Kanbawk region. The CSR program staff discussed plans with the local villagers, and decided to provide service in the areas of public health, education, economic development and infrastructure sectors.

In Yangon, the program is running a foster home calls the Yadana foster home. The program also supports primary health care and weekly special meal for the children from the orphanages around Yangon. Moreover, it also provides financial assistance for a nationwide blindness prevention program and a HIV/AIDS

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5 Yadana gas pipeline program use the term Socio-eco program-SEP while Yetagun and Zawtika programs using the term CSR.

program for HIV-positive tuberculosis patients. This paper will only examine the impacts of the Kanbauk activities.

There are two program leaders at Kanbauk CSR program office. They work under the supervision of the program head who oversees both the Kanbauk and Yangon activities. There are 21 rotational staff from Yangon working under the two program leaders. They are medical doctors, engineers, agronomists, veterinaries, finance specialists and community development specialists working in public health, education, economic development and infrastructure sectors of the program. Thirty-three local staff<sup>6</sup> are also appointed to assist in these sectors.

**Figure 9** Children at schooldesks + chairs provided by Yadana CSR Program



### The Yetagun CSR program

There are two CSR programs in Yetagun gas pipeline project: the Laung Lone (Dawei) program and Kanbauk program. In the Kanbauk area, the Yetagun CSR program runs Early Childhood

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6 In this paper local staff mean people from Kanbauk area who are working at CSR programs

Care and Development programs and supports education in 26 villages. Almost all (23 out of 26) of these villages are also covered by the Yadana CSR program.

There are resource learning centers in each project village, and the villagers know them as ECCD schools. The program provides technical trainings for ECCD teachers and administration methods for ECCD committees. The Yetagun CSR program also provides scholarships for student to study basic education. In late 2013, the program started building new school buildings, village libraries and village water installation systems.

In the Laung Loung (Dawei) area, the the Yetagun CSR program is conducting its activities focusing on ECCD, nutrition and reproductive health projects in more than 30 villages. The program also organizes vocational trainings such as sewing, basic computer training, electronic equipment repair training both in Kanbawk and Laung Loung (Dawei) programs. In late 2010, the Yetagun project stopped funding for Laung Loung (Dawei) program and it was stopped. This paper will only examine the impacts of the Kanbawk activities.

**Figure 10** Library partially funded by Yetagun CSR program in Kanbawk village



There is a Yetagun CSR program office in Kanbawk village. Three local staff work to run the program in 26 villages while one program leader works in Yangon. The program leader is responsible with management of the three local staff in the Kanbawk office.

## The Zawtika CSR program

The Zawtika project started its CSR program in late 2008. The program focuses on providing services in three areas: health care, education and infrastructure development. The program works in 28 project villages in the Kanbauk area. Almost all (25 out of 28) of these villages are covered by the Yadana CSR program. The Zawtika CSR program office is located in Ohnbinkwin village. There is only one local staff to run the project activities. The Zawtika project operation site manager is responsible for managing and coordinating the CSR program staff while one representative from MOGE works for this CSR program in the Yangon office. The office closes on weekends and gazette holidays.

The Zawtika CSR program has only one health care project: the “parasite free school” initiative at selected primary schools. Relating to education, the program provides support to build new school buildings. It also awards scholarships for students to attend professional programs at universities and colleges if they meet the criteria.

**Figure 11** School building in Migyaunglaung village provided by Yadana CSR



The program provides support to build toilets and drinking water infrastructure for schools. Furthermore, it also supports engines, wire and a small building to put engine for the electricity supply in the project villages. As PTTEP, the operator of Zawtika project is a Buddhist company, the program has provided support to

build one monastery per year since the program started. It also celebrates a *Kathine* donation<sup>7</sup> in one monastery in each year.

The Yadana CSR program is the biggest among three SCR programs in the area and working for multi-sector development as described above. The Yetagun and Zawtika programs are relatively small in comparison.

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7 *Kathine*: *Kathina* monk's robes are offered at this particular time of the year. It is held communally. In connection with the offerings of monk's robes for a Buddhist, the donation of the *kathina* robe at this particular time is regarded as the most meritorious, as the monk who received this robe was chosen in accordance with the unanimous decision of Sangha after the plenary session of the Sangha. There is also a practice of eating salads of Mezali leaves, with the belief that it is medicinal if taken at midnight on the full-moon day of *Tazaungmon* . For more information, please see: <http://www.kiplingtour.com/en/client/site/m8337-festivals-in-myanmar-based-on-local-calendar.htm>

# 3

## RESEARCH FINDINGS

### **Impacts of the Gas Pipeline Projects on the Local Community**

#### **Yandana and Yetagun projects**

The impacts on the local people due to the arrival of the Yandana and Yetagun gas pipeline projects can be placed into three main categories:

- Conflict and peace (forced labour, increased troop presence; forced relocation, and land-grabbing)
- In-migration
- Livelihoods

#### *Conflict and peace*

Conflict and peace in this area is defined by a number of interconnected issues; namely the role of the Burma Army in providing security for the pipeline investments, the long-time presence of the non-state armed group the Karen National Union, and the Burma Army's practice of extracting forced labour from local people.

The arrival of the pipeline projects led to the area becoming more secure due a build-up of Burma Army troops and decrease in fighting between the Burma Army and the KNU. According to

interviews with local villagers, the Karen National Union (KNU) was based in this area for many years but active armed conflict increased in 1992 when the Burma Army sent troops to fight the KNU. The villagers believe that the Burma Army fought KNU in an attempt to drive them out of the area in order to provide security for the gas pipelines.

### *Forced labour*

Before the pipeline projects started, it was common for villagers to be commandeered to provide forced labour for the military. When the pipeline projects were initiated, local people were forced to work for the increased number of Burma Army troops stationed nearby the gas pipeline project area, but not directly for the gas pipeline projects themselves.

In response to complaints from local villagers in late 1994, officials from the Yadana project negotiated with the military to stop engaging in forced labour in the area surrounding the projects. This is a significant and positive pipeline project-related change experienced by villages around the area.

“Military stopped requiring us to do porter work by the time Total pipeline construction started. I was very pleased for that because villagers sometimes even died in the jungle during working for the military in the past.”<sup>8</sup>

From 1994-96, the Military government was constructing a railway line from Yae to Dawei with the use of forced labour. Some international media confused the use of forced labor on the railway project with forced labour on the gas pipeline projects. Before the companies started implementing the pipeline project, it was common for the military to demand that villagers do unpaid and involuntary work for the military as well as for infrastructure projects such as the Yae-Dawei railway.

The commandeering of people for forced labour was done through village headmen. The army demanded that village headman make

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8 Interview with a 56 year old man in Kanbauk village, 29-Dec-2-13

each quarter of the village form a labor group of at least 5 to 10 people. The villagers were not paid, and they even needed to bring their own food to the work site.

At that time in the Kanbauk area there was a well-known saying related to the Yae-Dawei train line: “It is coming again calling to work for the train way mom, and it is volunteer work. The lunch times at this work site is very appreciate, it with young mango and fish paste (ngapi).” The significance of this saying is that people think that doing unpaid work for the military is normal.

When the Yadana project started in 1995, Yadana project officials requested that the military officials stop forcing villagers to work for this railway construction project. Local people were happy when they no longer had to do this forced labour since they could spend more time pursuing their livelihoods. Most of the villagers aged over 40 always mentioned this as one of the significant impacts from the gas pipeline projects. That being said, since the railway project was nearly completed by the time the Yadana project started it was easy for the military to stop commandeering forced labour for it.

In Ohnbinkwin village, when the Yadana project started in 1995, the pipeline security soldiers called the villagers to provide them with a motorcycle and a driver every day for their use. The village’s headmen formed a committee with the motorcycle owners and setup a schedule for the soldiers. A motorcycle and its owner needed to go to the soldiers’ camp in the morning on the date he has been assigned and was responsible to drive around the soldiers where they wanted to go. During a group discussion in Ohnbinkwin village, an elder man said that “It took about one year during 1995-96 and any motorcycle owner didn’t get paid by the soldiers. The navy also asked the villagers to provide them a stand-by boat every day during 1997”.

During the initial phase of the Yadana and Yetagun gas pipeline projects, villagers were forced by Burma Army to build barracks for the soldiers, and they also had to do the cleaning and maintenance of the areas around the base camps.

*Increased presence of Burma Army in providing security for the pipeline investments*

Another significant impact of the pipeline projects was the increased presence of the Burma Army in the project area. As part of the military government's agreement to provide security for the project the presence of the army was increased. In 1993 prior to the construction starting, the army set up a small camp in Daminseik village. In Kanbauk, where there was only a very small military camp before the pipeline project, the 273 Regiment base camp was set-up about a mile north of the village in 1994-95. Most of the villagers believe that the army came for the security of the gas pipelines. In 1996, the Burma navy arrived near Ohnbinkwin village about 9 miles away from Daminseik village.

The connection between the pipeline projects and militarization has been somewhat of a double-edged sword for local people. While the impacts of this increased militarization has led to human rights abuses and a general feeling of insecurity, the arrival of the pipeline projects also mediated the occurrence of abuses in some instances. A fisherman in Daminseik village explains, "The villagers are afraid of the soldiers. Because of the soldiers demanded fish and chickens from the villagers. The soldiers are still based in the village now, but since 1995 the pipeline projects requested the soldiers to stop taking food from the villagers."<sup>9</sup>

*Forced relocation due to armed clashes between the Burma Army and KNU*

In early 1992, the Burma Army and the KNU fought in Migyaunglaung (old) village. Since that time villagers were forced to leave their homes by the army, and were not allowed to return. Some villagers fled to refugee camps situated on Thai-Burma border. Some fled to other places in Thailand where their relatives lived. Some were relocated to the Burma Army camp set-up by the Burma Army on the Yae-Dawei road near Kaleinaung village about two miles from the Migyaunglaung (old) village. The camp

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9 Interview with an old fisherman in Daminseik village, 27-January-2014

was in the jungle and most of the villagers did not feel secure and slept out on the road. Some villagers rejected being relocated to the Army camp and tried to stay in their old village, but the Army did not allow them and burned their houses to ensure that they didn't return. People were forced to leave their homes, agricultural lands, animals and other property.

In 1997, after the Yadana project has negotiated with the Army, the Migyaunglaung (old) villagers were allowed to resettle in their old place, but the village was already destroyed. Their old houses were gone and their animals were lost. People did not understand why they had to rebuild their houses and their lives.

Nowadays, the villagers have come to understand that the Burma Army fought the KNU in their village because the area was crucial for the pipeline projects. Prior to the arrival of the pipeline projects, the territory surrounding Migyaunglaung (old) was under the KNU's control. With the KNU's permission, it was impossible to do the gas pipeline operation in this area. This is why the Army fought with KNU at Migyaunglaung (old).

The following lengthy quote from a Migyaunglaung (old) villager explains what they faced during this time:

In 1994, we went to a refugee camp situated on Thai-Burma border because the Burmese soldiers and KNU are always fighting in the village. In early 1996, when my family comes back to our village, most of the houses in the village were burned down by the Burmar army including our home. The five cows we left were lost and got the message that they were in the army's camp about 15 miles from the village. Our three family members went there on foot to take the cows back. When we arrived there, the guard soldiers asked us to give him a cow. But, I refused and the soldier told me that if I did not give him a cow, we would have to lose all the cows. I refused again and again. Finally, I decided to meet the captain. After meeting with the captain, he let us take back all the cows. It was a very hard and hungry day for my

family to face with the soldiers before we arrived back to the village in the twilight. Most of the villagers also experienced such kind of problems and some villagers even lost their animals. I don't know why KNU and Burmar army fight in our village. Before the gas pipeline projects started in 1995, they are always fighting and the villagers are always force to work for the Burma army and did not allowed to live in the village. In 1997, it was two years after starting Yadana project, the people from the company discussed with the head of the army. Then, the captain of the army held a meeting with the villagers and told us that "you are now able to move back your home". And the captain continued to the villagers "you are not allowed to contact with KNU, if I get the information that someone from your village contacts with them, I will send all of you to your GOD."<sup>10</sup>

Forced relocation and restricted access to land also happened in marine areas. In Daminseik, from early 1996-7 to until 2009, fishermen were forbidden to fish in the sea surrounding the pipeline infrastructure. The township authority usually announced the fishermen for this case via village head man. The fishermen's estimated that they lost 5,000,000 to 10,000,000 Kyats per year and they have never been talked by the gas pipeline companies to give compensation for their loses. Since the projects started, the southern part of the village has become under military control area and the villagers are forbidden to go to the area where the gas pipelines comes ashore.

*Land-grabbing (related to military securing the pipeline)*

The military grabbed the land belonged to the villagers. All the interviewees of this study (villagers) assumed that the government increased the numbers of troop based in order to secure the gas pipelines.

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10 Interview with a 63 years woman in Migyaunglaung (old) village, 10-May-14

In 1993 at Ohnbinkwin village, the 273 Regiment grabbed about 100 acres of land owned by the villagers without giving any compensation. The Army then setup a big military camp, however they didn't use all of the land that they confiscated. In early 1994, the army allowed some construction companies to build a base camp on this land. In early 1997, the navy set-up a base about four miles north of the village. The Navy grabbed over 300 acres of land owned by the villagers. The villagers believe that the Navy set up a base at this location because the Yadana project built a jetty nearby to use for the gas pipeline construction.

In addition to their land being confiscated by the Army and Navy, villagers were also restricted from accessing surrounding forests that they depended on for their livelihoods. The path of the gas pipelines is situated in the southern part of the village, the same area where there are the forests. Many villagers used the forest as a place to produce seasonal natural fruits and collect firewood. When the gas pipelines construction started, villagers were no longer allowed to go into the forests nearby the pipeline route. During that time soldiers were authorized to shoot on sight if someone went close to the pipeline construction area.

In conclusion, the gas pipeline constructions brought a lot of serious conflict at the very initial step before the start of the gas pipeline projects. The villagers were suffered from many problems like land grabbing, fighting, force labor and losing their properties as mentioned above. However, eventually, peace and stability were introduced to the villagers by the time the pipeline projects started.

### *In-migration*

When the gas pipeline projects started in 1995, many people migrated to the area. Most of them were skilled labourers from Yangon who came to work on the gas pipeline construction and other tasks related to the pipeline projects. The labour force for the Yadana and Yetagun project construction was approximately 3,000; of which nearly 1,000 were migrant workers. The increased number of migrant workers in the area had both positive and negative impacts for the local villages. Kanbawk and Ohnbinkwin villages have been most affected from this in-migration.

As Kanbauk was the largest village in the area, most of the migrants settled there. Many social problems developed during this time. For the original villagers, the most significant impact was that their village became over-crowded with people and vehicles. The influx of people from outside of their community, including Burma Army soldiers, made many villagers feel scared and uncomfortable since many villagers had never interacted with outsiders before. The pipeline projects required the use of many vehicles, and the noise and pollution caused by the vehicles was a disturbance for the villagers. Prior to the arrival of the pipeline projects, there were only two old cars in the village used for transportation to and from Dawei, and only two motorcycles owned by the villagers.

**Figure 12** Workers from the pipeline company tarring a road in Kanbauk



However, there were also quite a few positive impacts brought by the newcomers, mostly economic in nature. In Kanbauk, the income of the village increased immediately after the project construction started. Between 1996 and 1999, approximately 1,000 migrants who moved to the village required housing and other services that could be provided by Kanbauk residents. The migrants rented houses, and ate meals in small and medium-sized restaurants run by Kanbaukers which did not exist in the past.

This kind of economic growth due to the influx of migrants was experienced in Ohnbinkwin village as well. Many new small-scale businesses were opened to meet the needs of the migrants. This dynamic is explained by a women business owner from Ohnbinkwin:

At the beginning of the projects, there are only a few small commodity shops in Ohnbinkwin village. Only some villagers go to Kanbauk and Dawei do the trading. When the projects started, a lot of migrant workers migrated to the village because the pipeline centers are situated near our village. So, some villagers got the chance to start small business such as teashop, inns, basic commodity shops, house renting and so on.<sup>11</sup>

The in-migration that resulted from the arrival of the gas pipeline construction projects had both negative and positive impacts for local people. On the one hand the influx of people and vehicles led to feeling of discomfort and insecurity for locals. On the other hand, the migrant population created new income sources for the villagers, especially people in Kanbauk and Ohnbinkwin villages. As a result, more villagers were able to start and manage their own small scale businesses, which contributed to the overall economic growth of the area.

### *Livelihoods*

Prior to the arrival of the pipeline projects, the main livelihood of local people was based on agriculture, animal husbandry, collection of NTFP, fishing, local commerce and small-scale mining. The pipeline project had various positive and negative impacts on local livelihoods, including access to employment opportunities (construction jobs, etc.); new business opportunities; improved access to regional markets; new roads and improved local infrastructure; loss of artisanal mining opportunities; inflation

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11 Interview with a woman who runs a small restaurant in Ohnbinkwin village, 4-Jan-14

(land prices and basic commodities); and increasing conspicuous consumption.

**Figure 13** Karen man preparing rice in the traditional way in Migyaunglaung



**Figure 14** Gas pipeline workers tarring a road in Kanbauk



When the Yadana and Yetagun gas pipeline projects started, approximately 1,500 villagers from the area got jobs doing pipeline construction or building project-related infrastructure.

The Yadana project renovated the Daminseik to Kanbauk and Kanbauk to Kaleinaung roads. The bridges along these roads were also repaired. As a result, the villagers were able to travel between villages more easily which improved trade and contributed to their livelihood activities. A women from in Migyaunglaung (old) village explains the affect if these infrastructure improvements on local livelihoods:

The village entrance road was renovated for the first time when the Yadana pipeline construction started. In the past, this road was very muddy and difficult for the villagers to use it. Moreover it is the only one exit road to others villages. The village's products such as cashew nut, betel nut and lemon fruits are carried out form this road. When the Yadana project started in 1995, the project renovated this road with the heavy machines. Our villagers were very happy and it benefits the whole village.<sup>12</sup>

The villages located close to the gas pipelines felt greater economic changes compared to villages located further away. For example, the livelihood of Kanbauk and Ohnbinkwin villagers had changed more with compared to Migyaunglaung (old) village. Migyaunglaung (old) villagers continued doing shifting cultivation (taung yar) and other agricultural activities, while Ohnbinkwin and Kanbauk villagers took advantage of opportunities to engage in trading and other new kinds of business.

In 1996, the Myanmar government privatized the Kanbauk mine. The Delco mining company entered a joint venture with the Myanmar Ministry of Mining; becoming the mine's main shareholder and operator. In order to control the mining process in the area, Delco imposed new mining rules prohibiting local

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12 Interview with an elderly Karen woman in Migyaunglaung (old) village, 22- Jan-14

people from engaging in artisanal mining as they had in the past. Villagers stopped their mining activities. Some went to Thailand to work as migrant labourers. Some engaged in expanded agricultural activities. Some villagers were hired as day-labourers at the pipeline construction projects.

### **Case study of economic growth: Kanbauk village**

The livelihoods of Kanbauk residents have changed significantly as the village has become the center of the gas pipeline projects in the area. Many new jobs were created by the pipeline projects, and hundreds of local people are working for the pipelines projects or in employment directly related to the gas pipelines such as car rental services, vehicle service workshops, employment agencies, etc. That being said, there are still some people going to Thailand to work as migrant labourers.

The economic growth experienced by Kanbauk is evident, with big commodity shops, fashion shops, electronic stores, the construction material shops a common sight. Before the pipeline companies arrived, the market for basic commodities was small so there were only a few commodity shops in the village, but today we can see a large number of shops in the village.

Overall, Kanbauk village has experienced more rapid economic growth compared to other villages in the area. In the past, there were only a few motorcycles and cars in Kanbauk, but at present there are nearly 2,000 motorcycles in Kanbauk. The number of cars owned by local people has also increased in recent years.

The construction of a new market in 1998 also directly contributed to the economic growth in Kanbauk. This market is open every day, and has played a big role in the economic growth of the area. Not only did traders/sellers benefit from the new larger market, but people from Kanbauk and surrounding villages benefitted from the more ready access to consumer goods.

During 1995-6 when the Yadana project started and when the Yetagun project started in 1997, the companies provided a large amount of compensation money to the villagers whose land was

crossed by the gas pipelines and related infrastructure. Negotiation committees were formed by the companies and met with the villagers and discussed giving compensation. All the villagers whose land was affected agreed to accept the compensation. They received 1,000,000 to 10,000,000 Kyats per acre of land, while the local market price at that time was only 20,000 to 50,000 Kyats per acre. More people from Ohnbinkwin village received compensation than other villages around the area because there was a large amount infrastructure planned for their land. The companies negotiated directly with the government or the relevant ministries such as Ministry of Forest in order to compensate or use the land which did not belong to any villagers such as natural forest along the gas pipeline route.

Almost all of the villagers who received compensation did not have experience how to manage this large amount of money. Some of them celebrated with donation ceremonies at the monasteries, some of them gave the money to their relatives, and some of them lost it by gambling and so on. A few years later, many people found that most of their money was gone and realized that they no longer had any land to make their livelihood. Many of them went to Thailand and became migrant workers.

During a group discussion in Ohnbinkwin village, one of land owners whose agricultural land was confiscated for the Yetagun gas pipeline said that “the gas pipeline projects only gave the compensation for the land owners, but they had never thought for the sustainable livelihood plans for the land owners.” He continued that after receiving the compensation money, he brought another uncultivated land and grew rubber but, he had to wait about 8 years to start receiving income from rubber plantation. During that time, the rubber price dropped and he was earning less money than he had expected.

The arrival of the gas pipeline projects caused rapid inflation. The food suppliers for the companies paid high prices on basic commodities, and the demand of all the migrants also depended on the local market, leading to inflation of food prices for local people. Prices in the project area are higher than many other places in Myanmar. Even the prices in cities such as Dawei and

Yangon are cheaper than that in Kanbauk area. At that time, the outsiders gave Kanbauk a nick name “taw Yangon” (taw mean small village and taw Yangon means ‘small Yangon’). In late 1995, the projects hired a lot of local daily labourers for the gas pipeline construction work. At that time, a daily worker got about 100 to 150 Myanmar kyats in local market. But, the project’s sub-contractors (e.g. McConnell, Spiecapag, etc) gave the workers at least 250 kyats per day. The higher wages were welcomed by the workers, but also resulted in inflation that impacted other villagers who did not receive these premium wages.

In conclusion, the construction of the Yadana and Yetagun gas pipelines has had both positive and negative impacts on the lives of the people living in the area. The construction of new roads and the upgrade of existing roads facilitated communication and trade, and contributed to the economic development of the local villages. New kinds of business and job opportunities were also created by the arrival of the gas pipeline projects. However, although most of the villagers along the pipeline routes did receive some monetary compensation for the loss of their land, in many cases they then became permanently landless. For many who received compensation, the short-term influx of cash did not guarantee long-term sustainable livelihoods that owning land did as the money ran-out quickly due to unskilled financial management. Adding to this money squeeze was the fact that after the pipeline projects arrived the land prices increased up to 20 times and there was rapid inflation in the prices of everyday commodities including food. As a result, villagers who lost their land and were from families who were not earning an income working for the gas pipeline project faced many difficulties.

### **Zawtika project**

The arrival of the Zawtika project had similar impacts on local communities as the Yadana and Yetagun, although the key difference being that issues related to armed conflict did not play such a significant role by the time the project construction began. There were three main categories of impacts on local communities due to the Zawtika gas pipeline project:

- Employment and new business opportunities
- Land conflicts
- Social and environmental impacts

### *Employment and new business opportunities*

The arrival of the Zawtika project saw new employment opportunities, especially for people from the villages close to the project area. Villagers who had access to investment capital or good business acumen were able to take advantage of the new business opportunities related to the Zawtika pipeline construction. Many new service-oriented businesses were created by local people, however, as usual, rich people were better placed to take advantage of these opportunities and thus made more money than people without access to capital.

The start of a new gas pipeline project can create many new job opportunities for the people living in the region. When the Zawtika gas pipeline project started in 2010, approximately 500 villagers from the Kanbawk area got jobs on the pipeline construction sites and at workplaces related to the gas pipeline. The implementing company - PTTEP - used subcontractors to construct the gas pipeline. The sub-contractors included SOO PIN, Smart, SRC, CPP and Yaung Ni Oo companies. Local people had the opportunity to apply for new positions related to the gas pipeline such as construction workers, security guards, foremen, car drivers, and general labourers. A member of the Village Communication Committee in Migaunglaung (old) village explains the impacts of these new employment opportunities for local people, “The sub-contracting companies for the project hired villagers to drive cars and other jobs. Then, the villagers got experience regarding how to work with sub-contractors and how to deal with large companies. In the past, they did not have this kind of experience.”<sup>13</sup>

Local Thai-Burmese translators were also hired, because many of

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13. Interview with a Village Communication Committee in Migaunglaung (old) village, 10-May-14

the staff from the implementing company were Thai speakers who needed translators to communicate with Burmese speakers. This offered a good opportunity for some people who had been migrant labourers in Thailand and spoke Thai language fluently. Some villagers even came back from Thailand just to work on the project. Local people with Thai language abilities had even more job prospects, including working as Thai-Burmese translators, security guard leaders, foremen, store keepers, and the office clerks.

The Zawtika project also created a new vehicle rental market in the area. This is one of the main differences between the Zawtika and the Yadana and Yetagun projects. When the Yadana and Yetagun projects started in 1995 they used their own vehicles; partly by necessity since there were only a few cars in the area belonging to local villagers, and even these were old models. When the Zawtika project started, many of the sub-contractors rented vehicles from local villagers. Approximately 60 vehicles were rented for the project, including trucks. This new demand created a vehicle rental market in the area which did not exist before.

In some cases the money used by local people to purchase vehicles to rent for sub-contractors even came from the project-related land compensation process. However, the villagers who received only a small amount of little compensation were not able to purchase a vehicle to take advantage of this new business opportunity.

Cognizant of the experience of those who received compensation money from the Yadana and Yetagun gas pipelines (short-term wealth does not equal long-term sustainable livelihoods), many of the people who received compensation money from the Zawtika project saved the money in a bank or used it to start small businesses. Others bought land, built new houses or bought a motorcycle.

The influx of people and money from the Zawtika project had a multiplier effect in the local economy, and the existing small shops owned by the villagers did better than before. Other small scale businesses were established to serve the increased demand related to the pipeline. For example, there was a notable increase in the

number of motorcycle repair shops, fuel retailing shops, tea shops, rice shops, snack shops, small restaurants and so on. In Ohnbinkwin village, two locally-owned and managed large car workshops were established. In addition, there are about 15 locally-owned cars that are rented to the project companies, earning a monthly income of approximately 1,000,000 Kyats each.

The sub-contracting companies bought construction materials in the local market. Raw materials such as brick, sand, bamboo, timber, rock and so on were bought directly from the villagers. In response to this demand, the extraction of these raw materials increased, creating day-labour employment.

While some people migrated into the area during the Zawtika pipeline construction, it was small compared to the Yadana and Yetagun projects. This meant that it was the local villagers living near the Zawtika site who benefited from the new business opportunities, rather than those from surrounding villages or migrants from other parts of Myanmar. For example, Economic opportunities related to the Zawtika project were more evident in Kanbawk and Ohnbinkwin villages when compared to Daminseik and Migyaunglaung (old) villages. Finally, it bears repeating that rich people with access to capital were better positioned to take advantage of these new business opportunities than people without access to capital (project-related compensation money, bank credit or otherwise).

### *Land conflicts*

There were more than 60 land conflict cases related to the Zawtika pipeline project; most related to the direct loss of land for the project or loss of access to land due to project infrastructure.

Of particular concern with the Zawtika pipeline was its proximity to the Yetagun pipeline. People whose land was within this strip between the Zawtika and Yetagun pipelines did not receive compensation despite having their ability to access their land significantly impaired.

In January 2014, the District Administrator and his team came to Kanbawk to discuss this issue with the villages' administrators and

affected land owners. The meeting was also attended by relevant township-level officials and representatives of MOGE responsible for the Zawtika project. At the meeting, the officials told the local people not to disturb the gas pipeline construction. They said that it is one of the state's projects and if someone makes trouble for the project the government will take them to court. The MOGE representative promised to provide compensation for the land between the two gas pipelines (Yegtagun and Zawtika) after finalizing an agreement between the villagers, the government and the project implementing company.

During an interview with a group of land owners in Daminseik village, one of land owners shared his experience of this meeting:

I attended the meeting in Kanbauk. The villagers got a change to propose a fixed compensation price for an acre of land. We asked the project to give thirty million kyat per acre. The government official argued that this is a very huge amount of money for an acre of land and impossible to compensate at that rate... they told us to think about it again and tell them or the village administrator. So now, we the land owners are discussing a reasonable and fair rate. After we decided on a fixed rate which we all agree we will urge the project to compensate our land as soon as possible.<sup>14</sup>

The following story provides an example of the complications that arose during the land compensation process for the Zawtika project in Ohnbinkwin village. The Zawtika project constructed a new road to their pipeline operation center - called Zawtika Operation Center (ZPQ) - in early 2011. They compensated the land owners whose land was located where the road was planned to be built. U Win Maung is one of the land owners whose coconut, betel (areca) nut and rice paddy fields were crossed by this new road. Initially, the compensation committee calculated the size of his land will be affected by the road construction, and he was

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14 Interview with a land owner from Daminseik village, December - 14

compensated for this amount. But when the road was constructed, the construction team took an extra area of his land. So, he went to the compensation committee and asked about that. A few days later, the committee came and talked to him, he explained to them the problem. He said that, “the committee took photos of the land and disappeared. So, I went to the village administrator and the Zawtika project’s CSR program’s Socio-economic Officer, and told them the problem. But, nobody took action until today”<sup>15</sup>

To conclude, the Zawtika gas pipeline construction created many land conflicts between the company and the villagers. The township and regional government played a big role in negotiating process within them. However, some villagers were treated badly and weren’t satisfied with the compensation process.

### *Social and environmental impacts*

The Zawtika project had numerous social and environmental impacts, including land price inflation, labour conflicts, and water, air and noise pollution.

The price of an acre of land increased by about 10 times between 2004 and 2014. The cause of this land price inflation seems to be speculation that the land will be eligible for compensation if there will be new infrastructure projects in the area in the future. Some believe that there is a new gas pipeline is coming in very few years so they didn’t sell out the land. Rich people bought-up all of the uncultivated land around the area, and are now growing rubber. While it is unclear whether this speculative land buying has any basis in reality, the impact is that people who lost their land to the Zawtika project and wanted to purchase new land with their compensation money found themselves having to pay significantly inflated prices. Poor farmers who simply wanted to buy new plots of uncultivated land, found that it cost more than they could afford. This land price inflation is one of the causes of growing landlessness among poor villagers in the area.

The arrival of foreign subcontractor companies has worsened

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15 Interview with a land owner in Ohnbinkwin village, 29-Mar-14

conflicts between the workers and the project implementing company. In February 2013, a demonstration was held by a group of construction workers working for CPP; a massive Chinese State-connected company, and one of the subcontractor construction companies from China. The CPP company is undertaking the gas pipeline construction from the coast to the Thai-Burma border. The demonstrating workers demanded higher wages, the provision of a ferry to transport them from the work site to the base camp, the provision of sufficient protective equipment, among other demands. A representative of PTTEP (the Zawtika project implementing company) explained to the workers that addressing these labour issues is the responsibility of CPP. But CPP did not increase the wages for the workers and some workers from Kanbauk resigned their jobs. But, some are still working because if they resigned this job, they are not sure to get a job concerning with the Zawtika project in the future.

In Migyaunglaung (old), the construction of Zawtika project led to the polluting of the river which crosses through the middle of the village. In 2011 when the pipeline was being constructed upstream of the village, the villagers noticed that there was a lot of pollution in the river as it flowed through their village. It was clear that the construction worker were simply throwing plastic and other waste directly in the river upstream of the village. In addition, the water was very muddy for about a month due to the construction team stirring it up near the construction site. This pollution caused problems for the villagers since nearly half of all households depended on the river for their household water use. When the villagers complained about this pollution, the contractors did eventually stop dumping waste into the river upstream of the village.

The Zawtika project also resulted in air pollution from the large number of vehicles driving around the area. Heavy machinery, such as 28-wheel trucks, were used to ferry gas pipeline components. In addition to the heavy machinery, more than 100 cars were used for the project. All of this road traffic caused a lot of dust to be raised and blown around the area.

Noise pollution was also an issue. Often, the construction work would continue day and night, disturbing the sleep of nearby villagers. In a group discussion in Ohnbikwin village someone

complained, “Our village is very close to the pipeline operation centers. We heard noise at night and it disturbed the villagers. Our village suffered more bad impacts than other villages because we are very close to the operation centers”.<sup>16</sup>

Overall, the difference between the impacts to local communities from the Zawtika and the Yadana and Yetagun projects seem to be closely related to the changing political dynamics in Myanmar over the past two decades; namely the transition from military dictatorship to greater democratic rule. The general condition of villagers living in the project areas has changed significantly between when the Yadana and Yetagun project started in the mid-1990s and the late-2000s when the Zawtika project started. While the change from military rule to nominally civilian led government was key, some other factor played a role in the Zawtika project having more positive impacts for local communities. By the time the Zawtika project was starting, local villagers had much greater access to information about the project and their rights, were better positioned to take advantage of business opportunities, and the community members also had the experience from the Yadana Yetagun project to guide them towards making better choices. That being said, there were some significant negative impacts from the Zawtika project, including land conflicts, low paying and temporary jobs, and environmental pollution. Also, it remained the case that only rich people with access to capital were well-positioned to take advantage of new business opportunities.

### **Impacts of the CSR Programs on the Local Community**

This section will discuss the positive and negative impacts experienced by local people due to the implementation of the CSR programs connected to the three gas pipeline projects; Yadana, Yetagun and Zawtika. The impacts fall into two major categories: Socio-economic transformation, and Social and cultural transformation.

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16 Villagers' voiced during group discussion in Ohnbikwin village, 27-Oct-13

While this section describes the impacts of the CSR programs for all three projects, it should be noted that the Yadana project's CSR program will play an outsized role simply because it is the biggest program and has existed for the longest amount of time. The Yadana CSR program was established one year earlier than the Yetagun and fifteen years earlier than the Zawtika program.

The positive changes from the CSR programs will be examined first, followed by an overview of the negative impacts. Finally, it should be noted that the impacts experienced by people in the project area are complex and the ways in which the CSR programs contributed to an identified impact is not always crystal clear and may vary across time or depending on the context.

### **Socio-economic transformation**

It is clear that the three CSR programs have had significant socio-economic impacts, as more than 90% of all interviewees agreed that the area is more developed following the interventions of the CSR programs. The CSR program had the most significant socio-economic impacts in the following sectors: animal husbandry, micro credit loans, public health, education, and infrastructure. The impacts of the CSR programs in each of these sectors are outlined below.

#### *Animal husbandry (Yadana)*

In 1995-6, the Yadana CSR program started providing piglets and chicks for the villagers in the project area. At the beginning of the program, villagers who were interested in raising chickens or pigs could apply to the program at monthly community meetings held in the project affected villages. The whole village was invited to come to these meeting. The vet doctor and his team explained the breeding process, and followed-up by visiting the homes of interested people to determine the best plan for each household. If the villagers met the criteria developed by the program, they were provided with chicks or piglets and the appropriate feed. At that time, the CSR program provided all necessary materials free of charge, as well as technical assistance on how to care for the animals in order to bring them to market. Prior to the CSR

program, the local people did not know how to start this kind of small-scale business systematically. After a few years, the villagers came to understand the benefit of animal husbandry, and many expanded their businesses.

To support the animal husbandry program, two veterinary doctors from Yangon were hired by Yadana CSR program and were assisted by two local animal breeding technicians. These staff travelled the area to provide support the villagers to take care of their animals. There is one village veterinary auxiliary in each project villages to assist the veterinary doctor. They all attended a certificate training course on animal breeding auxiliary training conducted by the government. The Yadana CSR program covered all expenses for their training in Yebyu township. They give treatment and do vaccination for the animals at their village. The animal breeders give them Ks 1000 to 1500 per treatment or vaccination but, it's not compulsory. All the medicine and vaccine are providing by the program. The village veterinary auxiliary are volunteers and the Yadana CSR program provided them Ks 15,000 incentive monthly. The veterinary doctor gives them refresher trainings yearly.

Before the veterinary doctor of socio-eco<sup>17</sup> gave the breeding trainings in the village, I did not know how to start this kind of small scale business systematically. All the pigs were going around here and there and the house's ground was very dirty and bad smell. Nowadays, I know very well how to take care of my piglets. I think most of (40%) the villagers are access this kind of services.<sup>18</sup>

There is a big pig farm on the way from Kanbawk to Ohnbinkwin village. Approximately (200) piglets are distributing for the villagers around the area with local price yearly. This pig farm was established by the Yadana CSR program since 1995. The program hired 6 local staff to run this pig farm and veterinary doctors from the project directly manage this farm. In 2013, the project

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17 Yadana CSR program

18 Interview with a woman pig breeder in Daminseik village, 29-Oct-13

encouraged local villagers to produce more piglets because the demand is higher yearly around the area. Two local pig breeders joined the program and the program provided 5 female pigs and loaned half of the investment to start a medium scale pig farm. One of them is from Migyaunglaung (old) village and the breeder signed an agreement signature. That is the breeder who accepted the assistant from the program to start a medium scale pig farm must sell at least (50) piglets to the poor families from nearby villages with local price. During 2013 and early 2014, one of this two breeders sold 65 piglets and got more profit than expected.

The following story from a chicken breeder from Kanbawk village describes the evolution of the chicken breeding program:

Before the project started, there were no chicken farms in the area. There were very few domestic local chickens, not enough to meet the local demand for meat or eggs. People imported eggs from other places such as Dawei, Yae or Mawlamying. This kind of import business was not very profitable because of the high cost of transportation and the threat of the goods being damaged en route. When the Yadana project started in 1995-96, there was increased demand for both chicken meat and eggs due to an influx of migrant workers. At this time, the Yadana project's CSR program introduced new technology and practices for breeding chickens to produce eggs and meat. Initially, the program provided chicks to local people free of charge. Technical assistance and medicines were also provided for free by the CSR program staff. Eventually, some villagers created successful chicken breeding businesses and were able to run them without support from the CSR program. Nowadays, there are seven large chicken farms in Kanbawk producing eggs. At present, the CSR program staff provide only limited technical support and a small amount for financial assistance, with breeders required to pay 80% of farms expenses.<sup>19</sup>

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19 Interview with a chicken breeder from Kanbawk village, 23-November-14

Nowadays, the CSR program has stopped providing free materials and support – except some high-level technical assistance and some proportion of vaccination costs – to the local breeders. Villagers who want to start an animal breeding business have to buy the chicks or piglets themselves with their own money. The CSR program staff encouraged local villagers to establish a breeders association in 2014, and almost all of the breeders around the area participated. The villagers take leadership roles in the association. CSR program staff provide technical advice such as how to organize an effective association, financial management practices, and how to communicate with the Ministry of Livestock and Fishery. The evolution of the Yadana animal breeding program is an example of the CSR program's stated aim of providing support to local people with an exit strategy.

#### *Micro-credit loans (Yadana)*

In 1997, a microfinance program called Yadana Suboo was introduced by the Yadana CSR program. Eligible villagers could receive a loan to start small-scale business with a 2% interest rate. Loan amounts ranged from 30,000 to 500,000 Kyats. The 2% interest rate offered by the CSR program was significantly lower than rates offered by local money lenders, which traditionally ranged from 5 to 20%. The following quote from a vegetable seller in Kanbauk market explains:

In the past, I borrowed 100,000 Kyats from a money lender in the market. It was a usury system with a 20% interest rate. It took me about one year to pay back the loan. Just the interest added-up to 150,000 kyats, which was more than the original amount that I borrowed. I am now running my business by borrowing from the Yadana Suboo, and I only have to pay 2% interest. The loan period will last nine months, and I have the option of paying down the loan monthly or all at once at the end of the loan period.”<sup>20</sup>

In 2013, the program had supported approximately 3,000 clients -

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20 Interview with a vegetable seller in Kanbauk market, 15-November-14

82% of whom were women - in 25 villages from the pipeline area.<sup>21</sup> The table below shows the 2013 figures from the Yadana Suboo:

**Table 5** Figures of loans by Yadana Suboo *Source: annual report, Yadana socio-eco program, 2013*

**The team: "Yadana Suboo"**

The team consists of two senior staff and six local loan officers. Daily activities of Yadana Suboo are implemented by 91 Village Bank Committees (VBC) elected by the villagers, ensuring the community ownership of the program.

Yadana Suboo micro-finance program - key figures for loan operation in 2013		Remarks
Number of loans disbursed in 2013	3090	
No.of clients	2222	Some clients took more than one loan in a year.
No.of new clients	673	
Amount of loans disbursed in 2013	734,342,000	Myanmar Kyats
Bulk capital loans	1995	
Progressive loans	1095	
Proportion of poor among loaners	80%	
Proportion of women among loaners	82%	
Repayment rate	98%	
Interest Income	84,840,640	Myanmar Kyats
Number of active loans at the end of 2013	1982	

When started in 1997, only loans were provided. In 2010, Yadana suboo started a pilot 'savings' program in 4 villages. In 2011 and 2012, this program was extended to 15 more villages. In 2013, the program was again extended to provide savings services to 6 additional villages. By the end of 2013, all 25 villages originally covered by the loan program also had access to the savings program.

The table below shows the loan figures for the four study villages:

**Table 6** Loan figures in four study villages *Source: Yadana Suboo, Yadana CSR program*

Village	No. of loan clients	Amount of loan ( MMK)
Daminseik	107	15,025,276
Ohnbinkwin	178	30,940,188
Kanbawk	173	13,744,855

21 Yadana Suboo only covers 25 old villages of Yadana CSR program. The 8 new villages added in 2012 did not accept loans from the program. The program is still in "discussion" to extend the loan program to these 8 villages.

Migyaunglaung (old)	28	7,107,750
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Generally, the micro credit loan program of the Yadana CSR program introduced a fair loan system for the villagers to establish small scale business. However, there are also some people who never took loans from this program because they thought that the loan policies of the program were very strict. For example, people are required to show their national identity card and family registration form to receive a loan from the program. In addition, villagers must provide a recommendation from at least half of the Village Bank Committee (VBC) members vouching that the borrower is able to give back the loan. Moreover, one or two witnesses (depending on the amount of loan) are required to sign as guarantors for the borrower. While it wouldn't make financial sense for the program to lend money only to borrowers without having any surety, these requirements make some villagers uncomfortable with borrowing from this program.

#### *Public health (Yadana & Zawtika programs)*

There are many positive impacts from the health program. For example, in the past the area was malaria area. Nowadays, it's became malaria free area.

In 1995-96, the Yadana CSR program provided free medical service for the villagers. The program built a small clinic in each village in the project area. A team of ten doctor hired by the program visited the clinics and provided free medical treatment to villagers. Even villagers from outside of the project area were able to access to this service.

Each village had three or four 'village health workers' who were hired to assist the doctor and to lead prevention campaigns. These assistants received 15000 kyats monthly from the Yadana CSR program. If there is an emergency case in the village, villagers could access a free ambulance service provided by the program via a radio telephone setup in the clinics. If necessary, poor patients were provided cash to cover hospitalization in Dawei or Yangon.

Another public health component of the Yadana CSR program was the upgrading of the Kanbawk hospital. Prior to the program,

there was only a single medical doctor and a senior nurse stationed at the hospital. The Yadana CSR program hired an additional medical doctor, a local lab technician, and two general labourers. The program also provided medicines for the pharmacy, and a generator and related electrical system. A 24-hour ambulance service was set-up in 1996; with the vehicle, fuel and salary for the driver being provided. The CSR program built number a new hospital infrastructure including an X-ray room, a maternity ward, a laboratory, an outpatient building, an infectious diseases apartment, and a hostel for medical staff.

A village health worker from Kanbawk explains the impact of the upgraded hospital and other health service provided by the Yadana CSR program,

We health workers are volunteers and receive 15000 kyats monthly incentive provided by socio-eco. The program also provides meals for very poor in-patients. In the past, if a patient needed to take X-ray, he or she had to go to Dawei. But nowadays, patients can get an X-ray at Kanbawk hospital for free. I am happy to work at the hospital.<sup>22</sup>

A more recent component of the Yadana public health program is the Mother and Child Health Care (MCH) days; an campaign introduced in 2008. This activity involves all 33 of the project villages. The village health workers invite all children in the community for regular check-ups: children aged 1 to 5 year children four times per year, and children under 1 year once a month. Treatments administered on that day can range from vaccinations to care for malnutrition. In addition, three local health educators hired by the CSR program give health education talks for mothers and pregnant women, and reproductive health talks for youth.

Another component is the School health program, conducted in cooperation with government health staff. This program covers 25

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22. Interview with a village health worker in Kanbawk village, July-24

of the 33 project villages. Through this program, all students have a chance to see a doctor yearly. If a student needs further treatment, the doctor will refer the student to the hospital.

In 2010, the Zawtika program also introduced a school health program by hiring a private medical service group from Yangon. The Zawtika school health program is the snappily-named “parasite free project”; which involves checking students stool for parasite content. The medical services group collects stool samples from all students, and sends the massive collection of student’s stools to Yangon for lab testing. The lab determines whether there are any parasites in the student’s stool. Based on the results, a custom treatment regime is provided for each student. This kind of service has never been available in the area before, and it covers all 28 project villages of the Zawtika CSR program.

The public health services of the Yadana CSR program covered more than 35,000 people, including patients from villages outside of the project area. The Yadana and Zawtika school health programs collectively covered more than 10,000 students, but students living outside of the project areas didn’t have access to the service unless they were attending schools from the project villages.

### *Education*

In Myanmar, the public education institutions in all villages are run by the Ministry of Education with teachers classified as government staff, although villages hire extra teachers themselves. In 2013, there were only two government teachers in Migyaunglaung (Old) village while there are 122 student; a teacher-student ratio of 1:61. Government regulations state that the teacher and student ratio must be 1:40. So, villagers need to hire local teachers for the students, and have to pay for these teachers themselves. The school buildings were provided by the Ministry of Education, but most of the buildings are in bad condition. Villagers also contributed to build wooden school buildings for their villages. The furniture, desk and benches were made by the villagers themselves, but there are not enough and students were sitting on the floor in some villages.

Most of the parents take their children out of the school once they finish primary school. This is because in most villages, the schools run only up to primary and if a student wants to attend middle or high school, he or she must to travel by bicycle or motorbike to another bigger village where there is a middle or high school. However, even if parents wanted their children go to middle or high schools, they often couldn't afford to provide external cost such as home rental fee, meal, transportation cost tuition fee and so on. Because of this, most student in the area only finish primary school, and some don't even get to that level.

Before 2013, students had to travel to Yebuy, which is about 50 miles from Kanbauk, to sit the matriculation exam. From 1990s to 2000, there were only about 50 students who passed the matriculation exam in the Kanbauk area. In 2003, the government allowed students to sit the matriculation in Kaleinaung village, which is now a sub-township, about 10 miles from Kanbauk area. The students from Kanbauk area sat their matriculation exam there. Following this change, the matriculation pass rate of students from Kanbauk area was higher, and in 2005 the government allowed students to sit the matriculation exam in Kanbauk. Many primary schools have been upgraded to middle schools, and three middle schools were upgraded to high schools in late 2010. The education system in the area has been improving year after year.

A major factor in the development of the education system was due to investment in education from the three CSR programs. The Yetagun program launched Early Childhood Care and Development – ECCD program in 1997 around the area which have never had in the area before. The children ages 3 to 5 years old are able to join the program. The program built ECCD schools in their project villages, but not in all project villages. For example, there is no ECCD school in Migyaynglaung (old) village. The teacher are paid by the money manage by village's ECCD committee. The money was funded by the program.

Each village ECCD committee received Ks 1,000,000. Most committees loaned the money to earn interest. In some villages, the revolving-fund worked very well but in some villages it did

not. For example, fund in Ohnbinkwin village is functioning well and they now have more than Ks 5,000,000. However, in Daminseik village, some village ECCD committee who took loan of ECCD school run away after taking loan and they didn't pay back any money. Then, the rest of the committee members got trouble and the school is not running well. Yetagun program did not participate to solve this kind of problem and the villagers, ECCD teachers and the village ECCD committee have to solve the problem themselves. Teaching methods and technical trainings for ECCD teachers are also provided. The program usually initiates to organize events in ECCD schools. For example, parent competition on traditional playthings for the children, traditional food competition.

The Yadana program built new schools building and renovated old schools. The program also provides furniture for the schools such as benches, desk, tables and chairs. From 1995 to 2013, the Yadana program built 55 new schools and renovated 33 old schools buildings. In 2013, the program provided more than 500 sets of benches and desk for the schools around the area. Moreover, Yadana program also built toilets and setup water supply for the schools. Yadana program provides for school ceilings and partition and books for school libraries and solar panels for the schools. Yadana program initiates a teacher gathering ceremony in Kanbauk by inviting all the teachers around the area yearly. All teachers around the area usually attended this ceremony. In 2013, more than 450 teachers attended. The program provides transportation, meal and some incentive (Ks 15,000 to 20,000) for each teacher and discuss on improvement of education in the area.

The Yadana CSR program also runs a tuition program in Kanbauk. The repeaters of the matriculation exam are allowed to attend this full time tuition without fees. It also provides a basic computer training program and it operate eight batches per year. In each batch, seven trainees are able to attend the class. In addition, the English language class for youth is also runs by the program. Moreover, in summer, the short term English language and computer trainings for the primary and middle school students are also conducted by the program. According to the 2013 annual report of the Yadana CSR program, more than 10,000 students around the area gained the benefits from the program.

The Zawtika program built new school buildings and provide school furniture for the schools which their program built. The program also provides clean drinking water system for the schools. From 2010 to 2014, Zawtika program built 6 new school buildings around the area.

In 2013, Yetagun CSR program start provided the outstanding students from grade 7 to 11 with full scholarship if they met the criteria. There are 200 students were awarded the scholarship in 2014. The scholarship program for professional colleges and universities are also provided by the Yadana and the Zawtika program. Nowadays, the Yadana program has provided 32 scholarship students and the Zawtika program has provided 18 scholarship students around the area.

The socio-eco program (Yadana CSR program) usually invited the villagers to discuss on education programs during village meetings. Year by year, the villagers come to understand the value of education. More students enrolled. As a result, the school has become from primary to middle school. The outstanding students from grade 7 to 11 are provided for full scholarship if they met the criteria by Yetagun program. The scholarship program for college and university are also provided by Yadana and Zawtika program. Nowadays, there are 12 graduate students in the village. Five students studying in university and 4 of them are provided with scholarship by the programs. The school furniture such as tables, chairs, benches and blackboard were also provided by Yadana program.<sup>23</sup>

In 2000, the Yadana CSR program built the first (60x30) new school building for our village. In the past, there is no proper school building for the children. The children were sitting on bamboo desk and benches and the school building was also built by

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23. Interview with school principle in Daminseik village, 27-Oct-13

bamboo. The furniture, desk and benches and four toilets for the school were also provided by the program. In 2012, the Zawtika project provided a drinking water system for our school. In July 2014, the Yadana program built the second (60x30) new building for the school. At the school's opening ceremony, the regional education officials visited our village and attended the ceremony. We are very happy for the government education officials' visit to our village. In the past, we have no experience like this and we really appreciate for the government officials' visit to my village.<sup>24</sup>

**Table 7** Figures of school buildings built by the three CSR programs in four study villages. *Source: Interviews and observation in Daminseik, Ohnbinkwin, Kanbauk and Migyaunglaung (old) schools, July-2014*

Village	No.of students	No.of school buildings provided by CSR programs:		
		Yadana	Yetagun	Zawtika
Daminseik	306	1x(120'x30'), 1x(90'x30'), 1x(60'x30')	1x(60'x45') ECCD school	-
Kanbauk	2163	1x(120'x40'), 2x(120'x30'), 5x(60'x30')	1x(60'x45') ECCD school	Ks(10,000,000) *
Ohnbinkwin	880	2x(120'x30'), 1x(90'x30'), 3x(60'x30')	1x(60'x45') ECCD school, renovated 1x(90'x30')	1x(60'x30')
Migyaunglaung (old)	102	2x (60'x30')	-	-

\* Zawtika CSR program contributed Ks 10,000,000 to build a two story school building in Kanbauk school, government and student's parents also contributed to this school building

Access to information about education program of the CSR

24. Interview with village administrator in Migyaunglaung (old) village, 22-Jan-14

programs is really important for the local people. The programs usually announce the scholarship application in the area by time they start a new scholarship program. The Yadana CSR program informs the villagers about their program via VCC and posting leaflet or poster at the village notice boards. The Yetagun and Zawtika CSR program also announce their education program via school principals and village development committees. However, there are still some villagers who didn't know much about the CSR programs' education programs.

I have never known that Total socio-eco<sup>25</sup> provide scholarship for the student. My son passed the matriculation exam in 2012 and he is now studying at education collage in Dawei. I would be very pleased if he was granted a scholarship by the socio-eco program as I have to support his brother and sister who are now studying at great 5 and 8 respectively.<sup>26</sup>

In conclusion, three CSR programs contributed quite a lot for the education development of the project area. It makes a huge positive changes and the research didn't found any negative impacts on the local people causes by their education program. However, most of their investment for education goes to the solid infrastructures like building school building or providing furniture for the schools. Nevertheless, the CSR programs started to put more money in soft investment programs such as providing more and more scholarships. In term of sustainable development, it would be very helpful for the area if the programs could provide more vocational trainings for those of who couldn't finish their higher education.

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25. Yadana CSR program

26. Interview with a 56 years old woman from Kanbauk village

**Figure 15** Children watering a dusty road in Ohnbinkwin village



### *Infrastructure*

All the road and bridges were in very bad condition before the gas pipeline project started. People were walked to go village by village and some used carts to carry their products. The roads are rocky and very difficult to walk in the wet season. For example, the road from Daminseik to Kanbauk was the worse and people even sink while walking in rainy season. There was to car run to Kanbauk at that time from Daminseik and if someone ill, villagers have to carry the patient on the shoulders. A lot of people died who suffered malaria because they didn't arrive to Kanbauk hospital in time.

Basic infrastructure needs for the villages around the area provided by the CSR programs. Since 1996, the Yadana gas pipeline program tarred the road from Kanbauk to Kaleinaung. This 16 kilometers long road is a very important village access road not only for Kanbauk village but also for more than 60 villages around the area. The bridges along this road also concreted. Before, this road was in a bad condition and it took a half day to go to Kaleinaung from Kaleinaung by villagers' car. Nowadays, it will only take about 20 minutes drives to Kaleinaung from Kanbauk. In 2012, the three CSR program cooperated to concrete the road in Kanbauk village. They share money to build this 3.5 kilometers long road. There are 5 bridges in the village also provided by Yadana CSR program.

There is no a good infrastructure in the village before the companies come. Even we repair our road yearly, the roads damage very soon. The roads and bridges are very important for a village<sup>27</sup>

All the interviewee from four study villages agreed and mentioned that better road condition improved the village in many ways. People can travel village by village easily; Fishermen can sell their fish in nearby villages easier than the past. Students from small villages where there is only primary school in their villages can go to middle and high schools easily by bicycles or motorbikes or even on foot. Moreover, if there is an emergency patient in the village, villagers do not need to carry the patient on their shoulders.

During a group discussion in Ohnbinkwin village, an old man said that:

Socio-eco (Yadana CSR program) provides water supply systems for the village since 1997. The road in the village also repaired in 1996. The bridges on the way from Kanbaur to Ohnbinkwin and the bridges in the village were also concreted. The road to Kanbaur was in a very bad condition in the past. Now, we can travel to other places very easy and it is a very helpful to all the villagers.<sup>28</sup>

We had walked to Kanbaur and other villages to sell our fishes before socio-eco (Yadana CSR program) built our village road in 1997. So, I thank you very much them. Before, we started walking since the dawn to Kanbaur because it's takes about 4 hours walk and after selling our products, we usually bought necessities for home and walk back again to the village and it was getting dark when we arrive home while our children were waiting by expecting some

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27. Interview with a 56 year old man in Kanbaur village, December, 2013

28. One of participants voice during group discussion in Ohnbinkwin village, November, 2013

presents for them. Nowadays, we can easily access villages to villages and it only takes about 40 minutes to go to Kanbauk by motorcycle.<sup>29</sup>

### **Social and cultural transformation**

The villagers involved actively in the development works of their villages after the CSR programs started. The projects initiated to form village level committees. Yadana CSR program formed Village Communication Committee called VCC, Village Bank Committee called VBC in their projects villages. Yetagun CSR program initiated Early Childhood Care and Development Committee ECCD committee in each of their project villages where the ECCD schools were built. Zawtika CSR program also formed a group called Village Development Group-VDG. Forming of these committees has different idea and different type of selection process.

For example, Yadana CSR program organized village meetings to form the VCCs in every village. An adult form each household was invited by the village's head man to vote the VCC members. Everyone have chance to become a member of VCC if the villagers vote them. There are 4 to 12 members in a VCC depending on village size. Yadana CSR program encourage the villagers to reform the VCCs in every three years. The program conducts trainings for the VCCs such as communication skill, team work, proposal and report writing, problem solving. The major duty of the VCCs is to communicate between the villagers and the Yadana CSR program. Yadana CSR program organizes a gathering ceremony for the VCCs annually. VCC members are volunteers and they didn't get any incentive from the program. However, VBC get Ks 15000 incentive monthly. The selection criteria are more or less the same as VCC but, a VBC must be at least finished primary school because they have to work with the money which the program loaned to the villagers.

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29. Interview with a 63 year old fisherman in Daminseik village, 7-Oct-13

The villagers communicate the CSR program via village committees. All the villagers are welcome to attend meetings. In most villages, the committees distribute invitation letters or orally invite in some village to attend the community meeting. Normally, most villagers attend these meetings and discuss their most interested issues like breeding and loan programs. Sometimes, the villagers go directly to the CSR programs offices to ask assistance for urgent issues. For example, in the year 2013, the Yadana CSR program has been requested more than 40 times from the poor families to provide financial assistance for the hospitalization in the city.

The VCC organizes village development meeting monthly. The ECCD committee also held their regular meeting. They usually discuss on the issues related to the development of their villages. According to the interviews and group discussions at the four study villages, more and more villagers are interested in village's development work and organized. Because they know the benefits they have. Then, they discuss how to develop the work of their village together. For example, in the past, if there is a problem at the school, only village administrator and school teachers discuss the issue. But, nowadays, the village's committees participate in such kind of cases. They discuss together to find the best solution for the problem.

Even though working process of the CSR programs seems to be democratic and transparent, there are a lot of villagers still didn't satisfy with them especially for financial transparency. According to the group discussions with the villagers from Daminseik and Ohnbinkwin villages, the CSR programs have never explained to the villagers that how much money they are spend per year for the development projects. The discussion founded that although the Yadana CSR program started distributes their annual report to the village administrators and VCCs this year (2013), almost all the villagers didn't know it. The Yetagun and Zawtika CSR programs are also didn't explain their budgets.

On the other hand, the interviewees pointed out that in some villages the villagers are relying on the CSR programs more and more. Before starting the projects people sit and discuss together to solve their village's problems. If the road condition is very bad

in the village or the way to other villages, the villagers discussed and divided to repair themselves. Each household participated in repairing their village road without any complain. Because the villagers understand their needs and problems and if they did not solve these problems, they are sure to get in to difficulty.

After the CSR programs started, most of the village's development work has done by the CSR programs. Over the time, some villagers no longer interest in their village's development work and said that the projects will provide for the village development while some people working for the village's development work by cooperating with the CSR programs or themselves. This is a common thought in the mind of most of the villagers especially in larger villages. The villages' area is getting large and some village development committee members did not participate well in village's development work. Sometimes, they argued each other instead of discussing thoroughly and correctly. It became as a common problem in most village committees because of not obeying the driplines of the committee. Although the committees regulated duties for each member since the formation, some member didn't keen to obey and some even didn't attend monthly meetings in some villages.

The most significant changes for the area in term of social and cultural due to the CSR program is that people aware the importance of communication more and more than the past. They work together more and systematic than the past. Formation of village committees strengthened the capacity of the community throughout the trainings and workshops. However, people rely on the CSR programs more and more over the time and tried to ask any assistance to programs rather than requesting to the regional government. As a result, the dependency becomes inherent in the society throughout the CSR programs activities. In addition, power balance and conflict are also taking part in some village between the public and committees members and the committees' member themselves.

## **Broader Changes in the Local Community Due to the Pipeline Projects**

### **Environmental change**

Basically, the environment for the people living in Kanbauk area means deforestation, poor waste management and natural water sources. The villagers are more aware on the environmental issue. Before starting the pipeline projects, the issue is very far for the villagers. Through the visits to pipeline center of the Yadana project, the villagers started aware on the issue. The Yadana project encouraged the villagers to plants more tree. They provided many kinds of tree for the villagers to plants in their garden in the beginning of the project when their project started. In fact, most of the villagers did not grow these trees in the gardens and they just kept the trees at the back of the homes.

The Yadana CSR program invited school teachers, students and VCCS to the Yadana pipeline center. They explain about their project such as background of the project, shareholders, where the gas comes from and how they produce the gas and gas processing system and so on. They especially explain the waste management system of the project. During this visit, the villagers have a chance to observe around the pipeline center and the waste managing systems. They are also always welcomed to ask questions concerning with the environment issues during the visit. Approximately more than 2000 villagers around the area already visited the Yadana gas pipeline center from 1996 up to 2013.

The Yetagun CSR program initiated environmental awareness program for the children from their ECCD schools. They included a session about natural environment especially important of the forest for the people in the school's curriculum. They also organized traditional food concert for the parents to educate the people on the negative impacts of modern snacks. Villagers normally ate traditional snacks in the past. Most of them think that eating modern snacks which became popular last 10 years ago is normal. By conducting these activities, the children and parents start aware on the issue. For examples, in the past the parents brought modern food for the children on the day that the parents

treat at the ECCD School. But, nowadays they bring traditional fresh foods made by them.

The Yetagun CSR program also initiated a tree plantation ceremony around the ECCD schools' compound together with the children yearly. On the day of plantation, every parent brings different kinds of trees for their children and they grow the plant together with their children.

All the children take care of their tree which they had planted with their parents and they value it. This kind of small activity made lots of positive impacts not only on the environment but also important to children's moral and doing good deeds for the future for them and for our society.<sup>30</sup>

In Daminseik village, waste management system start introduced to burn household wastes by the Yadana CSR program in 1997. More than half of the villagers use this system. The CSR program built a building near the village to burn the waste. Since 1996, the Yadana CSR program start introduced fly proof latrine support for the villagers. The program support materials to build latrines. Village health workers from Daminseik village said that,

“Before the project, villagers did not have latrines and would defecate at the sea shore. Nowadays, 90% of villagers have latrines in their houses”.<sup>31</sup>

In 2010, the Yadana project put the big rocks by the gas pipeline as a stone wall to protect their gas pipeline from the tide near Daminseik village. After constructed it, the seashore erosion started in the raining season. There are 27 houses has been moved to a safe place due to this erosion. The villagers have discussed together on the issue. They were assisted from the local CBO such as DDA - Dawei Development Association which based in Dawei. They sent a propose letter to the pipeline projects and regional government to protect their village from the erosion. The Yadana CSR program hold a meeting with the villagers concerning to the erosion. They explained to the villagers that the erosion occurred

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30. Interview with an ECCD teacher in Ohnbinkwin village, 5-May-14

31. Interview with health workers in Daminseik village, 7-Oct-13

not because of the project putting big rocks it's because of raising of sea level and the climate change. Some active villagers did not agree what the Yadana CSR program had explained and they still argued on the project. And the CSR programs gave them a chance if they are not satisfied on their answer on the issue, they can call a lawsuit to the project. However, no one continued arguing this issue against the company and the story disappeared over the time.

The Taninthayi Nature Reserve Project (TNRP) is working on environmental issues in the region. It is run by the ministry of environment conservation and forestry and financially supported by the gas pipeline projects. It basically works to protect natural forest and resources along Thai-Burma border as part of the environmental responsibility of the three gas pipeline projects.

Our village is included in the TNRP area. TNRP provided trainings and awareness talks for the villagers about the environment and the important of the forest. They also organized to form a community forest for the village. In 2005 we start organized a community forest committee and the TNRP supported technical need for us. Now, we have a 200 acres large community forest. This belongs to us and more than half of the villagers involving in it. By throughout this community forest project, the villagers are more aware on the environment issue and important of the forest.<sup>32</sup>

The gas projects cut down the trees along the gas pipelines during the construction period. The Yadana CSR program provided many kind of tree for the villagers to plant in their garden and around the village at the begging of their project. But, most of the trees did not grow well. The villagers were more interested in planting rubber than others. In the past, gardens near the village plant many kinds of fruits and plants. After receiving the compensation from the projects, villagers extended more rubber garden around

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32. Interview with a 56 year old woman in Migyaunglaund (old) village, a member of community forest, 10-May-14

the village. The land prices are getting higher and higher. The villagers are only interested in planting rubber plants more than other trees. The agriculture becomes monoculture. The natural forest disappears year after year.

After 10 years the pipeline projects has started, most of the villagers started to say that the fruits are not growing well around the area. They believe that it is because of construction of the gas pipelines. However, there is no research to proof it. Growing rate of cashew nut, betel nut were down and down year after year. Before the gas pipeline come, on the way from Ohnbinkwin to Kanabuk and Kanbauk to Kaleinaung were big forests. Small animals such as barking deer, jungle cocks and squirrels can be seen usually at least four times during a round trip from Ohnbinkwin to Kanbauk or Kanbauk to Kaleinaung. But, nowadays, there are no such big trees on the way and seeing of small animals disappear slowly. There may have many reasons for this point such as extension of villages' area and growing more rubber trees.

Some villagers said that there are not many changes on the natural environment due to the gas pipelines. But, some told that the betel nut and cashew nut did not grow well after the gas pipeline had started. In my view wild animals are disappearing year by year<sup>33</sup>

The natural forest and water sources disappear year after year. Before the project, the hill side around the village was covered with big trees and thick natural forest. The Yadana CSR program introduced new rubber plantation technology for the villagers. They encouraged the villagers to plant rubber plants and also supported the technical assist. As a result, villagers cut down trees and extended rubber gardens. In the past, villagers entered the wood to take firewood and gathered natural fruit in the forest. Now, the rubber plantations have replaced these resources.

The use of chemical fertilizer and insecticide has increased in the villages. The Yadana CSR program provided trainings for the villagers how to use chemicals and insecticide to avoid danger. But, using chemical might bring bad effect to the users and their

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33. Interview with religious leader in Migyayunglaung (old) village, 4-Dec-13

environment in the future. The villagers from Migyaunglaung did not grow rubber plants like other villages around the area. They still growing betel nut, cashew nut and other plants they had planned since the gas pipelines haven't come in. The Yadana CSR programs built a tree nursery in the village and encouraged to grow rubber but, only very few villagers grow rubber.

An elderly man from Ohnbinkwin village said "The village is smaller than before. There are three gas pipelines and three pipeline centers south of the village and the (273) army is also based there. The army widened their base by taking villagers' land since 1994. The navy based in the northern part of the village and has also taken more than 300 acres of villagers' land."

The arrival of gas pipeline projects not only makes the villagers' land narrow, it also impact on the daily life of the resident. People living in the area usually use firewood for cooking. Nowadays, villagers cannot access easily to the forest due to the construction of new gas pipelines and extension of military camps.

Village area is getting narrow down when a new company come, we have no more place to find the wood for the fuel. One bag of charcoal is now 1500 Ks in the village<sup>34</sup>

Some villagers are afraid of gas leak. In 2005, the gas leaked from the M.O.G.E gas pipeline<sup>35</sup> in the northern part of the village. The very small gas leak killed all trees around 100 feet. After this case, the villagers were scared of gas leaking. Some villagers told that they have no idea how to do if there is a large scale of gas leak occurs by the village and they have no idea on this issue. They assumed that this is a hard problem for all the people around the area. Since the project started and until now, the projects did not explained the villagers how to manage if there is a gas leak or gas pipeline explosion is occurred.

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34. Interview with a 76 year old woman in Ohnbinkwin village, 8-Apr-13

35. There is a gas pipeline on the way from Kanbaw to Ohnbinkwin village operating by MOGE. The gas come from Yadana gas pipeline and it go to Yangon for domestic use

We assumed that there is mercury poisoning in the village. We have connection with the workers who working in the Yetagun gas pipeline operation center. They said that they had worked at the work place where mercury exists. However, they don't know much about the mercury. We also don't know whether there is mercury poisoning in our villager or not. In 2013, the Yadana program held a meeting in our village and explained about the environmental management system of their project and about mercury poison. But, we still confused on the issue.<sup>36</sup>

### **Socio-economic change**

There are many kind of positive change on the socio-economy around the area due to the gas pipeline projects. Better road condition brings better changes to the village's socio-economy in many ways. In term of health, education, local market and human capacity are also increased due to the gas pipeline programs. The gas pipeline projects not only created new job opportunities for the villagers but also brought community development investment through the CSR programs of their projects. The socio-economy of the area has growths through the CSR programs of the gas pipeline projects. Some villagers get job in the projects and the work places concerning to the projects.

The area becomes more secure due to stop fighting between the Burmese military and ethnic armed group. The pipeline projects discussed with the military to stop working villagers as the force labors at the work place concerning to the military. Then, the people can focus more on their livelihood. Before the projects started, villagers are always forced to work for the military. This is a very positive change for most of the villages around the area due to the gas pipeline projects.

Many hundreds of villagers got jobs at the work sites directly related to the gas pipeline projects. Moreover, the jobs and small

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36. Villagers during group discussion in Ohnbinkwin village, 27-Oct-13

business concerning to the gas pipeline projects are also created. For example, car workshops, washing industries. Car rental service to the gas pipeline projects owned by the villagers is a new trend of business in recent years. In Kanbauk and Ohnbinkwin villages, more than half of the villagers only know to mine tin and tungsten last fifteen years ago. After the gas pipeline projects started, their eyes open and know the benefits of doing business. Thus, their economy is changed.

In the past, the road, the bridges around the area were in bad condition. The villagers need to repair village's bridge and road themselves. If they could not work for this kind of village's work, they have to pay an amount of money to the village headman or they need to hire a labor to work for them. Since the gas pipeline projects started, this village's work has been undertaken by the pipeline projects and the villagers do not need to do anymore. Then, they can do more for their living things than the past.

Education, health and market conditions of the villages are also improved than the past. School infrastructure, E.C.C.D program, scholarship programs for middle, high and university student are provided by the CSR programs of the projects. Basic health care system, health infrastructure, and medical assistance are easily access to all the villagers as described in the changes in socio-eco due to the CSR programs.

However, there are also many negative changes on socio-economy of the local people due to the gas pipelines projects. Some villages affected more than other. But, some affect only few. The interviews and group discussion described the perceptions of local people concerning to the gas pipeline projects.

Fishing becomes more difficult. I can catch a lot of fishes before the gas pipelines started. Nowadays, I do not catch fishes as many as in the past. Moreover, we were prohibited to fish during the pipeline construction are repairing period. Some fishermen (approximately 10) even stopped fishing business. After selling their fishing materials, they started agribusiness. Some of them went to Thailand.<sup>37</sup>

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37. Interview with a 65 years old fisherman in Daminseik village, February, 2014

All the goods prices have risen here and there after the projects started. Labor charges increasing is one of significant changes due to the gas pipeline projects. In 1996-97, the subcontractors of the Yadana project gave their workers 200 to 250 Kyats per day while the labor charge in local market is only 100 to 150 Kyats per day. This made the area more well-known and increased a lot of migrant workers working in the area. Rising prices creates a big negative effect on the villagers if one is not a worker of gas pipelines. These kinds of villagers are daily workers or odd job workers. They earn only about Kyats 4,000 for per day work while a pipeline worker get about Kyats 7,000 to 10,000

In Migyaunglaung(old) village, the villagers' who livelihood is depending on taungyar<sup>38</sup> are more difficult than the past. Because of the village is in the TNRP area. Before this project started, the villagers are free to do taungyar in every parts of the hillside. The villagers cut down the natural forest and plant paddy. After one year they planted, they left the land and find a new land to plant for the next year. After the gas pipeline projects started, they provided TNRP project financially to reserve the natural forest along the Thai-Burma border.

Now, If the villagers wanted to do taungyar, they need to inform TNRP with some regulations. After conducting some assessment by TNRP, the villagers will allow to do. But, they must obey the terms and regulations set by TNRP. In these regulations, the villagers need to replant the forest trees at the same time when they plant the paddy in their taungyar.

If we want to do an acre of taungyar, we need to replants 100 to 150 forest plants. Hunting and timbering are also prohibited by TNRP. This made difficult for our villagers whose living is depending on this kind of jobs. But, we are still doing these without knowing TNRP<sup>39</sup>

The Yadana CSR program introduced new rubber plantation

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38. Shifting rice cultivation

39. Interview with a 58 years old woman who does taungyar in Migyaunglaung(old) village, 10-May-14

methods and high technology for the villagers. They encourage the villagers to plant rubber. The project provided trainings for the villagers how to use the chemical and insecticide safely. Then, the agriculture became monoculture. As a result, the hill side around the villages became the rubber gardens. Since late 2012, the rubber prices are falling down. Starting from early 2013, one pound of rubber sap declined to 600- 700 kyats. It was about 1100-1200 kyats in late 2012. Then, the rubber garden owners get trouble with for the time being.

### **Social and cultural change**

The villagers' eyes were opened up widely after starting the pipeline projects. It is because of better road condition. In the past, only a very few number of villagers had connection with other villages. Most of the villagers stay in the village and don't know theirs surrounding. The CSR programs arranged the exchange trips for village committee members around the gas pipeline area. Then, villagers understood each other more.

Every single interviewee who participated in this research said that their eyes are widely open and big ears to listen and learn more. They cooperate with each other more than the past. They listen and talk and advise during the community meetings. Those are the advantages that the companies have brought here. The villagers formed some village level community based organization themselves to work the development of their village.

In Kanbauk, there is a well know community base organization called Arrudana. It is supporting Oxygen and blood for Kanbauk hospital. In the past, the Oxygen cylinders are carried by the Yadana ship form Yangon. But, nowadays, Arrudana can provide Oxygen for the hospital and the project has not doing the supporting. They run on their own.

Despite above good changes, the gas pipeline projects also brought the opposites. The men drink alcohol more now. The villagers who got job in pipeline construction work places or concerning to the gas pipeline earn more money and go to the beer shops. There are six big beer shops around the area. The owners are business man from Mawlamying and Yangon and some are local. The

waitresses are girls. Almost all of them came from Yangon or Mawamyine. The beer shop owners hired them. Nearly all the girls are single and they live at the small houses behind of the beer shop built by the owner for them. The pipeline workers go there including the local villagers working at the gas pipelines. Some of them fell in love with the girl from the beer shop. Then, their families get into trouble because most of the men are married and they have already had families. There are more than 20 married pipeline workers from Kanbawk area who get marry with the girls from the beer shops. According to the group discussion with women in Kanbawk village, the villagers especially women do not like and they hate the girls from beer shops.

There are three beer shops near my village and one of them is famous for sex. The village elder does not like this shop, and me too. We always tell the young men not to go there. But, some still go to this shop. In the past, there were only very few old men drinking alcohol, but nowadays drinking is becoming like a fashion and most men drink. Even a very young man drinks because he has a job at the gas pipeline and earns more money than other villagers. We, the elderly of the village, are worried that our young Christian community is under threat by sex and drink at this time.<sup>40</sup>

The villagers rely more on the projects than the past. The village's roads, the bridges, the school buildings and furniture for the schools were made by the villagers themselves in the past. After the projects started, the projects provided above basic needs. The villagers only need to come to the meetings and submit the proposals to the projects. For example, if they need a bridge, they requested to build a new bridge via village committee. First, the representatives of relevant project come to the villages and discuss on the issue. If a bridge is really needed, they will hire a contractor to build it. Some villagers have a thought that the bridge isn't

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40. Interview with religious leader and chair of Village Communication Committee in Migyaunglaung (old) village, 4-Dec-13

theirs. The bridge is built by the project and contractor and it's theirs. So, they are not interested in the bridge. It is not only for bridges but also in building schools, roads or whatever the projects provided. For the projects, it become a common problem and challenge for their projects in the future.

According to both individual and group discussions, villagers were more organized and carried out their duties before the CSR programs started. They repaired the village's entrance road and the road to other villages themselves in the past. The village head man and the elders divided the length for each household to repair. The villagers repaired the length that they assigned for. No one complains and they understand that if they do not repair the road, nobody will repair their village's roads. Unfortunately, nowadays, the projects provide most of the development works of the village. And, many villagers think that if they need something, the projects will provide it for them.

Villagers do not need to contribute a large amount of money to build schools building as we did in the past, the companies built the schools. The companies create many job opportunities for the villagers but, they bring the uncountable problems too<sup>41</sup>

### **The Changing Relationship Between Community, Local Government, and CSR Programs, before and after 2010**

This session will discuss on how the communication between the community and local government, community and CSR programs and the CSR programs and the local government. This is one of the important parts of the research as the changing of communication styles had shaped the relationship of each party. Also the election in 2010 made some significant changes in the area.

#### **Community-local government relations**

Before the new government has elected in 2010, only village

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41. Interview with village administrator in Kanbauk village, 28-Dec-13

administrators connect with the local government officials. This means that the basic social need for the villages are providing by the CSR programs and people do not pay interest on the issues concerning with the government. The government did not support the village's development work which compare with the villages outside of the gas pipeline's CSR programs area.

After 2010 election, the villagers started to take part in the meetings with the regional government. They formed a village development committee including village administer and connect to regional government. They participate and request for the village's basic needs in the monthly meetings which held at Yephyu Township every month. They keep in touch with the government officials and members of parliament and the political parties' representatives more. The villagers usually ask questions concerning with the gas pipelines during the government officials visits. The hot issues are the land compensation, electricity for the region, road construction and job opportunities.

### **Community - CSR Program relations**

The villagers pay much attention on the CSR programs before 2010 election. They usually invite people of the CSR programs to participate at any kinds of their village's ceremony. The CSR programs and the villagers had very good relationship. The villagers invite and discuss with CSR programs for village development work monthly. The villagers asked only to the CSR programs to support their village's development work.

After the election the relationship between the villagers and the CSR programs has a little changed due to getting more rights politically. The villagers are arguing on the CSR programs for breaking promises that the programs had given to the villagers since the projects start. For example, the Yadana CSR program promised the villagers that the electricity will be electrified as soon as the gas transport to Thailand. However until 18 years later, the program has started, the villagers are still depending on the local business man for electricity supply with high price. One unit of electricity cost 650 to 700 Kyats and the electricity available only 6:00 to 10:00 PM. The villagers are still living in the darkness.

Most of the villagers from Ohnbinkwin village said that the CSR programs should provide their village more than the others. They pointed out that their village is closest to the three pipeline centers of the gas pipeline projects with compare to other villages. Their concern is if there is unexpected accident happen, they will be the first sufferers. They will be badly destroyed by fire. In reality, the CSR programs usually provide the villages according to the need and request of the villagers. So, Ohnbinkwin villagers get angry with the CSR programs. They also did not content with for not having a tarred road from Ohnbinkwin to Kanbawk.

Some villagers complained that the Zawtika CSR program for not actively participate in solving the problems between the land owners (whose land the Zawtika gas pipeline crossed) and the pipeline compensation team. In 2012, the chairwoman of National League for Democracy, Daw Aung San Su Kyi visited the Yadana CSR program. She visited Kanbawk, Migyaunglaung and Zardi villages. On the way back to the pipeline center of the Yadana project; Ohnbinkwin villagers wanted her to visit their village too. But, it was not included in the CSR program's schedule and hundreds of villagers blocked the road and asked Daw Aung San Su Kyi to visit their village. After about an hour discussion and argument, the chairwoman and the CSR program heads agreed to visit Ohnbinkwin village. Although the trip finished, the villagers did not satisfied on the Yadana CSR program. They continued that Daw Aung San Su Kyi has biased for the Yadana project.

Daw Aung San Su Kyi also visited to Migyaunglaung(old) village during her trip to Kanbawk area. A number of villagers complained her about their perception on impacts of gas pipelines and their needs especially in electricity supply and to construct better roads in the area. Daw Aung San Su Kyi replied to the villagers that "the development of a community not only depends on the private companies working in an area, but is also the duty of government and all the people who live in the area".<sup>42</sup>

She continued, as she is one of members of Parliament, she usually

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42. Daw Aung San Su Kyi, February, 2013

pointed out about rural development and how to implement it to be the best. And she also noticed to the villagers the important role of local people and rights and responsibilities of people in her speech during this visit.

### **CSR program - local government relations**

Some departments of the Yadana CSR program have connection with some of the regional government departments. The agriculture department connects with the regional agriculture department and cooperates in some operation. For example, the government's department supports modern rubber plants for the CSR program's tree nursery. The veterinary department also has connection with the regional government's veterinary department. The officials of this department visit the poultry farms in the Yadana project area. They also provide certificate trainings for the vet auxiliaries of the Yadana project villages in Yephyu Township. The program provided travel, accommodation and necessities for the trainees. After the training, they become the village's vet auxiliary at their villages. The program provide each of them incentive 15000 kyat per month and they give veterinary care at their villages.

The public health department of the Yadana CSR program cooperates with the government health staff in many ways. The program arranges vehicles for all midwives around the area for the vaccination program. The program also cooperates with the township health department in providing the village assistant mid wives. The travel and accommodation for the assistant mid wives are provided by the program when they attend the assistant midwives training in Yephyu township hospital. The township medical officer usually visit and give speech at the health staff gathering ceremony initiated by the program which held in Kanbauk yearly.

According to the interview with Yegagun CSR program, they have not much communication with the regional government. Only some document of the program send to the regional administration office via their head office in Yangon. As the Zawtika program is just started in 2010 and thus, they also have no connection concerning with the CSR program.

The CSR programs and the regional government departments keep in touch more when the present new government has started after 2010 election. The Yetagun CSR program sends their monthly report to the Township administration office monthly. In 2014, they start to transfer their ECCD schools to the Social welfare department. The Zawtika CSR program also connects with the regional government to avoid overlapping of their infra-structure construction programs in their project area.

The Yadana CSR programs extend their communication channel with the regional government. They usually go to Dawei and meet the government officials. They especially focus on to have good relationship with the government departments. They discuss with the regional government to avoid overlapping of the construction program such as schools, bridges and renovation of roads in their project area.

In recent years, the regional government starts to provide the education and infrastructure programs in Kanbawk area. In the past, the government did provided very few for Kanbawk area they only visited very few times to the area. But, nowadays, after the new government has started, the regional government officers usually visit the area and also meet with the villagers. Regional parliament (Hlottaw) chairman visited Kanbawk twice in 2013. He also met with all the CSR programs and discussed on the projects which the CSR programs are working. The regional prime minister also visited the area and met with the villagers and the CSR programs in 2014.

In conclusion, having good communication between the regional government and the CSR program brings better effects for the local community. The CSR programs can avoid overlapping of their projects which the government is working. Information sharing is an important channel between the CSR programs and regional government for the development projects which the CSR programs and governmental departments are going to work together.

# 4

## CONCLUSIONS

The Yadana, Yetagun and Zawtika gas pipeline projects have resulted in both positive and negative changes for the people living in the area. The implementation of these kinds of multinational infrastructure development projects impact the lives of local people in a wide range of ways; including conflict, security, environment, livelihood, rights and sustainable development. In Tanintharyi Region, these three international gas pipeline projects and the three CSR programs connected to them have contributed to the socio-economic development of the area and resulted in many changes in the lives of local people. An examination of the positive and negative impacts of the natural gas projects in general will be followed by an overview of the positive and negative impacts of the CSR programs in particular.

### **Positive Impacts**

The arrival of the pipeline projects directly resulted in a number of benefits for local people; namely, new project-related employment opportunities and new business opportunities which lead to economic growth in the region.

The area experienced economic growth due to the influx of jobs, money and people that accompanied the pipeline projects. Villagers who received compensation money from the projects were often able to use this money to take advantage of new business opportunities. The arrival of migrant workers and sub-contractors for the projects constituted a new customer-base for locally-owned businesses.

The transportation infrastructure (roads and bridges) also improved greatly after the arrival of the pipeline projects. The companies and their sub-contractors constructed roads in the area for their operations. The villagers were also allowed to use these roads. In the past, the transportation condition of the area was very poor. Only bullock carts were suitable to carry village products to sell at other villages. In the rainy season it was nearly impossible to go anywhere due to flooded and muddy roads. The villagers had to walk from village to village and it took days. Nowadays, cars and motorcycles can easily travel around the area; bringing many benefits for local people.

There have also been some indirect benefits, including the cessation of armed clashes and an end to forced labour. Following the arrival of additional Burma Army troops to the area to provide security for the construction of the gas pipelines, armed conflict in the area between the Burma Army and KNU was no longer taking place. This peace has been a benefit for the people living in the area, enabling villagers to focus on livelihood activities without fear of getting caught in the conflict, being targeted by military strategies such as the 'four cuts', being victims of forced labour or forced relocation.

While in the early stages of the Yadana and Yetagun projects there were still instances of forced portering and manual labour for the Burma Army soldiers who arrived to provide security for the project, these practices had ceased in the area in the couple of years after the construction began. Many villagers believe that the practice of forced labour in the area ceased after the project implementing companies intervened and requested that the Burma Army stop the practice on military bases and also at nearby unrelated infrastructure project such as the Ye-Dawei rail line construction. It is believed that the companies did this in order to ensure that their investments were not connected with serious military perpetrated human rights abuses, so this can be seen as an indirect outcome of the projects.

## Negative Impacts

The arrival of the pipeline projects also had a number of negative impacts for local people. There were many new military camps (Army and Navy) built in the area during project construction. The military troops based in the area for the pipeline security forced the villagers to work for them. Moreover, they grabbed many acres of land belong to the villagers without giving any compensation.

The construction of the gas pipelines created many new job and business opportunities, but not all people living in the area were able to take advantage of these opportunities. While the gas projects provided compensation money to affected land owners, many of them did not have enough experience to manage this huge amount of money and were soon left penniless and landless. Most of them donated their money to the monasteries and contributed to their relatives while some wasted a large amount of money in gambling and lost it; then the money had gone and they got in trouble. In many cases the implementing companies and/or CSR programs didn't properly establish future livelihood strategies for those who lost their land. In addition, the local land prices increased more than 20 times over 15 years, meaning that purchasing a new plot of land became out of reach for many.

While local people benefitted from improved transportation infrastructure, there were also some negative aspects of this development. During construction of the pipelines, the companies used many heavy vehicles which took up a lot of road space and caused noise and air pollution. These large trucks were a general annoyance to the villagers. Some villagers seriously talked about environmental damages on the villagers and the area due to the gas pipelines.

**Table 8** Overview of positive and negative project impacts

Positive impacts	Negative impacts
Cessation of armed conflict in the area Project-related employment and business opportunities Economic growth End of Burma Army practice of forced labour in the area. Construction of all-weather roads.	Construction of new military camps (Army and Navy) in the area. Burma Army practice of forced labour. Burma Army land confiscation without compensation. Lack of future livelihood strategy for people who lost land for the projects. Land price inflation in the area. Increase in land-related conflicts. Heavy truck traffic causing noise and air pollution. Environmental damage.

### Positive Impacts of the CSR Programs

The three CSR programs connected to the three gas pipeline projects brought various kinds of positive changes to the communities in the project areas. Overall, the CSR programs' successes can be put into three categories: infrastructure development, socio-economic development, and capacity and institutional development.

Key infrastructure development achievements across the three CSR programs were: the upgrading existing roads and the construction of new roads and bridges, and the building of new healthcare and education facilities.

Key socio-economic development achievements across the three CSR programs were: the reducing of under-1 and under-5 infant mortality rate, increased size of malaria-free areas, improved access to basic health care and education, growth of animal breeding activities, and improved access to low-interested loans.

Capacity and institutional development activities include educational and skills training for local people to become decision-makers in the CSR activities and encouragement for local people to initiate their villages' development path in the future. Key

capacity and institutional development achievements across the three CSR programs were: conducting technical trainings, providing scholarships, organizing community initiated meetings and encouraging and supporting community based organizations.

### **Negative Impacts of the CSR Programs**

While the impacts of CSR were in general very positive for local people, the interviewees contacted for this study also highlighted some negative impacts of the CSR programs; namely the loss of voluntary spirit among community members, a growing dependency on CSR programs to provide for development needs (rather than looking to the government), and a 'charity' model, rather than a 'sustainable development' model.

While the sorts of capacity and institutional support provided by the CSR programs can be a good way to encourage the sustainable development of an area, there is also a risk that the local people will become dependent on the CSR programs. In some cases, before the arrival of the CSR programs the villagers voluntarily worked together to solve their village's need themselves even though they only had accessed to very limited resources, but many years later the villagers tended to rely on the outsiders to implement solutions to problems they face. In the early stages of the CSR programs the projects can be seen as no-strings-attached charity donations and sources of large financial resources. In some villages, this influx of cash and technical assistance has led to a gradual disappearance of voluntary spirit among community members.

The major problem was that the CSR programs often initiated their projects based on a charity model rather than a sustainable development model that truly empowered the local people. The three CSR programs always welcomed and invited the villagers to participate in implementation process of their activities, but it was rare for the village to truly take a lead role in the planning and decision-making related to the CSR programs. The local institutional capacity that the CSR program did develop were often conceived as being a 'bridge' to connect the community to

the CSR program rather than truly independent entities. The CSR programs started to organize VCCs, VBCs, and VHW teams, VVA, VAR, VECCDC and VDC; which became the mediums between the programs and the villagers. There were only very few of these kind of village-level community-based organizations prior to the arrival of the CSR programs (e.g. the Tharyaenaryae<sup>43</sup> team, youth groups, etc). The CSR programs trained local people in relevant topics so that they could work closely with the CSR program. Most of them were volunteers and they usually worked only with the CSR programs, rather than representing their communities and connecting directly with government officials and other stakeholders.

**Table 9** Overview of positive and negative impacts of the CSR programs

Positive impacts	Negative impacts
Reduction of infant mortality rates. Area became malaria-free zone. Improved access to health care. Improved access to education. Improved animal husbandry techniques. Access to low-interest loans. Support for infrastructure development especially (new & upgrade roads & bridges). Community organization (experienced gained by working with CSR program staff, etc.)	Loss of voluntary spirit. Dependency on CSR programs. A “charity” model, rather than “sustainable development” model.

This lack of true village-level institutional capacity became more obvious after the 2010 elections when role of the Regional government took on greater importance for local development

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43. A group of people working as volunteers to assist in funeral.

issues. Before 2010, only a few government-led rural development projects were implemented in the Kanbawk area, and thus the CSR programs took leading role in such kind of development work. Nowadays, due to democratic transition of the country; institutional development has become important for all the villages, and then the villagers can cooperate more with the government officials to pursue sustainable development for their communities.

The major finding of this research is that the three CSR programs all contributed to the development of local infrastructure and the provision of much-needed social services - especially health care and education - in an area where government support was lacking.



# 5

## RECOMMENDATIONS

The following list of recommendations to improve the implementation of large-scale infrastructure projects and CSR programs in Myanmar was developed based on the findings of this research project.

In future, prior to the start of any infrastructure development project all relevant information should be made publicly available by the investors and the Myanmar government. Relevant information would include project scope and timeframe, contract details, benefits for specific stakeholders, implementation plans, and an assessment of the benefits and drawbacks of the project for local people.

Going forward, the three CSR programs should hold annual public meetings to discuss the progress of the pipeline projects and the CSR programs; looking specifically at how the projects/programs are contributing to the development of the host communities. These meetings should be open to everyone, including media. The format of the meetings should be ‘townhall’ style, where people can ask anything about the projects and the CSR programs. These meetings would provide transparency, accountability and openness between the project implementing companies/agencies and the host communities.

If an infrastructure development project is proposed in a conflict area, the Myanmar government should release up-to-date security and conflict briefs and documents to avoid human rights abuses towards local people due to the project implementation.

Investors have a duty to study and understand the historical background and current human rights issues of the host community/country. Investors can receive assistance from an independent third party or conduct their own cross-sectional study with the participation of local people from the project area.

Civil Society Organizations, elected representatives, civil servants, political party members, and local villagers should all closely monitor the implementation of infrastructure projects in the areas where they work. These stakeholders have the duty to alert the general public to any negative outcomes resulting from the implementation of these infrastructure projects.

The three CSR programs should strive to work together more closely to improve the implementation of their programs. For example, the provision of scholarships for professional college and university students would benefit from greater cooperation.

The three CSR programs should maintain the present good working relationship with the local villagers to enhance the transfer of technical skills for the sustainable development of the area.

Cooperation with governmental departments is a good idea for the three CSR programs and it would be more effective if the government officials can cooperate in making the development of the area to become independent.

The Yetagun and Zawtika CSR programs should invest more in providing professional and technical skill trainings to improve the incomes of people living in their project areas.

The Yetagun CSR program should construct new ECCD schools and train new teachers to be posted in additional villages to balance the development of education in the area.

The Zawtika CSR program, as the most recent of the three programs, should take steps to evaluate the progress of their current activities so that their future work can be more effective in meeting the development needs of the people living in the Kanbawk area.

The three CSR programs should cooperate with the Tanintharyi Region government to build an improved sanitation system in the area.

Investors and CSR programs should ensure that they enable local people to take advantage of business opportunities related to any investment projects (e.g. vehicle rental for Zawtika, but not Y&Y b/c they brought their own vehicles).

Overall, it is recommend that any multinational investment companies planning to invest in Myanmar should study the example of these three CSR programs so that they can ensure that their activities are more effective and relevant to the host communities.

## References

- Aye, Yi, & Myint, Tun. (2010). Social Development through Human Capital Investment in Kanbauk Area of Taninthayi Division (1997-2008). *Yangon Institute of Economics Research Journal*, 1(2), 51-62.
- Earth Rights International. (2008). *The human cost of energy: Chevron's continuing role in financing oppression and profiting from human rights abuses in military-ruled Burma (Myanmar)*. Washington, DC/Chiang Mai: Earth Rights International.
- Earth Rights International. (2010). *Energy insecurity: How Total, Chevron, and PTTEP contribute to human rights violations, financial secrecy, and nuclear proliferation in Burma (Myanmar)*. Washington, DC/Chiang Mai: Earth Rights International.
- Law, Naw Pe The. (2009). *Social and Economic Impacts of Socio-Economic Program (SEP) in Myanmar: a study in gas pipeline construction area in Dawei Township* (Unpublished Master of Science in Regional and Rural Development Planning thesis). School of Environment, Resources and Development, Asian Institute of Technology, Thailand.

# Appendix

## List of interviewees

### In depth interview in Kanbauk

Sr	Description
1	67 yrs, Former VCC, Vet aux of Yadana CSR program, Experienced on the constriction of the gas pipelines
2	33 yrs, Assistant at village administration office and know background of the recruitment of labor for the projects
3, 4	2 girls 22-27 yrs respectively. Arrived to the area to work at the restaurant as migrants and have relationships with many workers from the gas pipelines company
5	A 65 yrs woman who live in the village for her life time and understand very well on the changes especially in tern of the environment and mining
6	A 72 yrs old man, who live in the village for her life time and understand very well on the changes especially in tern of migration and mining
7	A 45 yrs old man gardener who grows vegetables
8, 9	2 fishermen 50-60 yrs old respectively and do fishing in the Heindze river for many years and live in Kanbauk since they were young.
10	Village administrator, 41 years old, who was born in Kanbauk and live in the village for his life time and became administrator
11, 12	2 members of Village Communication Committee from Kanbauk who have been involved in community work since decade ago.

## Group interview in Kanbauk

<b>Title of the group</b>	<b>Description</b>
Workers	A group of villagers (5 to 7) who work for different projects for three different gas pipeline projects.
Youth	4-6 young people who are interested in investment and job opportunity
Health Worker group	3 public health workers who were trained by the Yadana CSR program and work at Kanbauk hospital as volunteers
Hospital staff	3 nurse from Kanbauk hospital who works in this hospital for more than 20 years.
Old men group	3-6 old men aged above 65 who live in the village for their life time and experienced many events

## In depth interview in Daminseik village

U Paw Tun, Admin, Teacher, HW, VCC, Breeder, Soldier, Worker, Student

<b>Sr</b>	<b>Description</b>
<b>1</b>	A 68 year old fisherman who was born in Daminseik and do fishing for his life time. He also involved in many activities and events related to government, military, navy and the CSR programs of the gas pipeline companies
<b>2</b>	Village administrator who aged above 35 years and live in the village for his life time and involved in many events related to administration and complex issues in the village for several years
<b>3</b>	A 42 year old teacher, she's actually works as principle of Daminseik school for more than two decades and well experienced in village affair. She also plays an important role in village development work.
<b>4</b>	A 39 year old health worker trained by the Yadana CSR program and work at village clinic for many years since 1996.
<b>5</b>	A 40 year old man who profession is finishing and lives in the village for this life time and involved in CSR work for many years.
<b>6</b>	A 56 year old woman who do pig breeding as major livelihood and live in the villager more than 20 year. She's a sort of migrants in this village and before lived in Mon state, the northern part of Tanintharyi region.

<b>7</b>	A soldier (very difficult to guess his age... approximately about 45-50, not a formal interview ... just having a long conversation with his on a raining day by just let him know to avoid from the rain) from 273 Army work as a security guard at the gas pipeline facility at Daminseik village.
<b>8</b>	A young worker aged around 28 who work at a construction site of Yetagun gas pipeline project. He's was born in this village and the only person who is working at the gas pipeline at that time in their village.
<b>9</b>	A 21 year old student who is studying at Technological University in Dawei. He is awarded by the Yadana CSR program's scholarship program.

### Group discussion in Daminseik village

Activist group, youth, teachers, fishermen, soldier and workers, women group, HWs

<b>Title of the group</b>	<b>Description</b>
Activists group	About 4 to 6 villagers who are very much involves in politics and experienced many discussion with different gas pipelines company since 1996.
Youth	A group of young people with girls and boys basically talking about education of the village
Teachers	4 teachers from village schools
Soldiers and workers	3 soldiers who work as security guards at onshore gas pipeline facility at Daminseik village and 2 villagers who worked for the gas pipeline construction work before (informal discussion with them at village tea shop)
Women group	A group of women with different experienced and different livelihood from collecting shrimp, owner of fishing boats, who manage farming activities, house wife, etc.,
HWs group	3 health workers, 2 from Daminseik and the another from Piketelay village, village next to Daminseik

### In depth interview at Migyaunglaung old village

VCC chair, Pastor, hunter, admin, Karen women, a young girl, nursery worker, 2 VCC members

Sr	Description
1	Chair of VCC, a 63 year old woman from the village and live in the village more than 40 year. She's also chair of women committee at the village Church and involved at many different activities of village development work.
2	Pastor of the village and live his life time in this village. He has very rich experiences with almost every single events of the village.
3	A 55 year old hunter who was born and live in this village and know a lot about village's history and environmental affairs.
4	Village administrator aged over 40 and has relationship with military, KNU, provide companies and the gas pipelines companies.
5	A 53 year old Karen woman who family is destroyed by the fighting between KNU and Burmese military troops during 1993-4.
6	A 28 year old woman who studied in Dawei and live in the village and has experience in village development work.
7	A 50 year old woman who work for the nursery of the Yadana CSR program from the village.
8	2 VCC members from the village who involved in many different activities in the village not only VCC.

### Group discussion in Migyaunglaung old village

VCCs and poster, Admin and group, contractors, old Karen women group

Title of the group	Description
VCCs and Poster	4 VCCs and Poster from the village
Admin and group	Village administrator and 3-4 people who involve in administration work
Contractors	2 contractors and 3 of their staffs who are working as sub-contractors for construction companies and based in the village.
Old Karen women group	A group of Karen women aged between 50-60 who live in the village for their life time and experienced fighting between KNU and Military troops.

### In depth interview in Ohnbinkwin village

Admin, VCC, old worker, teacher, ECCD teacher and committee, student's parent, restaurant owner, 3 beer shop, an old woman, gardener, security worker's wife, 3 compensation receiver, tea shop owner, *gaw pa ka* leader

Sr	Description
1	A 45 year old village administrator from this village who was born and rich experience at village timeline and development work.
2	A 68 year man who is a member of VCC since 1996 and have an excellent understanding of the history of the village and work of CSR programs.
3	A 30 year old teacher from the village school and who involved in education session of the CSR programs.
4	A ECCD teacher and a member of ECCD committee of the nursery school which open in the village by the Yetagun CSR program.
5	A 52 year old woman who is a mother of a student who is studying in Dawei and received scholarship award from the Yadana CSR program.
6	A woman who run a small restaurant in the village. She has very much connection with the workers who work the three different gas pipelines companies.
7, 8, 9	Owners of three beer shop (as sort of restaurant) who run their business in the region back 20 year ago.
10	An old woman aged over 75 who was born in this village and do plantation for living since she was young. She also do shifting cultivation in the old day and experienced land issues during the gas pipeline construction period.
11	A 65 year old woman who livelihood is plantation of seasonal vegetables beside onshore facility camps of Yadana and Yetagun gas pipelines and experienced compensation with the Yadana construction in 1996.
12	A hose wife of a security guard who work for Yetagun gas pipeline program.
13, 14, 15	3 families who received compensation during the gas pipeline construction of the Yadana, Zawtika and Yegatun projects respectively.
16	A 43 year old man who run a tea shop in the village and involve in village development work.
17	A 65 year old man who is the leader of Gaw Pa Ka (Member of trustee of village monastery).
18	A 55 year old man who worked for the gas pipeline construction at the Yetagun project before.

### Group discussion in Ohnbinkwin village

Activist group, Admin and group, *gaw pa ka* group, ECCD group, restaurant and teashop owner, compensation received families, workers, migrants.

Title of the group	Description
Activist group	A group of people who organized the protest.
Admin and group	Village administrator plus 4 people who involve in administrative work
Gaw Pa Ka	A group of 3-4 old people (all are men) who are member of trustee at the village monastery
Restaurant and teashop owner	2 restaurant owners and 3 teashop owner
Compensation received families	6 women who families received compensation during the construction of the gas pipelines
Workers	5 workers from the Zawtika project who settled in Ohnbinkwin to work.
Migrants	3 women and 2 men who immigrated to the village and their family work for projects and small business related to the gas pipelines.

## About the Author

Aung Lwin has been active in community organizations in the area of Dawei and throughout Tanintharyi for close to a decade. Since 2013, he has worked facilitating community consultations between mining companies and villages. In 2016 CSOs in the Dawei voted him as representative of the Tanintharyi MATA working group, where he works closely with organization like Dawei Development Association – DDA and Dawei Probono Lawyer Network – DPLN focusing on mining issues in the region.

In late 2015, he founded the Dawei Watch Foundation along with colleagues and has worked on media advocacy, youth development, and research. He is also currently Dawei regional coordinator at Spirit in Education Movement – SEM, and also works as a project officer at the land rights program of the Dawei Development Association.

He is also a columnist, having written a series of articles related to mining and social change at the Tanintharyi Weekly news journal.





# THE IMPACT OF GAS PIPELINE PROJECTS AND THEIR CORPORATE SOCIAL RESPONSIBILITY PROGRAMS: In Yephyu Township, Tanintharyi Region, Myanmar

In this volume of the Understanding Myanmar's Development series, Aung Lwin—a scholar from the research area—has researched and writes from a unique perspective on the impacts of gas pipeline projects and their respective CSR programs. Through participant observation and extensive interviews with local people and project stakeholder, he has examined the impacts on local people and explored some of the wider environmental, socio-economic and cultural transformations resulting from the pipeline projects. The paper concludes with a list of recommendations to improve the implementation of large-scale infrastructure projects, and related CSR programs, in Myanmar..

The Understanding Myanmar's Development series is an exploration of the transformation taking place in Myanmar on multiple levels: social, economic, and political. In this series, RCSD hopes to realize the dual goals of both building up the body of knowledge on Myanmar and strengthening the research capacity of Burmese scholars in their study of development policy and practice. This volume is just one piece of the puzzle of development practice, as felt by the people and communities of Myanmar.



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