

# Accumulation by Dispossession and Local Livelihood Insecurity

A Case Study of Ruby Mining in Mogok, Myanmar

*La Ring*



Consortium of Development Studies  
in Southeast Asia (CDSSEA)



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Publication Series

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The Consortium of Development Studies in Southeast Asia has drawn on primary postgraduate research undertaken for theses from the master's programs of Asian Institute of Technology's Master of Science in Gender and Development Studies (MGDS), Chiang Mai University's Master of Arts in Social Science (Development Studies) (MASS); and the Chulalongkorn University Master of Arts in International Development Studies (MAIDS). Scholarships for the students of CDSSEA has been generously provided by the International Development Research Centre (IDRC) of Canada. With a diversity of academic approaches (gender studies, political science, social sciences), the individual works of this collection have in common a focus on the increasing interconnection and regionalization of the five mainland Southeast Asian countries (Myanmar, Thailand, Laos, Cambodia and Vietnam), and examine these exchanges and encounters within the context of the Greater Mekong Sub-region (GMS).

The publication series engages with physical and social mobility, boundary crossing, and the construction of ethnic identities. Within these concerns, the series also addresses issues of social, cultural and environmental sustainability, and the ways in which livelihoods are sustained and transformed in the mainland Southeast Asian sub-region. The series seeks to strike a balance between the experiences of urban and rural life and examine the rich variety of responses and adaptations to regionalization and globalization.

Accumulation by Dispossession and  
Local Livelihood Insecurity:  
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The Regional Center for Social Science  
and Sustainable Development  
**Chiang Mai University**

# Accumulation by Dispossession and Local Livelihood Insecurity: A Case Study of Ruby Mining in Mogok, Myanmar

**Consortium of Development Studies in Southeast Asia**

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## Series Foreword

The Regional Center for Social Science and Sustainable Development (RCSD) at Chiang Mai University has extended its publication program to include Master's dissertations from The Consortium of Development Studies in Southeast Asia (CDSSEA). The CDSSEA series covers mainland Southeast Asia: Myanmar, Thailand, Cambodia, Laos and Vietnam, and regionalization, development encounters and exchanges within the Greater Mekong Sub-region (GMS).

The CDSSEA program brings together resources and expertise from three of Thailand's leading institutions offering Master's degrees in development studies: Chiang Mai University's Master of Arts in Social Science (Development Studies) (MASS); Chulalongkorn University's Master of Arts in International Development Studies (MAIDS); and the Asian Institute of Technology's Master of Science in Gender and Development Studies (MGDS). Although the Consortium's program focuses on the relationship between development studies and social sciences, each of the programs has a different emphasis. The Chiang Mai degree focuses on social sciences and anthropological perspectives, with research interests in environmental and resource management, food security and local livelihoods, labour migration and trans-border issues, ethnicity and development, health, tourism, and agrarian transitions. Chulalongkorn's program concentrates on the political dimension of development, including democratization, human rights, conflict resolution, international and civil society development organizations, community development and globalization. The Asian Institute of Technology focuses on the relationships between gender and development—including women's rights, civil society, and gender dimensions of urbanization and industrialization.

The CDSSEA program has a practical dimension, building leadership capacity in mainland Southeast Asia's regional development, bringing together postgraduate students, encouraging debate, and promoting the rethinking of development alternatives in such areas as social equality, justice and participation, environmental and economic sustainability, and community development. In this regard, a major objective is to develop the knowledge and skills of development practitioners and to enhance the quality and effectiveness of policy-making and its implementation in the region.

The publications in this series—selected from the CDSSEA Master's program—are designed to express this diverse range of interests in development studies and regionalization, and to emphasize the relationships between empirical and theoretical research, policy-making and practice.

*Victor T. King*, Senior Editorial Adviser,  
Consortium of Development Studies in Southeast Asia series



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# Abbreviations

BAR	Brong Ahafo Region
BSPP	Burma Socialist Program Party
CPB	Communist Party of Burma
CPI	China Power Investment
FIL	Foreign Investment Law
KIA	Kachin Independence Army
KIO	Karen Independence Organization
KNU	Karen National Union
MCIL	Myanmar Citizens Investment Law
MEC	Myanmar Economic Corporation
MGE	Myanmar Gem Enterprise
MIC	Myanmar Investment Commission
MOM	Ministry of Mines
MOEP (1)	Myanmar Government's Ministry of Electric Power No. 1
NLD	National League for Democracy
NMSP	New Mon State Party
SLA	Sustainable Livelihoods Approach
SLORC	State Law and Order Restoration Council
SPDC	State Peace and Development Council
SSA	Shan State Army
UMEHL	Union Myanmar Economic Holdings Limited
URC	Union Revolutionary Council

## Glossary of Terms

<i>ahkyu thu</i>	a type of Burmese ruby mining license. The license is shared with the MEHL, a group of corporations run by the junta, and and ruby stones can only be sold at the Myanmar Gems Emporium.
<i>chyauk kongtae</i>	local ruby gem buyers
<i>hpaw htuk</i>	ruby mining license for civilians.
<i>htuk</i>	transaction term for when the seller agrees to consider an offer made by a trader. During this time no other trader will be approached.
<i>inn bye twin</i>	mining technique for large, muddy areas
<i>kanese</i>	daily traditional mining in Myanmar, mostly done by every family member downstream the river
<i>khaung tharthu</i>	the process of tunneling in order to find byon
<i>khoe twin</i>	illegal mining
<i>ko pyin twin</i>	large-scale lay <i>pyin twin</i>
<i>kop paing</i>	profit is equally shared among miners
<i>lay pyin twin</i>	similar to <i>twin lone</i> , with the only difference that <i>lone hteing</i> , unofficial, armed police controlling mining in Mogok
<i>lu twin</i>	mine where tunnels are excavated and gem-bearing earth in limestone caves are extracted.
<i>mei lan</i>	wife of a <i>paw lan</i> , or mining claim owner
<i>myaw twin</i>	open pit mine, where hillside surface deposits are excavated by using water.
<i>Ne Pyi Taw</i> (Naypyidaw)	capital city of Myanmar

<i>oo paing</i>	ruby mining license where revenue is shared with the MEHL and ruby stones can only be sold at the Myanmar Gems Emporium
<i>pattamyar Nga Mauk</i>	legend of the Nga Mauk ruby
<i>paw lan</i>	mining claim owner
<i>phet sat</i>	Burmese ruby mining licensing system
<i>pyinthit kyauk</i>	fake gem
<i>tatmat kwat</i>	ruby mining license category for corporations.
<i>thachyat thar</i>	raw gold
<i>thanaing thapaing</i>	small-scale mining license for local residents.
<i>that wet sir</i>	mining profits are shared, half for to the investor, the other half equally shared among miners.
<i>thwin thar</i>	miner
<i>twin</i>	Burmese for ruby mining site
<i>twin lone</i>	mining of alluvial sediment



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*La Ring*



## Chapter 1

# Introduction

### Background of Ruby Mining

The origin of Mogok is difficult to determine, but relics dating from about 3000 B.C. are considered proof of an early Mongolian settlement. Modern Mogok was only founded in 579 AD by hunters of the Saw Bwa of Momeik who, after losing direction during a hunt, had decided to spend the night under a tree. Early morning, following the sound of singing birds, they climbed into the surrounding mountains where they discovered all these beautiful rubies. A collection of these gemstones was brought to the Saw Bwa of Momeik.

Mogok is famous for mining the finest rubies in Southeast Asia. After the British had won the first Anglo-Burmese war, early nineteenth century, and Mandalay was taken, King Thebaw, who would become the last King of Burma, was removed from power. King Thebaw's legendary ruby mines in Upper Burma were acquired by British speculators in the late 1880s. The details of the transfer of ruby mining claims to a syndicate soon after Britain had annexed Upper Burma in 1886, are not well known (Turrel, 1988). Mining infrastructure in Mogok was extensively mechanized until the Great Depression when the syndicate was forced to liquidate due to declining margins and slumped market (Deleon, 2007).

According to records from the 19<sup>th</sup> century (Eyre & Spottiswoode, 1887), average rental sums of Rs 90,000 to 100,000 were yearly paid to King Thebaw's government and clear agreements were made that gemstones above a certain

size would be passed on to the King. Gillanders Arbuthnot from Kolkata and Rangoon agreed upon a yearly rental fee of two lakhs of rupees, a free, yearly audit conducted by the government and that the contract was terminable at the will of either party.

In 1962 the Burmese armed forces led by Ne Win staged a coup. Under his leadership and with his instrumental Union Revolutionary Council (URC) a one-party state was led by the Burma Socialist Program Party (BSPP). For the next 26 years Ne Win and the BSPP would control all of Burmese politics. During the 1988 student uprising General Saw Maung and Brigadier General Khin Nyunt ceased power across the country and the military junta established the State Law and Order Restoration Council (SLORC). Under international pressure general elections were held in 1990. The National League for Democracy (NLD) won, but power was never handed over to the NLD.

Instead, in 1992 General Saw Maung was replaced by General Than Shwe as chairman of the SLORC. One year later, the government controlled National Convention enforced that in future elections twenty-five percent of all parliament seats would be reserved for the military. In 1997 the SLORC was eliminated and reconstructed as the State Peace and Development Council (SPDC).

During the SLORC regime, the official name, Union of Burma, was changed to the Union of Myanmar and the spelling of many names were updated or even replaced by their previous, precolonial names. For example, Pagan became Bagan, Rangoon Yangon and Maymyo became Pyin Oo Lwin.

Mogok ruby mining has a long history, but I will focus on the period after 1994 when the SLORC government enacted the 8/95 gems law, the socialist era had come to an end and the mining industry became part of a more open economy. The Burmese government was implementing a socialist development strategy, creating opportunities for private capital investment while partially opening up to the international economy within a context of continued state economic intervention (Bryant, *The politics of environment in Southeast Asia resources and resistance*, 1998).

Before I continue, some clarification on the 8/95 gems law: following a ceasefire agreement in 1994, the Junta issued SLORC Law No. 8/95, also known as the 'Myanmar Gemstone Law'. The intention was on one hand to curtail

illegal gemstone smuggling, while on the other hand to offer sufficient privileges for corporations and cooperatives to extract, polish and sell gems (All Kachin Students and Youth Union (AKSYU), 2008).

Prior to this law, local Kachin and other ethnic groups were able to mine with artisanal methods. Since Burmese independence in 1948, local residents could claim and successfully develop a small mine. Mogok is home to many ethnicities from all around the country. Nyfeler (Nyfeler, 2004) mentioned Indian, Nepali, Chinese, Thai, Shan and other Myanmar ethnic groups, but still forgot some ethnic minorities living in Mogok. In the region Shan, Lisu, Palaung, Barman, Karen, Kachin, Chinese and Gurkha have been working together and sharing natural resources for many years. Many Kachin had migrated from other parts of Kachin and Shan State to avoid armed conflicts (Gordon, 1888).

To avoid any confusion, with the term Barman I refer to a Burmese ethnicity. Each ethnic group in Burma acknowledges to be officially named “Burmese”, but not Barman. The former referring to Burmese citizenship while Barman stands for a particular tribe, representing the majority of people in Burma. In particular, the younger generation does not like to be identified as Burmese as some people do not make a difference between Barman and Burmese.

Due to the enforcement of Gems Law No. 8/95, not only could private corporations and mining cooperatives form joint-ventures with the state, but also were all ruby and jade mining licenses, previously granted to local residents, revoked. This drastically changed the livelihood of local ruby miners. All gems were now declared military property and the Myanmar Economic Holding Limited (UMEHL) was established to grant licenses to large corporations (Kyi, W., 2012). These pro-market reforms were part of the government’s strategy to stave off total economic collapse, to open Myanmar for foreign investment and to encourage a shift to the private sector (Jones, 2014). For this reason, agriculture, timber extraction and fisheries were liberalized. Deregulation and privatization, a very relaxed framework and generous incentives to invest resulted in the influx of new foreign mining companies and multinationals and the subsequent intensification of existing operations.

The large-scale mining sector, with government’s support, focused on top-down initiatives that failed to recognize the inherent structural challenges

that artisanal mining faces. This resulted in conflicts between large and small-scale miners over land resources (IHED, 2013). Not much research has been conducted in this field due to its restricted nature. Kane and Kammerling (1992) reported that non-Myanmar nationals have to be authorized entry by Mandalay authorities which made that, for over two decades, no first-hand information on mining development was available in Western literature. Most recently published reports are based on information and photographs obtained in the late 1950s and thus referring to colonial times.

My research touches upon the local villagers' livelihood after 1995 with the arrival of both joint state/company and foreign investment ventures (which I refer to as large-scale mining). Joint mining claims in ruby and sapphire districts and the jadeite mining area had been granted as early as 1990 (Working People's Daily, 1990; Kane and Kammerling, 1992). Hugh wrote an article for *New Light of Myanmar* (The New Light of Myanmar, 1995) and stated that regulation of gemstone production and sales through SLORC Law No. 8/95, served to develop a 100% local market for Myanmar gems and jewelries freeing, as I mentioned earlier, private companies and cooperatives to produce and market gems freely and eradicate illegal production and smuggling of gems.

## Research Statement

This paper analyzes livelihood security for local mining villagers in Mogok while highlighting the impact corporate mining concessions had on local sustainable livelihood and coping after 1994 when artisanal mining was no longer allowed and ceased to exist (Kane and Kammerling, 1992).

In the past local small-scale ruby miners, typically grouped in four to five people, mined in areas where they felt they could be successful. At that time, large-scale mining was not so prominent yet and everything was done in a traditional way (Deleon, 2007). Local village did not need to pay taxes, despite some mining regulations, and could enjoy their rights for years. With the Myanmar Gems Law (SLORC Law No. 8/95) foreign companies or native ethnic groups suddenly could assert partial ownership of a particular gem mine claim and landowners were allowed to apply for mining permits if sold through government-approved channels and associated fees and taxes were paid.

Nyfelner (Nyfelner, 2004) states that Mogok mines are owned either by the Burmese government or by joint-ventures between the government and private individuals. By 'owning' Nyfelner means that owner has paid the government for the right to work in a mine for a period of one to three years. Claim fees and a certain part of the yield have to be given to the local authorities. Land confiscation by military personnel is not uncommon when precious gem-bearing pockets were found. Due to the risks and economic uncertainties of legal gem entrepreneurship, many independent miners prefer to mine secretly, risking imprisonment and worse, while selling through shadow networks that smuggle rough stones into Thailand, China, India and elsewhere (Deleon, 2007). Additionally, not much attention has been given to environmental regulation as the corporate mining sector does not really care to legalize their operations. Even though environmental issues have happened, land has been damaged, water ways have been blocked, wildlife has been affected, and local communities have not been heard.

Since the arrival of companies, both domestic and international investments, livelihood has been insecure. The shift from mining to agriculture proved fragile as the villagers had lost their land and jobs while ending up doing daily wage work. Many people became jobless due to the enforcement of gem law 8/95 and this transition created various problems (Deleon, 2007).

According to Deleon (Deleon, 2007), the impact of corporate mining on the environment has been tremendous, multi-layered and very troublesome for local people: first, there is the pollution of water and the impact on farmland irrigation; various mining techniques pollute water which cannot be used for agriculture. Second, risk of landslides. As a mechanized mining zone, Mogok is prone to landslides. Due to strict regulations, local people tend to mine independently, far away and unnoticed or sometimes even under their houses. Therefore, during rainy season landslides are very likely. Third, logging is also a main concern addressed in this paper. Mining requires lots of bamboo, wood and other materials from nearby forests. As people are paid to provide this material, a new market was created, not only could they sell to local mine companies, but also to other mining regions. (Deleon, 2007).

Soil erosion and landslides often occur in Mogok, especially during rainy season. Due to underground tunnel mining, the risk of landslides is particularly high and every year people get killed. Underground tunneling is not only

difficult to detect, to determine its range is hard as well. Another problem are the reservoirs as a result of large-scale mining. During heavy rainfall these reservoirs overflow, flooding nearby farmland. The count of casualties because of corporate mining is highly recommended.

Local villagers engaged in *kanese* who find locations ideal for mining will be chased away by the companies very soon. Companies assert ownership while local people are forbidden to access those areas. And when locals would find rubies nearby the corporate mining claims, they are forced to return these gems to the companies. 'Sometimes locals are fined and there even have been cases where they have been arrested and put into jail for a few months' (Radio interview with a local Informant by Yin Maung, Burmese BBC radio interview, Oct, 17, 2014).

In Mogok young generations have left, looking for job opportunities elsewhere. Some went to Hpakant (jade mining), others to Kachin State, Maingshu (Maingshu ruby mining), Shan State and Yamethin (gold mining). Nowadays, it is extremely difficult to conduct a religious ceremony as most men and young people left town.

This paper aims to provide a deeper understanding of the role of neo-liberalist ideas and its interaction with the state. In my view, securing jobs and land for livelihood activities are very important as mining enterprises have provided few new jobs. Neither are local residents familiar with corporate rules and regulations. When land in rural areas is dispossessed for mining, financial compensation usually is below market value. Locals do not know how to deal with this small amount which often is even not enough to start a new business. Moreover, they have lost their farmland and grazing land, their sustainable income.

## Research Questions

- Which context allowed large-scale corporate ruby mining? And how do certain groups benefit?
- How did the assertion of mining claims by corporations affect the livelihood of local ruby mining villagers?

- Which sustainable livelihood strategies came in place?

## **Research Objectives**

- To better understand the effect of large-scale ruby mining on local livelihood.
- To analyze livelihood since the gemstone 8/95 law was enforced in 1994.
- To examine how residents cope with the transition towards a market economy.

## **Research Methods**

### *Research Site*

Mogok is about 200 kilometers northeast of the city of Mandalay, the second largest capital City in Burma (now known as Myanmar). I chose three Kachin villages, Yeni, Awng Padang and Kin Village, each part of the Pyin Oo Lwin District (Mandalay Division) and located only a few miles away from Mogok town. In these three villages live about 80 households, with a total population of about 400 people. Many people do not know these villages by name, as in the past they were ruby mining areas. No proper names were given, as people came to mine and only stayed for a certain period of time. As these mining sites were not easily accessible, miners started to grow their own food. Gradually, the population increased and some of the miners married and settled down. Therefore, these three villages were named by their first settlers. As a result, many people do not really know the village names, but they are familiar with the kind of rubies extracted and sold in the area. Even today, these villages are more known for their rubies than by their name.

Population in each village is predominantly Kachin, mostly Baptist or Catholic. Main occupation used to be traditional ruby mining in the past, now most families are working on their farms.

These study sites are chosen for three reasons. First, Mogok is known for its long mining history which started many years ago and the quality of ruby in Mogok is considered one of the best in the world. Even though I am

from the Mogok region, I never became familiar with the history of ruby mining, Therefore, I am very interested in this topic.

Second, the first period of traditional ruby mining in Mogok came to a halt for about two decades ago. Therefore, I would like to study the recurrence of ruby mining and the peculiarities of contemporary ruby mining in Mogok. Third, large-scale mining has created a lot of environmental issues such as flooding, landslides, and droughts. I have never learnt about these issues within my community and I am deeply motivated to reveal and present the current situation, livelihood practices and resistance against modern development.

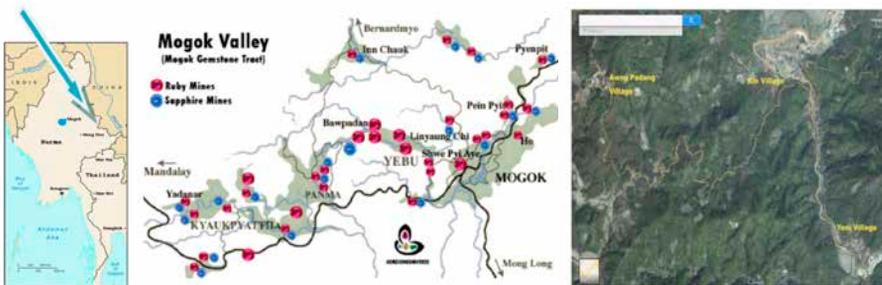


Figure 1: Maps of Yeni Village, Awng Padang Village and Kin Village in Mogok Township, Pyin Oo Lwin District, Mandalay Division, and Myanmar Source: [www.gemstoneuniverse.com](http://www.gemstoneuniverse.com)



Figure 2: View of Mogok Town

### *Level of Analysis*

My research looks both from a micro and macro level, investigates the relationship between village and regime with the purpose to understand ruby mining politics in Mogok, how it all works on a local, national and global level. In addition, this paper includes a study of residents' perception and thoughts on why the state started this kind of project to control natural resources and how people are being restricted from mining.

### *Unit of Analysis*

The unit of analysis is based on the individual, household and community and this in regard to livelihood insecurity, on local Kachin ruby miners' livelihood adaptation methods in the three villages. This requires conversations with individuals using a qualitative research approach, interaction with miners to understand their livelihood. Since my focus is on ruby mining families, those villagers who have never mined will not be covered, nevertheless, two non-mining villagers were included as my informants in order to get some different ideas on what they think of ruby mining.

### *Researcher Role*

I am from Yeni village, one of the research sites. However, for data collection, it was necessary to introduce my study objectives in order to get full participation. I tried to act like an outsider and at the same time I was also able to be part of the community. I easily made friends with everyone and was able to show that I am a trustworthy person. There were not many difficulties or restrictions and I got full support. When people feel warm talking to you, they will share their true stories. However, I had to be very careful as I still am an insider.

### *Data Collection Methods*

To collect data, I used five different methods: secondary data collection, household surveys, key informant interviews, case studies and focus group interviews.

To retrieve accurate, historical data on ruby mining concessions in Mogok, interviewing the village and religious leaders was crucial, as well as

those in charge of current mining sites nearby these villages. I also sought to get some information from local authorities during my data collection period (February-March, 2015). Main purpose was to understand the politics of ruby mining, its effects and how local people move towards sustainable livelihoods.

Secondary data: I investigated several sources, including books, journals, government and NGO reports, articles and newspapers.

Household surveys: conducting surveys of fifteen households in each village (forty-five surveys in total) enabled me to interpret broader household data, like income, the number of family members, debt, expenditure, educational status, health care and basic villager information

Key informant interview: the purpose here was to find out more on the history of ruby mining and on mining processes in general, to find answers on who benefits and who is dispossessed. Of those who had lost their land, I wanted to know if any compensation was provided. I was hoping that these interviews would give me deeper insights. I had organized 5 key informant interviews. In this regard, I had to select people who know the most about ruby mining, people who work for the mining companies and who work in the mines and ruby trading experts. Additionally, I was also very excited to have one or two people as my key informants who had never been involved in the ruby business. In my view, this type of comparative data could highlight differences in food security and sustainable livelihoods for different situations within the same community. A local guide helped me to get access to both the community and local authorities. Also, religious leaders in each village were also part of my priority group being insiders. The Kachin (Christian believers) show deep respect for their spiritual leaders (Pastors) who are often among the most educated people in their villages, especially in remote areas like my research sites.

Case studies: I selected two individuals from different families and from each village, in total six case studies. Main selection criterion was, to be either a very successful miner in the past, either a miner who just started in the ruby business, either to be an active ruby trader. These interviews turned out very positive, were in depth, and some went unstructured as well. I tried not only to collect data from people who had been very successful in ruby mining but I also had several opportunities to interview local ruby traders.

Focus group interview: here men and women participated equally. Even though women are not much involved in ruby mining, they are the majority on the local ruby market, as they have the quality to be patient during bargaining. I had at least a group of five interviewees from each village.

### *Data Analysis*

Data has been processed by inductive analysis. All data has been analyzed, explained and discussed based on the main questions and within a conceptual framework. Based on my findings, I carried out quantitative and qualitative analysis. For the in depth interviews and focus group discussions. Narrative analysis was applied as understanding each key informant's story, their sustainable livelihood and adaptation strategies truly matters. Both semi-structured and unstructured questions were used in my research.

My voice recorder registered every interview since most of the time I was working alone. Interviews had to be written down in my notebook by hand, as there was no power to charge a laptop. After fieldwork, I spent literally a full month writing down by hand all data.

### *Observation and Field Notes*

The active participant observation method has been useful to collect data and to obtain solid information from local people. I always have been in favor of field observation and hoped that also this time useful findings would be gathered. Simply by observation, we can learn many things. Sometimes we do not need to ask an informant what is actually going on, as we clearly come to understand by observation. It also helps us to see the actual range and depth of a situation and give us ways to build a good rapport with an informant. Building rapport is crucial in collection data, as people may not feel comfortable to tell you their stories. I am aware that I need to be close to them and be trustworthy, so that they will trust me as a researcher and I will get accurate field data. These skills grow while building rapport with your informants.

Much attention went to taking notes, photographs, making recordings (when the situation allowed) and spending time with key informants and participants was well-planned. Whenever possible, I participated in ruby mining activities, farming and anything else related to secure their livelihood.

## **Thesis Structure**

This paper contains six chapters. The first chapter describes research background information, statement and justification, followed by research questions and objectives while outlining the methodology, research site, analysis level, data collection methods, data analysis, general observations and field notes. This as context and to provide a parameter scope.

In the second chapter, literature reviews on theories, concepts and related studies are divided into four groups. The section on theories and concepts touches upon three main ideas; accumulation by dispossession, development by government and sustainable livelihood strategies. A conceptual framework is presented at the end.

The next chapter tells the history of the original Mogok inhabitants and details ruby mining practices such as ruby trade and pricing. Finally, I analyze the livelihood insecurities and environmental risks associated with large-scale ruby mining.

Chapter four goes in-depth on large-scale ruby mining in Mogok, post-war, after Burmese nationalization, the impact of the ceasefire agreements and US trade agreements.

Local livelihood insecurity and sustainable livelihood strategies are described in chapter five. I cover shifting cultivation, paddy farming, livestock, wood and bamboo logging, I have a look at migration as an alternative livelihood strategy, migrant remittance is examined as an aspect of sustainable livelihood development, as well as livelihood insecurity in the gem polishing business and gold mining, another livelihood alternative.

In the last chapter major findings are discussed and recommendations are being made.

I also would like to mention that the interviews were mostly conducted in Kachin language with some parts in Burmese which shows that the research area is predominantly Kachin. Translation into English consequently might lack some linguistic nuance.

## Chapter 2

# Literature Review

Throughout this study I rely on three concepts to show how ruby mining has led to a new economic era of capitalism:

1. Accumulation by dispossession as a conceptual tool to investigate and analyze the political and economic context of mining claims.
2. Government intervention or 'governmentality' as a window to understand the methods by the state to convince local people to accept mining claims.
3. Sustainable livelihood strategies as an option to look into the social context and everyday life of local people coping a dominant power.

I use the concept of accumulation by dispossession to study the impact of dispossession of natural resources on local residents and whether they financially gain or lose. Accumulation seems to be achieved by a privileged elite whom ownership of natural resources is transferred to, whereas local residents are denied rights to access natural resources.

Over many years local villagers had been mining peacefully as main occupation (Deleon, 2007). When the military government authorized foreign and domestic investments to enter the region, joint-ventures asserted every mine claim. This kind of state controlled mining victimized local people, Government policy and its implementation will be the second key concept illustrated.

The third key concept describes the changes in livelihood and the influence of mining concessions on sustainable livelihood strategies. To come to a deeper understanding of the adaptations in villagers' livelihood strategies, I implement the Sustainable Livelihood Approach (SLA).

## **Accumulation by Dispossession**

Mining claims can be seen as a form of wealth accumulation by dispossession under a neoliberal regime. Therefore, to analyze mining claims, I would like to implement Harvey's concept of accumulation by dispossession, which renews Marx's notion of primitive accumulation (Harvey, 2003).

Harvey says: "Since it seems peculiar to call an ongoing process primitive or original, I shall substitute these terms by the concept of accumulation by dispossession." It is clear that many western nations implement neoliberal capitalist policies to centralize wealth and/or land by dispossessing original land owners (Glasman, 2006). Also according to Harvey, the process of accumulation is the reinvestment of surpluses generated through a capitalist mode of production. Primitive accumulation is the starting point of the capitalist mode of production, precedes capital accumulation and clears the way for an independent, capitalist system.

In Marx' Capital, the concept of original accumulation might mean either original or primitive as in German the word *ursprünglich* was used, which has been translated as primitive in the English version (Perelman, 2010). Therefore, semantics can be debated. Marx defines primitive accumulation as a process which creates opportunities for capitalism and takes away the options for people to create a livelihood off the land (Marx, 1867). As an example, he describes a century-long process of state repression which forced English peasants off their land into wage labor setting up some essential conditions required for capital accumulation.

Harvey interprets a more contemporary version of "accumulation by dispossession" whereby neoliberal capitalistic policies tend to centralize power and land. Privatization of assets is a method to transfer ownership from publicly owned agencies to private individuals who can turn property into profit. Harvey stated that accumulation by dispossession will not end as long as capital accumulation exists.

Lazar's point of view on accumulation by dispossession (Lazar, 2011) is the release of assets (including labor power) at very low (and even zero) cost. In Marx' context of primitive accumulation, this entails confiscating land, expelling the resident population and thus creating a landless proletariat. Then place this land under private ownership. Privatization, in recent years, opened up vast fields for over-accumulated capital to seize upon (Harvey, 2003)

According to Gomez (Gomez, 2012), Harvey's accumulation by dispossession refers to Marx's idea of primitive or original accumulation, which remains still active, even in the 21<sup>st</sup> century, and can be witnessed in Mogok society. Accumulation by dispossession is the process by which the state, usually backed by the international financial and other powerful institutions, strips the public of their land and property.

Accumulation by dispossession comes in many forms, like the transfer of common, collective and state property into exclusive property rights. For example, colonial, semi-colonial, neocolonial and imperial appropriation of assets and natural resources and the suppression of alternatives to the capitalistic use of human and natural resources. Marx describes this phenomenon as a social process whereby subsistence and production are transformed into private capital and the immediate producers into wage labors.

The transition to capitalism beholds many consequences such as land appropriation, claims and other types of resource reallocation to private individuals or the state. For example, in Cameroon, western law allowed the colonial administration to secure access to natural resources by transforming customary pooled resources into state property, which has led to an unequal repartition of property rights allowing capitalist accumulation through the dispossession of local communities (Harvey, 2003). A Western type of property regime is indeed central in the functioning of capitalism by standardizing and enforcing the economic system. By fixing the economic potential of resources in order to allow credit and contract, it protects property and transactions (Heinsohn & Steiger, 2003)

Marx' concept of primitive accumulation extends beyond the immediate process of dispossession. He identifies colonialism, the exploitation and murder of indigenous people, slavery, and the mechanisms of public debt as key moments in the process of primitive accumulation (Negi & Auerbach, 2009),

which formed the essential foundation for the development of capitalist production in Europe.

Privatization and commodification of public assets are among the most criticized and disputed aspects of neoliberalism. This process of transferring property from public to private ownership serve, according to Marxist theory, the interests of the capitalist class or bourgeoisie, as it moves power from the nation's governments to a few private parties. At the same time, privatization generates profit for the capitalist class: they can then sell or put for rent what used to be commonly owned, or use it as capital to generate more capital.

## **Development as Governmentality**

Governmentality is how governing bodies are perceived and the different mentalities towards a government and was designed to form a mid-range explanatory level between the history of political philosophy and the empirical study of social relations. The consequence of this kind of explanatory strategy has been the reduction of politics to a mentality of rule.' The lack of attention to social relations occurs by epistemological design, not by accident (Weir, O'Malley, & Clifford, 2006).

Foucault divides the concept of governmentality into three levels. First, the institutions, procedures, analyses and reflections, calculations and tactics which allow the exercise of power over the target population. The political economy is governed through extensive knowledge with the security apparatus as its essential, technical instrument. Second, the line of force that has settled for a long time throughout the West, which has led to the preeminence of sovereign power. This requires a discipline in the use of power that we could call "government" and through the development of a series of governmental apparatuses and reinforced series of knowledge. Foucault's third level refers to understanding the process, or rather, the result of the process whereby the state of justice became accepted. The concept of justice became the administrative state in the fifteenth and sixteenth centuries and was gradually governmentalized (Lemke, 2002) According to Dean (Dean, 1999) governmentality can describe the emergence of a government that acknowledges that the goal of governing power is to optimize, use and foster individuals as members of a population.

The concept of governmentality demonstrates Foucault's hypothesis on the reciprocal constitution of power techniques and forms of knowledge. The

semantic linking of governing and modes of thought indicates that it is not possible to study the technologies of power without an analysis of the political rationality underpinning them. In other words, there are two sides to governmentality (at certain points Foucault also speaks of the art of government. First, the term pinpoints a specific form of representation; government defines a discursive field wherein exercising power is rationalized. This occurs by the delineation of concepts, the specification of objects and borders, the provision of arguments and justifications. In this manner, governments enable the solution to problems and offer certain strategies for solving/handling the problem (Lemke, 2001).

Ferguson and Gupta (Ferguson & Gupta, 2002) see governmentality as a form of power exercised over populations. "Governmentality does not necessarily identify a negative relationship of power, or one characterized entirely by discipline and regulation; rather, the emphasis is on its productive dimension. Governmentality is discussed by Foucault in the study of the autonomous individual's capacity for self-control and how this is linked to forms of political rule and economic exploitation (Lemke, 2001). Jose (Jose) acknowledges that Foucault's governmentality was about the specific understandings and practices of those who are empowered to govern, and how they use this power on any given problem of political rule. As I mentioned before, the concept of governmentality was designed to form a mid-range explanatory level between political philosophy social relations. The consequence of this kind of explanation has been the reduction of politics to a mentality of rule. The lack of attention to social relations occurs by epistemological design, not by accident.

In this section, I would also like to introduce the Burmese state transformation as an indication of a regime of accumulation. After the 1988 coup, the military regime officially left behind the socialist era, a state-controlled economic system, and announced that a market-based economy would be introduced in order to improve the economic situation. However, in reality the economy remains highly controlled by the state (Bertelman's Stiftung's Transformation Index, 2014). Since 1989, the junta has initiated a series of privatizations, including a large-scale privatization from 2009 to 2010, when over 300 enterprises, including major airlines, ports, mines, factories, hotels, cinemas, gas stations, land and buildings were privatized. Unfortunately, most formerly state-owned properties have been directly transferred into the hands

of the regime's cronies or the military conglomerates that continue to monopolize the economy.

Development itself is one of the technologies of a government which intends to create development with the purpose to improve the population's wellbeing and this can be done by attracting foreign investors and companies. This way, economic growth can be achieved. Nevertheless, unintended consequences can also occur. As the government opens the market, not everyone will benefit: some will gain, others will be disadvantaged. According to Kemman (Kemman, 2010), development can be seen as a form of governmentality as it requires direction of the perception how the population experiences the development.

The Kachin and other ethnicities in Mogok are denied rights to access land for mining. They do not have power and capital to make the state and local authorities listen. According to Hall et al. (Hall, 2012), exclusion is a condition that tends to denote a large number of people who lack access to land or in which land is taken away or controlled as private property. In some cases, the process of large-scale and violent actions is also involved whereby poor people are crushed by powerful actors.

Implementing the concept of governmentality on mining issues helps to get a better understanding why mining development is such a contested. Development happens at the intersection between local and governmental interests. Local residents in Mogok prefer traditional mining and do not want large-scale mining, whereas the Government supports corporate, mechanized mining. Governmentality is the art of governing as a response to increasing pressure on the government to deal with ever growing numbers of individuals (Sturup, 2009).

## **Power of Exclusion**

"Exclusion is not a random process, nor does it occur on a level playing field. It is structured by power relations. Exclusion creates both security and insecurity" (Hall, 2012)

Many scholars however interpret exclusion in a way that seems closer to the concept of private property. Thomas Sikor and Ngoc Thanh (Sikor & Tran Ngoc, 2007) describe exclusion as an alternative inclusive policy and

involves customary rights and the creation of governance forms that include all actors. They think that, due to limited explanation of what they mean by exclusion, the view of exclusion can be misunderstood. For example, in the Buhera Communal Areas in Zimbabwe, according to Chitotombe (Chitotombe, 2012), traditional leaders are the ones who can manage land and have decision power over anything related to environmental issues and resource management. But my findings, show that Monks and the traditional leaders in Mogok are not positioned to take control of resources for mining. The state and mining companies are the main actors here.

Access is defined as the ability to benefit from things and the theory of access includes property, by which benefits may be obtained from natural resources (Ribot & Peluso, 2003). Access is a double-edged sword in the sense that one actor's access is another actor's exclusion (Hall, 2012). With the right to access natural resources, actors commonly spend resources to gain or maintain access and thereby exclude others from these benefits.

According to Barney (Barney, 2012), there are four types of power when discussing the power of exclusion;

1. Regulation is one form of power that includes legal and informal rules. Without proper rules or rules that are not formally legalized, some people can abuse their powers and exclude others.
2. Compulsive force can generate violence and can be seen as a power of exclusion with violence abused by the powerful.
3. The market can be seen as a power of exclusion as prices of goods and services respond to the world economy and/or can be manipulated by powerful actors.
4. Providing legitimacy, such as gender issues.

I have been observing Burma's transition to capitalism along with land appropriation by large private owners and even the state through different kinds of enclosure movements. Local people are being marginalized by the government's mining policies. They have been relying on natural resources as their main occupation for sustainable livelihoods for so long, but the arrival of market economy policies and land claims has significantly altered their livelihood. The move to a capitalist economy, mining ownerships transfers and the arrival of a concession regime is the focus of this research. Finding out who

has been excluded and by which powers provides a clear insight into the Burmese mechanisms to move towards a market economy.

## **Sustainable Livelihoods as a Coping Strategy**

A livelihood comprises people, their capabilities and their means of living, including food, income and assets. Tangible assets are resources and physical stores, whereas intangible here refers to claims and right to access. A livelihood is environmentally sustainable when it maintains or enhances the local and global assets which livelihoods depend on, and has net beneficial effects on other livelihoods. A livelihood is socially sustained if it can cope with and recover from stress and shocks, and provide resources for future generations (Chambers, 1991).

According to Chambers (Chambers, 1995) livelihood perspective starts with how different people in different places live. A variety of definitions are offered. For example, the means of gaining a living and a combination of the resources used and the activities undertaken in order to live.

Scoones (Scoones, 2009) expresses that in the past decade the perspective on livelihood was central to rural development thinking and practices. The SLA concept is an integrated development method, which brings individual approaches together to achieve sustainable development and involves an assessment of community assets, adaptive strategies and technologies all contributing to livelihood systems and the analysis of cross-sectored policies and investment requirements to enhance livelihoods (IISD, n.d)<sup>2</sup>.

SLA, according to the International Fund for Agricultural Development (IFAD, n.d.), is a way to improve understanding of the livelihoods of poor people. It draws on the main factors that affect poor people's livelihoods and its inter-relations and can be used for the planning of new development activities and the assessment of the contribution that existing activities have made to sustain livelihood. The sustainable livelihood idea was first introduced by the Brundtland Commission on Environment and Development as a way of linking socio-economic and ecological considerations in a cohesive, policy-relevant structure (Krantz, 2015) However, the SLA concept was introduced by Chambers and Conway in 1991. According to Chambers and Conway (Chambers, 1992), the SLA concept acknowledges that it was both reacting

against and building on earlier thinking, while criticizing many previous analyses of production, employment and income which do not fit or capture the complex and diverse realities of most rural life (Solesbury, 2003).

Understanding livelihood has been central to rural development thinking and practices, but where do such ideas come from and how do they influence peoples' daily life? Scoones (Scoones, 2009) stated that such perspectives come from economists rather than rural development generalists and field-based administrators. Due to foreign investment and development projects people's lives have been transformed through their survival skills, causing changes in their social and cultural aspects of their life. Unplanned changes can destroy traditions and cultural observations that have been practiced for generations and can affect livelihood security.

Livelihood strategies are the combination of activities that people choose to undertake in order to achieve their livelihood goals. They include productive activities, investment strategies and reproductive choices. Livelihood approaches try to understand the strategies and the factors behind people's decisions; to reinforce the positive aspects of these strategies and tend to prevent against constraints (ELDIS, n.d.). People are often forced to compete for limited resources: fundamental to livelihood approaches is the principle that development support aims at improving livelihood strategies while some should not disadvantage others now or in the future. A social protection program can support the extreme poor to achieve their own positive livelihood outcomes in cases where they are unable to compete with those with greater access to assets. Livelihood is shaped by a multitude of different forces and factors that are themselves constantly shifting. People-centered analysis is most likely to begin with simultaneous investigation of people's assets, their objectives (the livelihood outcomes which they are seeking). And the livelihood strategies which they adopt to achieve these objectives.

Important feedback is likely between: (a) transforming structures and process and the vulnerability context and (b) livelihood outcomes and livelihood assets. There are other feedback relationships that affect livelihoods. For example, when people feel less vulnerable (Livelihood Outcome), they frequently choose to have fewer children.

The concept of sustainable livelihood was an important element in the new Labor Administration's 1997 white paper on International Development

(Solesbury, 2003). A sustainable livelihood is commonly accepted as comprising the capabilities, assets (including both material and social resources) for a means of living. Livelihood refers to the means of gaining a living, including livelihood capabilities, tangible assets, such as stores and resources, and intangible assets, such as claims and access (Chambers, 1992). A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resources base (Carney, 1999).

Livelihood is never just a matter of finding or making shelter, transacting money, getting food on the family table or to exchange at the marketplace. It is equally a matter of ownership, the circulation of information, management of skills and relationships and the affirmation of personal significance and group identity. The tasks of meeting obligations of security, identity and status and organizing time are as crucial to livelihood as bread and shelter (De Haan & Zoomers, 2005). Following Blaikie (Blaikie, Cannon, Davis, Ian, & Wisner, 1994) 1994, people need five vital resources of capital in order to achieve a sustainable livelihood, these are; human, natural, physical, financial and social capital. De Haan (De Haan & Zoomers, 2005) states that access problems are believed to be the key issue in conceptualization of livelihood and unraveling poverty.

## Reviews of Relevant Research

To help understanding livelihood options when mining concessions are granted, I'd like to share three comparable cases, and start with a case study of the Newmont Ghana's Ahafo South Gold mining project which reveals the impact of mining both large-scale and artisanal on the livelihoods of the local communities including the coping mechanisms and livelihood strategies adopted to minimize adverse impacts.

According to Yaro (Yaro, 2010), the state benefits from royalties, revenues and taxes which are used to fund development projects. Nevertheless, local people have not been included in these benefits while gold mining is undeniably accountable for negative, social and environmental issues. The adoption of livelihood strategies, coping mechanisms is therefore key to the construction of livelihoods and livelihood outcomes within an ever changing social, institutional, political, economic and environmental context where people strive to make a living (Ellis, 2005).

Very relevant is the Ahafo South Mine Project in the Brong Ahafo Region (BAR) in Ghana. The claim was granted by the Ghanaian government in 2003 and a foreign investment agreement was signed between the government and Newmont Mining Company which started gold production in early 2006 with two pits, Apensu and Subika, and later developed the Awonsu and Amoma pits in March 2008 and July 2010 respectively (Yaro, 2010). The impact has been tremendous: rising unemployment among the youth, inadequate housing, destabilized families, a high rate of school drop-outs and an enormous displacement in 14 communities (Adjei, 2007). Many migrated searching for farmland, others were relocated or resettled by the mining companies. The destruction of a social organization caused livelihood insecurity. Neither do these mining projects create new jobs. Farmland was reduced and the fall in produce led to high food prices. Before, the farmers cultivated their land and were happy. Now, they are forced into wage labor, and as there were not enough jobs available, livelihood insecurity increased. Local villagers have never been consulted.

Another example is the Myit Sone Dam, in Kachin State. The Ministry of Electric Power No. 1 (MOEP 1) and China Power Investment (CPI) joint ventured in 2007 (Burma River Network, 2011). Asia World Company, a Burmese conglomerate was also involved. The government is only interested in economic growth and so far no social or environmental assessment have been made. Land has been confiscated without compensation, and a resettlement to Myo Thit was forced upon.

Myit Sone is the area where the Ayeyarwady River flows to the southern part of the country and is a major livelihood source of the country providing fish, boat transportation, water for agricultural work and clean water. The river forms the Ayeyarwady delta, also called the rice bowl of Myanmar as lots of rice is grown here. A dam would be devastating, destroying the birthplace of the mighty Ayeyarwady River and its cultural heartland. Planned construction in an area of ecological diversity, ethnic tensions and seismic activity, as well as the expected relocation of another 15,000 people, has sparked grassroots opposition (The Guardian, 2011).

The Myit Sone Dam is one of around 300 overseas dam projects in 78 countries which Chinese dam builders and banks are involved in, one of seven hydroelectric projects on the upper Ayeyarwady River, and the first dam on

the mainstream Ayeyarwady. 90% of electricity is supposed to be exported to China (Kyi, 2012). Construction started recently.

The physical and livelihood displacement will lead to unemployment, homelessness, marginalization, food insecurity, increased morbidity, loss of common resources, social and cultural resilience (Kachin Development Networking Group, 2007). Some locals may seek farming land in forested areas, putting a strain on the environment. Others may migrate to mining areas, aggravating the local problems due to drug use, HIV and gambling. The outflow of migrants from Kachin state to China and Thailand is happening at this moment due to the Myit Sone project.

## **Conceptual Framework**

To highlight the impact on local livelihood, I tend to look at state initiatives in regard to natural resources from a holistic perspective. And to examine the situation of corporate ruby mining in Mogok, I observe accumulation rather from a development point of view.

As soon as foreign investors arrived in the region, local people have been dispossessed. Not everyone benefits from state-introduced investments and when economic decision making depends on a small group, the flow of development can be really crucial. I implement the concept of development as governmentality to observe what is really happening at ground level within the context of ruby mining in Mogok.

The concept of sustainable livelihood strategies is to analyze local adaptation to a new economic reality. At the same time, this paper touches upon to the nature of ruby mining and the effect on young people. Two issues in particular deeply fascinate me. Firstly, how have the local community's sustainable livelihood strategies changed? And secondly, which was their response? Additionally, the concept of accumulation by dispossession will be valuable to scrutinize the political and economic context of the mining claim procedures in Mogok. Also this concept will serve to demonstrate the centralization of wealth and power, which means the transfer of property from public ownership to private ownership, state policies as external factors that have changed the livelihoods of the local community.

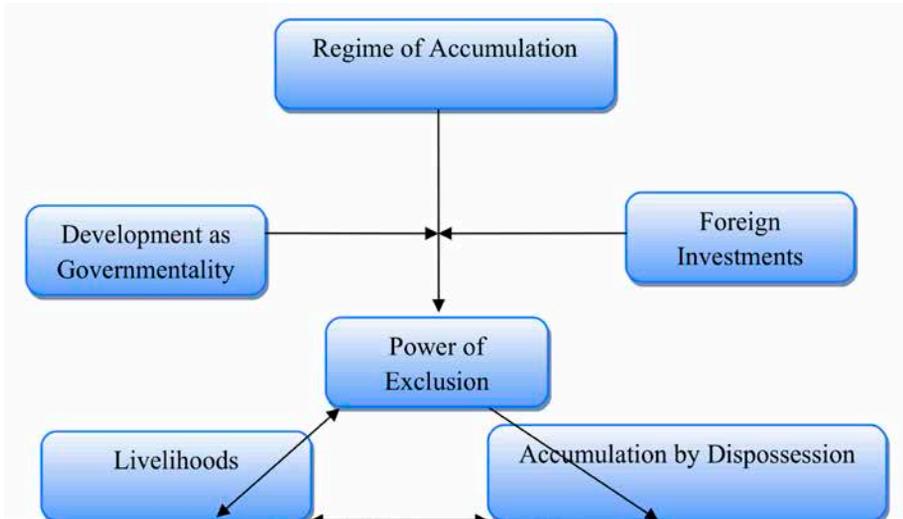


Figure 3: Conceptual Framework

## Summary

Valuable concepts, theories and relevant studies in Ghana and Myanmar were touched upon. Crucial for this paper is the concept of accumulation by dispossession which shows the tendencies of policies to centralize wealth by dispossessing others and to gain benefits from the poor.



## Chapter 3

# History of Mogok and Ruby Mining Practices

The etymology of the word Mogok is uncertain. According to Maung (Maung, 2010), most likely one of following four explanations is correct. The name Mogok originates from Shan language and is derived from *Mein Kut*. *Mein* meaning town, *Kut* meaning curve as Mogok was built along a curve.

Another explanation also refers to Shan Language: *Mein Kupa*. *Kupa* means bamboo hat as the town was located in a pan-shaped valley resembling a bamboo hat shape. Over the years *Mein Kupa* changed into Mogok. A third interpretation is that Mogok is derived from the word *Mein Kat*, also Shan Language. *Kat* means chilly due to the cold winters in Mogok. Fourth and last, when the Shan people arrived in the area, they noticed that, being surrounded by the mountains, the sun sets earlier in Mogok, so the town was named *Moe Choke* which literally means a town that darkens earlier.

Regardless of the origin of its name, Mogok has a long history of mining rubies. In the past ruby mining was very easy as people could start mining randomly and did not have to worry much about the next day. They seemed to enjoy mining which was considered very common work. Rubies were sold on the market and often one day of work could cover the cost for food a whole week long. Therefore, people were not very serious about ruby mining as little work provided a more than decent income.

During the British era, ruby mining was done freely and without any control. During the early years after the Second World War, and with the support of the government, no place on the planet had more fine rubies being scraped from the soil as in Mogok.

In ancient times, mining claims were either owned by the Burmese King or privately owned (Maung, 2010). Supervisors in the King's mines were directly appointed by the King and mining workers were locals. Privately owned enterprises were allowed to work freely, but when an oversized ruby (according to the King's guidelines) was found, the ruby had to be reported and shown to the royal ruby supervisors first. Experts could put a price tag and the worker who found the stone, received a reward. Under King Mindon a ruby exceeding 500 kyat had to be offered to the King. Lower valued gems could be sold freely (Maung, 2010).

Mogok mining terminology is very particular. *Paw lan* refers to the owner or the boss of the mining company, his wife is called *mei lan* and the workers *thwin thar*. In some cases, when the owner is a woman, she still will be addressed as *mei lan*. These titles are shown respect and originate from the time when the Anti-Fascist People's Freedom League government issued special mining licenses.

Local residents know where gems can be found. Therefore, they work with people who have money and who are interested in mining (a future *paw lan* or *mei lan*). In case of failure, expenses are on behalf of the owner, and when the *thwin thar* would succeed in finding gems, they receive thirty percent of profits. *Thwin thar* share their profit equally among each other.

This collaboration between *paw lan* and *thwin thar* seemed to be working well, but cases have been reported where the *paw lan* did not share profits with the *thwin thar*. Also some *thwin thar* have been accused of stealing and selling rubies.

One miner told me a story about what happened when the *paw lan* did not share profits due to stealing:

We were 40 *thwin thar* working together, rotating in three shifts, we needed to operate 24/7 as we used big and expensive machines and the *paw lan* wanted to find out as soon as possible whether or not gems could be found. One day, we

got a big ruby, about twenty carats, which we thought would be valued around a billion so we were very happy. Waiting for the day to share the profit, bad news came our way as our manager had decided not to share with anyone because one *thwin thar* had stolen one ruby. All *thwin thar* got mad and went looking for the thief while others got angry with the *paw lan*. In the end we still ended up empty-handed. So I quit and went to Maing Shu for new mining opportunities (key informant 5, interview, 19 February, 2015).

## The Original Inhabitants of Mogok

According to Hughes (2013), the Shan settled in the 6th century AD. Over time, several other ethnic groups joined the area. It still is very controversial to talk about who the first inhabitants of Mogok were. Both the Lisu and the Shan claim they were first. Nevertheless, many ethnicities reside in Mogok happily doing ruby business.

According to Bradley (2005), the Lisu people are just under a million, 600,000 inhabit southwest China, about 300,000 live in northeastern Myanmar, about 40,000 in northern Thailand and a small number of 1,200 stay in India. However, Si Thu (Si, 2015) states that about 500,000 of 700,000 Lisu live in Mogok. My research area concentrates on three villages where many Lisu are living together with other ethnic groups (the majority is Kachin). The Lisu people are considered to be a Kachin subgroup (Si, 2015), but many Lisu in Mogok will reject that. As a result, it is a sensitive and politically colored relationship between the Kachin and Lisu. Not every Lisu knows or worries about this, but Lisu in Kachin state seem to be more sensitive to this issue. They are Christian and few of them still practice animism.

The Kachin people gradually converted to Christianity and at the public conference in Myitkyina in 2000, 99% of all Kachin are estimated to be Christian (a local old man, interview, 2015).

The Chinese were the first foreigners who discovered Mogok rubies. From the 13rd century, they came to Banmaw, Moe Meik and Mogok and exchanged their belongings for rubies. However, the first person to provide evidence to the Western world about Mogok rubies was the Italian D. Conti in 1435.

## Traditional Ruby Mining Practices Explained

In order to make this paper more understandable, I'd like to explain some local mining terms which are likely to be either Burmese or Kachin.

Before the confiscation of land under General Ne Win, Mogok ruby mining was only done under the form of *myay twin*. In Burmese *myay* means soil and *twin* means mining site. *Mya twin* implies that mining only happens in the soil.

A group of miners usually is made of three to eight people and they use traditional self-made tools. These traditional practices of mining methods are; (1) *myay twin* (2) *lu twin* (3) *twin lone* (4) *lay pyin twin* (5) *ko pyin twin*, (6) Quarrying (tunneling inside the stone layer) and (7) *inn bye twin*. These terms, mostly Burmese, will only be understood by those familiar with ruby mining. As I mentioned, *twin* in Burmese refers to a ruby mining site, or more simply, the big holes in the ground created to practice mining, whereas *chyin* is the word for holes serving different purposes such as a toilet, a well and garbage.

<i>twin lone</i> (pit)	Mining alluvial sediment in the valleys	2-3 men enter a small round shaft (3-24 m deep) straight down to a <i>byon</i> (gem bearing gravel). Soil is hauled up using a counterweight or hand- cranked winch.
<i>myaw twin</i>	Excavating hillside surface deposits	A pressurized water stream is directed to the upper part of a hillside cut, sweeping away mud and lighter material. Heavier gem-bearing material can then easily be scooped and carried away to a nearby washing site.
<i>lu twin</i> (cave system)	Extracting gem-bearing earth in limestone caves	Hillside tunnels are excavated along <i>byon</i> veins towards limestone caverns formed by dissolved rock impurities. These caverns are often filled with deep <i>byon</i> layers.
Quarrying (Tunneling)	Tunneling directly into host rock to extract stones	Dynamite and more modern blasting methods are used to extract both ruby and sapphire from hard rock deposits.

Table 1: Traditional Mining Methods in Mogok, adapted from Hughes (1997: 324-327)

A *myaw twin* is a traditional mine where hillside surface deposits are excavated. A pressurized water stream is pointed at the upper end of an open hillside cutting sweeping away mud and lighter materials to the effect that the heavier gem-bearing material easily can be scooped and carried to a suitable site for washing. This method demands lots of water and the availability of a free water flow. Water can be taken from a small stream nearby the mining site or by a bamboo pipe construction for longer distances. The *myaw twin* is a type of open pit mine where water is brought in via channels. In contrast to a *twin lone*, a traditional *myaw twin* is usually used during rainy season. A modern *myaw twin* is equipped with water cannons and modern separation jigs (Hughes, 2013). During sweeping there is a squared shape hole which filters heavy things such as stones. Among all stones, ruby is the heaviest in weight and, thus, will be stopped. Later, when all mud has been swept away, miners can carefully look for rubies.



Figure 4: *Gye twin* mining site in Mogok

At a *lu twin* mine gem-bearing earth is extracted from limestone caves. Using a variety of hand-held tools, tunnels are excavated following layers, called *byon*, formed by the dissolution of rock impurities by minerals in ground water. These limestone caverns are often filled with deep layers of *byon* which are hauled out to the surface for washing. The appearance of a *lu twin* resembles

a cave between rocks and is dangerous. Miners have to use candle lights to get to the *byon*. Another local term for this method is called *lu twin let ja neik* meaning hand gets inside of the cave to grab *byon*. Miners literally search underground limestone caverns which can be small crevices or deep caves spanning hundreds of meters containing some of the richest *byon*. As miners must crawl through cramped spaces and risk cave-ins to retrieve the *byon*, this is hazardous and actually the most dangerous type of mining due to extremely wet and slippery rocks, but it is also the most rewarding, as, when a pocket of *byon* is found, it can hold an extremely high concentration of gems.

*Twin lone* is a method to mine soft alluvial earth in a valley. Three men descend into a small round shaft (3 to 24 m deep) straight down to the *byon* and a small basket on a long-bamboo pole with a counterweight or a hand cranked winch is used to haul up the earth. Layers of mud, sand and *byon* are removed above the ground. This method is simple but cannot be practiced when the soil is muddy or sandy. Soil has to be hard to avoid landslides. When they reach the gem bearing gravel, traditional methods are used to get the *byon* out to the surface for washing.

*Lay pyin twin* is similar to *twin lone*, with the only difference that *lay pyin twin* covers the *twin* with bamboo, wood and leaves as a protection against landslides. A *lay pin twin* can be seen in soft soil areas. When a gem bearing gravel is found, miners will follow the direction of where the *byon* goes. This is called *khaung tharthu* a Burmese local term which means tunneling in order to get *byon*.

Informant 6 says:

To practice traditional mining, mainly *lay pyin twin*, at least 3 people are required. One person to pull out the sand, another one to pour out water from the *twin* and a third person to dig deeper. In 1967-68 we had to have a permit card. Those permit cards were only issued to local people, outsiders couldn't apply. Locals had to work secretly with people from outside the Mogok area, because, if discovered, they would be fined. I came to Mogok in 1962. At that time, *thanaing thapaing* (small scale) mining was quite popular. We had permits for this kind of mining. Each worker had to hang a visible permit card on his belt, otherwise they could have been arrested by the authorities.

The pictures below were taken from the book “World Famous Ruby Land by Maung Tun Oo” second edition 2010. According to the author, Mogok was part of the Katha District during the 1960s.



Figure 5: Permit Card for Small-Scale Mining (*thanaing thapaing*)

Informant 4 said:

I was a very successful ruby miner, even though at first I did not come to Mogok for mining. My brother asked me to join but I was already working in “Yamethin” where gold mining was popular at that time. It took me four years to realize that more money could be made with ruby mining, so I returned to Mogok. Traditional mining was very hard. We only could proceed slowly on a day by day basis, but still many people were really successful in mining. When the Burmese government nationalized all natural resources, and every mining site, we were shut down. This did not last long and mining restarted after a short period. This was our main source of livelihood at that time.

The concept of *thanaing thapaing* was to allow local people to mine wherever possible on the only condition that a work permit card had been obtained. Once a year the authorities visited the mining sites to check work permits. The government’s purpose was to collect taxes. It was a time when local residents could mine easily.

*Ko pyin twin* is very similar to *lay pyin twin*, but larger with more than double the amount of wood and bamboo. Subsequently, it is more expensive and safer than *lay pyin twin*.

*Kanese*, Burmese for free washing, is a local term for daily, traditional ruby mining and is one of the most basic and popular mining methods in Mogok by both men and women as well as children. It is not hard work, and with some luck, valuable rubies can be found. *Kanese* is mostly done downstream alongside the river. Some scholars even said that it is a traditional way of allowing people to look for stones which might have slipped through the system. Local ruby buyers—in the local language called *chyauk kongtae*—hang out around the *kanese* sites every day doing business with casual *kanese* miners. In 2008 a new administrative officer in Mogok banned *kanese*.

## Large-Scale mining

Quarrying (tunneling inside the stone layer) is a modern, mechanized form of mining which uses dynamite to blast the rock (however, in the past homemade dynamite has been used to blast rocks and therefore, tunneling can also be considered as a traditional way of mining). Tunneling directly into the host rock is required to extract stones. With alluvial deposits being depleted, this method has become more and more prevalent (Hughes, 2013) and today, quarrying is common. Explosives are often used, but the method causes problems, as blasting damages the gems.

An *inn bye twin* mine might be setup where gravel layers are rather superficial, the area is large and mud, sand and stones must be removed before *byon* can be found. Often water comes out of the soil. In the past, local miners have been using bamboo pipes or other traditional ways to absorb water but nowadays mining companies have machines which save time and easily extract more *byon*.

## Pattamyar Nga Mauk (Nga Mauk Ruby)

Maong Tun Oo (2010) wrote that the legend of Nga Mauk ruby (*Pattamyar Nga Mauk* in local Burmese) cannot be left out in the history of Mogok ruby mining. It tells the story where the name of the Daw Nan Kyi Mountain originates from.

Nga Mauk traveled from the Chindwin region to Mogok to become a farmer. One night he found a large ruby on his farm which he cut into two halves and asked his brother-in-law to sell one half in China. The other half was offered to the King of Pintalai (the King of Ava at that time). The King was delighted and rewarded Nga Mauk with money and gifts. A few years later, the Ming dynasty in China was overthrown and unrest followed (Maung, 2010), causing some Chinese to take refuge in neighboring countries. Among them was the buyer who had bought the other half ruby which he unknowingly offered to the King. The King was very pleased and rewarded the Chinese man with money and gifts.

Soon after, the King realized that this ruby had to be the other half of the original Nga Mauk Ruby. The rules were that every large ruby had to be evaluated by the King's inspectors and taxes had to be collected. The King was furious and ordered to burn Nga Mauk and his relatives alive. The village where the burning took place, is called Alaungsin village since. In Burmese, Alaung means dead body, sin a place where dead bodies are kept before burning. Nga Mauk's elder sister, Daw Nan, could escape in the mountains. When she looked back and witnessed her brother and family being burnt, her heart broke and she died. Ever since, the mountain is called the Daw Nan Kyi mountain (Kyi means to look).

## Current Ruby Mining Business Models in Mogok

After 1994, doing ruby business started changing. Myanmar was developing into an open market economy and companies from all over the country arrived in Mogok. Today there are 500 ruby mine claims in Mogok.

According to informant 5, four different types of ruby mining licenses exist, which all categorize under *phet sat*, Burmese for share. The *ahkyu thu* and *oo paing* licenses involve a share with the MEHL, a group of corporations run by the junta. Every benefit as a result from mining is supposed to be shared with the state and ruby stones can only be sold at the Myanmar Gems Emporium, Nay Pyi Taw. *Tatmat kwat* beholds a mine claim contract between the state and a corporation whereas *hpaw htuk* is a permission for civilians who are allowed to extract gems on their own land. Last, *thanaing thapaing* serves small-scale mining for local residents. Taxes are not so high.

Except for *ahkyu thu* and *oo paing*, miners can sell to anyone. Agreements clearly stipulate that gems first have to be inspected and valued by the Myanmar Gem Enterprise (MGE), a Ministry of Mines (MOM) department. Each stone receives a tax seal which allows selling outside the MGE. To obtain a permit (*phet sat*), companies need to follow certain MGE procedures. *Ahkyu thu* and *oo paing* involves a share with the MEHL, a group of corporations run by the junta. Every benefit resulting from mining is supposed to be shared with the state. Ruby stones can only be sold at the Myanmar Gems Emporium, Ne Pyi Taw.

*Tatmat kwat* beholds a mine claim contract between the state and a corporation. Whereas *tatmat kwat* is meant for organizations, *hpaw htuk* is a model for civilians who are allowed to extract gems on their own land.

*Thanaing thapaing* serves small-scale mining for local residents. Taxes are not so high.

Informant 5 details the procedure: “*phet sat* is a competitive market price system. When we apply for *phet sat* and pay too little, we will lose the license to those who can afford to pay more. A permit lasts three years, once expired, the procedure has to be repeated.”

On June 5, 2011 the Minister of the Mandalay Region came to inspect Mogok and discussed the legalization of *thanaing thapaing*, small-scale mining. A year later, on December 10, 2012, the MOM visited Mogok and guaranteed that traditional mining, including *thanaing thapaing*, would be allowed. Two days later, the Ministry officially authorized *thanaing thapaing*. The objective was:

- To increase Mogok ruby-mining productivity.
- To create more jobs for Mogok local people.
- To promote community development.

Local residents can apply for a permit to mine their own land or other free land. Prohibited are farmland, community forest/protected land, village areas, religious land and buildings, municipal areas, common roads, water resources project sites and registered mining claims. A mining site for *thanaing thapaing* is limited to one acre. Official measurement costs fifty thousand kyat.

## Ruby Trade Traditions

It is very exciting to understand how the ruby market works and what people involved in this business actually do. There are certain social responsibilities, rules and regulations for ruby trade, regardless of the fact whether rubies are polished or not. Mutual respect is crucial, even at the mining sites. Local traders often can only buy raw rubies from local small-scale miners as large-scale mining corporations do not sell to local traders, except raw less valuable rubies.

Informant 4 said about the local ruby market system;

We value our own social responsibilities, developed within our community over the years. In ruby trade, when buyer and seller are bargaining a price, other buyers cannot intervene and try to persuade the seller to sell for a higher price to them. First, the negotiation has to be ended, and if no deal has been made, other sellers can approach the seller. On the other hand, when a buyer finds out that a seller has been presenting a ruby stone to several other buyers without success, the stone automatically devalues. At the same time, exploring the market and showing rubies to a number of buyers before selling can be rewarding. In Mogok, the local ruby market does not stick to one particular place and can take place almost anywhere buyers happen to meet to do business.

Sometimes the market place is set for five years, but then they might move one year later. The reason is that there simply are no specific locations where buyers and sellers gather. Local businessmen visit the mines on-site in order to get the best gems at the best price. As they move and meet each other, the market moves along. It can be next to a tea shop, cinema or near a local vegetable market.

Ruby trade has its own traditions. Informant 9, a local wholesaler, shared a very intriguing story.

It is acceptable to show your rubies to anyone, whom you believe, might give a good price but there is a set of social rules that one has to be aware of. If the buyer is interested and offers

a price, you have to decide whether or not you will sell. If you agree, you can sell immediately, whereas, if you would like to make a better deal and would prefer to reach out to another buyer, you can pack your ruby. Packing translates as *htuk*, a local Burmese term, which means that you will retreat, consider the offer and come back with an answer. Meanwhile you cannot approach another buyer, a highly estimated social rule within the trade community which you cannot break. Once you have made up your mind, the transaction can be completed, or you can inform the potential buyer that you prefer to unpack the stone. Then, the seller is free to consult other buyers.

Some sellers *htuk* their products while they are in touch with other buyers and thus betray the potential buyer, break the social rules. Eventually, the seller will be accused of disrespecting the unwritten trading rules. There is no legal punishment, but this kind of behavior will be condemned, the seller's reputation damaged and most likely he or she will be excluded from certain trading groups.

I had a chance to talk with a man who is doing *kanese* for a living and who shared his opinion on these social rules which he follows as much as possible. He said:

Sometimes it just does not work as we want a better price and some local buyers control the market price. So, we do what we believe is best for ourselves. I have an uncle and some other relatives who are wholesalers, but I rarely show them my gemstones as they try to lower the market price arguing that we are relatives. So, I prefer doing business with someone I do not know or I go to someone I trust.

Once, a fake ruby showed up on the market, introduced by a French trader, very difficult to distinguish from an authentic gem. Therefore, a fake gem is named *pyinthit kyauk*, which literally translates as French gem. Most people in Mogok are familiar with this term.

Tarpalar and cabochon are two methods used to polish ruby. With the latter method the stone is cut and ground in a specific way to catch light and

to enhance reflection. Cabochon is a method used to grind the stone into a round and smooth surface full of luster.

## Major Areas for Mining and Trading

While a variety of stones are found in most deposits, inquiries reveal that certain areas are particularly rich in one or more varieties.

Locality	Varieties
Ah Nauttaw	Good Star rubies
Bawlongeyi	Top Star rubies
Dattaw	Good TP rubies
Ho Mine	Top TP rubies
Inn Gaung	Good Star rubies
Kyauk Sin	Good Fancy spinels
Kyauk Pyatthat	Good Blue sapphires
Lebin Sin	Top TP sapphires
Lin Yaung Chi	Good TP rubies
Mainglong	Tourmaline
On Bin	Top Red spinels, Good Fancy spinels
Pyauung Gaung	Top Peridot
Sakhangyi	Quartz, Topaz
Shw Pyi Aye	Good TP rubies
Sin Kwar	Good Star Blue sapphires
Thurein Taung	Top TP Blue sapphires
Yadana Kaday Kadar	Top Star Blue sapphires, Good TP Blue sapphires

Table 2: Famous Gem Mining Claims in Mogok Region

## Ruby Market and Trade

Some gems are sold unpolished, rough. Others are cut, ground and polished in order to increase the price or show its quality. Most buyers and sellers are Nepalese Gurkha's, brought once by the British to guard the mines, who conduct business in an open area such as a tea shop or any other place where many people gather.

Spending hours in tea shops is not considered a waste of time. People from different backgrounds gather to network. They drink tea while socializing with others, as part of a daily business routine. Tea shops are a place for cultural exchange. Some are looking for jobs, others go there to learn.

During the boom time for companies in Mogok, merchants were popular and included foreign gem entrepreneurs as well. The most extraordinary was a man called Ramsey. He had been to the ruby lands in the past when nobody would buy flawed gems. He bought those flawed gems, polished and sold them in the US. He became rich in a relatively short time (Maung, 2010). Some well-known Burmese merchants: U Kan Gyi, U Kaung, U Kyaw Zan, U Kyar Myint, U Mya, U Myat Htun Oo, U Shwe Hlaing, U Wa, U Thein, U Aw, U Aye Kyaw, and Daw Bwint.

Market	Time	Specialty
Cinema hall area (Kyatspyin)	09:00am - 11:00am, 02:00 pm - 05:00 pm	All kind of gems from the western part of Mogok
Inn Gaung	03:00 pm-06:00 pm (every Friday)	Wide range of rough gems
Lay Oo	07:00 am- 09:00 am	Wide range of rough gems
Minthadar	15:00 pm-06:00 pm	Smaller rough gems
Peik Swe	09:00 am-12:00 pm, 02:00 pm-05:00 pm	Wide range of rough and cut stones, biggest market in the Mogok area, entrance fee required
Cinema Hall (Mogok)	03:00 pm-05:00 pm	Fine gems, meeting place for gem trading as well

**Table 3: Ruby Markets in Mogok Region. Source: [www.ruby-sapphire.com](http://www.ruby-sapphire.com)**

## Ruby Prices and Weight

Ruby prices seem higher now compared to a few years ago. Table 3.3 shows current ruby pricing. Numbers are provided by one of my informants who owns a mine claim nearby “Yeni” village. For over many years, he and his brother are successfully involved in both mining and trading, due to their strong network in Mogok.

Weight (carat)	Value (kyat)	Value (USD)
1 carat	3,000,000	2,700
2 carat	6-8 billion	54,155-90,255
3 carat	2 trillion	180,500
4 carat	3-4 trillion	270,000-360,000
5 carat	8-10 trillion	722,000-900,000

**Table 4: Ruby Pricing in Mogok**

Carat is a unit used to measure gemstones and one carat equals 200mg. There is no fixed pricing, and merchants will only trade, based on trust. If they are not comfortable making deals with someone, the buy is off. Rough stones sell at lower prices than polished gems.

Ruby and sapphire remain the most popular stones in Mogok, prices for sapphire are a little lower than for ruby though. Fifty- to sixty-carat sapphire can be found, rubies are rather small-sized and round in shape.

## Mogok Gemstones Overview

Ruby is the most popular and famous gem in Mogok, a classic and royal gem with the typical color of blood from the rooster's neck and some red color shades ranging from light to deep. According to Maung (Maung, 2010), ruby is classified as below.

Leithiyi	Red like blood of the rooster's neck
Ngashint Thwe	Color like eel's blood.
Kho Thwe	Colored like pigeon's blood (red slightly mixed with blue).
Yon Thwe	Colored like rabbit's blood.
Bombai Nyunt	Red rose color.
Bombai Yi	Pure red color.
Ketthan Ukhun	Light red as the color of an unpeeled onion.
Htonkyauk Yii	Red mixed with white lime
Kyetthi Yi	Brownish red color

**Table 5: Different Appearances Red Ruby, Source: Maung Tun Oo (2010)**

Weight	Description
Hman Thar	Clear, dense and transparent.
Phan Thar	Not as clear as glass, dense, smooth surface.
Phayaung Thar	Not as clear as glass, dense as wax, smooth surface.
Cheik Thar	Opaque, resinous texture.
Phayei Uthar	Light, porous texture.
Sithihemei Thar	Light, colored like a ripe plum.

**Table 6: Classification Ruby Surfaces**



**Figure 6: Polished Ruby at the Trade Market in Mogok**



**Figure 7: Polished Sapphire at the Trade Market in Mogok**

Sapphire is known as the sister of the ruby gemstone, the hardest one (besides ruby) with a wide range in color such as blue, white, yellow, violet, green, gold and pink. White Sapphire is also known as Mogok's diamond coloring white, yellow and green. Alexandrite has a bluish color, with some reds and greens mixed to it. Looking at an alexandrite gem under intense light makes the stone red colored. Heat treatment renders the stone green and blue. Spinel minerals come with a variety of colors: blue, green, brownish red, vermilion, violet and pink, but the preferred color is when it looks like a red ruby.

Lolite is a hard gem like sapphire and is considered a lower grade of sapphire. Garnet, a cheaper gemstone, used to be ubiquitous and could be found at the same places as Lolite. Its colors range from red to brownish red, sometimes mixed with black. Quartz is also called *salin* and appears white, brown, violet, yellow or green. Violet quartz is rather rare. The green peridot or olivine gem can only be found at Pyaunggaung village, therefore called the

*Pyauंगाung Sein*. Sometimes a brown colored or green shaded mixed with yellow peridot can be found.

Topaz usually has a pure white hue or can be mixed with yellow and green. Sometimes people mistake Topaz for quartz as the main differentiator is weight (topaz being heavier). Danburite is a famous and rare gem, comes in yellow, white and green shades and is mined in Pain Pyit village, between Mogok and Moe Meik. Tourmaline resembles spinel and is mostly extracted in Mong Lon and Moe Meik. Apatite comes in green and blue and the surface look like separate stripes.

Some other minerals worth mentioning are lapis lazuli, Mogok pearl, moon stone, *thuyaung* gem, fibrolite, zircon, onyx and Mogok emeralds.

## **Gem Trading Enterprises**

In Mogok, gem trading enterprises are located in gem traditional centers. Traders can be categorized into three groups.

Prime dealers are the top-level merchants who select high quality gems only. According to my research, these entrepreneurs are mainly Chinese and Gurkha, some are Burmese. The second group consists of specialized gem dealers who are considered to be very professional and who visit the claims on-site, including *kanese* sites. Any ruby that they estimate to be potentially profitable, will be bought. Raw gems are bought, polished and resold for high profits.

Last, there are the agents. Their most desirable characteristic is reliability and consistency. Mogok is a small town and everybody knows each other. If an agent is honest and trustworthy, he or she will have a large network. Once trusted, agents can trade higher priced gems. Commission fees can be up to five percent of the trading price.

There is no official regulation, and trading transactions occur in a traditional way. I'd like to outline the main guidelines respected within the trading community. First, false merchandise cannot be traded and when a fake gem unintentionally has been sold, the seller should acknowledge the error and offer compensation, either with another stone or financially. Second, the buyer has to comply with the price agreement. A contract will be signed, wrapped around the gem and sealed. Third, buyers cannot interfere with an

ongoing transaction. Fourth, it is common practice for a buyer to consider the price and consult experts (appraisal). Last, different types of gemstones have a similar appearance. For example, a ruby and a less expensive spinel, both red-colored, can easily be mistaken. It is widely accepted to be the buyer's responsibility to identify the type of stone prior to purchase. In that case, a return of the merchandise will not be accepted.

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### **Livelihood Insecurity and Environmental Risks**

Local traditional miners have been forced to change their daily activities. Some are involved in bamboo and wood logging, others sell bamboo shoots at the markets in Mandalay, activities which contribute to environmental degradation. In Mogok, the timber black market is daily practice now with mainly outsiders enriching themselves by providing short term profit to the locals, a strategy to keep them silent. But this is not viable.

Outsiders are companies, the elite close to the military and relatives of high level government officials. And, whereas the government enforced open mining policies for local people, the reality is that traditional mining has too many barriers and only few local villagers return to traditional mining.

Water pollution caused by the mining industry threatens paddy farming, an essential livelihood. Growing rice requires lots of water derived from the rivers and streams which carry sand, mud and chemicals from the mining sites. As a result, farmers depend on local strategies such as shifting cultivation, logging and gold mining.

To support their families back home, younger generations leave their communities to find jobs elsewhere. Rather uncommon in the past, today migration has become the first option. Statistics show that nowadays two out of four siblings have left the village. According to my study, and as I will describe in detail in Chapter 5, table (5.1), young adults, between twenty to forty, both men and women, move to big cities within Myanmar and abroad while migration remittance plays an important role in current livelihood strategies.

### *Environmental Degradation*

As access to natural resources is restricted, villagers look for other work opportunities like logging (trees, bamboo) and selling bamboo shoots on the daily market. As villagers lack the financial resources to start a proper business, wholesalers who come from outside Mogok, lend money and expect a share of the profit in return.

According to Hsu Mon (Hsu Mon, 2015), after two decades of large-scale mining, awareness among citizens in Mogok about the impact on the environment and their health has significantly increased. The author emphasizes on the consequences of a shortage of fine ruby in the region. One of his interviewees told him: “I have been working here for 25 years and have not seen any of the best rubies here recently. I have received one million kyat for gems but now I earn very little.” (Hsu Mon, 2015).

Informant 7 said:

After 14 years I returned to Mogok and it was really difficult to find the way to my house. I could see my house clearly, but it took fifteen minutes to get there because of the changed landscape. The connecting road changed, the small bridge near my house was gone, one of my aunt's houses which was very close to my house had been moved while many others things showed up. (7th April, 2015, Chiang Mai)

Today, finding gemstones largely depends on luck. Before modern, large-scale operations arrived in Mogok, people could mine easily and with success.

Mining happens anywhere in Mogok, in the town, very close to Buddhist temples and Christian churches, as mining companies and the authorities have no respect for public spaces nor institutions. Compensations are offered by the companies, just enough for people to say yes. Because of mining waste lakes, families cannot settle when companies leave.

Within a few years only, sometimes even within months due to flooding, landslides and mining waste, the environment has drastically changed and Mogok's landscape is not stable anymore.

### *Local Environmental Knowledge*

Locals have always known that deforestation would degrade the environment. Through direct observation, passed on over generations, environmental awareness is part of their culture. This local knowledge, as Corburn mentions, can also include information in a local context or setting, behold knowledge of specific characteristics, circumstances, events, and relationships, as well as important understandings of meaning (Corburn, 2003)

Brosius gives an interesting perspective on what exactly local knowledge is: on one hand, we think of the peasants' voices, farmers, fishers or indigenous people, often living in out-of-the-way-places, frequently marginalized politically and economically. On the other hand, we have the voices of those who are delegated to speak for local or indigenous communities (Brosius, 2004).

Local knowledge has been passed on, grandparents have shared what the consequences of deforestation can be, and locals care for the environment, however, not many other options were available. Some families with farmland had sufficient amounts of rice, but in all three villages where I have been doing research, most families heavily relied on small-scale farming and their main concern was to be able to buy rice.

According to Informant 2:

After my Dad's mining site was taken away and controlled by the state, my life was very difficult. My dad started drinking as my family's economic condition went down to zero and we had to start all over. My Dad did not have a sense of responsibility to feed the family and it was very hard time for him to recover from depression. As the eldest son, I had to step up, replace him and keep our family floating. I dropped out of school and started working for my family because all of my younger brothers and sisters were studying.

Most younger people dropped out of school, worked as waged laborers or did any kind of available work. They all earn very little. To support their families logging often is the only viable solution. This explains why local people got into this business even though they were aware of the environmental impact.

Informant 2 continued:

When we were cutting trees and destroying the forest, we knew this would cause many problems, but at the time we did not have any other option. I started logging in 1997 and still do so today, but to a lesser extent, because I own a paddy farm now. Therefore, I do not need to worry much about my families' food supply. We often talk about the future, exploring alternative ways to sustain our livelihood. But as we all see, until today, a large number of villagers are active in logging while our village cannot improve.

### *Water Pollution*

Water pollution has had a disastrous effect on farming land. Three nearby streams, which originate from Mogok and flow into the Myit Nge River in Thebaw, are extremely polluted and have caused severe health and environmental issues. Locals depend mainly on small streams and rivers for drinking water and hygiene (only a few families boil water before drinking). Water in the streams has a reddish hue to it as it carries sand and mud from the mining sites. Farmlands have been destroyed and cannot be irrigated anymore. Reservoirs are used to filter sand and mud, unfortunately it turns out not be very efficient while increasing the workload.

In 2004 heavy rain caused an extremely fast and huge flood, over 60 percent of farmland in Yeni and Kin villages was destroyed and was covered in mud and sand (Informant 20, a village head, 2015):

It happened during the last week of September when we were about to harvest. The damage was not because of the rain only, there was also the impact of mining in the upstream area (Mogok and Kyappyin). Sand and mud, coming from the mining sites is dumped nearby the stream and during heavy rainfall, polluted sand and mud easily flows into the streams. Eight acres of mine were badly destroyed by the flood just two weeks before harvest time.

Insufficient rice supply for the next rainy season can cause a heavy burden and farmers will have to work harder for their survival.

## Chapter 4

# Mogok Ruby Mine after Burmese Nationalization

### Post-war Ruby Mining

As discussing the ruby industry with local miners is still not without risks, I quickly realized that interactions in an informal context provided more effective data.

In between Yeni, one of my research sites, and Yeni North, a Lisu village, runs a small stream called the *Kapai chaung* (literally, the small stream coming from Kapai), along which many locals had been practicing *kanese* over many years. About twenty years ago, the *Kapai chaung* changed direction towards an area where a large mining claim is located and locals were no longer allowed access. Corporate mining is authorized to alter the natural environment according to their wishes. This is the concept of capitalists partnering with the state.

In the 19<sup>th</sup> century, European powers arrived in Asia, the British conquered Burma and took control of the mining industry (Hughes, 2013). Modern equipment was introduced, infrastructure improved and roads, drainage tunnels and washing plants were built. In 1962, when the government was overthrown by the Burmese junta, foreigners were banned from the mining areas. Soon after, in 1969, the mining industry was nationalized. At that time the companies realized that fine rubies were rare and mining reverted to more traditional methods. For example, Burma Ruby Mines Ltd. had ended their

lease in 1931. After more than three decades, they had learned an important lesson: fine rubies are rare, indeed (Kessel, 1960).

In the past, most mining claims in Mogok were either round *twin lone* or square *lay pyin* sites. Nowadays, these simple pits are rarely seen in Mogok, except in the villages and the hills where large-scale mining cannot take place. Modern mining relies on open cast and quarrying methods.

As mentioned above, capitalists and the state mutually benefit and both parties rely on each other to complete processes. When the claim near the Kapai chaung arrived, seventeen households in Yeni North were asked to move to another location within the village and were offered a seemingly fair price for their land and each year these families are paid a certain amount of money.

At first, these families were happy, not realizing that this company makes huge profits whereas the amount of money were paid, would not last, their land has been destroyed and most likely never will be fertile anymore.

According to Informant 2:

It felt so good for my family, I had sold my house and paddy farm for eight hundred thousand kyat (which was valued around two million kyat). The money is gone now because I bought a TV, DVD player, motorbike, and rebuilt my house. Right now, all I have left is three hundred thousand kyat. This money has to be spent carefully, otherwise, my family will be in trouble. We lost everything.

I have to thank my eldest brother, a pastor in Yeni village, for introducing me to the owner of a mining company, who was willing to answer most of my questions. Nevertheless, it was clear that some things are supposed to be kept confidential, such as his daily expenses. He said: “The reason why I do not answer all your questions is that I do not want to lie to you. And if I would answer, I might have to lie because I cannot tell the truth.”

According to Yenkin and Marciniac (Yenkin & Marciniac, 2012)), the military junta suspiciously monitors the development and sales of natural resources, making sure that all funds flow in their direction and are not invested into the country. As a response, US President George Bush signed, on July 30, 2008, the Tom Lantos Block Burmese JADE (Junta’s Anti-Democratic Efforts) Act which prohibits US import of all Burmese gemstones (Jarrett, n.d).

When we have a look at those who benefit from mining, their connections with the Burmese Government are manifest. The Telegraph (The Telegraph, 2015) claims that all mining joint-ventures are linked to the state-owned Myanmar Gem Enterprise which organizes yearly auctions in Nay Pyi Daw, and according to Weldon (Weldon, 2015), many domestic entrepreneurs attend this event. Traders can connect with foreign buyers, but heavy duties (up to 25%) are imposed on sales, often forcing merchants to look for more lucrative methods such as smuggling.

Informant 5 says:

I arrived in Mogok in 1980 which was a good time for ruby mining. We did not have to worry about permits. But then the SLORC asserted all natural resources and citizens were only allowed to mine in particular areas. Small-scale miners were forced to abandon their claims and those who did not stop mining, were arrested and fined.

Smith (1994) noted that in 1988 the SLORC introduced an “open door” trade policy and new laws were enacted in regard to foreign investment while transitioning to a free market economy. The junta was heavily criticized over the fact that they seemed to prioritize short-term interests over the country’s long term goals. According to Smith (Smith, 1994), the opposition argued that most revenue came from the sales of natural resources. Additionally, the SLORC government was accused of tightening economic control in a country at war while imposing the ideology of the “Burmese way to socialism”.

Myanmar leaders still seem drawn to the supposedly rich natural resources, but it should be clear that countries only can gain competitive advantage by improving technology and work force skills, rather than relying on the richness of natural resources (Smith, 1994).

Even though the SPDC has repealed the section of SLORC Law No.8/94 which stated that a mining company was not liable for harming peoples’ health and livelihood, neither for causing water pollution. However, an adequate compensation has not been worked out and in fact will not happen either. Local people do not have a voice and they are told to leave.

## Gem Mining Processes Since Burmese Nationalization

Ten years before the nationalization of natural resources, a brief democratic era with a parliament and a more stable political situation could be witnessed and locals mined without any restriction. After the coup in 1962, miners were forced to stop, threatened and shot. The process of Burmese nationalization came in immediately after the coup and people were not prepared. Local authorities entered the shops and malls, stock was liquidated and the Tama-wayama was installed for the government to control everything. At first, these shops were well-stocked and the government prided itself on taking care of the people. But soon, supply of even the most basic goods were insufficient whereas the waiting lines for rations grew by the day. As a result, a thriving black market emerged with goods from Thailand and other neighboring countries (Fink, 2001). The take-over of natural resources in 1968 occurred in a similar fashion.

According to Informant 6, When *phet sat* licensing in Mogok was enforced in 1970, General Ne Win's Government confiscated properties in two stages: first the hostile takeover of private businesses including small and larger shops, stores etc. Second, all ruby mining sites were taken by the State. Illegal mining, in Burmese, *khoe twin*, became common as people had been relying heavily on mining for so long.

Informant 8 said that to be able to mine illegally, the *lone hteing*, a sort of unofficial, but powerful armed police which monitored every Mogok mining site, legal or illegal, had to be bribed.

## Ceasefire Agreements

During the 1960s, Burmese opposition forces and numerous ethnic armies, seeking autonomy, fought the regime. The largest groups were the Karen National Union (KNU), the Kachin Independence Organisation (KIO), the New Mon State Party (NMSP) and the Shan State Army (SSA) with several thousand members (Fink, 2001). To be clear, not all of these ethnic armed groups were formed to fight against the Burmese military government without reasons. Christina Fink does not use the term ethnic armed group, rather ethnic (nationalist) armies instead (Fink, 2001).

Many ceasefire agreements between ethnic armed groups and the government were signed in the late 1980s and 1990s. The relationship between these agreements and the changes in Mogok ruby mining at the time may not be clear at first, but my observations provide valuable insight into the mining situation and the social collision after large-scale ruby mining projects were authorized by the government.

Among these ceasefire groups, some armed groups were involved in ruby mining (ERI, 2003) and arrived as contractors in Mogok. The Kachin Independence Army (KIA) troops, led by Zahkung Ting Ying and Ze Lum had split from the mother organization in 1968 to join the Communist Party of Burma (CPB). After twenty years as Army Division No. 101, the name NDA-K came out in 1989. NDA-K signed a ceasefire agreement with the Burmese military junta on December 15, 1989.

Organization	Leader	Date	Region
Myanmar National Democracy Alliance Army (Kokang, MNDAA)	Kyar Shin	1989	Special Region-1, Northern Shan State
United Wa State Army (Myanmar National Solidarity Party), (UWSA)	Pao Yuchang & Kyauk Nyi Lai	1989	Special Region-2, Shan State
National Democratic Alliance Army (Shan/Akha Armed National Groups), (NDAA)	Sai Lin & Lin Ming Xian	1989	Special Region-4, Eastern Shan State
Shan State Army (Shan State Progress Party), (SSA)	Col. Loi Mao	1989	Special Region-3, Shan State
New Democratic Army (Kachin), (NDA-K)	Zahkung Ting Ying	1989	Special Region-1, North-East Kachin State
Kachin Defense Army (KIO 4th Brigade), (KDA)	Mahtu Naw	1989	Special Region-5, Northern Shan State

Pa-O National Organization (PNO)	Aung Kham Hti	1991	Special Region-6, Southern Shan State
Palaung State Liberation Army (PSLA)	Aik Mone	1992	Special Region-7, Northern Shan State
Kayan National Guard (break-away from KNLP), (KNG)	Gabriel Byan & Htay Ko	1992	Special Region-1, Kayah (Karenni State)
Kachin Independence Organization (KIO)	Lamung Tu Jai	1993	Special Region-2, Kachin State
Karenni State Nationalities Peoples' Liberation Front (KNPLF)	Sandar & Htun Kyaw	1994	Special Region-2, Kayah (Karenni State)
Kayan New Land Party (KNLP)	Shwe Aye	1994	Special Region-3, Kayah (Karenni State)
Shan State Nationalities Peoples' Liberation Organization (SSNPLO)	Ta Kalei	1994	Southern Shan State
Shan State Nationalities Peoples Liberation Organization (SSNPLO)	Nai Shwe Kyin	1995	Mon State

**Table 7: Ethnic Armed Groups which signed Ceasefire Agreement**

(Source: [http://www2.irrawaddy.org/research\\_show.php?art\\_id=444](http://www2.irrawaddy.org/research_show.php?art_id=444))

In 1994, KIO signed a ceasefire agreement with the Burmese government (Inkey, 2015) (Bhattacharjee, 2014), which did not only end the conflict but was also a key enabler for companies to establish joint-ventures with the MOM.

A relevant fact is that for KIO and NDA-K to participate in mining projects, they had to negotiate directly with Northern Star Trading Company instead of with the regime and mining claims were given to NDA-K.

The projects were agreed to operate in Kachin State, but included many other places like the Mogok ruby mines. Buga Company, owned by NDA-K, has been involved in large-scale Mogok mining since 2001. One site is located in Ongpyin Yehtwet, another one in Shun Pan. As far as I know, this company arrived in Mogok in 2002. Some people told me that they still have some other

mining sites, but I do not know exactly where. However, at least two other, successful sites effectively exist (Interview, Informant 15 in Mogok, 24th March, 2015).

Ethnic Kachin in Mogok do not have extensive knowledge of the ceasefires signed by NDA-K in 1989, KDA in 1991 and KIO in 1994, they do not know how it happened and who benefited. Many Kachin in Mogok had not met KIA soldiers before as opposed to Northern Shan State where citizens are more exposed to the conflict. Therefore, there was a gap in political awareness between local Kachin in Mogok and those who live in other areas. From the media, they were told that KIO, KDA and NDA-K had signed ceasefire agreements and that they now are doing business. At that time, the Buga Company settled and started mining. Local villagers were not getting any work opportunities as they bring their own experienced miners.

We got to know them by meeting them at the church. So, we learnt that the miners came from different places. Mostly soldiers without uniform. Almost none of them knows about Mogok rubies and how popular these gems are on the world market. (Interview, informant 16 in Mogok, March 24, 2015).

Another ethnic armed group involved in ruby mining in Mogok was the United Wa State Army (UWSA), which, like the NDA-K, brought their own men. Some of them only spoke Chinese. Many UWSA soldiers are Christian and often joined the Sunday worship services, were welcomed and became part of the religious community.

In 2000, I was attending grade eight at that time, I personally got to know many UWSA soldiers. They came to my village, called Kin village, only 30 minutes walking from Yeni village, one of my research sites. About 60 miners in total, who mainly belonged to the Wa tribe and who spoke a very poor level of Burmese. It was the first time for young people in Mogok to see Wa tribe people and to be exposed to the UWSA. During a truce, they were unarmed, but could be seen in uniform.

Gayeski uses the term ceasefire capitalism to describe the military junta's definition of development. The government takes ownership, distributes mining claims among interested companies and ceasefire ethnic armed groups (in private partnerships). Under the pretext of designing special economic zones

(SEZ) and other large-scale projects, land is confiscated. Gayeski (2014) mentions that the exclusion of certain ethnicities from political processes has increased the likelihood of violent rebellion, and that land grabs may endanger ceasefire agreements.

Chinese companies import their own mining equipment and send Chinese workers, who mine along with men from lowland Burma. In the past, importing machines was a daunting task, due to inefficient transportation. The British had tried to bring equipment, but after some failed attempts, they agreed to manage with what was locally available (Maung, 2010). There is no import regulation regarding mining equipment, good relationship with local authorities and keeping them informed, will do. Informant 9, said:

The use of machines from China, India and Thailand is widespread in the region, except for a few mining companies who use Japanese products. It only takes two days for a machine from a China to arrive in Mogok, so many mining owners prefer them.

Name	Business Entity	Remarks
Nay Win Tun	Ruby Dragon Jade and Gems Co., Ltd.	The right-hand of Aung Kham Hti, the leader of the Pa-O National Organization (PNO), an ethnic ceasefire group. Runs PNO businesses, operates gold and gem mines in Shan State, Kachin State, Sagaing Division and Mandalay Division 3.
Kyaw Win	Shwe Than Lwin Trading CO. (Sole Distributor of Thaton Tires under Ministry of Industry 2), Myanmar International News Channel, Shwe FM Radio	Heavily involved in land confiscation (agriculture purpose) in Shan State from farmers who receive little or no compensation
Kyaw Win	Golden Flower Company Ltd.	Involved in land confiscation (rubber plantation and construction purpose, controls importation of edible oil

**Table 8: Partial list of cronies who support the regime**

*Source: Aung Din, US Campaign for Burma. June 2011.*

On the website of Burma Myanmar Thailand News an article written by Aung Din (Campaign for Burma, 2011), shows several cronies who give political and financial support to the Burma ruling regime. It is obvious that the military government's strength relies on external and internal support. to the former and current military leaders. Those with good relationships with old and new leaders can make big profits.

## **US Sanctions**

It is estimated that Myanmar, based on value, produces around 90 percent of the global ruby supply and is recognized as one of the biggest jade producers worldwide. Gems were the country's third most important export product after petrol and agriculture (International Colored Gemstone Association, 2013).

Burmese gemstones are exported to many other countries. After the US sanctions of 2013, the gem trade moved elsewhere. However, US government claims that the ban on Burmese products has been very effective in isolating the military junta are simply not true. The ban did affect the citizens of Burma, but not the elite. The reason here is that the gems market remained very active because of export to international centers in Thailand, China, India, Sri Lanka and other countries. Once polished, Burmese gemstones eventually arrived in the US (Deleon, 2008). Besides some slow-down, the elite was not hurt; pricing issues, however, have affected local people and smaller gem dealers.

Chinese, Gurkha, and some Burmese people influence the ruby market in Mogok and whenever prices increase, they manipulate the market and make higher profits. They agree to first bargain at a significantly lower price, place large orders, and later on, to sell at high profit margins. Chinese and Indians also know how the game works, buying gemstones in Myanmar, polish in their respective countries before reselling the stones. As long as the market works, they are getting more benefits. (Informant 7, interview, 20 Feb, 2015).

In the US Burmese Freedom and Democracy Act of 2003 section (3), certain companies were banned from import.

The SPDC, any related ministry, member or family.
Burmese narcotics traffickers and related family.
The Union of Myanmar Economics Holdings Incorporated (UMEHI) or any affiliates.
The Myanmar Economic Corporation (MEC) or any affiliates.
The Union Solidarity and Development Association (USDA).
Any successor entity for aforementioned organizations.

**Table 9: List of Banned Companies in the Burmese Freedom and Democracy Act of 2003**

President Barack Obama continued the ban on import of ruby and jade (International Colored Gemstone Association, 2013). Nevertheless, gems still are an incredible source of revenue for Myanmar as trade with China and other nations remains strong (International Colored Gemstone Association, 2013).

## **Economic Growth and Foreign Investment**

Myanmar businesses used to have a tight relationship with the ruling regime while befriendng political and economic cronies. According to Lim and Yamada (Lim and Yamada, 2013), BRC second report, it is obvious that in the past Myanmar conglomerates relied on the ruling military regime for special rights and economic opportunities. As far as economic liberalization in Myanmar goes, Chinese entrepreneurs are in pole position as the country's economic reform relied on China due to Western countries' sanctions (Lim & Yamada, 2012).

Myanmar's economic transition requires substantial investment in infrastructure, human capital and social services. Therefore, effective mobilization of both foreign and domestic savings are vital (Lim & Yamada, 2012).

Lim and Yamada also state that Myanmar's economic growth today depends largely on the exploitation of natural resources such as gas, gems and wood, and at the same time, agriculture (legumes, grains) and fishery. President U Thein Sein assumed power in March 2011 and initiated reforms in both economic and political areas. On June 19, 2012, President U Thein Sein declared that the government had entered the second phase of its reform strategy focusing on economic development with the goal to triple GDP per capita in the same

time. Hence, he announced four economic policies; Sustainable agricultural development towards industrialization and all-round development; balanced and proportional development among states and regions with an equal share of budget, taxation, foreign aid and foreign/local investment; inclusive growth for the entire population and accurate statistics.

The restructuring and privatization of state-owned enterprises into new private partnerships was designed to allow the private sector to replace the state sector as the major contributor to the country's economy (Kubo, 2012). Myanmar pursued the 'Burmese Way to Socialism' (Online Burma/Myanmar Library, n.d.) and planned a self-imposed isolation from the international economy. More than two decades have passed since the junta announced the transition to a market-oriented economy (Kubo, 2012). Myanmar opened the door to foreign direct investment or better put, foreign trade flowed into the country in the midst of the 1990s up to 2005. During this socialist period, the Myanmar Government pursued self-reliance both politically and economically which Kudo and Mieno (Kudo & Mieno, 2007) called a closed door or inward-looking policy.

Border Trade with China has been utterly important for the Myanmar government (Bi, n.d). The main route for cross-border trade on Myanmar territory is part of the old "Burma Road" which opened in 1936 to supply Kuomintang (KMT) in Chongqing (Kudo & Mieno, 2007) and goes from Muse in China (border crossing in Ruili in Yunan Province) to Mandalay, the second largest town in Central Myanmar.

Besides border trade with China, The Myanmar government also promote border trade with Thailand, India and Bangladesh to compensate the economic sanctions by the Western countries. Border trade with China has been very successful and is a main artery of Myanmar's economy today. Border trade with Thailand also plays a major role. According to Kudo and Mieno, Thailand accounted for 33 percent of Myanmar's total export and is ranked the single most important export destination. Myanmar exports gas to Thailand and imports consumer goods, intermediate materials and capital goods. Thai PTT Company is one of the companies purchasing Myanmar gas. Myawaddy is the largest of five official checkpoints for overland trade between Burma and Thailand"<sup>6</sup> (Hsu Mon, 2015).

Karen State Chief Minister Zaw Min said; “Trade will increase once the Asian Highway is completed. This highway runs through Kawkaik, Myawaddy and Karen State and will connect us with other Asian highways.” (Hsu Mon, 2015).

Sometimes, certain situations that make illegal border trade consequences such as unsuitable foods imported from border trade. Dr. Maung Maung Lay, vice chairman of the Union of Myanmar Federation of Chambers of Commerce and Industry said, “What we are concerned about is that inadequate food and beverage products pass these borders as well as uncertified home appliances. Therefore, more effort to prevent illegal trading is necessary” (Hsu Mon, 2015).

Soon after the military government seized power in September 1988, policy on foreign investment shifted by enacting the Foreign Investment Law (FIL) in November 1988 (Kudo and Mieno, 2007). The SLORC government founded the Myanmar Citizens Investment Law (MCIL) and established the Myanmar Investment Commission (MIC) to take over the role of the FIC as supervisor of domestic investments according the MCIL guidelines. Since then, foreign investment policy has become a key factor to restrict the country’s economy. The purpose of allowing foreign capital into the country was to promote export, to introduce various types of high-end technology, to promote capital-intensive industries, to create new job opportunities, to stimulate energy consumption and regional development. This is the reason why many foreign companies were allowed to do large-scale mining.

## Summary

Many informants do not wish to share their difficult situation, but I was able to observe and retrieve all needed data with minimal intrusion. For families witnessed their land been sold to the corporate world and additionally, *kanese* was not longer allowed.

Capitalists rely on the state to dispossess villagers of their land. Local residents were offered small amounts of money which kept them happy for a short period while in return the companies took over their land to mine causing land degradation and livelihood insecurity.

The SLORC government considered natural resources as a main source of revenue. Environmental protection laws were minimized and interpreted

by the government to their benefit. Burmese Nationalization had a tremendous impact on the mining industry which came under control of the state and transitioned from public to privately owned properties. Soon after, *phet sat* licensing became required and joint-ventures between the state and the private sector the norm. Ceasefire agreements with ethnic armed groups seemed a successful policy for the government to control the whole country. In return ethnic leaders were given business permits to capitalize on mineral resources and earn wealth. Many ceasefire armed groups settled in Mogok and got involved in ruby mining.

US sanctions had little effect as border trade was prioritized and Burmese rubies were exported to neighboring countries, where US export was allowed.



## Chapter 5

# Farming as Livelihood Strategy for Local Traditional Miners

Agriculture was an obvious alternative for many villagers in Mogok, but geographical limitations, mountains and deep valleys, make it hard to find or set up new farmland.

Most youngsters farmed during rainy season and practiced traditional mining for the rest of the year they. Today, youngsters leave the community and often do not return as they can earn more and enjoy city life. Therefore, their families have to hire farmers or lend their farmland for a certain period. On the assumption that mining would guarantee a sustainable income, most miners did not own farmland and neither were they inclined to buy land.

According to U Yaw Sep, one of the richest Lisu men in Mogok in a gospel interview:

Mogok is a very difficult place to find a livelihood because there is not much farmland and no other options to earn money are available. Besides ruby business, Mogok has nothing else to offer. Therefore, many leave Mogok. (U Yaw Sep, from interview, 2013).

Another popular and rich Lisu man in Mogok is U Aung Thein, U Yaw Sap's brother-in-law. Both are deeply rooted in the local community and try to help the poor and needy (not only in Mogok as well as in other places in

Myanmar). In the same interview, he also discussed how people were affected when ruby business was no longer allowed. “When I was in prison, many people suffered because they work for me, rely on me and we have been doing business together for a long time. They were shocked and did not know what to do next”.

## Shifting Cultivation

For one or two years a plot is reserved to cultivate mainly rice and corn, as staple respectively livestock feed. Other crops such as cucumber, pumpkin and vegetables, flowers and fruits are also being produced. After this relatively short period, during which soil has degraded, the plot is given time to recover. This farming method, shifting cultivation, also called highland farming, has been essential for traditional small-scale miners, in particular among the Kachin, Lisu and.

My findings show that shifting cultivation is not the most appropriate method due to Mogok’s mountainous surrounding and lack of appropriate land. Another downside is that villagers are not familiar with crop rotation and intercropping, which degrades soil fertility and makes farmers believe that crops cannot be grown twice a year. Also, planting twice a year does not fit the mining calendar.

Villagers are aware that this this practice threatens the local ecosystem while slash-and- burn methods result in forest fires and loss of natural habitat. Some are convinced that soil fertility will restore during the years that land is abandoned and that farmers can return to this land after ten years.

According to Jeus (Jeus & Cavalho, 2012) shifting cultivation erodes land substantially and has a negative impact on cover vegetation and water resources. There is consensus that local villagers are aware of the importance of environment in their life, but they do not have other options and continue with shifting cultivation. In Mogok there are no community protected forest areas and people can easily access whatever they want. This contributes to environmental degradation as well.

Many Kachin believe that produce from highland farms is more delicious than crops coming from lowland farms. The lowland farms do not move often and use chemical fertilizer. At a highland farm, land is burnt down in the month of April just before Songkran (yearly water festival) and these ashes are used

as natural fertilizer, especially to grow rice. Sometimes, the farmers decide that ashes are still plenty for another rice growing season and they stay longer on the same piece of land. Most Kachin still prefer brown rice, not mechanically polished, and mill rice traditionally by pounding with mortar and pestle and winnowing in a woven bamboo tray.

Informant 7 said: “Every morning, we have to get up very early to pound the rice. We, five siblings, work in two groups, two people to process the rice while the others cook. Then we have breakfast before going to work or school.” They have been doing this since they were young. Once or twice a week.

## **Paddy Farming**

Paddy farming is easier than to shift every year or two. Yields and profits are higher too. In addition, the amount of profit received from shifting cultivation and paddy field farming is different. 45 percent of the villagers are engaged in paddy farming and only 15 percent still practices shifting cultivation (another 40 percent is not involved in farming).

Today paddy farming in the lowlands is the main agricultural activity. Rice growers work from May to July in the paddy fields, rest for another two months and harvesting is done in October and November. There is still time to mine during the rainy season, whereas highland farming is very intensive and farmers have no time left for mining.

## **Livestock**

Most families raise livestock. Buffaloes are used in the paddy fields as the mountainous surroundings makes large, heavy machines hard to work with. The market price for buffaloes has increased over the past five years: Chinese people settled in the region, pay very well and local residents prefer to do business with them. Cases have been reported of buffaloes who were stolen and sold. The thieves were arrested, fined and even sent to jail. Today there are not many buffaloes left and some families have to hire them when needed. Luckily, the fees to hire animals are rather small, as the owners are socially aware and respect the social rules in the community. They understand farming is hard.

## Logging as Daily Work

What I mean by “logging” is cutting bamboo and wood for daily work. Logging has been done in a very extensive way. Villagers go to the forest about half past seven in the morning mostly to cut bamboo. A popular variety to sell is *paungthin war*. *War* refers to a certain bamboo variety and *paungthin* to a traditional way of making rice cakes. Sticky rice is put inside the bamboo cane, water is added and this fireproof vessel with rice and water is cooked over a fire. *Paungthin* is very popular among buyers. Cutting and carrying *paungthin* is easy, family members often take their young children or brothers and sisters to help each other in order to get a large amount of bamboo.

After the bamboo is brought to a nearby road, the trader is informed and transport to Mogok town or directly to the mining sites can be arranged. Sometimes, bamboo is stored to get better prices. Due to high demand, many loggers get paid in advance by local merchants who will sell to wholesalers in the city. The price for bamboo depends on the length. Bamboo is cut into two parts, the longer part costs hundred fifty kyat, the short one comes at ninety kyat per piece. One adult can collect 40-50 longer parts and earn 7,000 kyat a day. On average they carry and sell forty a day.

Collecting bamboo shoots between July and early October seems to be very popular. Everyone gets addicted as it really helps to earn large amounts of money within two or three months. This is a main livelihood activity during rainy season in each research village. People enjoy this work because it can be done conveniently after paddy farming.

Similar to bamboo, people go into the forest searching for bamboo shoots, but the conditions can be tough, it is rainy season, there are lots of mosquitoes and the soil can be slippery. the demand is high, but the downside is that most sales occur after New Year, this implies that bamboo shoots have to be stored for several months. Locals dare not to invest and do not want to put themselves under pressure waiting for o long. Sometimes people can make high profits, but sometimes, rather rare, it happens that financial losses are made

Trees are cut down for several reasons. One Burmese variety is called ong done, mostly used in ruby and gold mining. As I mentioned earlier when discussing mining types, trees are used to prevent soil erosion and to mitigate certain risks while working at the mine site.

Even though logging is physically heavy, both men and women, and even children, are engaged in logging. During summer school break, children join because they can make money. Some even can save for their tuition fees. Many children in the communities are helping their families and some of them could save some money for their tuition fees. The length of the tree is according to what the companies need in their mining sites. Required length depends on specific demands by the mining companies. The price depends on the size and length of logged wood. A similar trading system is in place with local merchants and wholesalers from the city.

### Migration as an Alternative Livelihood Strategy

During my two months of field work in the community, I did not meet as many young people as I had anticipated and it was really surprising to find out that almost all families have children, family members or relatives who live abroad or who at least left the community. Especially, younger generations no longer stay, some leave to continue their studies or to pursue business opportunities, others travel abroad looking for better jobs, mainly in China, Thailand and Malaysia.

Villages only offer primary education and students have no other option than to go and study in the larger cities. There are a small number of students who study in international universities.

Once graduated, they hardly return. Often, they move away to find better jobs and to support their families back home. Those who work in Thailand usually are able to transfer money. Working conditions often are better too.

No	Age Group	Gender		Abroad	Domestic	occupation
		M	F			
1	Below 20	21	15		x	Student
2	20-40	3	3	Chiang Mai, Thailand		Working
3		2	1	Chiang Mai, Thailand		Student
4		1	2	Malaysia		Working
5		3	5	China		Working
6	Family Move	3 HH		Chiang Dao, Thailand		Agriculture
7		5 HH		Northern Shan State	x	Agriculture

Table 10: Migration Rate by Age and Occupation

The table above illustrates the number of migrants who work in Thailand, Malaysia, China and elsewhere in Myanmar. It is obvious that after primary school, the younger aged leave home to attend middle and high schools outside their village.

After graduation at Burmese universities, the government is often not able to provide decent jobs. Informant 13 graduated 5 years ago from Mandalay Distance University and is unemployed. Now he works on his family paddy farm and does some basic local activities. He said:

It was not easy for me to get into university. Without my family's support I never would have succeeded. I became the first in my family who could pursue further education. My father and mother stopped school after 6<sup>th</sup> grade and 4<sup>th</sup> grade, respectively. At my graduation I enjoyed my family's happiness, but now these good memories are long gone. I still do not have a decent job to support my family back home. My younger brother is in grade 10, but so far I have not been a good example for him.

During my time in the villages, I could talk to many young people who were in the same situation as informant 13. Most believe that attending university is like fulfilling their parents' and relatives' dream, making them happy to see their children graduate. Attending university is not a first priority, rather a second one. The first is work, then getting a degree. Therefore, academic distance learning is very common in Burma. I interviewed a young girl who just passed grade 11 and who was preparing to attend university. She just came home after working in China for seven months to save money for her tuition fees.

I was lucky to work as a cashier in a restaurant and earn quite a lot of money which I think will be enough to pay the exam fees for my first year as a distance learning student. Then I will have to go to China again to work and save money for my second year. My family cannot support me financially as my sister and two younger brothers are growing up rapidly and my parents have to take care of them (A school girl, interview, 19 February, 2015).

Not everyone has the opportunity to do this for as some migrants get married, start their own families and run out of financial resources to support their studies. As an alternative, some apply for a scholarship, but then again, they cannot support their families in the village. Hence, only a portion of migrants can work and bring noticeable benefits to their community.

Fortunately, I got a chance to informally interview a man from the village who had been working for NGOs in Thailand for more than 15 years. We discussed his family background, how he came to Thailand and his experiences while living there. He shared many insights about his past and current situation. Personal informal interview, informant 7 said:

I used to send money to my family very often until I got married in November 2006. So, for over 9 years now, I have not been able to support my family as much as I had done before which does not mean that I do not care for them. I love my family very much; my family means everything to me but I have my family in Thailand to care for as well. It is not easy to have a family in Thailand; many things are required as we are not local, which is why I cannot send money to my family often. When they are in need, I try. My family in Myanmar has a paddy farm and I used to send money twice a year, at the start of the farming season and during harvesting, so my family did not have to worry. This way I look after my family. I also send some money on Father's Day, Mother's Day and Christmas. (Interview, 6th March, 2015)

I spoke with a woman from village (2) who left for Thailand in 2004 and has been a housemaid since to provide support for her family. She said;

Every month I send money to my family, but not much. One to two million kyat, and when they are in urgent need, I send a higher amount. Sometimes I cannot save money for myself, but I am happy to help my family. In the future, I might save some money so in case of emergency, I do not need to worry (Informant 9, interview, March 6, 2015).

Remittances are the money transfers by migrants to the households where they come from or the savings they bring home when they return, according to Samal (Samal, 2006). People benefit from international migration and remittances (Adams and Page, 2005). A paper by Mishi and Mudziwapasi (Mishi & Mudziwapasi, 2014) called 'Remittances and sustainability of family livelihoods in Zimbabwe: Case study of Chegutu town' describes how remittances are spent more on investments rather than on consumption. In this case remittances come due to migration and in literature there is a general view that such remittances positively impact economic growth through poverty alleviation in migrant sending countries (Bracking & Sachikonye, 2010).

As stated, the benefit of migration in my research area also results in a sustainable livelihood through remittances. Since many young people from Yeni and Kin village are working abroad, they can send money home, whether often or occasionally. Their families are very happy and feel inclined to do something positive and lasting so that when their children come to visit, they can show the results of their remittances. For some families, migrant remittance is not something they rely on, while for other families these money transfers might be crucial, in particular for older families or grandparents.

McDowell and de Haan (McDowell & de Haan) examined the correlation between migration and sustainable livelihoods, in particular the institutional factors which connect one with the other. They concluded that the assumption in development literature that sedentary patterns in society are the norm, is wrong. Instead they observed that livelihood strategies are often a combination, a two-way process in which migrants maintain close ties with their place of origin over much longer periods than so far assumed (McDowell & de Haan).

Their paper focuses on both literature on migration and development and the links between different, sustainable livelihoods. The authors state that migrants who send remittances, stay connected with their place of origin. It is true that the connection gets stronger when you help each other. In my own case, being a student migrant, it gives me a good feeling when I send remittances back home. I call my family once a week but I feel closer and more comfortable talking with them every time a small amount of remittance was received.

Similarly, informant 7 said:

I used to send money back home every month, but after I married, it only happened for special occasions. Whenever they are in need, they call me or friends in Yangon with Facebook, line or Wechat deliver me a message. We have a quite big paddy farm and money is needed for harvesting and during the growing season. That is why I send them little amounts of money and also consider special days such as Mother's Day, Father's Day and Christmas Day. I do not really know how much my support helps in terms of family economic development but I am doing my best.

I also had the opportunity to interview this informant's family back home and visited them many times while realizing this family would be an interesting group. The family economic situation seemed stable because a few years ago they bought a huge paddy farm that can sustain their livelihood. A few things need to be bought at the market such as salt, onions, ingredients for food and some other day-to-day stuffs, but furthermore they are quite self-reliant. I got a clear understanding of this family and their standing in the community and that if you have a paddy farm and a few acres of land in this area, you do not have to worry too much for your daily livelihoods. The father said:

We receive money from our son very often; whenever he sends money we try to buy something useful for our family. When he comes back home, he can see his and be happy. It was in 2001 that we received his first remittance, sending money back home after one year in Thailand and I almost cried because we did not expect money so soon, but he knew our family situation very well. It was sent by one of our relatives who lives in Thailand and visited home. We did some offerings to the church, bought a cow and one bicycle for his little brother who was at that time in grade 9. I was not feeling well at that time and got a chance to get some medication which I was really thankful for and I will never forget that day.

According to Mishi and Mudziwapasi (Mishi & Mudziwapasi, 2014), migrant remittances help not only with consumption, but can act as a form of insurance for households facing income difficulties and livelihood insecurity.

Both authors refer to a paper by Ratha which states that remittances can reduce the level of poverty by directly improving the income of poor recipient households and help to increase employment opportunities and wages of the poor. Remittances are not beneficial in every situation though. Remittances are lower in volume compared to income from other livelihood activities and are largely used for the purchase of household goods and are likely of limited benefit to the local economy and consequently to local development. (Thonje & Ncube, 2014). De Haas (De Haas, 2007) states that migration and remittances are generally part of risk-spreading and co-insurance livelihood strategies pursued by households and families.

Migration and remittances can improve well-being to stimulate economic growth and reduce poverty directly and indirectly. Moreover, some projects in the villages are supported by migrant's remittances. Yeni village completed a larger church in 2013 with the help of migrant remittances. Money was received from local churches around and from other church communities who belong to the Kachin Baptist Convention, but most furniture was donated by villagers living abroad. Every donation is highly appreciated and donor names are written down. Remittances have also been used for the construction of a new big water tank in the village, mainly from migrants in Thailand, Malaysia, China and United States.

### **Livelihood Insecurity in Gem Polishing Business**

Other areas, such as the gem polishing sector, have also been impacted. According to Maung (2010), the Mogok gem polishing was affected by modern Chinese technology, introduced by corporate mines. Polishing is not very popular nowadays. Corporate mining brought high level of technology and made most traditional practices redundant.

If we could mine freely like before, the local ruby market would improve and again we could sustain our livelihoods. But for now, as we are no longer mining, the ruby market is down and many people go to big cities looking for jobs and new opportunities which are uncommon for us. I have been mining since I came from Nam Kham to Mogok in 1980. Before I was working as a Burmese Government servant in the economic sector. After the Burmese nationalization, the government

took over every local business in Nam Kham and started running the Tama-wayama. The idea was for the state to take full control of the economy. I often got roughed up by the Burmese army and KIA, because when KIA came, I was accused of betraying my own Kachin people, but when the Burmese army came, I was again accused of working for both sides. It made me feel insecure in my hometown. So, I finally decided to come to Mogok and took my family along with me. One of my friends was at that time a really successful miner, and he helped my family get settled with all the basic needs. It was not easy for them to come to Mogok and start all over again (Key informant 3 interview, 14<sup>th</sup> Feb, 2015).

## Gold Mining as an Alternative Livelihood

It is common for inhabitants of Mogok to be either involved with gold or ruby mining. In all three villages, people are mining gold as well. Gold mining sites are a five hour walk from their villages and are known as Nam Pai which is a Shan term. Today these sites are easy to reach as road conditions have been improved due to nearby timber harvesting.

Before, traveling took half a day and the miners had to bring food and medicines, which is why miners could not stay there for a longer period. They typically returned home once a month, stayed a few days in the village, sold their gold and bought what they needed before traveling back to the mining site.

The villagers mine gold merely to find an answer to their livelihood insecurity. It is not an easy way to make money, and definitely not sustainable. A first challenge is the strong current of the Nam Pai River during rainy season: which makes it very dangerous to cross the river. Therefore, during that period there is no mining and the villagers cultivate paddy fields or work at the hill farms. Rainy season usually starts in January and lasts until June. However, some miners extract gold all year long using different mining techniques.

Gold trading is also lucrative: the price for 3.5 ounce of raw gold, *thachyat thar* in Burmese, is estimated at 600,000 Burmese kyat. Those with a strong social network can benefit: buyers sometimes are able to influence the market

price and since most miners come from the villages, they do not know anyone in Mogok and often end up being tricked while selling their gold under the actual market value. Therefore, social capital helps in trading gold. Once paid, they leave some cash for their family and what is left is invested in goods necessary for the next month at the mining site.

In gold mining - similar to ruby mining - there are two options to share profits among miners which are called *kop paing* (oneself) and *thet wet sar* (shares divided into two of four). In a *kop paing* profit system, miners receive an equal share, whereas, in a *thet wet sar* system half of the shares are given to a financial investor. If no gold is found, the financial loss is for the investor.

The people usually involved in gold trade are Sikhs. They have a strong and large network and, being a majority, are able to manipulate the market easily. They buy raw gold, polish and sell on the jewelry market.

## Chapter 6

# Conclusion

With Burma's nationalization the situation changed and capitalists took advantage of the political instability. Only a small group of people, a few businessmen and those with very close ties to the military junta, had the necessary support to enter new business opportunities. As Rovnick stated (Rovnick, 2013), "It is extremely hard to find a Burmese business partner who is not liaised with the Junta. Military conglomerates and cronies continue to monopolize the economy under the new government. Natural resources are governed by a few people who control the entire economy in the country".

Firstly, this study scrutinizes the exploitation of natural resources by those who serve the government's interests while restricting local people to access natural resources. During the military regime nepotism and cronyism were initiated (Kudo & Mieno, 2007). The military government's new constitution defines a free market economy without monopoly abuse and a minimal state-intervention, but the regime has built up a large economic complex of investment and interests in which military elites are the ones controlling all natural resources (Nyein, 2009). In Mogok, many people are convinced that mining companies are mostly owned by foreign investors, but Burmese business men are more actively involved than what people have been thinking in the past

Since the military government created economic provisions for the private sector - the so-called privatization of state enterprises along with market-oriented reforms - mining has become easier, in particular, for the elites close

to the military generals. The largest conglomerates are the UMEHL and the MEC which hold ownership of most mining claims in Mogok (or are, at least, listed as main shareholder).

Once the nationalization of mining claims was legally enacted on 12th March 1969 and the rights for common people to mine and trade came to an end, there was not much mining activity left in Mogok, no new jobs were created either and as locals lacked the skills to find other work, people in Mogok secretly picked up mining again. According to Maung (Maung, 2010), people preferred rock mining because mining sites were far away and it was also easier to run away in case the police arrived. Within a few years, rock mining became popular and many people joined.

Narrowing down mining concessions for the elites did not only negatively impact the local community, a positive outcome for some people can be measured as well: ruby mining companies hired some locals who were able to successfully re-engage in mining. Due to geographical limitations, some areas cannot be mined and locals entered into a partnership with mining companies. According to one of my interviewees, many stories exist of land owners in Mogok who cooperate with the corporate mining sector. Nevertheless, the negative impact of mining concessions on local people has been crucial. No longer they are mining families, neither do they know what to do next to earn a livelihood. The same happened to ruby traders, who in the past dealt with small mining sites, now being drastically reduced in numbers as large mining companies do not sell rubies to local gem traders.

In only a few years mining companies have overtaken most mining claims while gradually scaling their operations. These companies are connected to local authorities, i.e. village headmen, township leaders and officials on the municipality level. Road conditions were upgraded, new bridges were built, as well as two churches and trucks were provided for religious ceremonies. Last, these companies engaged in social welfare. Some welcomed this evolution, but those who had lost their land or job, felt left behind. The pay for their land did not last long while losing the right to access natural resources.

Secondly, some locals were able to sell their land to the mining companies at twice the market price. As a result, they could afford new houses and build a better life. Some changed livelihood, away from mining, started a small enterprise and became financially independent. Before, most miners preferred

to work in small groups of six to seven while sharing profits equally. With the arrival of corporate mining, there was no other option than to work as an employee, missing out, as I discussed previously in chapter four, on any chance of profit sharing.

It has become extremely difficult for local people to reconnect with mining. One of the worst things over the last 10 years was the arrival of a new official whose only intention was to halt every local mining activity including small-scale and *kanese* mining on the pretext of cleaning streaming water so farm land could be cultivated again. At that time, many *kanese* people were enduring hard times. This change lasted about four months though, and people returned to local mining.

My findings showed that only a few families never were involved in ruby mining, and made a living in their own sustainable way, i.e. growing fruits, rice farming, wood and bamboo trade.

Thirdly, people tried to make a decent living one way or the other. The younger generation even tried its luck at gold digging. More common though was the shift to wage labor (mostly logging), girls became housewives in China and Thailand while a large number spread out over Myanmar looking for work. Few regrouped and returned to traditional mining, independently. In particular, those well connected to the industry, who were allowed to work nearby large mining sites and only if they agreed upon the stipulation that the profits should be shared.

Remittances from abroad, usually sent during special occasions or community events, play a very important role to help the community move forward.

## **Theoretical Discussion of the Findings**

My findings can be summarized in three major points: accumulation by dispossession, governmentality and sustainable livelihood strategies. Basically, throughout this paper the level of accumulation by dispossession, the locals' adaptation to a new era of privatization and the restriction of access to natural resources, their livelihood strategies in the midst of an economic transition from mining to agriculture have been analyzed. There is more than sufficient support to state that issues related to natural resources are always inextricably

intertwined with politics and policies which impact environmental and socio-economic well-being.

Firstly, implementing Harvey's concept of accumulation by dispossession gave me a clearer and deeper understanding of neoliberal mechanisms to control natural resources. Neoliberal capitalistic policies tend to centralize wealth or land by dispossessing others (Glasman, 2006), and even, with support of the state, take away the right to access natural resources. Dispossession simply can be seen as a process whereby people lose their land, property and basic rights of citizenship. Harvey (Harvey, 2003) wrote that accumulation by dispossession implies land confiscation and privatization.

Privatization merely benefits a privileged elite to transfer claim and property ownership to the private sector, away from the public. According to Gomez (Gomez, 2012) accumulation by dispossession is a process whereby a state aims to create more wealth. In this case, the state does not act alone and relies on corporate power to control natural resources. The SLORC's mining laws authorized the private sector to assert ownership of all Mogok mining claims while denying local people's rights to access natural resources. In a local context, as there is no democratic system in place to elect local leaders, current authorities can be extremely powerful in an abusive way and people tend to listen and follow orders.

Since the 1990s, according to Maung (Maung, 2010), mining concessions in Mogok were made through auctions with both the government and the public. At that time, there were still mining opportunities for people in Mogok and people came from far to extract rubies.

In short, the point I'd like to make and have tried to show is that government's policies in regard to the assertion of land ownership, so-called for development purpose, have resulted in many political implications and abuse of power. Development policies indeed brought in vast foreign and domestic investments but have also lead to a dilemma for the local people. Of course, job opportunities have been created, but as far as Mogok ruby mining goes, the impact from privatization has been tremendous. For a long time, the main livelihood activity had been mining which was practiced openly and in public but came abruptly to an end because of this change in policies.

Moreover, a deeper understanding of governmentality is crucial. Obviously, the government is eager to conduct new development projects, but the concept of development is misunderstood by the government: it is wrong to assume that by allowing companies to enter, the market will benefit all the people. Furthermore, governmentality is not always negatively correlated with power. It is the policy that both government and local people have to accept.

Lastly, my findings show sufficient evidence that local residents have been facing difficulties to make a living without mining. The change of livelihood has not brought deep satisfaction and locals who have experienced both successful mining and working on a farm, leave the village looking for better jobs so that they can support their families. Unfortunately, not everyone succeeds.

## **Policy Implications and Recommendations**

As soon as SLORC law no. 8/95 was enacted, granting private companies and joint-ventures to extract, polish and sell rubies freely and truces between the government and ethnic armed groups were declared, these armed groups came to Mogok and engaged in mining.

Large-scale corporate mining causes several environmental issues such as soil erosion, flooding, landslides and water pollution. The former is a severe problem for agriculture, and to avoid polluted paddy fields, local farmers have more work to clean water before usage. The government has not yet implemented any project to improve water quality, neither are the mining companies even asked to take action.

Soil erosion and landslides often occur in Mogok, especially during rainy season. Due to underground tunnel mining, the risk of landslides is particularly high and every year people get killed. Underground tunneling is not only difficult to detect, to determine its range is hard as well. Another problem are the reservoirs as a result of large-scale mining. During heavy rainfall these reservoirs overflow, flooding nearby farmland. The count of casualties because of corporate mining is highly recommended.

This paper touched upon other aspects of mining and its impact on local livelihood, but I'd like to mention that more research should be conducted in

this field. There is a clear lack of transparency which should be addressed as it is very difficult to access official mining documents and to approach miners.

## **Limitations of the Study**

Throughout my observations a couple of limitations have been identified which convinced me that further research is recommended. Firstly, my focus has been on traditional miners who had been able to extract rubies mining in the past without any restriction, who were able to mine on their own claim, nearby the village. Therefore, my research never focused on the processes that companies have to go through to obtain mining permits and the challenges that they have to face. Neither has ruby trade been highlighted much in this paper. Additionally, this research was conducted in three (predominantly) Kachin villages only, other ethnic groups have been included to draw a wider picture. However, this study does not pay much attention to other ethnic groups in Mogok.

Secondly, discussing ruby mining and trade is a very sensitive issue; people do not want to disclose information as they fear repercussions. Many locals' lands have been taken with force and interviewees feel not comfortable to share their experiences. Therefore, this work does not touch so much upon this particular issue in order not to offend people.

Thirdly, academic literature about the privatization of mining claims is limited, and even though some publications are available, they do not discuss mining issues much. Most useful literature has been written by a few local writers. Foreign visitors have been banned from the region for a long time, and exposure to mining sites has also been very limited. Therefore, it is difficult to write about the characteristics of ruby mining.

Last, there are no NGOs and CBOs who protect the local residents' rights. This made me collect my own data in order to retrieve in depth information and accurate data. I was able to talk to some officials at the Ministry of Mines office in Mogok, but the information was rather limited. However, in general, this paper sufficiently shows the impact of large- scale mining in Mogok in both positive and negative ways.

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# Accumulation by Dispossession and Local Livelihood Insecurity

## Case Study of Ruby Mining in Mogok, Myanmar

### *La Ring*

Mogok is a city 200km north of Mandalay in Myanmar. Famous for extracting ruby, a gemstone praised worldwide for its premium quality, most people in this region have been small-scale ruby miners for centuries.

Their livelihoods were secure until the Myanmar Gemstone Law (SLORC Law no. 8/95) was enacted in 1995. This enabled the military government to joint-venture with large-scale mining corporations, domestic and foreign investments were allowed, cronies empowered, and cease-fire agreements signed with ethnic armed groups who—as private partners of the state—were given mining claims. Meanwhile, government policies denied the right to access natural resources. Land was confiscated and the government took ownership of all existing mining claims. No longer was traditional mining allowed without a permit.

In this paper, the author, who spent several months in three Mogok villages, shares not only his observations and findings, but interviews with local residents. This research hopes to provide insight and a deeper understanding of the current state-controlled mining situation in Myanmar and the impact on livelihood and environment.

