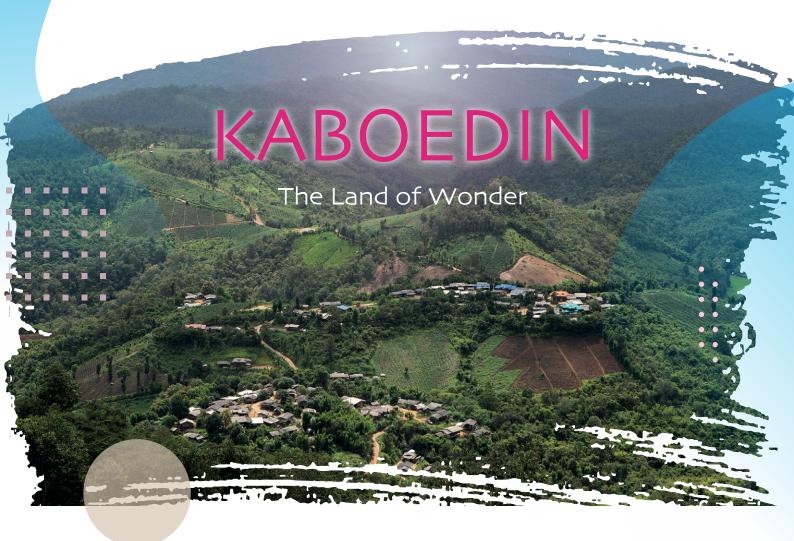
The Light in the Middle of the Valley



"Will we sacrifice Omkoi for a coal mining project?" Let's Protect Kaboedin, the Land of Wonder





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Executive Summary

Despite Thailand's efforts to conduct and advocate for the Environmental Impact Assessment (EIA) as a tool to determine a project's ecological impacts– aside from its further development of an Environmental and Health Impact Assessment (EHIA) to assess projects that may cause health harms to the community– problems that have affected local people, whether directly or indirectly still remain.

The Community-led Impact Assessment, adopted from the Community Health Impact Assessment (CHIA), according to the announcement of the National Health Board under the National Health Act B.E. 2007, is an essential tool that should be developed in a collaborative manner for maximum effectiveness, with the goal of creating social justice, health justice and a participatory process in public policy, as well as creating a balance of power in decision-making and ensuring responsibility.

This study highlights one of the critical capacities of the Kaboedin people who have worked together to create a tool for conducting a Community-led Impact Assessment by adopting the Community Health Impact Assessment (CHIA), which emphasizes a collaborative learning process– which includes research, data gathering and analysis– based on knowledge on various issues, particularly on the local community's traditional knowledge rooted in nature. Furthermore, it reflects the principles of community rights under the constitution, environmental governance and public policy, as well as the commitments and agreements that Thailand has ratified at the international level.

The study consists of five chapters:

Chapter 1: Kaboedin - The Land Of Wonder describes the character of Kaboedin village (Moo 12 or hamlet No.12), Omkoi subdistrict, Omkoi district, Chiang Mai province. It also describes the livelihoods of the ethnic Pwo Karen community who live in this highland area rich in natural resources and their traditional way of life as one of the old indigenous highland communities in the northern region of Thailand. "Kaboe" is a Karen term that refers to a type of clay used for making earthenware pottery in ancient times, of which archeological traces were found in many villagers' land plots. This evidence reflects the distinctive historical identification of the community settlement.

Chapter 2: "Life And The Seven Streams" presents the Omkoi area, located in the heart of a watershed area and the source of several streams which play a vital role in the Kaboedin peoples' livelihood. There are two main streams and five minor ones that act as the lifeline of the community, providing their water supply for consumption, as well as irrigation for their agricultural activities and maintaining the forest ecosystem.

The community's economy relies heavily on natural water resources, grazing areas, aquatic habitats and natural edible plants. The two main streams are the primary water sources that flow year round in the community conservation forests, with its confluences converging at the middle of the community agricultural area, the same site as the proposed coal mining concession. Another five minor streams act as a web for sustaining the water supply and fertility of the ecosystem, before they all converge into one and play a crucial interrelated role in the upstream, middle, and downstream areas.

Chapter 3: The Community's Concerns On The Environmental Impact Assessment explains the numerous concerns regarding the EIA undertaken in 2010. The EIA contains several suspicious aspects related to transparency, particularly on issues regarding the participatory process of community members and the villagers' signatures on related documents. It is questionable that coal mining is permitted in an abundant forest area while, on the other hand, the local community has been restricted and served with litigation regarding forest use without recognition of their community rights. Other questionable issues include: the contradiction of the natural resource agencies that are very strict towards the community's utilization of resources; the one-sided view of the forest merely for its economic value without recognition of community rights, and the lack of regard for the historical value of the village site, as well as respective ecological, social and cultural values; the underestimation by the project of the size of the affected area; the lack of thoroughness in the assessment of the ecology of the water resources and catchment areas; the diversion of water from the streams; the attempts to use outdated rhetoric of shifting cultivation associated with negative connotations towards ethnic people despite the community's practice of rotational farming – the ecological farming system that is studied by researchers both at the national and international levels, and was approved by Cabinet Resolution; and concerns over the unclear risks regarding pollution and transportation.

The issues mentioned above have motivated the Kaboedin people to gather and demonstrate their opposition to the project's public hearing, and have subsequently strengthened the movement to raise awareness on the public's concerns regarding the coal mining project in Omkoi.

Chapter 4: The Community's Assessment Of The Impacts describes key issues regarding impacts of the coal mine project. These are:

- (1) The irreversible loss of abundant natural resources, spiritual forests, biodiversity, and the balance of the ecological system;
- (2) The loss of farmland, food safety and food security areas, and the economic agricultural plots in the area of the proposed coal mining concession;
- (3) The loss of the ability to use the streams and the local natural water resources. These include the loss of groundwater sources and catchment areas, and the interruption of the natural water flow. These water resources and all the tributaries are interrelated from the upstream to the middle and downstream areas which will also affect nearby provinces and increases the risk of water disputes in the future;
- (4) The health problems caused by toxic pollution, such as dust pollution, air pollution and water pollution resulting from heavy metal contamination, resulting to people's financial burden from medical treatments;
- (5) The changes to the landscape caused by industrial activities, including the increase of road accidents due to the frequent transport of coal mining vehicles and the risk of soil erosion, landslides and flash floods in forest areas;
- (6) The collapse of a community: the ethnic Karen communities who have peacefully coexisted with the forest, and who will now be forced to change their environmentally sustainable way of life, perhaps to be replaced by an industry that is undesirable by the local community; and
- (7) The emergence of disputes, conflicts and violence, not initiated by the local community, as a result of intimidating pressure from influential external stakeholders.

Chapter 5: The Omkoi Coal Mining Project: What the Global Trends are Telling Us reflects the views of an alliance of Thai academics, non-governmental organizations (NGOs) and civil society organizations. Their contributions highlight the importance of scientific information and studies that point to significant aspects of the project and its many challenges. This chapter describes the social and environmental impacts, the unfair and unsustainable development, the total disregard for the rights of ethnic groups and indigenous people according to Thai laws and international conventions, the lack of recognition of the local community's capacity for natural resources management, the problems in the Environmental Impact Assessment, the problems of the Minerals Act, the contradiction between the policies and commitments of the Thai government towards sustainable development, the economic and social gaps, the vital contribution of the benefits of the ecological system both directly and indirectly, the coal-fired power generation in Thailand, and the global trend towards coal-fired power.

Lastly, the Appendix presents the timeline of the dynamic changes happening to the Kaboedin community, beginning with the proposed coal mining project in the area. It showcases a strong community movement that has subsequently become a catalyst for environmental and social change, championing the rights of the people of Kaboedin village, Omkoi district and Chiang Mai province. Their actions represent the hopes of all Kaboedin people moving towards a fairer and more democratic society in the 21st century.



Editorial

"Kaboedin Mae Hae Bae" is a song that the ethnic Karen from Kaboedin village sang together at the spiritual forest ordination ceremony in early 2020. The song's title, which translate to "No Mining in Kaboedin", demonstrate the Kaboedin villagers' strong opposition to the proposed coal mining project in their area. Their protests have become a symbol of resistance, demanding for change and recognition. They do so not only for their own survival as a people, but also for the sustainability of the local environment..

This study highlights one of the critical capacities of the Kaboedin people. The villagers have worked together to create a tool for conducting a Community-led Impact Assessment, which was adopted from the notification of the National Health Commission on the Community Health Impact Assessment (CHIA) according to the National Health Act B.E.2550 (2007). The Community-led Impact Assessment conducted by the Kaboedin villagers is a collaborative learning process that involves research, data gathering and analysis based on local knowledge rooted in ecology. The study also illustrates the remarkable way of life of a Kaboebin village where an ethnic Karen community has learned to co-exist with nature . While the community members have collectively assessed the impacts of the proposed coal mine project and exposed the dubious and problematic elements of the project's EIA report, they also discussed and exchanged their views with academics and civil society organizations on the issues of ethnic community rights and their desire for self-determination and community development.

The Kaboedin community's desire to be in charge of their own future also represents the hope of all the citizens to move towards a democratic society that addresses the challenges of the country's development in the 21st century– where issues concerning sustainable development, environmental rights, natural resource management, the international obligations on human rights and local community rights, the protection of indigenous people and ethnic communities, especially during a climate emergency are raised and discussed.

I would like to thank the local people of Kabeodin and Omkoi, friends, the alliance network, and all the people who have provided support throughout the Kaboedin community movement and during the process of conducting and publicizing this report. Despite the changes to the development direction, the local people in this little-known village deep in a valley are documenting their lives with dignified empowerment. I encourage all the people from other places that are facing similar challenges and difficulties to remain hopeful and stay strong. Together, we will achieve our goals.

Thanagorn Atpradit

Introduction

Despite Thailand's efforts to conduct and advocate for the Environmental Impact Assessment (EIA) as a tool to determine a project's impacts and its further development of the Environmental and Health Impact Assessment (EHIA) as a tool for assessing projects that may cause severe impacts on the community, problems that have affected local people and communities, directly or indirectly, still remain. Thai society is currently still witnessing disputes, conflicts and protests against various development projects.

The key question in Thai society is, how can country development be truly formulated if such assessment tools cannot create trust and justice for those affected by the projects? The huge gaps in both EIA and EHIA distort the disparity between the power of expert knowledge and local community knowledge. With regards to the public participation process, both the terms of procedure and the type of information and knowledge from both the experts and community must be equally intensive to create equivalent discussions whereby the views of the true stakeholders can lead to genuine decision-making.

According to the National Health Act B.E.2550 (2007), the rights and duties in respect to public health are guaranteed in three sections: Section 5; Section 10; and Section 11. Section 5 stipulates that a person shall have the right to live in a healthy environment and environmental conditions. A person shall have the duties in cooperation with the state agency in generating the environment and environmental conditions under paragraph one. Section 10 stipulates that in the case where there exists an incident affecting public health, a state agency having information related to such incident shall expeditiously provide and disclose such information and the protection thereof to the public. The disclosure shall not be done in such a manner as to infringe on the personal rights of any specific person. Section 11 stipulates that an individual or a group of people shall have the right to request an assessment and participate in the assessment of the health impact resulting from public policy. An individual or a group of people shall have the right and underlying reasons from a state agency prior to the permission or performance of a program or activity, which may affect his or her health or the health of a community, and shall have the right to express his or her opinion on such matter.



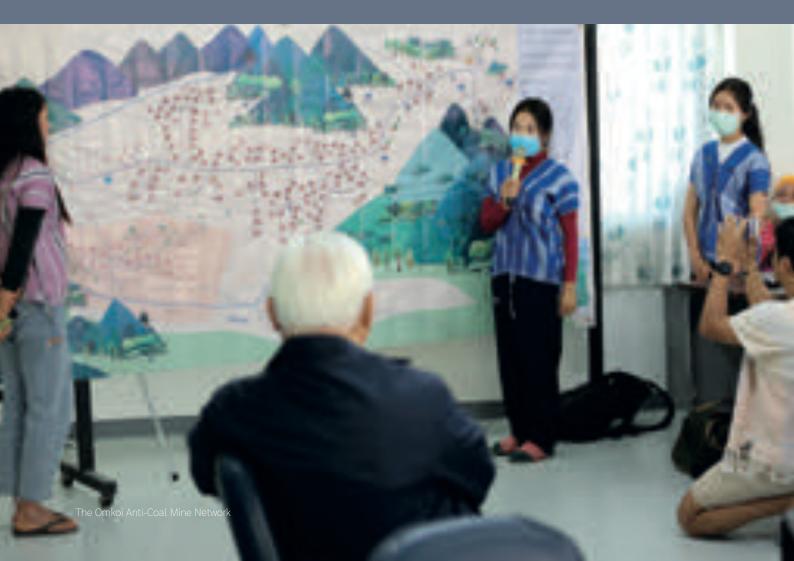


Therefore, the health impact assessment in this respect is a process of collective social learning that is designed to support the local communities, state agencies, private sector and academics to jointly analyze the potential impacts, especially on people's health, that may arise from public policies or development projects. In this regard, various tools can be adopted for meaningful participatory processes to ensure that decision-making is taken in a comprehensive and appropriate manner.

The Community-led Impact Assessment, which was adopted from the Community Health Impact Assessment (CHIA) according to the announcement of the National Health Board under the National Health Act B.E.2550 (2007), is therefore an essential tool for Thai society as it creates a collaborative learning process among local communities seeking information and evidence for policy decision-making on development projects and activities that benefit the health of the community, where the goal is to create social justice, health justice, and a participatory process in public policy. In addition, it creates a balance of power in decision-making and ensures responsibility for such decisions that have been made. The Community-led Impact Assessment is used not only as a tool for local communities to develop information and knowledge on the changing situation and potential impacts on livelihoods and the environment, but as it is based on knowledge in various aspects, the Community-led Impact Assessment is also used as a crucial tool for developing a comprehensive process of people participation in public policies and projects, particularly with respect to the traditional knowledge/local knowledge that has long been closely tied to the environment. This critical practice is in line with the principles of community rights under the Constitution, environmental governance, and public policy, as well as the commitments and agreements that Thailand has ratified at the international level.



The Importance of A Community-led Impact Assessment



Two years ago, I heard about a coal mining concession in the area of an ethnic Karen community in Omkoi district of Chiang Mai province. The company had already conducted the Environmental Impact Assessment (EIA), but the local people knew very little about it. This incident reminded me of a similar case of a coal mining project that operated in an ethnic community in northern Thailand. In that case, the coal mining not only caused environmental impacts, but the social and health impacts were extremely severe. At first the local people thought that the coal mine would help to generate more income. Most of the men in the village therefore worked for the mine while the women took care of other tasks such as farming, raising children, and housekeeping. The hard physical demands of working in the mine contributed to the workers becoming dependent on methamphetamines and most of their income was spent on drugs. As a consequence, family units started to collapse. Husbands and wives quarreled and the natural resources and the environment in the area deteriorated. Thus, when the mine concession expired after 10 years of operation, the local people all agreed not to let the concession be renewed.

In the case of Kaboedin, we were contacted by the Omkoi Anti-Coal Mine Network informing us that the Kaboedin community wanted to conduct a village profile and assess the potential impacts of the coal mining project. Therefore, they wanted us to share our experiences regarding the Community Health Impact Assessment (CHIA). They emphasized the need for academic knowledge, conceptual thinking and theories related to their situation. It was our initial impression of the Kaboedin community- it was our first time to work with their community and clearly there was a need for an academic conceptual framework before taking a hands-on approach. Since then, we have followed their progress, and subsequently had a chance to read this report.

Kaboedin - the Land of Wonder

The essence of the report is to show evidence-based information to protect community rights. It was conducted under the concept of co-production of knowledge in which the community undertook a process inclusive of studying, researching, systematically compiling the lay/community knowledge, and then combining it with expert knowledge from various disciplines, and collectively analyzing and identifying the potential impacts the coal mine will have on the community.

At present, there is an underlying distrust in the processes of the Environmental and Health Impact Assessment mainly due to the lack of fairness in both the structure and methods of the impact assessment, especially in terms of the disparity of knowledge power.

However, the working process of the Kaboedin community and its network has demonstrated a concrete example of the balance of power between the community knowledge and expert knowledge in the methodology of impact assessment. This provides a significant and valuable contribution to the academic community. We hope that the relevant agencies will use this report as evidence to make a fair decision.

> Somporn Pengkam CHIA Platform in Southeast Asia

"Kaboedin" is an ethnic Karen community situated in a valley amidst an abundance of natural resources, whose history reflects its standing as one of the long-established indigenous highland communities in the northern region of Thailand.

Chapter I

Kaboedin The Land Of Wonder

KA DIN

is an ethnic Karen community situated in a valley amidst an abundance of natural resources, whose history reflects its standing as one of the long-established indigenous highland communities in the northern BOE region of Thailand.

> is a Karen word that refers to a type of clay used for making earthenware pottery or clay pots. Explorations and excavations undertaken in the village have found evidence of this clay, which led to the conclusion that it was used for making cooking pots in ancient times. This historic

evidence reflects the local wisdom for molding and firing various household utensils in kilns, such as rice cooking pots and food containers. Moreover, the community was also the production hub for earthenware pottery distributed to other areas.

At present, Kaboedin village is located in Moo 12 of Omkoi subdistrict, Omkoi district¹, Chiang Mai province, in a high mountainous area mainly covered by mixed deciduous forest. Kaboedin village is comprised of the sub-village of Kaboedin and the sub-village of Pha Daeng, covering the total area of 9.012 square kilometers.²

The village population is ethnic Pwo Karen³, which is also the majority ethnic group in the Omkoi subdistrict. The two sub-villages consist of 483 people or 168 households.⁴ Most people live in the populated areas of Kaboedin village. In 1975, the Omkoi National Forest Reserve (Omkoi Forest) was declared overlapping with the subdistrict areas of Omkoi, Yang Piang and Mae Tuen. The overlapping area has become a critical flashpoint for defining the villagers' use of the land as well as limitations on future village development.

The characteristics of land utilization in the community are comprised of: the residential area; the agricultural areas such as rice fields and terraced rice fields⁵, gardens and upland farms, and the cultural and ecological practice of rotational farming; and the community water resources and watershed areas, including the spiritual forest and sacred forest (conservation forest).



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- Omkoi district has a total area of 2,099.831 square kilometers, or 1,365,177.812 rai, characterized by 1 a mountainous complex. More than 90 percent of the Omkoi district is located in the National Forest Reserve and Wildlife Sanctuary. Various ethnic groups live in the area including the Lua (Lawa), Karen, Lahu (Muser), Lisu and Hmong. The administrative area is divided into six subdistricts and 95 villages. Around 74.66% of the land is located within the Omkoi National Forest Reserve. (Source: Omkoi District Community Development Office, 2016)
- 2 9.012 square kilometers equals 5,632.5 rai.
- The ethnic Pwo Karen in northern Thailand are referred to as Ploe Karen, which literally means "person". 3 (Kwancheewan Buadaeng, 2006).
- The Center for Ethnic Studies and Development (CESD), Chiang Mai University, "Meeting minutes", 4 (Academic forum: Liberation - "Knowledge, Facts and the Kaboedin Coal Mine", Faculty of Social Sciences, Chiang Mai University, 16 December 2020).
- 5 Aerial photographs provide conclusive evidence that rice fields have existed in this area before 1952, which is prior to the declaration of the National Forest Reserve.







Information obtained from official historical documents retrieved from a group of village elders indicates that the community settled in this area at least 182 years ago.⁶ The earlier village administration was under the Mae Angkang Village Administrative Division (Moo 6), which was comprised of sub-villages, namely Mae Angkang, Hang Luang, Kaboedin and Pha Daeng. However, due to a pandemic that affected many in Mae Angkang sub-village, people in this area began relocating to proactively protect themselves from the outbreak. As a result, the Kaboedin sub-village officially became the Kaboedin village in 1974.

The artifacts found in at least four locations in the village indicate the areas first settled by the community — the same area where the coal mining project has applied for a concession certificate. Muya pipes or clay tobacco pipes, or "moh" in the Karen language, were found in this area. Bowls were accidentally discovered during farming activities in the village, such as during the process of applying fertilizer. The artifacts were discovered in various agriculture sites where the villagers grow rice, pumpkin, cabbage and tomato, as well as under a wild mango tree in an agricultural plot. In 2019, the Thai Public Broadcasting Service (ThaiPBS North) visited the proposed concession site to prepare a news report on the coal mining project and discovered several fragmented pottery artifacts from the agricultural activities in the villages (28 August 2019). These artifacts illustrate the historical background of the people's movement and settlement, demonstrating the long inhabitation timeframe of the people in the Omkoi district area. Archaeological evidence found in the graves in Omkoi district, such as bowls and jars containing the ashes of the deceased and tobacco pipes (buyadin) found at other sites, are similar to the artifacts found in Kaboedin village. The ancient tobacco pipes and pieces of pottery in the Kaboedin area are reminiscent of the character of the burial rituals of the ethnic Lua, who resided in this area before moving to the north during the reign of King Rama V. The burial ritual, whereby the deceased were buried with utensils in the grave, can be dated back to the 22nd Buddhist century⁷.

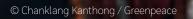
These days, villagers in many areas still smoke tobacco pipes. The materials currently used for making smoking pipes differ from the olden times. Currently, the pipes are made of bamboo that is similarly carved like a traditional pipe (some skillful villagers have their own designs). Typically, there is no decorative pattern on the bamboo pipe. Instead, it is highly polished to entice the smoker. The image of pipe smoking has become synonymous with the daily activities of the ethnic people living in the mountainous areas.



The ancient tobacco pipes found in Kaboedin village.

⁶ Kan Muttphai. Interview on 3 March 2021.

⁷ Pipat Krachaechan. (13 January 2021). Omkoi – The Traditional Land of the Indigenous Hilltribe whose Basic Rights are Ignored. The Standard. https://thestandard.co/omkoi-history/



Regarding the traditional wisdom for creating "woven fabrics", at present most of the villagers in Kaboedin buy their colored threads from beyond the village. However, the elderly weavers still maintain the traditional way of weaving using backstrap looms. Weaving is normally undertaken when people are free from work, such as collecting agricultural products. Women in the community mostly weave in their spare time in the afternoon.

The cotton grown on rotational farms is an important raw material for weaving. The planting of white cotton is preferred over brown cotton. The ratio of the harvest yield is three sacks of white cotton per one sack of brown cotton. The cotton will be deseeded and made into tubes, then spun into thread for weaving. For color dyeing, "ku"⁸ and "kue"⁹ are commonly used for obtaining a deep red color reminiscent of crimson, which is reflected through the unique vivid cloths of the elderly Karen people.





8 A plant commonly found along the banks of Pha Khao stream, and its roots are chopped and boiled to produce a brown color used for dyeing threads.

9 Lac is commonly used for dyeing the threads.

Agriculture livelihood in the midst of the forest ecology

The Kaboedin community's capacity to preserve the source of their food, medicinal plants and the native seed bank is a result of maintaining their agricultural system in harmony with sustaining the balance of the forest ecology.

The livelihood of the Kaboedin people relies on the rotational farming system (at least 16 families) and rice paddy farming for subsistence production. Rice and food crops, in particular, are the main traditional agricultural products that have been sustained by the cultural and ecological practices passed down from generation to generation. In addition, economic agriculture generates income for the households, for example, growing tomato, pumpkin and cabbage, as well as raising animals such as cows, which are used for farming activities or sold for cash in times of economic necessity.

The villagers raise cows in the forest where they can graze freely, except during the harvest season when the cows are confined to prevent potential damage to agricultural crops.

The Kaboedin villagers' practice of rotational rice farming commences annually around the end of April to early May, which is the time for "dropping the rice seeds". The seeds are an upland rice variety and are chemical-free. Traditionally, the day before planting the rice, the villagers sow various vegetable seeds such as white gourd, glutinous corn, a native variety of pumpkin¹⁰, cassava and taro, as well as wheat. Other seeds will be planted on the same day as the rice, such as lettuce, black sesame, black bean, cucumber, coriander and phak ee luen (Isodon ternifolius). Each year, the families on rotational farms prepare and store the seeds they will use for the upcoming planting season.

"Various rituals are performed when the rice is planted on the rotational farms. For example, there is a ritual to worship the land spirit and request permission to use the land, and a ritual to worship the farm spirit and request the care of the rice and other plants on the farm. On the rotational farms, in addition to rice, a variety of other plants are grown such as cucumber, pumpkin, white gourd, Karen chili peppers, lettuce, native variety of corn, marigold and taro."

Various vegetables collected from the rotational farms, and the agricultural plots in Kaboedin village.



















For example, the Kaboedin villagers grow a common variety of glutinous corn or "khao pang" together with rice on both the rotational farm and garden. It is called "per khe poo" in the Pwo Karen language¹¹, which means "small corn". It has a unique feature and taste. It yields 4-5 pods per stalk. The young white pod turns purple after 20 days when the female flower has bloomed. When it is ripe, it becomes dark purple and has a sweet flavor. It is usually eaten after being grilled over a gentle fire. In the old days, corn was commonly mixed with glutinous rice and served as a meal. The corn seed does not stick to one's teeth and contains various antioxidants. Planting corn does not require fertilizers and pesticides because the rotational cultivation system provides sufficient nutrients. On the rotational farms, the daily tasks are weeding and collecting produce for the family and neighbors.

The survey of plants on the rotational farms of Kaboedin village¹² indicated that the typical rotational farming practice includes at least 60 species of chemical-free plants. The crops include upland rice, cucumber, Thai muskmelon, white gourd, bird eye's chili, green brinjal (round eggplant), green eggplant, yardlong bean, red bean, taro, perilla seed, sugarcane (chabong bamboo), roselle, cassava, pumpkin, Musa balbisiana, scarlet egg-plant, corn, peanut, potato, lettuce, bamboo shoot, watermelon, lemongrass, tobacco, cotton, sawtooth coriander, black glutinous rice, white glutinous rice, small cucumber, white sesame, pepper, jasmine rice, red brown rice, coriander, sweet potato, spinach, vegetable fern, banana, turmeric, chayote, upland cassava, Karen coriander, bitter bush, marigold, okra, horse tamarind, pennywort, and wood ear mushroom, red flower and white flower. phak ee luen (Isodon ternifolius), bai sarb maew (praxelis), dee chang me mai du or porkha tee mia (selaginella argentea spring), mun yoo, sui, pheng phom, phak wan doo, phak loo, fuk ee lang, ta bao sa, ta bao doo, and mun nui.

The Kaboedin community's capacity to preserve the source of their food, medicinal plants and the native seed bank is a result of maintaining their agricultural system in harmony with sustaining the balance of the forest ecology. The villagers grow various plants and share the harvest with friends and relatives. Their cultivation practices reflect the sustainability of abundant food sources. The main income of the Kaboedin people comes from agriculture. They grow economic crops such as tomato, pumpkin, cabbage, chili, etc., which are common ingredients used in the recipes of many lowland people. The essential factor for community agriculture is the abundance of water sources.

One of the main agricultural crops is the tomato, which is grown in both the plains along paddy fields using water from the stream, and in the highlands using rainwater. If the rainwater is insufficient, the village farmers have to obtain water transported by trucks to irrigate the tomato crops. The tomato crop from Kaboedin village is distributed to various destinations such as the wholesale markets in Chiang Mai and throughout Thailand such as the Si Mum Muang Market, Tai Market,

- 11 The spoken and written languages of Pwo Karen belong to the Sino-Tibetan family of language.
- 12 Focus group discussion with a youth group from five families who identified the list of plants found on their respective rotational farms.

the wholesale markets in Mae Sot district of Tak province and also a canned fish factory in the Mae Rim district of Chiang Mai known for producing tomato sauce.

Apart from tomatoes, Kaboedin village is one of the largest pumpkin growing areas in the Omkoi district. The two commonly grown pumpkins in this area are the black variety and the striped variety. A pumpkin farmer who has grown pumpkin for 10 years insists that a successful pumpkin harvest depends on the continuity of the water supply. Pumpkin farming depends on both rainwater and stream water. If there is no rain when the pumpkin plants start to yield fruit, the young fruits will dry out. On the other hand, if it rains regularly, the pumpkins will grow well and obtain an optimal weight. In the event there is no rain, the farmers need to transport water from the stream or use mountain tap water to irrigate the pumpkins.

Pumpkin is an economic crop that can be stored for a long period after harvesting, unlike other crops such as tomato and cabbage. These economic crops require a short planting period, and can be harvested a few months after being planted.



Beliefs and rituals: The relationship between humans, nature and the supernatural



The Karen people believe that all things possess a soul including the land, water, forests and animals. The utilization of resources requires permission through rituals, for example the rituals for residence or land use. They also worship the spirits of ancestors, forests, mountains and water. Such perceptions underscore the power dynamic in relation to influencing people's behavior for the sustainable utilization of natural resources.

In the context of social change in the Karen communities, the Karen people have adopted a combination of beliefs into their practices, though embracing these respective beliefs may differ depending upon the conditions within the individual community. For example, the forest ordination ritual has been intertwined with various beliefs, but it highlights significant implications for the conservation of natural resources.

The forest is a vital part of life for the Karen community. The Kaboedin people have embodied aspects of Buddhist, Christian and traditional belief systems (ta thi ta tau, or the supreme creator of all things) into their sacred spirits in nature. They conserve the spiritual forest so that it remains abundant, and perform the sacred ceremony to pay respect to the forest and nature. The natural materials obtained from the forest, such as bamboo, are used for making ceremonial accessories such as "ta tay lay", which is often seen at the entrance to the ceremony or at the door symbolizing protection from evil or bad things.







Rituals related to the forest are pivotal tools to protect and conserve forests and water resources. The spiritual forest is a sacred area, which the villagers collaboratively protect and conserve for future generations. The rituals performed by the villagers also serve as a public demonstration of their determination to protect the natural resources. One of the key forest rituals is the **ritual to worship the forest and mountain spirits** (byang tha luu tha tho), which is undertaken to request forgiveness and pay respect to the watershed forest. The ritual is performed in the spiritual forest, and only middle aged and old men are allowed to attend the ceremony. Since it is a sacred ritual, chicken will be provided as an offering and all of it will be eaten where the ceremony is performed. In the old days, the ritual was conducted every year, but the elders have since decided it would be only conducted once every three years. This ritual demonstrates respect to the forest and the determination to conserve and sustain the abundance of the forest. Moreover, it shows respect for the watershed forest while offering prayers for protection from destroyers and providing a year-round water supply, as well as providing protection to conserve the forest for future generations.

Rituals to worship the spirits on the rotational farm are performed to ask the sacred spirits to help take care of crops on the farm. The key offerings are a bottle of local liquor, a pair of native chickens, a bite-sized piece of betel nut, and a bowl of fermented rice. The ritual is performed when the rice grains begin to appear. Another ritual is performed after the rice seeds are planted, which is called the ritual to "worship the fire spirit".

Rituals to worship the spirits in the garden (byang song) are different from the ritual to worship the rice field spirit. Most people in Kaboedin have gardens to grow tomato, chili, pumpkin, and cabbage, etc. The ritual is performed at the beginning of vegetable planting and again just before or after the crop harvest begins. The purpose is to ask for a bountiful harvest of high quality and disease-free produce that brings a good price. For instance, before planting pumpkin, the Kaboedin people will conduct the "ma mue gai" ritual to worship the land spirit. They will offer chicken, liquor and rice mixed with flour and ask for care of the agricultural produce and to provide a good quality of pumpkin.

The rituals performed in the community spiritual forest have been integrated into the establishment of the "Kaboedin Community Special Cultural Area", according to the Cabinet Resolution, dated 3 August 2010. This regards the policy for rehabilitating the Karen people's way of life, which is one of the attempts to protect the Karen traditions and preserve community natural resources. The policy is now being developed on the national level.

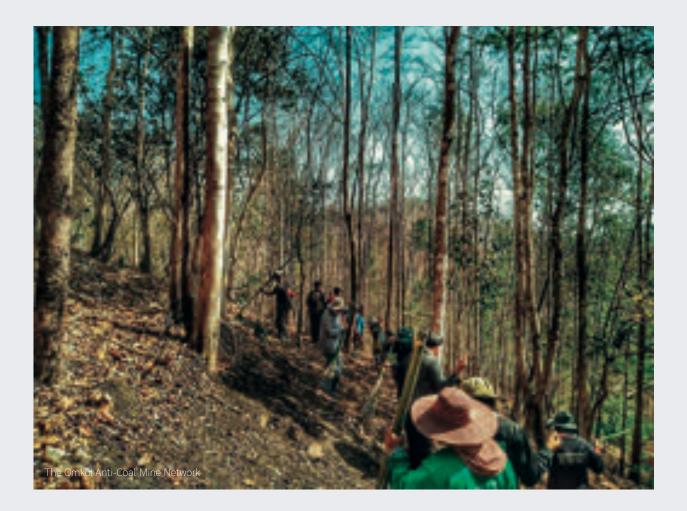
Rituals to chase away demons are called "wang chaeng" in the Pwo Karen language. It is a ritual to prolong the life of the village, which according to the Karen people's belief is very important to the Karen community because it strengthens the spirits of the community members. This ritual is performed to eliminate all bad things in the village, chase away all illnesses and enhance auspiciousness of the villagers, the houses, the Buddha images in the houses and other mechanical objects such as cars, motorcycles, including household objects. This ritual is also performed to chase away the Omkoi coal mining project that will destroy the community's livelihood and natural resources.

In addition, during the COVID-19 outbreak, the Kaboedin people have performed the ritual to protect the community and drive away the disease. Offerings such as chili paste, various varieties of rice seeds, cottons, threads, potatoes and taros were made at the entrance to the

village where the ritual was performed, which identified the boundaries where the offerings are made as the only area where the disease is allowed. The villagers also hung "ta tay lay" at the front doors of their houses to keep bad things from entering. The tong kong, a type of grass, was also used to sweep away all diseases from the house and was then brought to where the ritual was performed. After the ritual was performed, the leader of the ritual disposed of the grasses used to sweep away diseases while the village elders recited prayers.

This village in the highland valley reflects the rich cultural identity of the indigenous people living in harmony with the ecosystem and relying on its benefits.

Kaboedin is the land of wonder. This village in the highland valley reflects the rich cultural identity of the indigenous people living in harmony with the ecosystem and relying on its benefits. Through the practice of 'rotational farming' that utilizes both the forest and land, the Kaboedin villagers have created a well-managed food source suitable for upland agriculture. In an environmental context, the abundance of natural resources (namely forest and water resources in the area where humans and nature coexist) is a significant aspect that must not be overlooked. The next chapter illustrates the importance of water resources. The community views these natural resources as a blessing that provides both nurture and vitality to their way of life.





Omkoi is the source of many important rivers in the watershed. The Kaboedin people rely on two main streams and five minor streams, which are the lifeline for the community's water supply for household consumption, agricultural activities, and the forest ecosystem.

Chapter 2

Life and The Seven Streams

Omkoi is the source of many important rivers in the watershed¹³. The Kaboedin people rely on two main streams and five minor streams, which are the lifeline for the community's water supply for household consumption, agricultural activities and the forest ecosystem.

The two main streams, the Mae Angkhang stream and the Pha Khao stream, flow all year round and are the water sources that nourish the lives of the people in both sub-villages, as well as supply water for rice farming and other economic crops such as tomato, pumpkin and cabbage.

The Mae Angkhang stream is an important water source for rice farming and other agriculture crops for at least 33 families in the community. The Pha Khao stream originates from the big trees called "ku" in the Pwo Karen language, or "lam phoo pa" (Duabanga grandiflora), in the Pha Khao area of Mae Angkhang Mai village, and is the main water source for 36 households. The Pha Khao stream flows through the forest, agriculture land and grazing areas, and is also a water source for rice farming undertaken by more than 59 families in the community.

The Makham stream originates in Kaboedin village, and its headwater is in an area covered with a massive grove of large banana trees, of which water seeps out of their respective bases. Many generations of the Kaboedin people have used this stream for various activities. The water from the upstream area is used for bathing (in 2020, elderly people still bathed in this area) and for household consumption. The villagers previously had to hand-carry water from the Makham stream to their houses for household consumption, however this is no longer required since the mountain tap water system from Phui Mountain was constructed not far from the village's residential area.

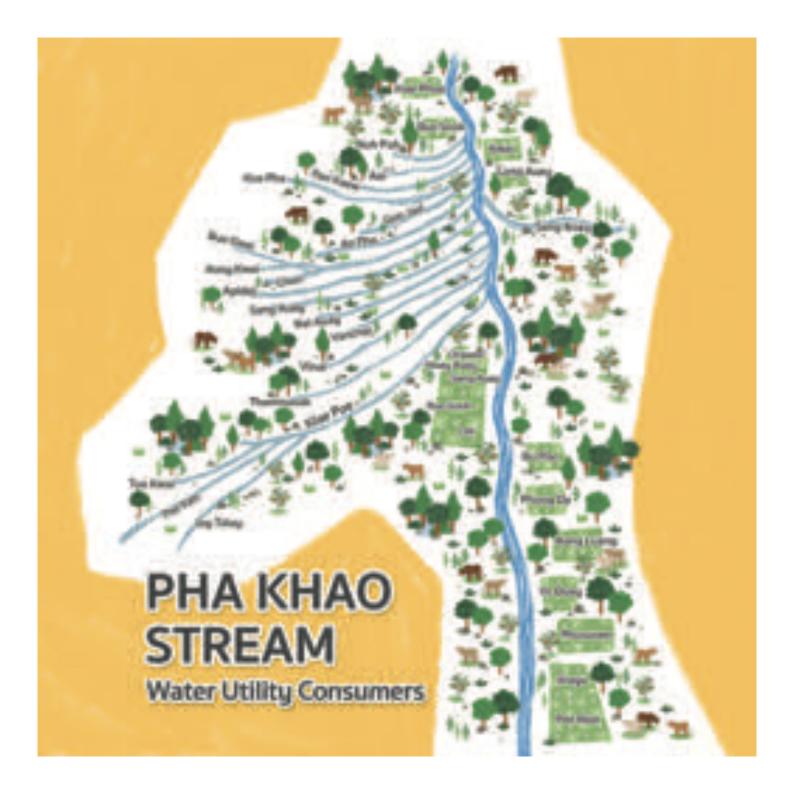
At present, water from the Makham stream is mainly used for agriculture, such as rice and other crops in the lowland area. The Makham stream converges with the Pha Khao stream in the area where the Omkoi coal mining project is proposed. There is also a network of minor streams such as the Nong Sra stream, the Ta Aeng Cha Klong stream, the Khwai Ku Tong Kee stream and the Klueng Mue Klon stream, which enhance the fertility of the entire area before they converge into the downstream rivers.



13 "Omkoi" is a district in Chiang Mai province. The word Omkoi comes from "amkoi" in the Lua (Lawa) language which means watershed.







The water supply from Phui Mountain is transported through PVC pipes to the Mae Angkhang Temple, which is located at the entrance of Kaboedin village. The water system, which is referred to as "mountain tap water", is maintained by Pang Buai who plays the important role of caretaker to ensure that every household has access to clean water for consumption, including agricultural use. In the event that the supply of natural water is scarce, villagers will bring their vehicles loaded with large square tanks which they will fill with water from the temple for their agriculture crops. Everyone in the community obtains their fresh water through the pipes connected to their houses. Every year, each household gives Pang Buai a sack of rice to demonstrate their gratitude for his dedication to such an important role.

The streams are also habitats for aquatic animals that also make up the villagers' food supply. According to community surveys, there are at least 10 edible species of aquatic animals found in the streams, such as, chui (crab), yae pu (fish), se dang (shrimp), tae phong (tadpole), yae loong (snakehead fish), dee (frog), thing thong bang (eel), tong pae lao (hillstream loache), choong thieng (water snake) and yae leang (dwarf snakehead). In addition, at least 13 native aquatic plants, namely phak kood (small vegetable fern), phak wan (water fern), poung du, thawing nae du (pennywort), chang thueng du, mang lang du, nor tong (sweet bamboo shoot), nor bong, yae pong, bae chae du, tabao du, ku (lamphu pa) and tae phong chaiwa, can be used for food and herbal medicine.¹⁴





14 Conducting a participatory study group to review and check the accuracy of the EIA report. The participants are comprised of the Kaboedin youth group and villagers, 20-22 November 2020.



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Apart from the water supply from Phui Mountain and the Makham stream, the Pha Khao stream and the Mae Angkhang stream are two other main streams which flow through the village, and are also major lifelines. These streams connect to other streams and nourish trees in the forest which is home to many types of animals that co-exist together. Therefore, the villagers have passed down their beliefs from generation to generation to raise awareness about the need for the conservation of water resources and the respectful utilization of the natural resources. Such beliefs are reflected in various water rituals, such as the ritual to request for forgiveness from the watershed forest and the ritual to worship the watershed forest spirit, etc.

Water from the Pha Khao stream flows through the spiritual forest, which is a village conservation area or, as it is called, the sacred area where cutting trees is prohibited. A group of elderly people, mostly men, perform the ritual within the spiritual forest area and make offerings of pork, local liquor, betel nut, etc. All offerings are consumed at the ritual site as nothing is allowed to be taken back to the village.

The "ritual to worship the water spirit" (byang thieng ku thai) is undertaken by the villagers to purge unknown causes of illness by requesting forgiveness from the spirit in the rice field. The villagers believe they might have stepped on the water spirit. Performed early in the morning, the ritual offerings of chicken, liquor and flowers are placed on a specially made bamboo shelf as a plea for forgiveness for all wrongdoings.

Community economic crops and the dependence on natural water resources

The natural fertility of the tomato farming plots of the Kaboedin people illustrates the agricultural dependence upon natural resources from the forest and various streams. Tomato production is an important source of income for the Kaboedin people. The villagers have cultivated tomatoes for more than 20 years and **"clean water"** is the key for growing crops.

Apart from the income obtained from cultivation, transporting the agricultural products to the markets also generates jobs and income for people in the community. Many vehicles travel back and forth on the steep roads transporting their agricultural products to the "long makuae", or the tomato warehouse, where tomatoes from Kaboedin village are traded before being distributed to various destinations throughout Thailand – via large agriculture wholesale markets to retailers in markets in many provinces, and finally to restaurants and consumers.

"In the dry season, you cannot find tomatoes anywhere else, except at Kaboedin."

Pichai Komutpadung

The tomato farming plots of the Kaboedin people illustrate the agricultural dependence upon natural fertility. Tomato production is an important source of income for the Kaboedin people. The villagers have cultivated tomatoes for more than 20 years and "clean water" is the key for growing crops.



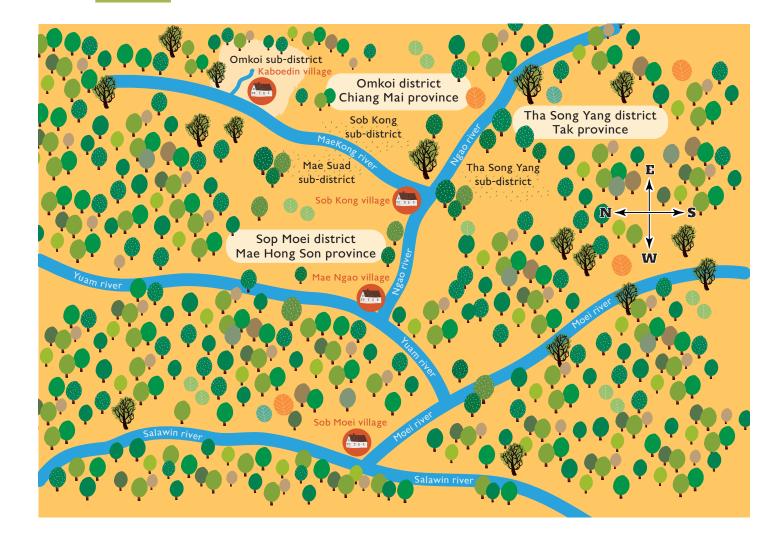
A notable buyer of Kaboedin tomatoes has also verbally confirmed that the local water resources are a key element of Kaboedin's reputation as one of the most remarkable tomato growing areas in Thailand. During the season when tomatoes can be sold at a high price, the villagers are able to earn enough income to purchase cars and other advanced agriculture equipment which helps facilitate the improvement of their farming and business.

Kaboedin is not the only community to use water from the Mae Angkhang stream and the Pha Khao stream. The neighboring villages such as Pha Daeng village and Nong Ung Tai village also rely on the water that flows through Kaboedin village to their agricultural land and pasture areas. Furthermore, these two streams converge into other streams and flow into the Ngao river before flowing into the Moei river.

Both people and animals rely on the water supply from the streams that flow through the communities for their existence. In addition, all the communities along both sides of the streams, from Omkoi subdistrict to Nakian sub district of Omkoi district and to Sop Moei district in Mae Hong Son province, have shared the benefits from the same original water sources.

Apparently, the streams that originate in Kaboedin village also supply water to the people in Mae Hong Son province. The water that flows from the Makham stream and the Pha Khao stream enhances the fertility of the watershed areas which both people and the forest depend upon, and these streams serve as an interrelated water supply network connecting the upstream, middle and downstream areas.

These streams serve as an interrelated water supply network connecting the upstream, middle and downstream areas.



Kluejung Pholtawich

Kluejung Pholtawich is a 20-year-old man from Kaboedin village. After graduating from Mathayom 3 (Grade 9) from Mae Angkhang School, which is located near Kaboedin village, Kluejung began working as a tomato collector at the age of 16. He also worked as a collector for other economic crops such as pumpkin, cabbage, etc., in Kaboedin and nearby villages such as Pha Daeng. At present, he works as a tomato collector with Kanidson Ponthawit, whom he respects as a brother. Before starting work, Kanidson will inform Kluejung about the details of the tasks to be undertaken.

Kluejung wakes up early at 6 a.m., uses a motorcycle to get to the tomato fields by 8 a.m. He collects the tomatoes in black buckets, picking the fruit row by row, sorting the ones that are smooth skinned and not too ripe, from white color to pink, and those that aren't rotten or nibbled by insects. He then loads the tomatoes into baskets which will be sold to the warehouses. During the lunch break, Kluejung will eat his packed meal.. After picking tomatoes, in the evening, he also helps load the tomato baskets into the cars. Sometimes he also travels with Kanidson to unload the baskets at the Mae Tom and Nong Krathing warehouses. He normally finishes the work around 5 p.m.

If he works a full day, he will receive 300 baht per day from Kanidson (or 200 baht if he works less than a full day). If he has to go to the warehouses, he will finish at 7 p.m., and Kanidson will also provide him food and beverage.



Kanidson Ponthawit

Kanidson Ponthawit is 24 years old, and the Chairperson of the Kaboedin Youth Group. He is currently responsible for taking care of his family's two tomato farms. He also acts on behalf of his neighbors to negotiate farming contracts worth hundreds of thousands of baht. The photo below is of a tomato farm located in the highland in Pha Daeng, a sub-village of Kaboedin village Moo 12. He is hired to transport the tomatoes to the warehouse owned by Ms. Wassana in Mae Tom village which is the center of many warehouses for trading tomatoes.

For transporting tomatoes from the farms to the warehouse, Kanidson earns 40 baht per basket. His total daily income depends on the number of baskets he can load into the car. His main job includes being responsible for the contracted farms, taking care of the workers collecting tomatoes and overseeing the advanced payment of daily wages to workers, which Ms. Wassana will reimburse him for when he delivers the tomatoes to the warehouse. If the contracted farms that he takes care of are highly profitable, Ms. Wassana will give caretakers such as Kanidson a large sum of money (tens of thousands of baht).

The tomato collecting job is carried out in a friendly atmosphere, with the workers normally chatting amongst themselves and keeping an eye on people who pass by. The work day starts from 8 a.m. to 4 p.m.





Boonyarit Wuttisinlawat

Boonyarit Wuttisinlawat, whose nickname is Ball, is a 25-year-old man from Kaboedin village. After finishing Grade 6 from Mae Angkhang School, he got a job as a motorcycle mechanic in Thung Siew village of Sanpatong district. He worked there for two years before returning home.

At present, he helps his parents by working on their two tomato farms in Pha Daeng, a sub-village of Kaboedin village. One tomato field is in the lowland and has a good water supply, while the other tomato field is in the highland. His family also owns a pumpkin farm which is located in the area where the coal mining project is proposed.

The water used for farming activities is pumped from the Mae Angkhang stream and transported via connecting pipes. Farms in the highland rely on rainwater in the rainy season. In the event there is no rain, the water will be pumped from the Mae Angkhang stream every 3-4 days to irrigate the tomatoes. The tomato crop will be damaged if it does not receive any water.

Taking care of a tomato farm requires 2-3 family members to water the plants during their free time. In the tomato farm area, they also grow other economic crops, such as pumpkins.

Regarding the sale of the tomato crop, Boonyarit will agree to contract farming if it is a good deal. Usually, the warehouse owners buy the produce directly from the farm,¹⁵ or in other words, they "take the whole farm's produce"¹⁶. They have direct contact with the farm owners and negotiate both the price and wages for the laborers and prepare an agreement outlining responsibilities. Sometimes the farm owners have to pay the cost of hiring tomato collectors while the buyers will assign their workers to transfer the picked tomatoes using their own baskets to transport them. Mostly, they hire the local people to collect tomatoes while the workers hired by the buyer help sort the produce and determine quality before loading the baskets onto vehicles to transport them to warehouses outside the village, most of which are in Mae Tom village.

The wage rates for tomato collecting vary depending on the price of the produce for that period, which would normally be about 250-300 baht (wage rate during the time tomatoes are sold at 20 baht per kilogram). During some periods, when the tomatoes obtain a high price, the wage rate will increase up to 400 baht per day and the workers who carry the baskets will be paid up to 400-500 baht per day.

¹⁵ If buyers are men they are normally called "por lieng or hia", if they are women they are normally called "je".

¹⁶ The tomato buyers will come to the farm to negotiate the price. The farmers will make a deal once they are satisfied with the price offered and have calculated that they will not incur any loss. The buyers will be involved in the entire process as if it was their own farm, and make reassuring promises such as, "Just grow it and we will buy all the produce based on a day by day market price."





Chapter 3

The Community's Concerns on

The Environmental Impact Assessment The Omkoi coal mining project



The Omkoi coal mining project

The first step toward the establishment of a coal mine in Omkoi, also known as the Omkoi mining project, occurred when the 99 Thuwanon Company Limited submitted an application for concession certificate No. 1/2543 with the Department of Primary Industries and Mines, Ministry of Industry– according to the Minerals Act B.E. 2510 (1967), for a coal mining operation in Kaboedin village, Moo 12, Omkoi subdistrict and Omkoi district, Chiang Mai province. The project covers an area of 284 rai and 30 square wah.¹⁷ According to the Notification of the Ministry of Natural Resources and Environment Re: Types and Sizes of Projects or Activities Requiring Environmental Impact Assessment Report and Rules, Procedures, Practices and Guidelines for Providing Environmental Impact Assessment Reports, the mining project is required to provide an environmental impact assessment report when applying for mining concession certification from the Department of Primary Industries and Mines, Ministry of Industry.

However, an examination of the process for conducting the environmental impact assessment report¹⁸ raised many questions. With regard to transparency of the overall report, several aspects were deemed suspicious, especially on issues regarding the participation of the local community. From the beginning, the local people were not made aware of the environmental impact assessment procedures. As a result, when the community members learned about the proposed coal mining project in their area, they subsequently gathered to stage their opposition to the project at the project's public hearing event.¹⁹ Consequently, it led to the rise of the local movement to increase the public's understanding of the concerns regarding the coal mining project in Omkoi.

The environmental impact assessment report (EIA report) was conducted in 2010, and the Expert Committee on EIA Consideration in the mining and extracting industry approved the EIA report of the Omkoi coal mining project on 16 August 2011. To date, the project owner and the Department of Primary Industries and Mines still insist on using the EIA report, which was approved more than 10 years ago, when considering the issuance of the coal mining concession certificate in the area of Kaboedin village in Omkoi district of Chiang Mai province. The villagers have submitted a petition to the relevant agencies pointing out that the data on natural resources, environment, human use value and ecological system in this EIA is no longer valid since the condition of the geography, environment and local people's way of life has significantly changed since it was initially prepared.

Reference documents in the EIA report have been falsified, specifically regarding the list of names of the local people. On 5 April 2020, the representatives of Kaboedin village gathered at the Omkoi Regional Police Station to file a complaint after finding errors and suspicious information in the EIA report. The major errors were identified as follows:

- 1. People who cannot write their name found their fingerprints in the document.
- 2. People who can write their name found their fingerprints in the document.
- 3. People who are under the age of majority found their signatures in the document.
- 4. There were duplicate names in the document.
- 5. Some people insist that the signature in the document is not their handwriting.

18 The word EIA report used here refers to the final report of the environmental impact assessment of the Omkoi coal mining project, the concession certificate request No. 1/2543 by the 99 Thuwanon Company Limited, which was conducted by the Top-Class Consultant Company Limited.

19 28 September 2019 at Ban Mae Angkhang School.

¹⁷ The Environmental Impact Assessment or EIA is the assessment of the impacts of the development project that will have both negative and positive effects on health or richness of the environment, including the risks that will affect the ecological system and the changes to the environment, which may cause severe damage to the environment. (The Office of Natural Resources and Environmental Policy and Planning, 2019). One rai equals 1,600 square meters, and 4 square meters equals one square wah.

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The review of the EIA report also found issues related to inconsistencies regarding factual information about the area and several other suspicious aspects that need to be revised, including clarification of the project implementation plan to the local community members and other affected people through the public participation process. The key observations are as follows:

Why the state permits coal mining in an abundant forest area while the community has always been restricted by the forest laws that are enacted without recognition of their fundamental rights.

The coal mining project has requested a concession certificate (Concession Certificate Request No. 1/2543) for an area located in the Omkoi National Forest Reserve which has been utilized by the local community long before the request was submitted. The community's livelihood, which includes collecting forest products and rice farming, is carried out in this geographical site comprised of the forest and mountain terrain, and the plains between the foothills and the mountains. The total forest area is 110 rai, accounting for 38.7% of the project area (60 rai in the northeastern foothills, 20 rai in the north and 30 rai in the east of the concession area, alternating with scrub vegetation. In addition, there are 60 rai of terraced rice farming area and 90 rai of upland rice farming in which the total economic value is estimated at 704,368.80 baht).

In addition, the information from the state agency responsible for the conservation of natural resources in the area contradicts the information in the EIA report. For example, the data provided by the Omkoi Wildlife Sanctuary ²⁰ regarding the biodiversity survey of the most commonly found wildlife in the Omkoi Wildlife Sanctuary indicated there were 158 bird species in the wildlife sanctuary. The EIA report also states that there is an abundance of birds in this forest area, however, only 19 bird species were identified. Moreover, there is suspicion regarding the lists of wildlife protected by laws.



20 The Wildlife Conservation Office, Wildlife Research Division, Department of National Park, Wildlife and Plant Conservation. http://www.thaiwildlife.info/sanctuary.php?page=3



It is apparent that the perception, or the way of looking at the forest, is only one dimensional and focuses merely on the economic value of wood. It does not recognize the local community, who essentially utilize the resources for their livelihood, and it ignores the community's values. The proposed coal mining concession area is the same area where the local people depend upon the land for their agricultural livelihood and this area is intensively cultivated by the community.

There has been an attempt to classify the forest area in the proposed coal mining site as "degraded forest". In fact, Kaboedin village is clearly an ecological zoned area. Aerial photographs of large areas of terraced rice fields provide evidence that the local people have continuously cultivated rice in this area since 1952, and those economic crops were also seasonally cultivated in some periods. The local people have also cultivated various rotational crops in the same plots, according to the cycle of cultivation. The adherence to the one-sided aspect of litigation has contributed to the application of the inaccurate definition of the term "degraded forest" to this area, as well as the neglectful lack of initiative to undertake a detailed study of how the local community utilizes the land. In the EIA report, there is an attempt to characterize the forest area as a dry mixed deciduous forest that is noticeably deteriorated.

The genuine fertility of the ecological system of the Omkoi district, where Kaboedin village is located, will only become apparent when the one-sided aspect of Forestry Laws are no longer recognized. However, in the EIA report, this area has been defined as an allocated economic forest area (Zone E) which focuses on economic benefits and national security, while ignoring the community's right to maintain its economic stability and development, which is dependent upon the availability of natural resources. Moreover, there is no mention of ecological diversity in the EIA report. The study of the coal mining's impacts is only focused within a three-kilometer radius which does not provide an accurate account. In addition, there is no indication of how local people utilize the resources. The study only provides an estimate of the economic value and does not mention the social and cultural aspects.





Rotational Farming ≠ Shifting Farming

The label of shifting farming is baseless. For generations, the community has maintained a clear boundary for farming management and practicing rotational farming, which is regarded as a traditional and ecological farming system. The term "shifting farming" is part of a discourse from the past that is rooted in ethnic prejudice often used by the state authority to reinforce the stereotype of people living in the highlands as the culprits responsible for destruction of natural resources. It is no longer rational to use this outdated and biased rhetoric, especially by the state agency whose data and studies must be reliable. Rotational farming has been cited in numerous academic studies, both nationally and internationally, identifying it as an ancient agricultural system dating back about 10,000 years B.C. For example, the Department of Cultural Promotion²¹ states that the Food and Agriculture Organization of the United Nations (FAO) has declared that rotational farming is an agroforestry system that is ecologically sustainable and is not destructive to the forest as formerly assumed. In addition, there are at least 3,000 ethnic groups who practice this farming system. To understand the Karen people's way of life, it is crucial to understand the Karen's "kue-cheuy" (rotational farming) as a farming practice that is compatible with the existence of the forest. It is an agricultural system that promotes regeneration of the forest and enables the community to be self-reliant as production is mainly for consumption, which is in line with the sufficiency economy principle. Scholars in related fields such as agriculture, forestry, ecology and anthropology have all recognized the ecological importance of the rotational system and its successful maintenance of a rich biodiversity.

In general, rotational farming is often viewed as a type of highland agricultural production system. However, the rotational farming system comprises various complex aspects of knowledge and culture. It is considered a highly efficient production system that provides food and medicine, and maintains the diversity of plant species that grow naturally or are cultivated. In addition, this production system also effectively reduces pressure on the use of forest resources.

²¹ The Department of Cultural Promotion. (n.d.) Kue-Cheuy Rotational Farm. Chakkawalthas. http://article.culture.go.th/index.php/layouts-modules- positions/3-column-layout-9/157-2019-07-31-08-07-01

At least three crucial benefits of rotational cultivation contribute to its importance as the foundation for the development of highland resource management systems.²² Firstly, it preserves local native plant species for both food and medicine. Secondly, it preserves cultural diversity, respects the dignity of the ethnic identity, and truly encourages people to participate in resource management. Thirdly, it preserves the ecological system, the community production system and food sources, as well as food security. These are the key foundations for strengthening the farmers' capacity in a sustainable manner.

Despite the implementation of numerous studies and research regarding the rotational cultivation system which have provided knowledge and a greater understanding of such issues, the resistance and bias from society and some state agencies remain. Hence, it is crucial to promote this knowledge to ensure that the ecologically sound rotational farming system is truly understood and accepted. "The Kaboedin villagers are mainly farmers, growing tomato, pumpkin, cabbage. We earn income from selling these produce. This is the place where our parents' livelihood exists. Farming is our lives. If we lose it, it will affect our lives. We would like to preserve the indigenous people's land here. The Kaboedin youth group must fight to protect this land."

Pornchita Fahprathanprai A Kaboedin youth

In fact, in accordance with the Cabinet Resolution in 2004, the Subcommittee for Determining Solutions was appointed, resulting in crucial research being undertaken²³. Regarding the Karen ethnicity, in particular, on 3 August 2010²⁴, the Cabinet Resolution on "Policy Guidelines for Rehabilitating the Karen People's Way of Life" emphasized that the Karen community's rotational cultivation system was an eco-cultural heritage.

Assessment of water resources, streams and watershed ecosystems

Water is an essential natural resource for nourishing the lives of all people. The proposed coal mining concession site is in the watershed area where two streams, the Mae Angkhang and the Pha Khao converge, located in the Omkoi National Forest Reserve Area (Omkoi Forest) in the upper Ping River basin, which is designated as Class 3 in the Watershed Classification.

The EIA report states that the local villagers do not utilize any water resources from the Mae Angkhang stream and the Pha Khao stream. However, in fact, the local villagers rely on both streams to provide water for their agriculture activities. If the coal mining concession, Request No. 1/2543, is approved by the Department of Primary Industries and Mines (DPIM), the mine will commence extracting coal. There are concerns that contentious issues will arise between the coal mine company and the local community regarding the impacts of the mining activities. This will affect the way of life and occupations of the local villagers. Most of the Kaboedin villagers rely on agriculture for their incomes. The crops are grown according to seasonal cultivation cycles and rely on water resources from both streams that flow throughout the year. Kaboedin is not the only community that depends upon these streams. Many other nearby communities also rely on the Mae Angkhang stream and the Pha Khao stream for their livelihood and agriculture.

23 "Rotational Cultivation System: Status and Changes, Book 2" 2004. Faculty of Social Sciences, Chiang Mai University.

²² Yos Santasombat. (1999). Biodiversity and Local Wisdom for Sustainable Development. Chiang Mai: Department of Sociology and Anthropology, Faculty of Social Sciences, Chiang Mai University

²⁴ Ministry of Culture. (2012). Report on the Outcomes of the Implementation on the Cabinet Resolution Re: The Policy Guidelines for Rehabilitating the Karen People's Way of Life". Information Service Center, the Secretariat of the Cabinet.

'The study on the aquatic ecology is not comprehensive. In the EIA report, only one streamthe Mae Angkhang stream, was surveyed'.

The EIA report states that a tributary of the Mae Angkhang stream meets the Pha Khao stream. However, the EIA report does not mention the Makham stream, a main stream used by the community that originates in Kaboedin village and flows into the Pha Khao stream.

The EIA report states that the proposed coal mining concession area includes two main streams, namely the Mae Angkhang and the Pha Khao . However, in fact, there are more than two main streams in Kaboedin village and they are not included in the EIA report. Moreover, the Mae Angkhang and the Pha Khao are big streams which flow all year round and provide plenty of water in the rainy season, and less water in the dry season. In addition, these two streams do not converge in the proposed mining site. According to the survey by the community members, these two main streams converge in the area between Kaboedin village and Nong Ung village. Additionally, the EIA report also states that some streams are dry, covered with weeds and can no longer be used by the local people. This inaccurate assessment is of great concern as it claims that the streams currently used by the local people are useless.

At present, more than 40 households obtain water for agriculture and directly use both the Mae Angkhang stream and the Pha Khao stream. Claiming that the local people do not use the water from these two streams is contrary to reality. The water resources in the area are reminiscent of the network of arteries in the human body linking and merging into one another, therefore making it impossible to accurately assess the overall impacts based on one specific stream. Moreover, the construction design of the coal mining project is another concern because it will alter the original natural water channel and replace the stream bed with a cement floor.

The impact on the aquatic ecosystem will occur beyond the three-kilometer radius of the project site

The study examines only the affected areas within a three-kilometer radius from the project site and does not provide a thorough exploration of the actual impacts on water utilization of the two streams in the coal mining project area. The impact assessment should cover all potentially affected areas regardless of the distance from the project site. For example, the study should cover the whole stream waterway, including streams that converge into other streams before flowing into the Moei river in the west in order to assess the potential impacts of the water that flows into other areas. This is to avoid potential negative impacts on health and livelihood, and to ensure safe water use for everyone in all areas where the streams flow.

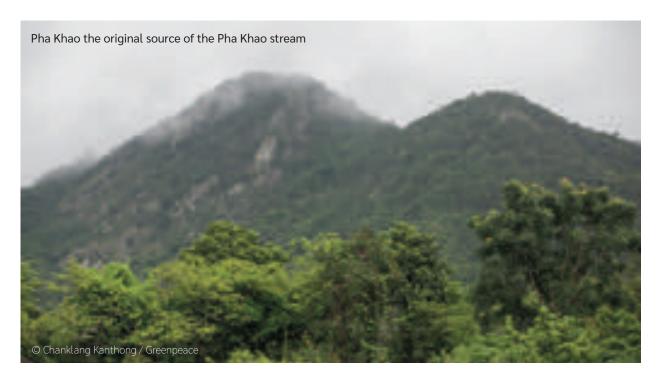




Clearly, studying one stream cannot effectively present all the project impacts as indicated in the EIA report because the various streams flow past other communities that also use the water supply for their livelihood activities. Therefore, Kaboedin village will not be the only community affected, but all of the communities along the basin will be impacted as well. Hence, it is not possible to assess all of the impacts based on a single spot as the waterflow will ecologically affect the entire basin, which is greater than a three-kilometer radius.

In addition, the 99 Thuwanon Company Limited requested permission to change the public waterway as far back as 2010, the timeline and process of which raises suspicions about the validity of the procedure to acquire permission. A letter of consent from the six Chiefs of the Villages that is signed by the Chief of the Subdistrict was submitted to the Omkoi District Office²⁵ and later to the Provincial Office²⁶, however there is no document confirming that permission has been granted. According to the Marine Department's regulation, permission must be obtained prior to undertaking any activities or any construction that causes any changes to the condition of the public waterway. Therefore, it appears that the former request for permission may not be sufficient as it is not in compliance with the Marine Department's regulation due to the impacts on the two streams. In addition, it will also affect the underground water system and the catchment area where several streams originate, which sustain the natural water sources around the coal mining project site.

Moreover, as the coal seam lines cross the stream channels, the project is designed to divert the Pha Khao stream and the Mae Angkhang stream to the project area, which will subsequently change the natural flow and the stream bed. The new diverted canal will be paved with concrete. There are concerns about changes to the direction of the water supply from both streams that people rely on for their agriculture, as well as the food plants that grow along the streams. This will affect both the biodiversity and natural waterflow. In addition, it will cause erosion of the original stream and its banks downstream. The EIA report states that the new waterway is designed to maintain the optimal characteristic flow of the original stream in an effort to avoid the negative effects of altering the flow. However, the EIA report did not assess or identify the potential impacts which could have been easily undertaken with engineering modeling to assess the waterflow rate, and to compare the differences between the original waterway and the diverted one.

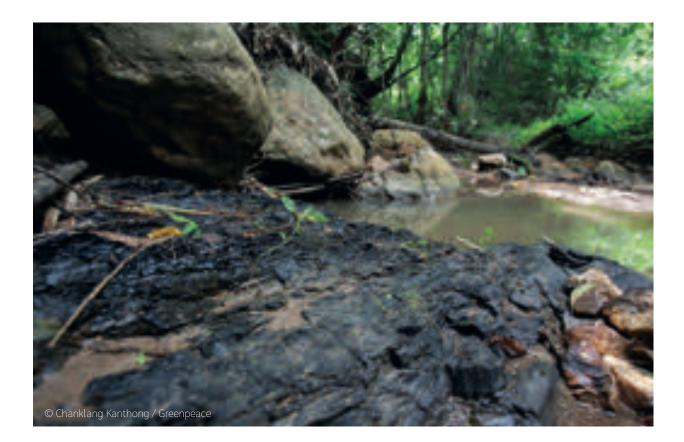


- 25 The Letter of Consent of the Villages Affected by the Request to Block the Public Waterway, dated 16 March 2010. The attached document in the Annex 7 of the EIA report.
- 26 The Omkoi District Chief submitted the letter to the Chiang Mai Governor, Re: The 99 Thuwanon Company Request to Block, Abolish or Deteriorate the Public Waterway. The attached document in the Annex 7 of the EIA report.

With regard to the impact on hydrogeology and groundwater quality, the EIA report states, "the proposed coal mining concession area is located on a granite aquifer. The groundwater flows through cracks or layers of fractured rock and the amount of water has the capacity to be developed at a rate of 0-5 cubic meters/ hour, and some areas may be more than 5 cubic meters/hour. According to the layout of the mining site, the project is in a flat area between the hills and the foothill slopes. The mining operation will be carried out at an altitude of 749-860 meters above mean sea level and no chemicals will be used in the mining process. The field surveys revealed that communities near the project area are situated higher than the project site level and most of the communities mainly use mountain tap water and rainwater, with only a small percentage using groundwater and shallow wells. Therefore, the mining operation will have no significant impact on the quality of the groundwater or on the water usage by nearby communities."

The above information mentioned in the EIA report attempts to claim that the project area "is not an area of a watershed or a spring forest", despite the fact that the proposed project site is a watershed area or a spring forest where mining activities are prohibited. According to the Minerals Act B.E. 2560 (2017), Section 17 paragraph 4 which states that, "the area to be designated as a mineral deposit area for mining purposes **must not** be an area within the territory of a national park under the law on national parks, a wildlife variety area under the law on wildlife conservation and protection, an area of an ancient monument registered under the law on ancient monuments, antiques, objects of art, and national museums, an area exploitation of which is absolutely prohibited by law, a national safety and security area, or **an area of a watershed or a spring forest**."

If the topsoil is removed, the "area of water springs" will be destroyed. In addition, the proposed project site is covered with big trees and the area containing water storage resources, such as reservoirs (water springs), in more than 34 locations. This includes many trees that are the source of the community's herbal medicines, such as wild mango and wild olive, that can cure diarrhea or stomach ache. Hence, the areas with water springs are closely connected to the people's water utilization and the fertility of the forest as a whole, not only for the Kaboedin people.



As the primary users of the water, the key concern of the local people is the information that would show how the waterway will be modified. The villagers do not want the waterway to be diverted because the upstream area is the main water supply for their agriculture and is crucial to the community.

It is not only people that rely on the water supply from this area, but animals also depend on the same water sources. For example, "cow raising"²⁷, which is not listed in the EIA report, will also be affected if the waterway is altered. Therefore, both agriculture and raising domesticated animals– which are important sources of income and function as household assets– will be impacted if the natural waterflow is modified.

In Kaboedin village, the raising of cows is undertaken in an organic manner. Most cows are free range, except for a few kept in household backyards. During the rice farming season– from May to December, from the rainy season to the dry season– the cows will be allowed to graze in the upper forest. Occasionally, the cow owners will check their whereabouts and provide them with some salt. The cows will live in the forest throughout the rice farming season. After the rice harvest season, the cows are raised in the plains, particularly in the fallow rice fields which are free of rice farming activities. After harvesting, the rice fields provide a key food source for animals, with grass straw and hay making up the main diet for the cows. After the rice harvest, when food sources are scarce from winter to summer, grass straw is stored for feeding the cows. The villagers build temporary paddocks for the cows to remain in the rice fields with the resultant "cow manure" becoming fertilizer for the next rice farming season. Cow raising is another main source of income for the villagers and help them with their daily household expenses, even for supplementary household income. Cows are sold when a significant amount of cash is needed, for example, in the case of illness or for children's educational expenses. The villagers only raise cows to sell to merchants from different districts who come to the village to purchase cows.



27 Cited from a focus group with participation from the cow raisers from 12 households in Kaboedin village where 167 cows are raised. August 2020.

Issues related to local animals and plants

The EIA report categorizes animals into four sections: mammals, birds, reptiles and amphibians. The study methodology utilized tools such as animal tracing – from observation and from spotting with binoculars, reviewing documents, and collecting data from people in the area where hunting wildlife has occurred. The EIA report states that only small animals and reptiles can be found living within the project site and surrounding areas.²⁸ However, the EIA report does not cite the list of significant animals found within the Omkoi Wildlife Sanctuary,²⁹ nor the map of suitable wildlife habitats in the Omkoi Wildlife Sanctuary³⁰ which lists the wildlife in the respective four categories.

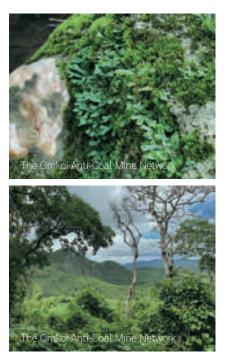
Twenty-eight animal species are known to be living in the project site and surrounding areas, of which 15 species are specified in the annex of wild animals in the Notification of the Ministry of Natural Resources and Environment. According to the Interview Report³¹, only small animals such as birds and reptiles can be found in the project area and surrounding areas. There was no mention of wildlife in the area.

Many wildlife species are protected by law under the Wildlife Preservation and Protection Act B.E. 2535 (1992). However, the EIA report made references based on the Thailand Red Data: Mammals, Reptiles and Amphibians (2005), and Thailand Red Data: Bird (2005).

The information provided by the consulting company claims that "the list of 28 wildlife species found in the study site did not conform to the animal status classification by the Office of Natural Resources and Environmental Policy and Planning" according to the lists of threatened species of mammals, reptiles and amphibians, and birds in Thailand.³² The study is not comprehensive because it only references animal status

using international criteria. Further, it ignores the essence of wildlife in a particular area context while focusing more on the rankings and downplaying the social and cultural aspects of the narratives of wildlifedependent inhabitants.

In fact, the number of animal species in the project area is higher than indicated in the EIA report, and the study does not cover the flowing water ecosystems. The impact assessment on wildlife and plants does not mention animals that live or base their habitats in the streams. The study is not comprehensive as it does not cover the flowing water ecosystems, in which the Kaboedin community also relies on the aquatic animals in the streams for their food supply. In addition, it cannot deny the fact that the forest areas around Kaboedin village remain abundant with mixed deciduous forest. Various species of wildlife are found in the forest area near Kaboedin village such as wild boar, deer, barking deer, tiger and many species of birds, which indicate the richness of the ecological system.



²⁸ The Additional Interview Report on the Request of Mining Concession Certificate, according to the Department of Mineral Resources, Order No. 246/2537.

- 29 Information from Smart Patrol, 2014.
- 30 Division of Information System on Wildlife Conservation.

31 The Interview Report on the Request of Mining Concession Certificate (No.1/2543), according to the Department of Mineral Resources, Order No. 246/2537. Interviewed on 25 February 2010.

32 Red List of Threatened Species (IUCN Ver.3.1.2001) IUCN.

Moreover, many herbal plants with medicinal properties are found in Kaboedin village. These include:



The ethnic Karen communities in the mountainous area have a simple way of life and utilize local food plants and herbal plants to treat illnesses. The villagers possess local wisdom and knowledge about plants, and the resources available in the community provide a level of self-reliance.

Escalating dust pollution problems and the risks associated with transportation

The EIA report downplays the impacts of the coal transportation route by stating that the community will only be affected by the issue of accidents. However, transporting coal by truck over a distance of about 20 kilometers from Nong Krathing to the coal mine requires the use of the same road utilized by local vehicles like cars and motorcycles. The locals will likely be affected because this is the main route used by Kaboedin people and nearby communities for commuting and interacting with outsiders. Moreover, it will also affect the people's incomes because this is the route used to transport their economic crops, specifically those in the tomato trading business.

"We can only imagine that once the industry is established in that area, the community will certainly not be able to travel like they are doing now."

Voice of a Kaboedin villager

The project states that the dust pollution will be eliminated by spraying water at every spot where dust is scattered, and that the project's trucks will utilize tight covers over their loads.³³ However, the community is already subjected to the highest levels of dust pollution during the dry season, which is also the same period when it faces the greatest limitations on the water supply. The local villagers, particularly those who live in houses situated along the road, are exposed to air pollution. The nitrogen oxide emitted by automobiles is the main source of fine particulate matter that is smaller than 2.5 microns, also known as PM2.5. In addition, the project has followed road construction advice from a certain engineering professional which is contrary to the recommendations presented by the consulting company. Although the community needs roads, if the quality is sub-standard and impractical, it might result in dangerous scenarios impacting people's properties and lives. It also appears that the second section of the road consists of steep slopes and cuts through

seven communities. Therefore, the project must provide clarification on the reasons why the project favors the recommendations of the engineering professional instead of the consulting company, despite the issues related to safety of the local communities and all road commuters.

Kaboedin is a long-standing community situated on the site of an ancient settlement

Aside from environmental degradation, a community's culture and history would also be severely impacted, if not erased completely.

"Regarding the area survey undertaken by the 8th Regional Office of Fine Arts Department, Chiang Mai, in accordance with the request for a coal mining concession certificate, interviews were undertaken with the villagers who confirmed there is no archeological evidence in the area. Additionally, a review of the Fine Arts Department's documents indicates that no archaeological sites have been discovered in this area. Therefore, the operation of the coal mine in the requested site is unlikely to pose any impact to the archaeological environment in the surrounding area. However, this survey was merely conducted on the soil surface covered by trees, weeds, and steep cliffs, which are an obstacle to exploration. Hence, during the operation of the mine, if any ancient artifacts are found buried in the soil, or archaeological evidence found in the caves, the mining operator must temporarily halt its operation and promptly notify the 8th Regional Office of Fine Arts Department, Chiang Mai in order to examine and proceed according to the archaeological process of collecting evidence for academic benefit and for the preservation of national cultural heritage."

Ancient artifacts that have historical value, such as the muya tobacco pipe, or "moh" in the Pwo Karen language and bowls have often been found on farms when villagers apply fertilizer in the agriculture plots.

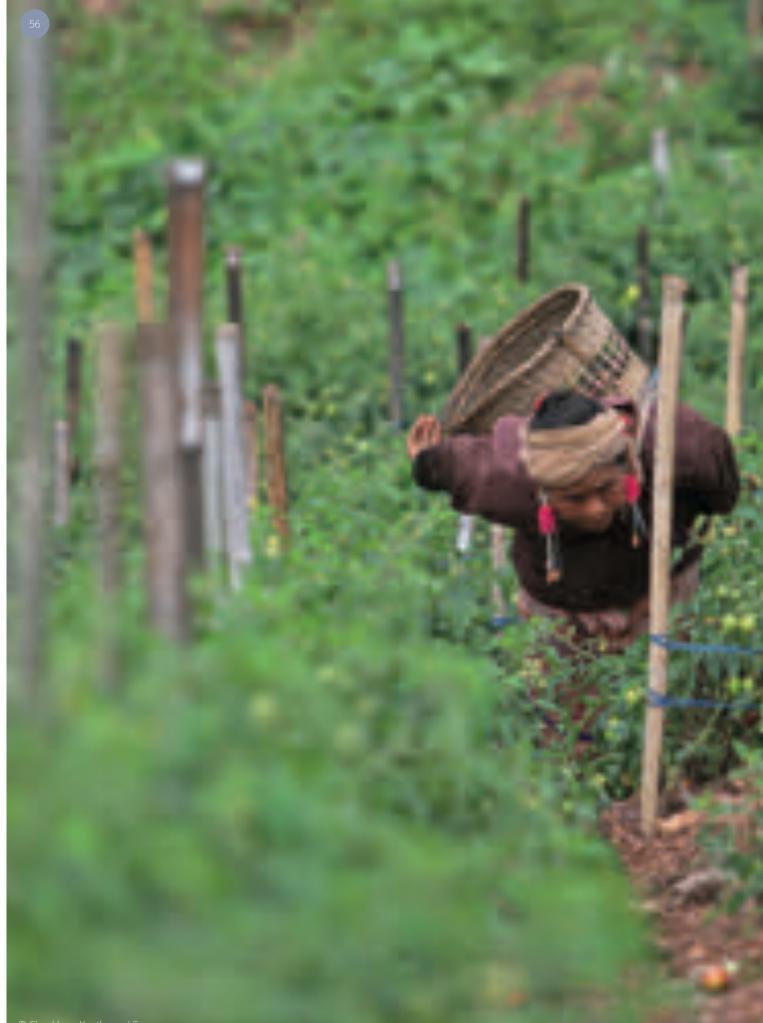
These ancient artifacts indicate the existence of a long-standing community, which should be preserved for educational purposes and for future generations.

Over a period of more than 10 years, the consulting company hired by the mining company conducted research for the EIA report in order to apply for a coal mining concession certificate. The report was subsequently approved by the Expert Committee, which will lead to the next important steps of the project approval process.



However, the inaccuracies and inconsistencies within the report have raised many legitimate questions, and the local community has voiced their concerns that the people in the area have not been informed and did not participate in the process. Moreover, the EIA report does not reflect the context of the changes over the years since the EIA was conducted and thus, does not reflect what will actually happen to the area which has raised concerns about the impacts that will occur in the near future.

Ethnic people and their respective way of life, identity and management of their natural resources have often been viewed in a negative manner that lacks a thorough understanding of their unique contribution to society. The declaration by the state that preserved forest areas overlap with the longstanding ethnic Karen communities and their respective farmlands, which have been used for generations before the laws and policies were implemented, has further contributed to the public's tainted opinion of the Karen people as the culprits responsible for destroying the forest. These days, the rotational cultivation system has been accepted as a legitimate form of land utilization. Therefore, the community has adopted ongoing strategies of resistance to counter state power. Moreover, the community has voiced their resistance to the coal mining project as it is not at all compatible with their way of life.



Chapter 4

The Community's Impacts Assessment

The inherent natural wealth of the Omkoi district lies with its pristine natural resource base, particularly the abundance of forest and natural water sources that nourish the lives of the Omkoi people. However, if the waterflow of the Pha Khao stream– which runs through the mineral seam where the coal mining project is proposed– is affected, it will have a direct impact on the sources of water for agriculture use. Moreover, it will affect the water flowing from upstream through to the middle and downstream areas. Livelihoods will be destroyed and the community will no longer be able to rely on the natural resources that were once readily available in the area. There would be food insecurity due to biodiversity loss , and the community's way of life will eventually collapse. Droughts will intensify, contributing to contentious conflicts over resources both within the community and with the outlying communities. Moreover, it will also result in the loss of carbon sequestration areas and forests which function as the lungs for the people in Chiang Mai already struggling with the air pollution crisis.

The analysis of data collected by the Kaboedin people and the Omkoi local community network indicates that Kaboedin village and the Omkoi people will be affected by seven key impacts, which are:

The irreversible loss of the abundant natural resources, spiritual forests, biodiversity, and the balance of the ecological system. The people in Omkoi and Chiang Mai will be subjected to the resultant environmental pollution.

The loss of farmland, food safety and food security areas, and economic agricultural plots. Fifty families from Kaboedin village have farmlands within the proposed coal mining concession site.



The loss of the ability to use the streams and the original natural water resources. There will be a loss of groundwater sources and catchment areas, and interruption of the natural water flow. These water resources and all the tributaries are interrelated from the upstream to the middle and downstream areas, which will also affect nearby provinces and increase the risk of water shortages especially in the dry season. It will lead to disputes over water resources between the coal mine and the community, and between the community and surrounding areas.

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The health problems caused by toxic pollution, such as dust pollution, air pollution and water pollution. The water contaminated with heavy metals will no longer be used for consumption and agriculture. People will be affected by environmental health problems and the required medical treatment for illness will be a financial burden.

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The changes to the landscape caused by industrial activities such as coal mining. This will increase the risk of road accidents due to the frequent use of vehicles transporting coal, and the risk of soil erosion and landslides after heavy rainfall.



The collapse of the community: the ethnic Karen communities that coexist in the forest, together with efforts to adapt their way of life in an environmentally sustainable manner, will be replaced by an industry that is undesirable by the local community.



The emergence of disputes, conflicts and violence not initiated by the local community. The local people will be pressured to alter their normal livelihood by various influential groups who have a vested interest in project implementation.

The coal mining project will not only affect the agriculture land of the Kaboedin people, but from preliminary observations within a 20-kilometer radius from the coal mining site in Kaboedin village, at least six villages and two sub-villages will also be affected by the coal mining project implementation. These are:



Open-pit or opencast mining involves the use of blasting or manual labor crews to clear the surface soil, and the mineral deposits in the soil are then washed or extracted in another area. Thus, the operation of the open-pit mine will cause the dramatic destruction to the forest and endemic plant and animal species may eventually become extinct.

The physical properties and the fertility of the surface soil will deteriorate and overall human health will be affected by exposure to heavy metal, contaminated dust and mining effluents which will accumulate in the human body.

According to the EIA report, the project characteristics of the open-pit mining operation will include excavation to transform the land into terraces and no chemicals or water will be used in the mining process. However, the process for removal of the surface soil remains poorly defined as it does not clearly state whether excavating or blasting methods will be used. Clarification on the impact on air quality also needs to be addressed.

The EIA report states that no explosives or mineral crushing will be used in the operation process, therefore, resultant dust levels will be minimal. However the report mentions the impacts on health and safety caused by rock blasting, etc.

The construction of the mine will affect the natural waterflow of the stream in the area. The excavation of the coal mine will destroy the landscape and transform it into a large pit. The mining pit will be abandoned after the underground coal has been extracted and it will cause changes to the natural flow of the groundwater and intensify drought. In the dry season, the coal mine will be storing all the available water to supply its own operational needs, leaving the villagers with no access to water.

A case study on the expansion of coal mines in areas with communities in Indonesia³⁴ reveals that the communities faced difficulties accessing water, which is a crucial resource for their livelihood. The coal mining excavation has impacted three rivers which the villagers rely upon. Water resources are essential for their transportation, consumption and livelihood which includes fisheries and agriculture. The changes in water quality affected both humans and animals. The villagers can no longer sustain their usual livelihood and view their way of life as being under threat.

The open-pit mining in the Kaboedin area will result in the loss of the catchment area of two streams. The villagers will subsequently experience water shortages in the dry season and they will be exposed to the heightened risk of landslides and flash floods during the rainy season. Furthermore, it may cause the loss of natural water bodies that help to slow down the flow, resulting in flooding in the downstream area. In addition, the quality of the water resources may be contaminated by the mining operation.

It cannot be denied that water is considered a necessity in the mining process when a large volume is required for daily operation. However, in the EIA report, the company states that the coal mining process will not use any water as open-pit mining does not require mineral dressing in the area. This is contrary to another part of the report which indicates that there is a mineral dressing plant in the Omkoi coal mining concession area³⁵ where the process of removing dirt from the coal minerals is carried out before being sold to the market. Therefore, this will cause the risk of water disputes between the coal mine and people in the area.

On one hand, the report states that no water will be used in the mining process, while on the other hand, the report mentions that the mine will be surrounded by water collection ponds and sedimentation ponds for mineral dressing which may affect the overall ecosystem in the area.

Heavy metal contamination of water sources used for consumption and agriculture

The health of people in the area and nearby communities will be affected by the air pollution, noise, water and soil contamination resulting from the activities undertaken during the mining process, such as the removal of surface soil, blasting, cleansing or sorting minerals. The heavy metals that have contaminated the soil will be washed away by rain and accumulate in the streams. Once the stream is contaminated, it will affect the entire length of the stream, making the water unsuitable for consumption and agriculture. An incident at a zinc mine in Mae Sot district of Tak province resulted in the accidental breakdown of a sedimentation pond. Consequently, the agricultural produce in the surrounding areas was contaminated with cadmium exceeding the safety level for consumption and could not be sold.³⁶

An example of the social and environmental impacts caused by a Thai company's investment in coal mining in Indonesia³⁷ reveals the impacts posed by the coal mining industry in East Kalimantan where the coal mine is situated in an area with a water source used for local agriculture. The operation of the mine damaged the quality of groundwater and destroyed prominent rice growing areas. The local villagers can no longer cultivate rice like they used to, and the quantity of rice produced is not even enough for consumption let alone for selling.

³⁴ Greenpeace Southeast Asia. (2016). The Social and Environmental Impacts of the Coal Investment by the Thai Company in Indonesia. https://www.greenpeace.org/thailand/publication/7547/the-dirty-work-of-banpu/

³⁵ The EIA report, Annex 6.

³⁶ Nisarat Songprasert, Witaya Swaddiwudhipong, Pranee Mahasakpan, Nattapatch Makkha, Kanittha Kusrisakol, Chantana Padungtod, Kannitha Boonthamcharoen. "The Impact of Environmental Cadmium Contamination on the Residents in Mae Sot District, Tak Province", Journal of Health Science. 25(5) (September 2016): 783. Retrieved on 18 May 2020. http://ihppthaigov.net/DB/ publication/attachdomestic/253/Full-text.pdf

³⁷ Greenpeace Southeast Asia. Ibid.

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In addition, the water source used by the local people for consumption flows back down into the abandoned mining pit. In the dry season the local people have difficulty obtaining water for agriculture, and in the rainy season they encounter flooding problems. Additionally, they can no longer access clean water from the natural groundwater sources which has affected their traditional way of life, and living costs have increased since they have to buy clean water for their consumption.

Changes in road conditions and transportation

The risk of road accidents will increase with the rise in vehicle use which will directly affect the transportation of local agricultural produce, particularly on the Highway 1099 route used to travel to the agricultural trading center. At present, some sections of the road are paved with gravel and other sections with concrete, while some sections are damaged. This road is a key transportation route for the local people and it is where the schools and the health care center are located. It is also the main road for local people who have to conduct all types of business outside the area.

The road from the coal mine project to Nong Krathing is the main transportation route, and is always crowded with vehicles. The asphalt road cannot sufficiently support the weight of vehicles carrying heavy loads, and increased use will ultimately damage the road, posing a greater risk of accidents for commuters. Although the current road conditions are not ideal, the drivers are generally constrained by speed limits due to the geography of the area.

Therefore, the use of large vehicles like coal trucks for transportation will heighten the risk of road accidents for regular commuters in the area, and will increase the traffic jams along the route that is constantly used for transporting agricultural crops.

In the event of an accident, the nearest healthcare service provider for initial emergency medical care is the Tung Loi Subdistrict Health Promotion Hospital. However, in case of severe injury, the patient will be transferred by ambulance to the emergency service at Omkoi Hospital which is equipped with better facilities. In addition, the local people constantly use the road on important religious days. The Christian community goes to church every Sunday, while Buddhists also visit temples on important Buddhist religious days.

The transportation route used by the coal trucks is also the same route that students from the Ban Mae Angkhang School currently use to go to school. The students travel to school together in big groups riding in pickup trucks. They are packed in both the front cab and the rear of the vehicle, where the flatbed is designed with a steel frame known as a "car frame" or "car stall". Some villages have only one school bus, which will make one or two trips to transport the students in the morning, and one or two trips when the school day ends. This means some buses might transport students up to four times per day. Each vehicle accommodates approximately 40 students per trip. The morning commute is between 6-8 a.m., while the after-school commute

is between 4.30-6.30 p.m. Another school- the Tung Loi School is also located along the coal truck transportation route. Apart from these two schools, parents also commute to several childcare centers along this route.³⁸

In addition, about 50 motorcycles are used by students to commute from Kaboedin village to their school³⁹. Most of the Kaboedin students normally travel with their family members or friends on the same motorcycle. If the students use their own motorcycles, they travel to and from school on



³⁸ Atthaphol Amrungpanom, interview on 16 November 2020.

³⁹ Bannawit Wuttisinlawat, interview on 16 November 2020.

their own time to be able to participate in after school activities like sports, or do group assignments and homework with classmates. This road is a key route for transporting agricultural crops which generate the main income of the local people. The pickup trucks, known as "rod lark", (literally means tow car), have steel framed structures at the back of the vehicle for transporting the local people's economic crops such as cabbages, pumpkins and tomatoes.⁴⁰ The produce will be transported to warehouses in the nearby villages of Yong Kue and Nong Krathing, and might also be transported further to Mae Tom village where a key warehouse for trading economic crops is located. Apart from local motorists, other people also regularly traverse this road, like the tomato farm contractors, the warehouse owners from outside the community who use pickup trucks to transport their assigned workers to oversee the collecting, sorting, and grading of tomatoes, and to transport all contracted produce to the warehouses. Some high yielding tomato farms will require more collectors and will need more than one vehicle to transport their produce. After the tomatoes are loaded into baskets, the baskets are then transported by pickup trucks to the warehouse. One pickup truck can carry up to 80 baskets, and special care must be taken during transportation, particularly during heavy rainfall or when encountering oncoming vehicles on a single-track road. It is important to transport the tomatoes according to the warehouse schedule to ensure that the tomatoes can be transported further to the next destination.

Therefore, if the route is shared with coal trucks, the drivers who regularly use this road to transport the economic crops are concerned they will not be able to drive through when vehicles have to pass each other, and transporting the produce will take more time and become unsafe. The delays in shipping will cause the produce to spoil so the price will drop and the drivers will not be able to stay on schedule.

In addition, the working hours for harvesting agricultural crops should also be taken into account.⁴¹ For example, the farmers will harvest cabbages from 4 a.m. to around 8-9 a.m., and the pickup trucks loaded with cabbages will be ready to travel from Kaboedin village around early evening to 8 p.m.

The transportation of pumpkins starts around 10 a.m., while gourds begin at noon. There are approximately 60 transport vehicles in the village manned by drivers who depend on the transportation rounds for their income. They can earn around 1,000-4,000 baht per trip. In addition, there are also others who drive pickup trucks from outside the village and who come to transport the produce from Kaboedin to the warehouse.

The risk of erosion, landslides and flash floods

In 2013, a landslide incident in Kaboedin village resulted in 37 households being relocated to a safer location, now known as "Ban Mai" (literally means new house), which is located near Pha Daeng village, a sub-village of Kaboedin village. The Map of the Landslide Risk at the Community Level, Omkoi Subdistrict, Omkoi District, Chiang Mai (2015),⁴² has a survey of the landslide and flash floods risk areas of all 20 villages in Omkoi sub district and reveals that Kaboedin village is the only debris slide prone area in Omkoi subdistrict. Chapter 2 of the EIA report indicates that the open-pit mining will be undertaken in the plains area between the hills and hill slopes. It claims that no water or chemicals will be used in the mining process, and the chance of landslide is moderate. The project will maintain the slope of the mine to avoid the risk of erosion. In addition, the report states the project site is not a geologically significant area and is not situated on the edges of the tectonic plates. Therefore, the mining operation will not increase the risk of earthquakes to the area.

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⁴⁰ Boonyarit Wuttisinlawat, interview on 16 November 2020.

⁴¹ Pichai Fapathanphrai, interview on 16 November 2020.

⁴² Department of Mineral Resources. (2015). The Map of Landslide Risk at the Community Level, Omkoi Subdistrict, Omkoi District, Chiang Mai. http://www.dmr.go.th/download/landslide57_58_tumbon210/changmai57/รายงานดินถล่มตำบลอมก๋อย.pdf

According to the report of the Map of the Landslide Risk at the Community Level, there were three incidents of landslides and forest flash floods in Omkoi district that occurred in Yang Pieng subdistrict, Mae Tuen subdistrict and Mon Chong subdistrict. Regarding Kaboedin village, it states that the area is prone to debris slide, and the clearing of hillsides for building houses will trigger the risk of debris slide.

Indigenous community rights in litigation and international obligations

The way of life of the indigenous community has been passed down since the time of their ancestors. The Constitution of the Kingdom of Thailand B.E. 2560 (2017), Section 50 (8) clearly states that the community shall have rights and duties to cooperate and support the conservation and protection of the environment, natural resources, biodiversity and cultural heritage. In addition, Section 43 (1), (2) states that a person or a community shall have the right to conserve, revive or promote wisdom, arts, culture, tradition and good customs at both local and national level, and manage, maintain, and utilize natural resources, environment and biodiversity in a balanced and sustainable manner, in accordance with the procedures as provided by law.

The Karen people in Kaboedin village are indigenous peoples whose rights are protected and recognized internationally in accordance with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which Thailand has been a signatory to since 13 September 2007. The significant intent of the declaration is to ensure that those states around the world in which the indigenous peoples exist shall provide recognition and protection to the rights of indigenous peoples who may suffer, and have long been affected by the loss of land, resources and human rights violations, and in some areas have lost their lives as they rise up to protect the forest and their way of life.



Both the Thai constitution and the international mechanisms that Thailand has signed indicate a clear intention to recognize the rights of the Kaboedin Karen community in determining the rights independently in protection, conservation and utilization of water resources, forest and local resources in accordance with the traditions and beliefs that have been passed down since the time of their ancestors, and importantly, the state has the duty to support and ensure equitable protection. In particular, Article 29 states a clear intention that the indigenous peoples have the right to the conservation, restoration and protection of the environment and the productive capacity of their lands or territories and resources, including water sources and other resources. Additionally, Article 25 states that the indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and utilized lands, territories, waters and other resources, and to uphold their responsibilities in this regard for the future generations.

Aside from the rights to natural resources, it also provides the rights and protection of indigenous identity according to Article 11, which states clearly that the indigenous peoples have the right to practice

and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites and rituals. This may include restitution with respect to their cultural, intellectual, religious and spiritual property taken without their free, prior and informed consent or in violation of their laws, traditions and customs, and shall be developed in conjunction with indigenous peoples.

Moreover, there is a clear intention to recognize the indigenous peoples' rights to ownership of the land resources as stated in Article 26, that the indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied The Karen people in Kaboedin village are indigenous peoples whose rights are protected and recognized internationally in accordance with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which Thailand has been a signatory to since 13 September 2007.

or otherwise used or acquired. The indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired. States shall give legal recognition and protection to these lands, territories and resources.

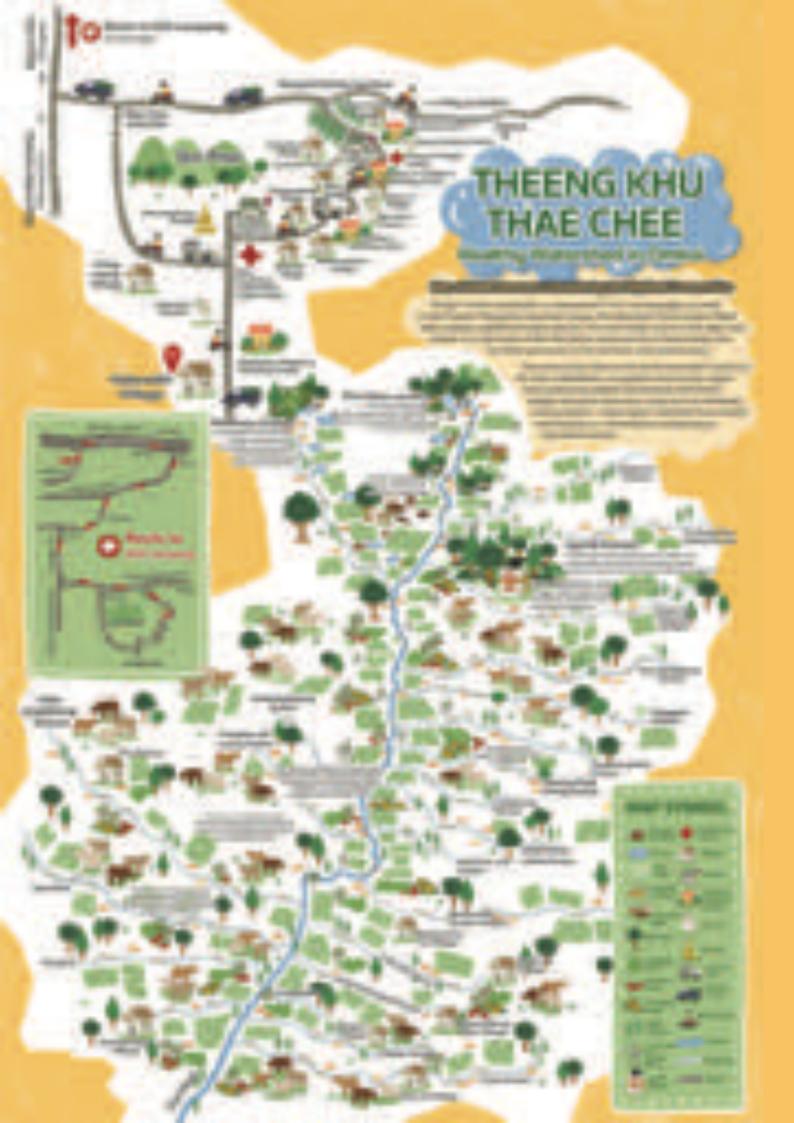
It is also in line with the international covenant that recognizes the right of the people to exercise their rights to water, land and resources in the International Covenant on Civil and Political Rights (ICCPR), which Thailand became a party to on 25 October 1996. Article 1, paragraph two states that all people may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations, and in no case may a people be deprived of its own means of subsistence. Furthermore, the rights of indigenous peoples or minorities are clearly stated in Article 27, which states that in those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right to enjoy their own culture, to profess and practise their own religion, or to use their own language in the community with the other members of their group.

Thailand is also associated with a number of international agreements and covenants aimed at strengthening social values and norms to protect the values of indigenous communities, such as the recognition of the International Covenant on Economic, Social and Cultural Rights (ICESCR), which recognizes the concept and the essence of "right to self-determination", the 1966 Declaration on the Principles of International Culture Cooperation, and the UNESCO's 1993 Oaxaca Declaration, which essentially states that modern states need a pluralistic cultural ideology that respects the diversity of the cultures.

The Vienna Declaration and Programme of Action for the promotion and protection of the rights of children, women, ethnic groups, indigenous peoples, and persons belonging to minorities, which makes indigenous peoples recognized through the United Nations International Decade of the World's Indigenous People (1995-2004), the UNESCO Universal Declaration on Cultural Diversity 2001, the Convention on Biological Diversity (CBD) that Thailand became a party in 2003, promotes cooperation among the country parties to pursue the conservation and utilization of biological diversity in the sustainable and fair manner. The Kaboedin Karen community is a potential community in terms of the way of life and the production systems which clearly reflects those definitions.

It is clear that both the Thai constitution and the international mechanisms that Thailand has signed and ratified indicate a clear intention to recognize the rights of the Kaboedin Karen community to independently determine their rights for the protection, conservation and utilization of water resources, forest, and local resources in accordance with the traditions and beliefs that have been passed down since the time of their ancestors, and importantly, the state has the duty to support and ensure equitable protection.





THEENG KHU THAE CHEE

Contraction of the



Chapter 5

Conclusion The Omkoi Coal Mining Project: What the e Global Trends are Telling Us



For more than three decades, efforts have been made to pave the way for a coal mining project on a hilltop where the Pwo Karen ethnic community of "Kaboedin village" live- a land that is rich with distinctive ecological resources where villagers maintain a simple way of life- high on a mountain surrounded by nature- and sustain their livelihood by producing agricultural products that are the essential ingredients that end up on the plates of people living in the lowlands.

Kaboedin is the land of wonder – a remarkable land that everyone must collectively protect.

Stop the impending coal mining project, the private company initiative that will extract sub-bituminous coal from the Kaboedin basin to supply one of the country's largest producers of cement that needs the fuel for its cement plant in Lampang province. It is clear that the primary objective of conducting this EIA report is to reaffirm the need for coal from the Kaboedin basin to supply a giant company in the industrial sector. Undertaking the EIA report is required as part of the process to identify the impacts on the community, and it is used as a reference document for applying for the concession certificate.

This Community-led Impact Assessment report serves to expose what the project's EIA report does not address, by pointing out key concerns from the contextual perspective of the community.

"We can see that while one person is losing, another person is gaining the benefits. Why is the distribution of the development-related benefits unequal? When the benefits are not equally shared, a gap is created and problems related to environmental impacts arise. Society must question the unfair and unsustainable development approaches. Are we ready to sacrifice Omkoi for dirty coal, the fuel that the whole world is ready to say goodbye to?"

Chayan Vaddhanaphuti Director of the Center for Ethnic Studies and Development, Faculty of Social Sciences, Chiang Mai University⁴³

The community voicing their concerns and stating their objections, as well as the efforts to protect their land, are compatible with the rights of ethnic and indigenous groups protected under Thai laws and international conventions,⁴⁴ and reads as follows:

Regarding the ethnicity and the ethnic rights, the Constitution of the Kingdom of Thailand B.E. 2560 (2017), Article 70 states that "the State should promote and provide protection for different ethnic groups to have the right to live in society according to the traditional culture, customs and ways of life on a voluntary basis, peacefully and without interference, as long as it is not contrary to public order or good morals or does not endanger the security of the state, or health and sanitation". In addition, the 20-year National Strategy on creating opportunities and social equality, Article 4.3.5 states that "to promote the development based on social and cultural capitals in the context of the increasingly diverse society in ethnicity, religion and the cultural way of life without discrimination, and to promote the awareness of human rights, create equality in rights and human dignity of the ethnic groups, emphasize the cumulative knowledge and wisdom of the ethnic groups, create pride in local people about their roots, and innovatively create understanding and common ground among all differences". Additionally, Thailand has adopted the United Nations Declaration on the Rights of Indigenous Peoples that the United Nations proclaimed in 2007 which emphasizes that "the indigenous peoples have the right to the lands, territories and resources which they have traditionally

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⁴³ The Center for Ethnic Studies and Development, Chiang Mai University. Ibid.

⁴⁴ ActionAid Thailand. (2019). Return the Land Rights, Fishing Grounds, Develop Together, Cultural Protection Zone. https://actionaid or.th/คืนสิทธิ์ที่ดิน-คืนถิ่น/

owned, occupied or otherwise used or acquired. States shall give legal recognition and protection". Thailand also endorsed the Sustainable Development Goals (SDG), the United Nations post-2015 Development Agenda, in which the main goal of the sustainable development is to ensure that no one will be left behind.⁴⁵

Development that leaves no one behind⁴⁶ is the current global concept and agenda under the new "development regime". To ensure that the Sustainable Development Goals are translated into effective action, the fundamental essence of the dignity of the individual must be recognized. The first priority is to reach those who are furthest behind, particularly vulnerable groups, including the indigenous peoples. The developments by the private and public sectors have left these people behind. The Thai state often views the ethnic groups as **"marginalized people**" and perceives the development as a form of creating projects and offering materials from the state to targeted citizens. "Development that leaves the people behind", thus reflects the "inequality" in society which is not innate, such as a natural cause, but has been presented or accepted as a natural cause, leading to social exclusion. To accomplish the goal of inclusive development, a thought-provoking article on the development that leaves no one behind, by Pitch Pongsawat, has pointed out that "the state may not be the leader in development, or set the development goals, but the goals must target individuals or peoples, and they must contribute to determining the direction of the development."

Regarding the Omkoi coal mining project, the EIA process has clearly reflected the critical aspect of public participation of the communities in the highland mountains, and the lack of fairness in terms of the inequality of power, knowledge and language. From the beginning, the participation process was beset with problems which affected how people obtained knowledge and information, as well as how they expressed their views on the imminent project.



- 45 The Sustainable Development Goals Report 2015 by the United Nations also cited the principle of "Leaving No One Behind" when stating the 17 goals. https://unstats.un.org/sdgs/report/2016/Leaving-no-one-behind/
- 46 Matichon Online. (2018). Regarding the Development that Leaves No One Behind, by Pitch Pongsawat https://www.matichon.co.th/ columnists/news_1278405

The final chapter of this community-led report presents a compilation of academic views on the environmental impact assessment process of the Omkoi coal mining project.⁴⁷

Thanagorn Atpradit Editor of the Community-led Impact Assessment Report

The approval of the Environmental Impact Assessment Report of the Omkoi Coal Mining Project by the Expert Committee is questionable because the community context was not truly taken into account. There is an attempt to label the area as degraded forest and classify the utilization of forest resources as an economic forest area. However, the EIA report did not address the diverse ecosystem that is based on the use of natural resources of the community, the context of the rotational cultivation and the remarkable economic crop growing area.



This community-led impact assessment report would like to point out that the project's assessment of the streams only included one stream that passes within the three-kilometer radius of the project, and does not address the groundwater network. Such an assessment is incomprehensive as it does not cover the impacts that will affect the downstream communities and other water users if the coal mining project is built in the area.

Supaporn Malailoy Manager of ENLAWTHAI Foundation (EnLAW)



The civil society has admonished how the environmental impact assessment is problematic particularly on the use of terms and definitions. While the impacts are assessed, there is the stipulation on impact mitigation measures. This indicates that there was never any consideration for an option not to proceed with the project, even if impacts were found. In addition, the assessment of the environmental impacts, the quality of life and the community's way of life must address the facts of the area. The EIA report of the Omkoi coal mining project was conducted more than 10 years ago, therefore this outdated data should not be considered valid. Also, considering that the EIA has been approved by the state agency, if we look at the legal aspects,

the EIA report contains a number of essential flaws which will lead to severe impacts on the community, natural resources, environment and ecosystem, so the Office of Natural Resources and Environmental Policy and Planning, as the responsible agency, must review it. However, contrary to this, this EIA report was still approved by the Expert Committee on EIA and is still being used to support the coal mining implementation process.

To liberate the questionable aspects of the EIA, the resolution must go beyond the problems encountered in Kaboedin. The core issue of centralized power must be addressed. The power is not in the hands of the local people. It means that, in the bigger picture, we must restructure the power inherent in the decision-making process. The old centralized structure must be dismantled.

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⁴⁷ The views from the academic forum, Liberation - "Knowledge, Facts and the Kaboedin Coal Mine", at the Faculty of Social Sciences, Chiang Mai University, 16 December 2020, and online discussion "Coal Energy and Thai Industry: Exposing Behind the Scenes of Using Coal in Thai Industry, and the EIA and Community Rights", 20-27 May 2021.

Assistant Professor Dr. Nuthamon Kongcharoen Dean of the Faculty of Law, Chiang Mai University

If we examine the stakeholders of the coal mining project to the project company that procures the coal supply to the company that purchases coal, on one hand, it is perceived that the coal mining project will help reduce costs for the company that purchases the coal, as it is located not far from the mine. But on the other hand, the people in the area will have to pay the price. The local village has to bear the cost of the health impacts, as well as the damage to the water resources and the environment.

These are the costs that have been overlooked and are not included in the cost of the coal that is purchased. That is the reason why the coal is cheap. The key question is, "If the entrepreneurs want to reduce costs, what costs will the villagers have to bear?", as the final destination of the coal from the Kaboedin basin will be used in the industrial chain of a giant cement company.

"The EIA report must not provide prejudicial guidance toward building the project. If the project is going to have tremendous impact, shouldn't it be canceled?" Currently, the fundamental concept on community coexistence is essential and if coexistence is the ultimate answer, can the coal mining project be canceled?

The new Minerals Act B.E. 2560 (2017) might be more progressive compared to the Minerals Act B.E. 2510 (1967), as there was an attempt to improve weak points both in terms of the structure and process. An example is the decentralization of power to the provincial and local levels to make decisions and issue the mineral exploration license. Moreover, it is open to people's participation through the public hearing process. An appealing aspect of the proposed project is the provision of jobs for the local people. Nevertheless, the new Minerals Act has also increased the responsibility of the project owners. For example, people who are affected by the project can file a complaint to seek redress. However, there must be clear measures for inspection and protection and how to monitor, as well as how people can be compensated.

The environmental impact assessment is a requirement and must follow the principle of prevention first, and the contents of the report must be accurate and in line with the regulations.

Dr. Jirawat Rakchat Faculty of Liberal Arts, Maejo University

I presented the findings of the research⁴⁸ on the social transition of Karen entrepreneur farmers- from Mae Tom village, Omkoi district and Chiang Mai- who produce tomatoes and are also involved in the tomato trade. Research shows approximately 20 percent of the tomato production in Thailand comes from Chiang Mai, where approximately 80-90 percent of the tomato cultivation areas are in Hot district and Omkoi district. At present, the tomato cultivation area in Omkoi district

been cultivated since their ancestor's time is intensively used for rotational rice farming and rotations of tomato and other economic crops in the same plots. The land is also left fallow for soil restoration. The tomato is an annual crop that is normally grown at least twice a year (can grow all year round). Apart from growing tomatoes, the local people are also involved in the tomato trading system, where the tomato purchasers are both local people and those from outside the area. It also involves the business of transporting produce to provincial and regional markets. The tomato is, therefore, an economic capital and a gateway to opportunities for Omkoi's economic growth and a step towards equality for all groups of people in Omkoi.

48 The presentation is extracted from the PhD. thesis, "Lua in the Highland Area and the Transformation to "Entrepreneur Farmers: A Case Study of Lua People in Na Fon Village, Hot District, Chiang Mai." "From Highland Tomatoes to Lowland Markets: Highland Agriculture Restructuring and Power in Thailand Tomatoes Commodity Network", and a research article in Thai "The Transformation of Highland Farming Society Amid the Expansion of Economic Crops: A Case Study on Commercial Tomato Growing in Na Fon Village and Mae Tom Bon Village in Chiang Mai.

has expanded and the combined area is now larger than in Hot district. Land that has





Sumitchai Huttasan Director of the Center for Protection and Revival of Local Community Rights



Despite amendments and improvements to the laws, the interpretation of the laws must emphasize the protection of the people's rights and the state procedures must be regulated in accordance with the intention of the laws.

We have pointed out that the EIA process is flawed and, therefore, we have proposed a complete revision". The survey of the Omkoi area found contradictions in the state policies. On one hand, there are efforts to conserve the quality of the environment, while on the other hand, there is an attempt to mention the benefits that the private company will gain from the investment. The result will be that coal mining will occur in a watershed area of the country. The information gathered from

the local people indicates that the EIA process is incorrect. It is based on old data and is not relevant to the present context of the area. For example, Article 17 states that "an area of a watershed or a spring forest is prohibited for mining purposes."

The EIA process is used by the state as a tool to achieve the goal of establishing the mining project. The people's concerns could simply become a detail in the EIA procedures, just in case a remedial measure is required if any impact occurs.

The Minerals Act B.E. 2560 (2017) has added the public hearing to the process. However, the Provincial Industry Office of Chiang Mai tried to pressure the village leaders and district officials to attend the final public hearing meeting and also invited the villagers to attend in order to expedite the project. These actions contradict the essence of sustainable development stated in Section 7 of the Minerals Act. Nevertheless, the present Minerals Act clearly also signifies that the world will not tolerate resource extraction in an unsustainable manner. This is in contrast to the contents of the EIA report which mentions the shared benefits and the cost reductions for the private company. Therefore, all aspects of this outdated EIA should be considered completely irrelevant.



Dr. Dia Panitnat Shannon Director of the Doi Suthep Natural Study Center, Faculty of Science, Chiang Mai University

There is a need to highlight the land's "ecological services", which are the benefits that we obtain from nature- not only the biological diversity or number of species of plant and wild animals in the area, but also benefits that people obtain from the production and services from the ecosystem. The structure and process in the natural world, where all living things work together, provides services that are beneficial for people's existence. For example, the benefits of the ecosystem service on tomato



growing are obtained in the form of the quality and quantity of water that must come from the fertility of the ecological system where all living things such as plants, animals and bacteria co-exist. Thus, if the ecosystem is healthy, it will provide water and food, as well as other benefits such as medicine and places to live.

Everything mentioned above are "the direct ecological services" which are necessary for our existence and can easily be seen. The other benefits that we cannot see with our eyes are called "the indirect ecological services". If the forest or the rich ecosystem do not exist, the insects that help pollinate, or help control pests, or if other wild animals decrease and disappear from the area, it may affect the tomato crop. The indirect services are the benefits that we always obtain without notice and these services cannot be calculated into numbers. Furthermore, there is also "the spiritual ecological services", which are regarded as social values. These three ecological services will certainly disappear if the forest becomes a coal mine.

We obtain benefits from nature beyond what is visible to our eyes. We must be aware of the linkages of the ecosystem, that when one thing disappears, it will truly affect another thing.

When the ecosystem has changed, there is a need to monitor the potential impacts on living things. In theory, we could restore the forest, but whether that restored forest will contain the same living things and provide the same ecological services depends on several factors. Once there is a mine, the surface soil will be excavated, and that might be one of the obstacles to restoration. But certainly the native forest tree seeds will be lost. The forest restoration needs the native forest tree seeds to produce seedlings, which is a necessity for creating the structure and process of the rich ecosystem. If the native forest tree seeds disappear, who will be responsible for all the costs associated with obtaining the native seeds required for forest restoration? Seeds or seedlings from other places are not native species. To plant indiscriminately, just to reconstitute greenery in the area, will not make amends for the loss of the irreplaceable biodiversity and ecological services.



Tara Buakamsri Director of Greenpeace Thailand

The energy transition in European and western countries is a result of the industrial development having reached its impasse. This has challenged the mainstream economics thinking that coal is the developmental and driving force of economics. A cover of The Economist with the title "Making Coal History", signified that the global energy trend has changed. Looking back at Thailand, most of the domestic coal consumption is

from the Mae Moh coal mine in Lampang province, which supplies coal for the Mae Moh coal-fired power plant. However, the import of coal for electricity generation and for the industrial sector in Thailand is increasing. Thailand is a small country in this region, but ranks 14th in the world for coal import.

Most of the coal imported into Thailand is transported from Indonesia and Australia by ships which dock at Sichang island in Chonburi province. The coal is subsequently transferred to coal barges that travel onward to the mouth of the Chao Phraya River, passes through Samut Sakhon province until it reaches its destination in Ayutthaya province, where large amounts of imported coal are piled up in an open area.



Some of the imported coal is transported to Rayong province where both big and small power plants partly use coal as fuel to generate electricity, such as biomass power plants and waste-to-energy power plants. Coal is also used in the industrial sector, particularly by cement plants and paper plants. As stated in the Omkoi EIA report, coal from Omkoi will be transported to Lampang province where it will be used by a company that has many cement plants around the country. Recently, Greenpeace has sent an open letter to the Siam Cement Group Public Company Limited, Re: Stop the Omkoi coal mining project in Chiang Mai, and Mae Tha coal mining project in Lampang.⁴⁹ The company has subsequently sent a response letter, stating that it has set a goal of Zero Coal by increasing the proportion of other alternative fuels in the future.⁵⁰

At the end of the discussion, the villagers read out the Statement of the Kaboedin people.⁵¹

"Making Coal History", signified that the global energy trend has changed. Looking back to Thailand, the import of coal for generating electricity and for the industrial sector in Thailand is increasing. "Thailand is a small country in this region, but ranks 14th in the world for coal import."

⁴⁹ Greenpeace Thailand. (2020). Open letter to the Siam Cement Group Public Company Limited, Re: Stop the Omkoi coal mining project in Chiang Mai, and Mae Tha coal mining project in Lampang. https://www.greenpeace.org/thailand/story/18440/climatecoal-open-letter-to-scg/

⁵⁰ SCG. (2020). SCG Lampang Clarifies that the Company Does Not Own the Omkoi Coal Mine and Insists on not Buying Any Raw Materials from Illegal Sources. https://scgnewschannel.com/th/scg-news/clarified-lampang-does-not-own-the-omkoi-mine

⁵¹ https://www.facebook.com/hashtag/สามข้อเรียกร้อง

Statement

"There are sufficient resources on this planet to provide for the needs of all, but not enough to satisfy everyone's greed."

This statement is by Mahatma Gandhi, who used non-violence to fight repression. He is a symbol of peace and a model of our resistance against the private company aggressor that has attempted to excavate a coal mine which will affect our way of life and the resources we have consistently maintained since our ancestors' time, as indicated by the following local saying from our Karen elders,

"Oh theeng chae sae jeh tha keh glae gabae chae sae ah. Drink the water, preserve the water. Use the forest, preserve the forest."

For the past year, we, the people from the Karen Kaboedin village in Omkoi subdistrict, Omkoi district of Chiang Mai province, together with the alliance network, have been fighting against the coal mining project which is currently in the process of undertaking public hearings according to the Minerals Act B.E.2560 (2017). Furthermore, we have reviewed the contents of the environmental impact assessment (EIA) report and found the information to be false and distorted. We also note that the process that was undertaken was without genuine participation from the people.

The academic forum, Liberation - "Knowledge, Facts and the Kaboedin Coal Mine", has emphasized the indigenous peoples' way of life that coexists with the forest, maintains the forest, water and natural resources. It notes that the EIA is illegitimate and how the relevant laws only serve the private company, not the local community.

We declare our determination, at this honorable place, that we, the Kaboedin people- together with the alliance network- will protect our homeland, our way of life, our farmlands- including the natural resources- and will not let any greedy entity take advantage for their own interest. We declare our position and demand the following:

- 1. Cancel the former EIA report and conduct a new one with genuine participation from the local people.
- 2. The government and the company must respect community rights and stop human rights violations.
- 3. Stop the intimidation and to drop all charges against the local people who continue to resist to protect community rights and drop all charges.

"Our united position is No Coal Mining Project in Omkoi!!!"

With Respect,

At the Operational Building, 4th Floor Faculty of Social Science, Chiang Mai University 16 December 2020



On 20-27 May 2021, Greenpeace Thailand and the ENLAWTHAI Foundation (EnLAW) held an online public forum on **"Coal Energy and Thai Industry: Exposing Behind the Scenes of Using Coal in Thai Industry, and the EIA and Community Rights"**. The forum focused on the environmental impact assessment and provided some observations on its process. It also pointed out the suspicious aspects of the Omkoi coal mining project's EIA report, through the review of its contents. The forum aimed to inform and create an understanding amongst the public, with the expectation that it might lead to the inspection and review of the Omkoi coal mining project's environmental impact assessment. In addition, the forum highlighted that an effective environmental impact assessment must take into consideration if real change is to occur to end the use of coal as fuel that causes impacts to the community and environmental.

The forum was divided into four sessions, as follows:

First Session: "The Coal Energy Trend in Thailand 2021" by Sarinee Achavanuntakul, the Managing Director of Knowledge Development, Sal Forest Company, who provided the background of coal energy around the world and the current trend that the world is saying goodbye to coal. In addition, Tara Buakamsri, the Director of Greenpeace Thailand, exposed the use of coal in Thai industry and shared his view on Thailand's energy policy, of which coal remains the solution for Thai industry.

"The Net Zero by 2050 is a global strategy to tackle the climate emergency. Many countries have declared that their carbon emission will be zero by 2050, which means that the governments of these countries will stop approving oil and natural gas exploration projects, stop approving and start phasing out the coal and oil power plants that are not equipped with carbon capture technology, and stop using the internal combustion engine in passenger cars. Meanwhile, coal energy will be replaced by renewable energy such as solar and wind energy, which will increase fourfold, and the use of electric cars will increase 18 times".

Sarinee Achavanuntakul

Managing Director of Knowledge Development, Sal Forest Company

"In the past 20 years, the import of coal in Thailand has continually increased, including during the period of the COVID-19 pandemic. Approximately 20 million tons of coal are imported annually for electricity generation and for use in the industrial sector.

"We have seen a significant change. While the amount of imported coal used for generating electricity in the private sector power plants has stabilized (not a single coal-fired power plant was built), there is a noticeable rise in the use of imported coal in the industrial sector".

> **Tara Buakamsri** Director of Greenpeace Thailand

Second Session: "Kaboedin in the Viewfinder" captured the stories of Kaboedin village hidden in a valley of abundant forests in Omkoi district of Chiang Mai, through the perspective of two photographers, Chanklang Kanthong, a documentary photographer, and Thinnaphat Phattharakiatthawee, a communicator at Pokhwa Production, who have spent time in Kaboedin village.

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"Working as a documentary photographer requires spending time in the area in order to capture the most comprehensive aspects of the livelihoods, the way of life, as well as the spiritual beliefs, to create powerful and meaningful photos.

"The image of the 80 year old Pwo Karen grandma illustrates a unique identity. She wears the local woven dress, the beaded necklace and earrings, the cloth wrapped around the head, and smokes a pipe. This is the trendiest fashion in Kaboedin village, the village that could be called the land of wonder.

"There are also various styles of smiling faces that we've caught with our eyes, but could not be captured quick enough with a camera, because the smiles are flashed for just a few seconds".

> **Chanklang Kanthong** Documentary photographer

"We had a long conversation with a grandma while she was sitting and waiting for her children and grandchildren to come home. However, with the language barrier, we could not understand every word she said. Nevertheless, what we could understand is that no one wants the coal mining. The villagers cannot imagine what will happen to their livelihood, the way of life, if the coal mining project is built. What will their children do? Where will they go? They find themselves in a position where they must fight to protect what they have, having reached the point where nothing can be done except fight to the death".

> Thinnaphat Phattharakiatthawee Communicator, Pokhwa Production







Third Session: "The Coal Mine and Omkoi Community Rights" by Thanagorn Atpradit, the editor of the Community-led Impact Assessment Report, and Assistant Professor Dr. Tanapon Phenrat, the Environmental Engineering Program, the Department of Civil Engineering, Faculty of Engineering of Naresuan University, reflected on the lack of local people's voices in the environmental impact assessment process, and the potential long-term impacts to the community and the environment.

"The case of Kaboedin village is about the power to make decisions that affect lives and the future of the community's natural resources. This problem is not unique to any particular area but is a case that reflects the policy and development trend in Thailand amid the global environmental crisis. After the EIA report was officially released in 2011, the community found several suspicious points regarding the contents and the process. They also realized that the participation process had no effect on the decision making but was merely a process to be completed in order to move to the next implementation step".

Thanagorn Atpradit Editor of the Community-led Impact Assessment Report

"End it here, begin it here. We need a solution that uses the environmental impact assessment as a genuine tool for anticipating, avoiding, mitigating, or redressing the negative impacts on the environment from the development project.

"We used the environmental impact assessment for making a decision on the approval of the coal mining project, but the environmental impact assessment was not undertaken using international standards. These days, the people are protesting and disagreeing with the results of the environmental impact analysis because, in terms of engineering and science, there are various processes that are being used in other countries, which are understandable and accepted by the people. However, these processes were not undertaken in Omkoi, Thailand".

Assistant Professor Dr. Tanapon Phenrat

Environmental Engineering Program, the Department of Civil Engineering, Faculty of Engineering of Naresuan University



Fourth Session: "The Omkoi EIA – the Illegitimate Is Often Made Legitimate", by Associate Professor Dr. Kanang Kantamaturapoj, the Faculty of Social Sciences and Humanities, Mahidol University, and Supaporn Malailoy, Manager, the ENLAWTHAI Foundation (EnLAW), who reflected on the weak points of the environmental impact assessment process, and pointed out that the EIA process has created problems for the local community as they were excluded from the public participation process.

"After reading the environmental impact assessment report of the Omkoi coal mining project, it is apparent that the information in the report and the project explanation presented at the meeting are incompatible. Moreover, the reference documents regarding the people's referendum have also been falsified. There is no mention of the local language interpreter in the report despite the local indigenous people having to deal with language barriers. The report does not cover all stakeholders, such as the farmers who use the water, or the vehicle route for transporting coal. Lastly, the social and economic aspects that were studied 10 years ago cannot be used to describe the present situation".

> Associate Professor Dr. Kanang Kantamaturapoj Faculty of Social Sciences and Humanities, Mahidol University

"A key question needs to be asked. Does the economic valuation include consideration for the community's way of life and abundance of the ecosystem and environment? This is the reason why the community submitted the letter to the Siam Cement Group Company to ask whether the company still has the policy to purchase the coal from this project? Is the information in the project's reference document correct? The community is still waiting for an answer from the company".

Supaporn Malailoy Manager of ENLAWTHAI Foundation (EnLAW)



Appendix

The struggle of the ethnic

KAREN PEOPLE

The Karen people unofficially settled in the Kaboedin area.

The Karen community at Kaboedin was partitioned from Mae Angkhang, Moo 6, and resettled at the new officially established Moo 12 in accordance with the Local Administration Act B.E. 2457 (1914).

1987

2000

The employees of the 99 Thuwanon Company and brokers visited the Kaboedin community with the mandate to buy the villagers' land. The villagers reluctantly sold their land under the threat of land confiscation without compensation.

2008-2011 10 August 2010

The 99 Thuwanon Company Limited applied for a coal mining concession certificate according to Certificate No. 1/2543.

2019

1974

The 99 Thuwanon Company hired the Top-Class Consultant Company to conduct the environmental impact assessment (EIA) and submitted it to the Office of Natural Resources and Environmental Policy and Planning (ONEP).

29 March 2019

The Chiang Mai Governor signed the document which allows utilizing or residing in the national forest reserve area, upon approval by the Director-General of the Forest Department, with the approval of the Committee Considering Exploitations within Boundaries of National Forest Reserves, on 2 November 2018, to issue permission for the 99 Thuwanon Company to utilize or reside within the Omkoi National Forest Reserve in Omkoi subdistrict, Omkoi district, Chiang Mai province.

25 April 2019

The Provincial Industry Office in Chiang Mai publicized the announcement of the request for a mining certificate at the Omkoi District Office.

25 April 2019

Kaboedin villagers and Omkoi local people gathered to express their opposition to the coal mining project. The villagers insisted that they had never been notified about the project as claimed in the EIA undertaken by the Company.

21 May 2019

A AND TO MANY A SAME THE

A group comprised of 28 representatives from Omkoi district and Kaboedin villagers submitted a petition stating their opposition against the coal mining project to the Omkoi District Chief and the Chiang Mai Governor via the Dumrongtham Center in Chiang Mai. The petition was also submitted to other relevant agencies on various occasions.

22-24 May 2019

The Kaboedin villagers and various networks in Omkoi district gathered to read their statement opposing the request for the coal mining concession certificate and to submit the petition stating their opposition to the coal mining project to the Omkoi District Chief in Chiang Mai.

5 June 2019

The Kaboedin villagers and various networks in Omkoi district organized a walking rally to stage their opposition to the coal mining project and demanded that the project be halted.

30 June 2019

Village representatives submitted the petition to the Chiang Mai Governor via the Dumrongtham Center in Chiang Mai.

3 July 2019

Representatives of the 99 Thuwanon Company visited the community and had discussions with the villagers at the Office of the Village Chief, Moo 12.

11 June 2021



2020

The Office of the Ombudsman sent a reply letter to the Omkoi Anti-Coal Mine Network with the following recommendation: **"In regard to undertaking the public hearing in a participatory and transparent manner in accordance with Section 58 and 60 of the Constitution, if the Chiang Mai Governor perceives that the hearing shall be arranged, the Provincial Committee on Public Hearing should be established."**

14 February 2020

Around 500 people from Omkoi joined a forest ordination ceremony, which included activities such as creating forest firebreaks, attending academic forums, and installing a boundary stone to declare the area as a spiritual zone. The participants also expressed their strong intention not to allow their livelihood and identity to be destroyed by any vicious activities which result in the confiscation of their land and community resources, as well as to call for the continued protection of national resources.

26 February 2020

The National Human Rights Commission (NHRC) conducted a field visit to the Kaboedin community to investigate human rights violations.

5 April 2020

18 Kaboedin villagers went to the Omkoi Provincial Police Station to file a complaint about the falsification of the EIA report.

26 June – 3 July 2020

The Natural Resources and Environment Crime Division conducted a field visit to Kaboedin village.

15 October 2020

Representatives of the Kaboedin villagers submitted the petition to the Special Committee at the Parliament, as well as to the Department of Primary Industries and Mines and the Office of Natural Resources and Environmental Policy and Planning.

30 October 2020

The Special Committee on Finding Solutions for the Case of the Issuance of the Mining Concession Certificate and Environmental Impacts of the Mining Activities conducted a fact finding field visit at the Omkoi District Office and Kaboedin village.

24 November 2020

The Provincial Industry Office in Chiang Mai organized a meeting at the Omkoi District Office to discuss preparations for the public hearing to be held in the village, and invited the relevant local agencies and village leaders to attend. However, about 200 Kaboedin people rallied to stage their opposition to the coal mining project. They held protest banners and read the community's statement in front of the state officers.



1-31 August 2019

The 99 Thuwanon Company initiated legal proceedings against the village leaders and university students in Chiang Mai.

19 September 2019

The villagers submitted a letter to the Chiang Mai Governor, urging the governor to issue the suspension or postponement of the public hearing. However, The Provincial Industry Office in Chiang Mai insisted on proceeding with the public hearing and publicized the announcement inviting people to attend the public hearing and provide their views on the request for a mining concession certificate.

28 September 2019

Around 2,000 people from the Omkoi area and other networks in the northern provinces gathered to express their opposition to the coal mining project and demanded the public hearing, which was to be held in Ban Mae Angkhang School, Moo 6, Omkoi subdistrict, Omkoi district, Chiang Mai province, be canceled. As a result, the public hearing could not proceed.

12 November 2019

Around 50 villagers gathered in front of the Omkoi Provincial Police Station to provide moral support to the village leaders who were being initially interrogated by the investigating police officer as a result of being sued by the 99 Thuwanon Company Limited on charges of defamation and libel on 5 June 2019. The Company also sued an independent academic and a group of university students who posted messages on social media. In total, seven people were sued by the company.

13 November 2019

The Office of the Prime Minister made a field visit to Kaboedin village on a solution-finding mission after receiving the petition from the villagers.

19 December 2019

The Office of the High Commissioner for Human Rights (OHCHR) made a field visit to Kaboedin village.































Respecting the rights of indigenous peoples and restoring their right to self-determination are of fundamental importance for the protection and restoration of nature and overall ecological services for Thai society.

The natural environment is the foundation of indigenous peoples' way of life. The right to self-determination and the sustainable management of land and natural resources are characterized by their complex historical background and profound traditional ecological knowledge.

The dominant power structure that has led to the current social and environmental injustices is the same power structure that oppresses indigenous rights and devalues the culture of indigenous peoples.

The United Nations Declaration on the Rights of Indigenous Peoples recognizes the indigenous peoples' rights to self-determination, freedom, peace and security as individuals and as a diverse community. It requires obtaining their free, prior, and informed consent (FPIC) prior to the approval of any project affecting their communities, including any projects that are implemented on their lands, particularly in connection with the exploration, development, utilization, or exploitation of minerals, forests, fisheries and marine resources, or other resources. Indigenous peoples must not be forcibly removed from their native lands or territories.

Source: Greenpeace Thailand. (2021). Greenpeace Thailand's Statement on Indigenous Environmental Rights.