

CHAPTER III RESEARCH FINDINGS



“We are not interested in the money. What’s the use of being rich and buying the products you need, while you can be poor and find all you need in the forest?”

View of a Na Nong Bong villager when asked if financial compensation can solve the conflict

3.1 Introduction

This chapter aims to describe the research findings that were obtained during the field research. The research findings will be presented within the structure of research framework, aiming to assess the effectiveness of public participation under HIA in Thailand when applied to the case study of Na Nong Bong village. As stated earlier, the five criteria framework, based on the work of Beierle (1998), measures the social goals of public participation. In addition, a number of additional factors of effectiveness that were identified during the research will be presented, each of them according to the experience of the CHIA of Na Nong Bong, Loei Province.

This chapter starts by setting the political and social context for the health impact assessment in Thailand. Subsequently, a profile and background information of the Na Nong Bong community is presented, in order to position the research finding in their accurate context. Subsequently, the data collection process will be described alongside a reflection of the main difficulties of this research. These reflections are essential to consider, as they had a major impact on the overall research that was conducted. Finally, the main research findings will be presented, each in relation to the central research framework of this work.

3.2 Setting the political and social context for HIA in Thailand

For the first time in Thai history, the 1997 Constitution allocated space for public influence in policy making. The 1997 Constitution, which in a sense could be seen as the “mother” of the 2007 Constitution, stipulated how the general public should be notified and consulted in case an economic project was likely to affect the health and local environment of communities. The Constitution of 1997, perceived as “the embodiment of the aspirations of Thai people for a democratic system of government”, thus contained the first HIA legislation in Thai history (Aphornsuvan, 2004). The 1997 Constitution is said to mark the fundamental change from representative democracy to participatory democracy, and in that sense, the first Constitution in history that the Thai people have felt genuine ownership over (Dressel, 2009). Outside Thailand, the Constitution was received with positive views, as it was highly praised for its inclusion of human rights and significant advances in political reform (Aphornsuvan, 2004).

However, as much as the 1997 Constitution was a “culmination of an ambitious reform project”, it also led to a rapid growth of populist centers in rural areas of the country where “representatives of a modern bourgeoisie with no connection to Thailand’s traditional elites took advantage of the new institutional environment” (Dressel, 2009:318). This movement, under former Prime Minister Thaksin Shinawatra, gained particular support from the rural poor to whom resources were redirected in exchange for votes.

The 2007 Constitution was designed to continue on the road of participatory democracy that the 1997 Constitution has started, yet correcting for the overambitious constituents which Thaksin had so clearly identified. The drafting of the 2007 Constitution, which took place after the ousting of Thaksin through military coup in 2006, took place in a climate of coercion and cannot be regarded as a participatory process itself. Rather, it transferred power away from rural areas to judicial and quasi-judicial agencies with limited accountability (Ginsburg, 2009). In that sense, Englehart is probably right when noticing that “Thailand’s traditional elites and even

large segments of the urban middle class obviously have little interest in expanding democratic governance beyond their own narrow circles” (Englehart, 2003:270).

It is in this light that we should see the current development of empowerment of local communities across Thailand. Although the 2007 Constitution on the one hand stimulates various forms of public participation in policy making (including section 67 requiring the use of HIA before industrial projects can be developed), the enforcement of these laws is far from being democratic, as most of the power remains with agencies with little accountability to the general public.

3.3 Community profile of Ban Na Nong Bong

The community of Na Nong Bong, situated in Thailand’s Northern Province of Loei, has lived a self-sufficient agricultural lifestyle for generations. Due to its typical topography, Loei province is renowned for its moderate climate, where minimum temperatures can be close to freezing in winter, while summer temperatures do not reach the same peaks as elsewhere in Central Thailand. Thanks to this moderate climate, agriculture is an important economic sector and source of income for the people of Loei.

The village of Na Nong Bong, which comprises of the smaller Na Nong Bong Noi and bigger Na Nong Bong Yai, is about 20 kilometers outside the province’s capital city, Muang Loei. Here, we find a beautiful mixed landscape of karst mountains and rice paddies. On the lower slopes of the hills, rubber tree plantations provide farmers with additional income.

Together with the village of Na Nong Bong, a total of six communities in Khao Luang sub-district have been affected by the mining activities. These villages are home to some 3500 residents in just over 1100 households that have been dependent on the Huay River and its tributaries for fish, irrigation and use of daily water use (ESCR, 2009).

The origins of the people of Loei can be traced back to the Tai Lue tribe that migrated from Lan Xang and Luang Prabang (Laos) area. While Buddhist, the people of Loei have their own important cultural and religious traditions such as the Bun Phrawet and Phi Ta Khon procession (NCHO, 2010). Ever since the establishment of the communities in the area some 60 years ago, villagers have sustained themselves through farming and gathering vegetables, thereby being hardly reliant on outside sources of food or income. Forms of agriculture that these communities have adopted are principally the cultivation of rice, corn and soybeans. Over the last decade, there has been a gradual increase in the cultivation of rubber trees, something that was inexistent in Loei province until then.

In order to supplement their income in the dry season, many villagers sell lottery tickets in nearby communities. ESCR (2009) estimates that the average income of a household with two working persons is around 120,000 THB a year. Although the use of cars is not as widespread as elsewhere in Thailand, many families own a motorbike and a *steel buffalo* that is used to work the land.

Loei province is not only famous for its tourist attractions; it also fosters a large amount of natural resources, including copper, iron and gold. In the 1990s, the Thai central government allocated many parts of Loei as gold extraction projects, making room for private companies to initiate surface and underground surveys, followed by the extraction of natural resources.

As a result, the community of Na Nong Bong found itself in the involuntary situation of having a gold mine as a new next door neighbor. In 2006, without any notice to adjacent communities, gold mining company Tungkam Ltd. (TKL) started construction of a mine site about one kilometer away from Na Nong Bong, thereby clearing large parts of the forests on Phu Thap Fah Mountain (ESCR, 2009). Ever since, the natural environment has been heavily distorted, leaving local residents with contaminated water and overall declining health. Additionally to rice fields that yield less harvest with every year that passes, many vegetables and animals previously collected in the forest for consumption are no longer accessible due to increased health risks.

3.4 Chronology of the conflict

The origin of the conflict between the community and Tungkam Ltd. goes back to 2006, when the first patches of forests were cleared on the Phu Thap Fah Mountain. However, back in 1998, TKL was already conducting an EIA on the land, and collected the signatures of unaware villagers in the process (ESCR, 2009). As a result of the EIA, TKL was granted the permission to operate a total of six mining sites in the vicinity of Na Nong Bong.

Not long after the start of the mine operation in 2006, villagers noted changes to plants health and their own health. At that point, the quality of the water had not been officially been tested, or results were not disclosed to villagers. In 2007, Rajabhat Loei University measured the water quality in Huay River in both dry and rainy season and discovered levels of cadmium, nickel, arsenic, all exceeding the maximum national standard. The local government and the mine operating company rejected the results based on the fact that these results came from a non-standard laboratory (NHCO, 2010). In early 2008, when high levels of cyanide were found in the bodies of 54 villagers after extensive health checks, the first letters of protest were sent to the governor of Loei; resulting in the deputy governor meeting with villagers. The outcome of the second cyanide test in late 2008 were never disclosed, urging more protests at the TAO Industry Office. In yet another test, the Department of Groundwater Resources in February 2009 found levels of arsenic in well at Na Nong Bong to exceed maximum levels, and thus to misfit consumption. Finally, the first provision of water by the government and TKL occurs early 2009. However, the water distributed in not enough to serve all villagers. In March 2010, 200 people gather again at the government's house and request the governor to find a sustainable solution for the water supply and to provide a sound investigation into the source of the water contamination. To this date, the issue of what causes the contamination of ground and surface water still remains unresolved. (ESCR, 2009; NHCO, 2010).

3.5 The community HIA in Na Nong Bong

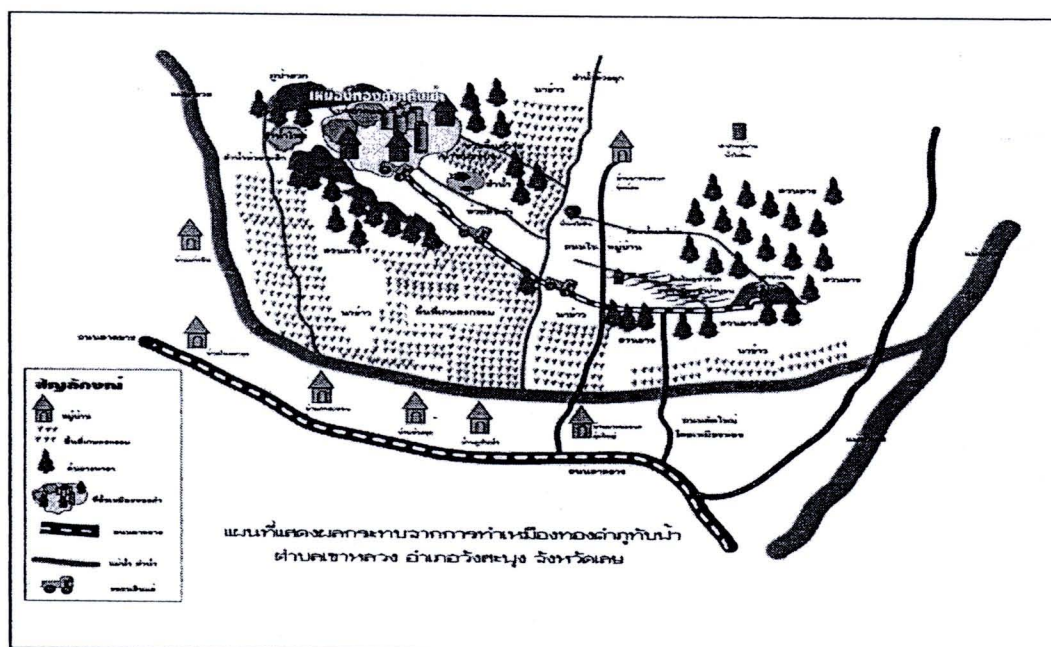
The increased degradation of the environment as a result of the gold mining activities of TKL has disturbed the lives of the villagers in Na Nong Bong in many ways. With the disruption of land, water patterns and biodiversity, the health of the villagers has been under pressure in many forms. First of all, villagers noticed that their *physical health* had been affected by the adjacent mining operations. Not long after the operation of the mine started in 2006, the local community began registering the changes in their health. Villagers noticed abnormal large amount of symptoms of skin rash, respiratory diseases, nose and throat irritation, chronic wounds, tight chest, as well as cases of pain in their eyes. Most serious however were the high levels of cyanide in the blood of a large amount of people of the affected communities. Blood levels had been measured in 2009 by the local hospital of Wang Saphung, but it was later on concluded that high cyanide levels were most likely the result of cigarette smoking (NHCO, 2010). The high levels of heavy metals still remain unexplained.

In addition to the consequences of the mine of villagers' physical health, dynamite blasting at the mine, as well as the gradual bio-degradation of their environment has impacted villagers' health. Their *spiritual health* is affected due to the fact that their habit of finding their daily food in the forest and streams had now been seriously limited. Even today, the community still lives in close relationship with the surrounding environment. Furthermore, the daily blasting at the mine site, although now taking place at set times during the day, has impacted the villagers' *mental health*, as much as the noisy mining machines that operated all night long, disturbing the villagers' sleep at nighttime. After a long record of villagers' complaints, TKL recently stopped the operation of its noisiest machines at night.

Finally, mine operations have impacted villagers' life and health in a quite unexpected way. As a result of the job opportunities at the mine, there has been a strong division within the community in the sense that those villagers who work at the mine no longer speak to those people who refused to work at the mine. In religious ceremonies, this division can even be felt (NHCO, 2010). As such, the mining operations have also affected the *social health* of the community.

The above described health impacts were documented in the Community Health Impact Assessment Report that was finalized in the first quarter of 2010. With the financial support of the Ministry for Public Health and the Healthy Public Policy Foundation, as well as the help of volunteers throughout the entire process, the impacts on villagers' health have now been officially documented. The report concludes with a list of requests to the local government and mining company, regarding the changes that are necessary according to the local communities. Figure 3.1 is taken from this report and illustrates how the community has used a map of the area to locate health issues when they occur. The community leader of Na Nong Bong confirms that *"it is important to include all side-effects of the mine (bad smell, pollution in streams and rice fields, skin rash, etc), so that we accumulate evidence that supports our case at a later stage"*.

Figure 3.1: Mapping the community to locate health issues when they occur.



(Source: NHCO, 2010)

3.6 Data collection

Using various sources of data, the field research aimed to assess the effectiveness of the community HIA that was conducted in August 2010 in the community of Na Nong Bong. At the time of research, the community was in the phase of updating the assessment findings and learning about various ways in which to gain more attention and awareness for their HIA findings, and simultaneously, spread their knowledge to other communities around Thailand.

3.6.1 Research challenges

Collecting data when conducting social research is by no means an activity without challenge. It would be a missed opportunity and false interpretation of reality to describe only the useable aspects of the data collection process, thereby skipping the context in which it took place. Therefore, this section starts with a number of concerns and realities which relate to the process of data collection. The next section describes a number of these challenges.

The challenge of staying unbiased

An academic researcher has special responsibilities during his field research. This list of do's and don'ts is perhaps the longest in communities that are home to abused, traumatized or otherwise vulnerable people. While a researcher may start his field research without any specific prejudice or subjective feeling towards the issue at research (other than having a strong interest in the topic), it is likely that the personal stories that come to light during the discussions are likely to influence his perception of the situation. This shift away from a somewhat objective view toward the issue should by no means be taken lightly, as it will color the researcher's interpretation of the obtained data.

Additionally, in research settings that are polarized because of the length of the conflict, such as it is the case in Na Nong Bong, a researcher may be asked openly and directly if he supports the community's goals within the conflict or not. While this may or may not be the case, it poses an additional challenge to the researcher to

maneuver within the delicate political arena, which can be best summarized by G.W. Bush famous “You are either with us, or against us” (Bush, 2001), in which any form of neutrality towards the issue is likely to result in less information being obtained from the community.

Gaining trust of the community

Communities that have faced several years of struggle to regain their basic human rights, such as the case of the people of Na Nong Bong, become more professional in their approach to the issue in several ways. As mentioned earlier, the environmental and health concerns of the Na Nong Bong community go back as far as 2006, not long after the operations in the gold mine started. Throughout these years of struggle, and even more so since the start of the HIA process in the community, dozens of researchers have visited the community of Na Nong Bong. Arguably, this has impacted the attitude of the local community members in several ways. Among others, it has made the community more selective in who they are willing to share information with, as this is often a lengthy process to explain to newcomers about the ins & outs of the situation. For this specific research, a limited amount of time was available for the data collection. Ideally, researcher and community are able to get to know each other progressively over a period of several months in order to gain the necessary thrust. However, this field research was conducted in a period of less than three weeks. Arguably, only a limited amount of information could be obtained from the community in this relatively short period of time. Nonetheless, the researcher believes that despite this short period of time, a considerable amount of trust with the community was achieved.

Staying away from making false promises to the community

While the community over the years has witnessed a considerable amount of researchers come and go, so it has created a perception of the impact and their research, and consequently, the usefulness of providing information to researchers that visit their community. During the initial phase of the field research, I was faced with a direct question about “*what my research would bring back to the community?*”. While it may be tempting to overestimate the impact of an academic research such as

this one (thus inciting community members to provide more relevant information to the researcher), I realized that the community had probably seen sufficient researchers prior to my visit, and was able to make a reasonable assessment of my work's future impact. Therefore, it is important to be honest to the community and manage their expectations.

3.7 Main findings

During the two weeks of field research in Loei province, data related to the community HIA process of Na Nong Bong was collected from various stakeholders. Data was obtained from the community through group discussions, individual interviews and written questionnaires. Outside the community, several professors from different universities were interviewed, as well as two volunteers that assisted the community members along the HIA process. In addition, the CHIA report by the Ministry of Public Health, as well as the ESCR Mobilization Report proved to be important sources of secondary data. Finally, a company visit to TKL was made in order to understand their views on the health situation of the community, and how to proceed from here.

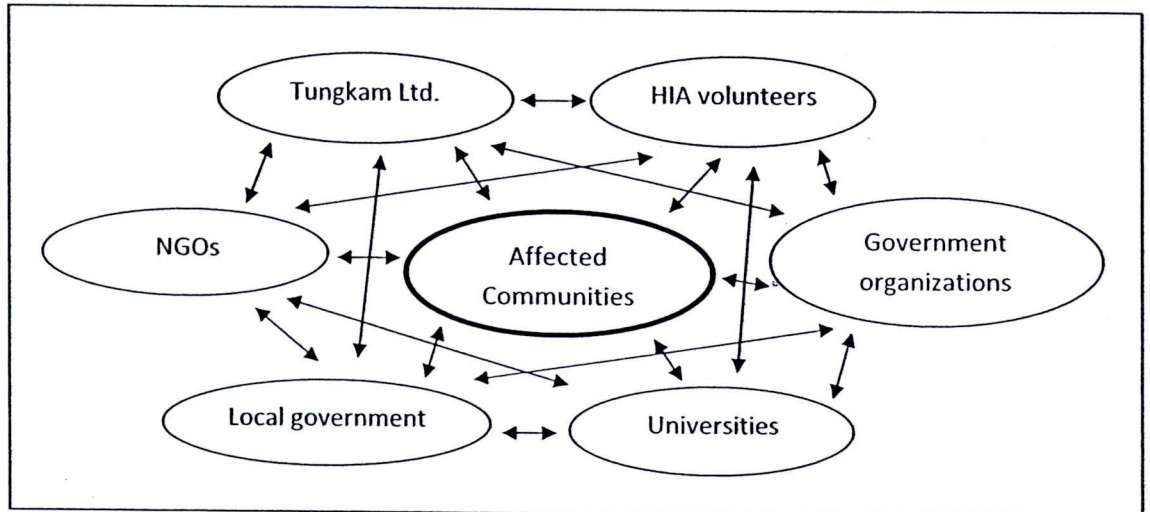
3.7.1 Mapping the stakeholders

Throughout the process of collection information about the community HIA that was conducted, a better understanding was developed of the complex political situation surrounding the gold mine in Wang Saphung District. Generally speaking, one can distinguish seven important stakeholders in the gold mine process in Wang Saphung province. These are:

- The affected communities,
- The mine operating company Thungkam Ltd. (TKL),
- The government of Loei Province,
- Several universities in Thailand,

- NGOs that support community efforts for better health,
- Volunteers that assisted the community in the HIA process, and finally,
- Government organizations (GO) that provide knowledge and funding for the HIA process.

Figure 3.2: Stakeholders of the gold mine and community HIA process in Wang Saphung Province.



Local government

The local government of Loei authorized the operation of the mine back in 2004 based on the EIA that was performed at that time. Ever since, the EIA has been updated several times, as the first EIA proved to be inaccurate and incomplete. From the royalties that TKL pays to the government, 60% is divided between the various offices at the provincial level. The remaining 40% goes directly to the Thai central government. According to the ESCR report, royalties from TKL with a total value of 13 million THB were paid to the government in the third quarter of 2008 (ESCR, 2009). On an annual basis, this amounts to over 30 million THB for the provincial government alone.

In relationship to the affected communities, the local government has promised clean water to the villagers, but this promise has only been partially

delivered over the last few years, despite the protests of the affected communities at the Loei government office.

Tungkam Ltd. (TKL)

Tungkam Ltd. is a subsidiary of Tongkah Harbour Company Limited, a Thai-majority held company based in Bangkok. The current licenses for the gold mine in Wang Saphung District are valid for 25 years and up for renewal if more gold is discovered (ESCR, 2009). Rumors within the affected community say that considerably less gold was discovered than expected, putting the company in cash flow troubles at the time of writing.

The company feels that a large part of the discussion with the community about levels of cyanide and heavy metals is based on emotions, rather than on facts. According to TKL, the data analyzed by Khong Kaen University has shown cyanide levels to be below the maximum value over the last two years. Besides, TKL argues, many of the health issues are caused by smoking and the use of pesticides for a agriculture, rather than being the result of the mining activities.

Affected communities

A total of six affected communities have taken on the challenge of uncovering TKL's environmental and health pollution effects. Na Nong Bong, which is located closest to the mine, is at the centre of the effort against TKL. Additional information on the communities was provided earlier in this chapter.

NGOs

As the villagers have been quite independent in fighting the mining operation, there seems to be little involvement from NGOs in the case of Na Nong Bong. However, NGOs are active in other areas of Loei province, where the extraction of iron and copper through mining is common practice.

HIA volunteers

In the absence of NGOs, a handful of volunteers have assisted the community in conducting the HIA process in 2009. These volunteers have been an important link between the community and the government organizations (such as National Health Commission Office and Healthy Public Policy Foundation) that provided the area with the necessary funding to conduct the community HIA.

Government organizations

The National Health Commission Office (NHCO) and Healthy Public Policy Foundation (HPPF) have promoted the issue of HIA on the level of national legislation for years. Through various programs, they have attempted to bring the HIA concepts to the areas in Thailand that need them most. In addition of providing financial support, they assist the affected communities in their gathering of knowledge, data and information.

Universities

Various universities have been involved in the Wang Saphung gold mine over the last decade. *Khong Kaen University* conducts sampling activities for TKL and the government to analyze the amounts of cyanide and heavy metals in the water. An affiliation of the university, the CIEE, has an active program with the community that aims to study the forming of grassroots movements in Thailand. CIEE has also played an active role in the HIA process. *Rajabhat Loei University* has several of its faculties involved in the case, but doesn't have the knowledge or equipment to carry out the data sampling and analysis that *Khong Kaen University* does. Instead, the university focuses on programs aiming to empower local communities around the province that are affected by various forms of industrial development. *Chulalongkorn University* is also involved in the case of Na Nong Bong, but the community has had bad experience with one of the associated professors, who recently used information obtained in the community against them.

In chapter 4, a detailed analysis of the stakeholders will be provided, in order to present the relevant context in which the community HIA of Na Nong Bong has taken place.



3.7.2 Testing the research framework

At the initial stage of the field research the impact of the community HIA was assessed using both written questionnaires and group discussions. The group discussion lasted several hours and was attended by a total of 13 villagers. From these 13 villagers, 8 completed questionnaires were returned. Additional demographic information on the 8 respondents can be found in Table 3.1.

Table 3.1: Demographics of questionnaire' respondents of Na Nong Bong.

Total number of respondents (n=)	Minimum age	Maximum age	Gender	Occupation
8	12 year old	58 years old	Male (n=3) Female (n=5)	Farmer (n=5) Student (n=3)

The following section will describe the field research findings that were accumulated through interviews, group discussion and questionnaires, using the five criteria framework to categorize the information. In this chapter, the information *per criteria* will be presented, whereas an analysis of the five criteria and their interconnection will be provided in chapter 4.

Criteria 1: Inform and educate the public

All eight respondents of the written questionnaire indicated that the community HIA had had a positive impact on the information and knowledge of the community about the issue of health. For the community, one of the most important outcomes was that several of the mysterious health issues affecting them had now been identified. With the increase of knowledge about health issues, villagers estimated that they were now more able to take care of themselves. As one villager said, *“Many health researchers come from outside our community, but do not understand what health really means to us. That is something that only we can define, because it concerns our health”*.

As a result, a number of participants indicated that they felt the community was more united after the HIA process, and through this increased level of harmony

was now better able to take care of itself. Additionally, the HIA process has given weight to the health statements of the community. During the group discussion, one of the members expressed this by stating that *“At first, the head of the local health service wouldn’t take our symptoms serious, but after the six communities united and showed their physical symptoms, it had a strong impact and the doctors then took us more serious.”*

Overall, the CHIA seemed to have reached its most important purpose: to empower the community by providing information and knowledge about the issue at hand, thus making the community less dependent on outside support in the future. According to one of the local volunteers of the HIA process, *“the community HIA has awakened the knowledge inside the community. The fight with the company and local government now becomes fairer.”*

Criteria 2: Incorporate public values, assumptions and preferences into decision-making

The fundamental principles on which the HIA is based include a strong belief in democracy and equity when designing public-policy. This means that the second social goal of public participation according to our research model is in a way intrinsic to the HIA itself. Consequently, it seems that in order to measure the real impact of public participation on decision-making, the *outcome* of the HIA on policy-making should be measured, rather than the *process* itself. When analyzing the process, we will realize that by conducting public participation, public values and assumptions are discussed and subsequently taken into account. The real question of course revolves around the amount of public values that is really incorporated in the decision making.

In the case of the community HIA of Na Nong Bong, judging the outcome 6 months after the publication of the HIA report, there is little evidence at this point that suggest that public values and preferences are yet incorporated into decision making, as the mining operations nearby have continued unaffected by the HIA. One villager says *“In many ways, the company is merely treating the wounds (by providing by*

water, compensation), *instead of dealing with the core issue in order to really solve the problem*” Although little can be said about the long-term impact of the HIA on decision-making at this moment, it is likely that the community HIA process has favored possible future incorporation of public values into decision-making, just because alternative public views are now available and documented.

Criteria 3: Increase the substantive quality of decision

Theory suggests that the use of public participation can also be a source of facts and innovative alternatives with respect to the issue over which conflict exists. This includes “identifying relevant factual information, identifying mistakes, or generating alternatives which satisfy a wider range of interests” (Beierle, 1998:7).

In the process of conducting the HIA, the villagers gathered the information that they thought was relevant for their health. Information about heavy metals, cyanide was gathered, as well as an assessment of the number of physical diseases that were common in the community. By doing so, they most certainly increased the substantive quality of decision.

Criteria 4: Foster trust in institutions

When the mine started operations in 2006 without any notice to the surrounding communities, the village of Na Nong Bong experienced increasing amounts of health issues over the subsequent years. Over these same years, little to no effort from the local government and Tungkam Ltd. (TKL) was received to deal with these health issues. As a result, the villagers have learned to be self-supportive in their quest for a better health. Ever since the Constitution has incorporated the concept of HIA, both TKL and the government have progressively yet hesitantly provided the village with clean water and some forms of healthcare. The community remains very though, citing that *“The Constitution really only supports economic growth in Thailand. Politicians always support those policies which offer them most economic gain”*. Thus, there is a strong sentiment in the community that the government and TKL only provide those issues that are strictly necessary according to the law. In the community, there are mixed sentiment towards the government. According to several

villagers, *“we are afraid to fight the government, because we will lose that battle”*. As such, there have been no pro-active action from either government or TKL, strengthening the community’s feeling that they are alone in this battle for justice. One female villager possibly expresses the current situation best when stating that *“it is impossible for a politician to be good. You will lose the elections against a politician that offers more money for your vote”*. All things considered, quasi all questionnaire’ respondents indicated that levels of trust towards the government of TKL had not increased after the community HIA was conducted.

Criteria 5: Reduce conflict among stakeholders

The issue of cyanide contamination has been a topic of long discussion between TKL and the community over the past years. While the company claims that it operates *“a closed circuit in which cyanide cannot reach the rice fields or water pumps of the villagers”*, villagers maintain that cyanide and heavy metals are a constant source of health trouble. One of the managers of Tungkam is clear regarding the reason for the ongoing conflict: *“while cyanide levels have shown to be consistently under the maximum level for months now, this debate is based on emotions, and not on facts. We have to look at the facts only if we want to solve this issue”*. Elsewhere, community members insist that the local government has not taken up the health issue seriously, and by protecting the company, protects its own significant source of financial income. Overall, villagers have experienced a lack in support for their cause. An emotional villager says: *“Is gold worth human lives? Money and gold will run out one day, but the land we possess will be forever!”*.

Two villagers indicated that the level of conflict has decreased, simply because as a result of the community HIA conducted, the government has now officially been made aware of the health issues, and will consequently have to act in order not to further violate the Thai Constitution. One of the students bravely affirmed that *“the community and government now have something to talk about”*.

All things considered and similar to the argumentation on the issue of trust, the community HIA seems to have experienced little difference in the level of conflict between government and TKL on the one hand side and the community on the other.

One villager is very clear on the issue when stating that “it is impossible that the company and village will ever cooperate”.

Table 3.2: Summary of CHIA in Na Nong Bong

Goal	Result
Inform and educate the public	Much information and knowledge was obtained by the local community.
Incorporate public values, assumptions and preferences into decision-making	Public values were obtained, but too early to assess whether included in decision-making.
Increase substantive quality of decisions	Additional facts were obtained, possibly leading to better decisions in the future.
Foster trust in institutions	Levels of trust unaffected by the HIA process
Reduce conflict among stakeholders	Level of conflict unaffected by the HIA process

3.8 Conclusion

This chapter has provided an examination of the villagers' perception of the HIA. To start with, it has described the political context in which the gold-mining problem and associated community HIA are set.

Secondly, this chapter presented and the data related to the central research framework of this thesis. It argued that the community HIA does well in informing and educating the community. As a result of the HIA conducted, villagers feel more empowered to tackle the issue by themselves in the future. This is clearly a very positive outcome of the community HIA. On the four other criteria of the research framework that were tested, the scores of the HIA are less evident. While, inherent to the process, the health impact assessment improves the substantive quality of decision (criteria 2), there is little evidence that these public values are subsequently incorporated into decision-making (criteria 3). Although it may be too soon after the end of the process to draw this conclusion, a failure to truly incorporate the values of the general public into decision-making could be interpreted as a failure on the most important aspect of the overall health impact assessment policy. How important is local empowerment really if no real changes are happening outside the community?

Additional thoughts on these data findings will be discussed in more detail in the subsequent *Analysis & Recommendation* chapter. In addition, the following chapter will put forward a practical outline regarding which action communities around Thailand should take when conducting successful community HIA themselves in the future.