

# Formalizing the small-scale mining sector? The case of fluid legality in the Ghanaian mining town of Tarkwa



Pictures taken by author from January to April 2017

Name: Sylvia van Oevelen

Student number: s1077619

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Supervisor: Dr. J.P.E. Verheijen

Second reader: Prof. dr. P.J. Pels



## Preface

The thesis in front of you marks the end of an interesting and educational period at the University of Leiden. It is with great pride that I present this work, which has been produced after an intensive period of fieldwork in Ghana.

First and foremost I would like to thank all the friendly and welcoming people I have met in Ghana, without whom this research could never have been a success. There are no words to describe their generosity. Miners, community members in Boboobo and other inhabitants of Tarkwa: unfortunately naming everyone here proves to be a mission impossible. However, everyone's input has been greatly appreciated as it has been invaluable.

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## Content

Chapter 1 Introduction .....	6
1.1 Gold in Ghana.....	6
1.2 The study's focus, aim and relevance.....	7
1.2.1 Social and academic relevance .....	9
1.3 Setting the scene: the mining town of Tarkwa .....	11
1.4 Conducting fieldwork: a word on methodology.....	15
Chapter 2 Theoretical framework .....	21
2.1 Governance, sovereignty and authority .....	21
2.2 Distinguishing legality, formality and licitness .....	23
2.3 The concept of access and the mechanisms that shape it .....	26
Chapter 3 Scholars versus reality: scholarly consensus on formalization and the miners' discrepant notions of (il)legality .....	29
3.1 Scholarly consensus in favor of formalizing the small-scale mining sector .....	29
3.2 Miners' discrepant notions of (il)legality .....	31
Chapter 4 The role of governmental actors in formalizing the small-scale mining sector .....	35
4.1 The small-scale mining law typified .....	35
4.1.1 Becoming a registered operation and its corresponding challenges .....	37
4.1.2 Current government's expressions: stop (alluvial) galamsey operations.....	38
4.2 Perspective on governmental intervention from small-scale miners.....	39
4.2.1 Lack of trust in government .....	40
4.2.2 No governmental action expected.....	40
4.2.3 The government's insignificant role in the mining sector .....	41
4.3 The perspectives and actions of local governmental actors.....	43
4.3.1 The District Office of the Minerals Commission in Tarkwa .....	44
4.3.2 Law enforcement.....	47

4.3.3 Chiefs .....	50
Chapter 5 Differences in practices of miners between registered and unregistered mining sites .....	53
5.1. Access to income: introduction .....	53
5.1.1 The mechanisms of access to income for miners.....	54
5.1.2 Constrained access to income for miners.....	56
5.1.3 The effect of formalization policy on access to income .....	59
5.2 Obtaining the ore: safety measures.....	61
5.3 Washing the ore: restricted negotiating power .....	62
5.4 The sale of gold: restricted negotiating power .....	64
Chapter 6 Discussion and conclusion.....	67
List of references .....	72

## Chapter 1 Introduction

### 1.1 Gold in Ghana

Small-scale mining has been perceived as an important pillar for poverty reduction in developing countries and as a major contributor to national income for countries with minerals reserves and mining practices taking place (Hentschel, Hruschka, & Priester, 2002). This includes Ghana, with gold accounting for 37% of the Ghanaian national exports (G. Hilson, 2002a). For decades, however, small-scale mining has been ‘below the radar’ of the Ghanaian government. This has inhibited both the provision of governmental support to improving the lives of the poor, boost the sector’s poverty reduction potential, and the ability to profit from increased revenues for the government. This started to change in the late 1980s when – as a way of formalizing the sector - small-scale mining became legal for miners with a license. The focal point of this research is the process of formalization of small-scale mining sites in Ghana and its corresponding benefits from the miners’ perspective.

Scholars, donors and governments have been putting emphasis on the need to formalize the small-scale mining sector. Interestingly, there is no consensus in the body of literature over the effects of formalization policy for the intended subjects. As such, Siegel states that “it is not always clear [...] what it is about formalization that holds the key to economic development or pollution abatement” (2009, p. 52). Therefore, instead of instantly and urgently calling for formalization, this research will view the formalization process from the miners’ perspective. Besides providing insights into the benefits and disadvantages of formalization of small-scale mining, this thesis will put forward various and discrepant notions of (il)legality as produced by both miners and government.

Ghana is rich with gold and for over 1000 years Ghana has been a major supplier of gold (G. Hilson, 2002a). In the year 900 Ibn al-Faqih, a Persian historian and geographer, as quoted in G. Hilson, stated "in the country of Ghana gold grows in the sand as carrots do" (2002a, p. 13). The omnipresence of gold in (certain parts of) Ghana is hereby clearly exemplified. From the 15<sup>th</sup> century onwards, various European colonial rulers ruled Ghana, with Britain gaining control of Ghana in 1874, thereby establishing the Gold Coast (Dummett, 1998). Shortly, many gold mining companies were formed - by merchants and investors from Britain - which resulted in two gold rushes in the beginning of the 1900s, leading to a great increase in gold production (G. Hilson, 2002a). In 1957 Ghana became independent, after which the government of Ghana aimed to strictly control the mining sector, as amongst others

it realized the profitability of the mining sector. The strict rules and regulations that were implemented caused a period of stagnated production.

In the 1980s, the export sector, and in particular the mining sector, was seen as an important sector to help the revival of the economy (Bansah, Yalley, & Dumakor-Dupey, 2016). Therefore, the Ghanaian government established the Small-scale Gold Mining Law in 1989. The implementation of these policies has ended the economic stagnation process and since, the gold mining industry has grown rapidly (G. Hilson, 2002a). The formalization of small-scale mining by the government has enabled Ghanaians above the age of 18 to obtain a license to commence small-scale mining. Besides the economic benefits, the formalization of small-scale mining was meant as a policy approach “to revive the SSM [small-scale mining] sub-sector, facilitate supervision and minimize associated environmental hazards” (Bansah et al., 2016, p. 9). The Small-scale Gold Mining Law led to the establishment of many legal small-scale mining operations. However, a great deal of illegal small-scale mining operations still exist, with G. Hilson and Potter stating that “it is estimated that as many as 85 percent of the country’s artisanal and small-scale gold mining operators are, in fact, *galamsey*<sup>1</sup>” (2003, p. 250).

## 1.2 The study’s focus, aim and relevance

The focus of this research is on small-scale mining in Ghana, defined by Bansah et al. as “mining of gold by any effective and efficient method that does not involve substantial expenditure by an individual or group of persons not exceeding nine in number or by a co-operative society made up of 10 or more persons” (2016, p. 8). The small-scale gold mining sector, experiencing growth for the last 20 years in less-economically developed countries, is “a significant contributor to the economic development of these countries” (Baretto, 2011, p. 6). However, high levels of illegality characterize the sector, with groups of miners conducting generally unsafe work in an uncontrolled environment. As such, the gold mining sector, besides being a great source of employment and possible creator of wealth for certain governments and groups of people, is interlaced with - amongst others - social and environmental challenges. It therefore attracts attention from beyond national borders, by groups such as environmental organizations and social development strategists and – amongst others international development, social sciences and environmental sciences – scholars.

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<sup>1</sup> Term refers to small-scale miners working on illegal small-scale mining sites, which will be elaborated later on.

Scholars, donors and governments have emphasized the need to formalize the small-scale mining sector. By formalizing the sector it is assumed that governments are better able to govern the sector and to manage the sector's impact when it comes to social and environmental impacts, thereby minimizing negative effects and expanding positive impacts of small-scale mining (Salo et al., 2016). However, in the literature the insights into the way in which formalization is perceived by the intended subjects are minimal. This creates questions regarding the general need stated in the literature to increasingly formalize the small-scale mining sector as there is no insight into the way in which this policy plays out in practice.

In Ghana, the government established the Small-scale Gold Mining Law in 1989. Thereby, the Ghanaian government produced the distinction in the lawful sense between legal and illegal operations, as it states that small-scale mining operations need to be in possession of a license to obtain minerals from the ground. As such, prospective owners of a small-scale mining site can apply for a license. When the license has been obtained, the mining site is thus registered by the government. In this research, differences will be put forward on the basis of the legal or illegal status of the mining site. However, as various definitions of (il)legality will be elaborated on, it is of importance to avoid ambiguity on descriptions of legal and illegal sites. Therefore, legal sites - in the lawful sense - will be referred to as registered sites, whereas illegal sites - in the lawful sense - will be referred to as unregistered sites. After a license is obtained - i.e. after the mining site has been registered -, the mining activities undertaken on the site are considered legal activities.

However, there is still a high prevalence of illegal small-scale mining in Ghana. Considering the seemingly good arguments for formalization (e.g. reducing health risks, securing incomes for the poor and diminishing environmental damage) and the fact that formalization is a process that is welcomed by many scholars and policy makers, questions arise such as: what are reasons for small-scale miners to work on unregistered sites? What concrete benefits are in place for workers at registered small-scale mining sites?

The main benefits of small-scale mining that are brought forward by G. Hilson (2001) in his contextual review of the small-scale mining sector in Ghana, are employment and revenue. Especially because of the labour-intensive nature of small-scale mining - due to the lack of technological equipment and therefore the need for manpower - small-scale mining "has a major impact on the employment situation in the developing world" (G. Hilson, 2001, p. 5). By linking these insights to the emphasized need for formalization, questions arise such as: what are the differences between working conditions on registered and unregistered sites?

Is there any evidence that formalization indeed expands the positive social impacts of the small-scale mining sector? And does this mean registered mining operations ensure better and more sustainable access to employment?

In this research, a clear division will be made between registered and unregistered sites, however from the literature it is clear that legality or illegality is not the only perspective of looking at the sector or its operations. Therefore, a distinction between legal, formal and licit will be made in this research. By instead of focusing on the division between legal or illegal practices, regarding mining practices as part of the informal economy creates a way in which rules are not (exclusively) made by the state (Elyachar, 2002). Also, some unregistered practices can be considered legitimate by the actors involved, which is called licit (Abraham & van Schendel, 2005). Acknowledging the opportunity of viewing the small-scale mining sector from different perspectives other than the strict division between legal and illegal – i.e. registered or unregistered -, opens up the possibility of acknowledging how different actors in the mining sector regard operations in different ways. In this research a light will be shed on the different perspectives of (il)legality, by focusing on the main actors of the small-scale mining sector, which are the miners themselves, but also national and local governmental actors.

Therefore, the main research question that will be explored in this thesis is: How is (il)legality of small-scale mining sites regarded by both governmental actors and miners and what is the impact of the legal status of a small-scale mining site on the work of miners?

### *1.2.1 Social and academic relevance*

The social relevance of this research lies in the fact that its focus is the daily practice and views of miners, thereby providing insights into the intended subjects of formalization policy - as such providing 'a grassroots perspective'. Many scholars point to the need for increased formalization, a process which is predicted to go hand in hand with a better ability to manage the sector's consequences, amongst others regarding social benefits. The high prevalence of unregistered small-scale mining in Ghana means that the process of formalizing the informal sector is hampered by certain factors. The question why unregistered small-scale mining is still so ubiquitous has not been properly answered. To answer this question it is of great importance to give a voice to a group that needs to be heard when it comes to the policy of formalization: both miners working on registered and unregistered mining sites. By spending time with these people in order to find out what they regard as the benefits of working on either a registered or an unregistered site, insights will be given into why they do the work

they do, how they regard legality and illegality, how it affects their daily lives and what improvements they wish for. Therefore, this research can have great implications on the practice of policy and daily life of the miners, and it will be of importance to ventilate the findings of this research.

As such, this research is part of a partnership with Witteveen + Bos. Witteveen + Bos is an internationally operating, Netherlands-based engineering company mostly focused on water projects. They are planning on setting up a project in Tarkwa revolving around mining and water. This project can profit from my research, by gaining a better understanding of the relationship between first of all registered and unregistered small-scale mining operations, and secondly between the government and small-scale mining operations. This qualitative, in-depth study can additionally set the scene of Tarkwa, the town in which this research is conducted. This enables Witteveen + Bos to set up water and mining projects in Tarkwa from which both miners and the local community can benefit.

As this research is focused on the miners' perspective on the impacts of governmental policies, the academic relevance of this research is the contribution it makes to knowledge of how definitions are produced and contested by various involved actors, instead of having fixed intrinsic meanings. Legality is something that is imposed top-down, with governmental actors establishing the division line between legal and illegal. This however does not mean that it is effected in the same way by society. This research adds to knowledge on the process that occurs in society of whether or not the law is naturalized and on what basis. This knowledge on the construction of the concept of (il)legality, leading to general insights into the construction of a definition such as (il)legality, is also useful in other policy sectors, in which different concepts of (il)legality might play a similar important role.

The following paragraph will serve the purpose of getting a sense of the town where this research has taken place, thereby addressing the way in which the town has evolved and the type of mining activities that take place in Tarkwa. Chapter one will be concluded by reflecting on the chosen methodology. The second chapter provides insights into the theoretical notions which will be used to analyze the ethnographic data, thereby elaborating on notions of governance, distinguishing between legality, formality and licitness, and finally the concept of access. The third chapter will address first of all the scholarly consensus in favor of formalizing the small-scale mining sector, which will be contrasted with the practice of how miners regard (il)legality. Thereby, the way in which miners construct and utilize discrepant definitions of (il)legality is stressed. The fourth chapter sheds light on the role of

the Ghanaian government in the formalization process, by first of all elaborating on the small-scale mining law. Subsequently, the effectiveness of the government in general and the role the government plays when it comes to formalization policy will be elaborated on, by discussing the view of miners on the government and by discussing the actions of three main governmental actors on the local level. Following, chapter five provides the existing differences and similarities between registered and unregistered small-scale mining practices, thereby illustrating what effect formalization policy has on the practice of miners. Finally, the sixth chapter provides the discussion and the main conclusions that can be drawn from the research.

### **1.3 Setting the scene: the mining town of Tarkwa**

The vast body of literature on small-scale mining in Ghana has a clear focus on rural activities, leading to an underdevelopment of knowledge on urban mining settings. The town that served as the stage of this research is the urban mining town of Tarkwa, situated in the Western Region of Ghana. To regard the field of study - being Tarkwa - as a neutral space which has evolved on its own is unrealistic and does not do justice to the interconnectedness of places, as showed by Gupta and Ferguson (2007). In their article on how culture and the making of identity can relate to spaces, Gupta & Ferguson provide valuable insights into the way in which space itself is often considered “a neutral grid on which cultural difference, historical memory, and societal organization are inscribed” (2007, p. 7). However, they warn for this “assumed isomorphism of space, place and culture” (Gupta & Ferguson, 2007, p. 7) that sees space as an organizing principle. Therefore, I will hereby shortly go into the history of Ghana and the way in which the town of Tarkwa has evolved, besides elaborating on the mining activities that take place in town.

#### *Interconnectedness of places: Ghana and Tarkwa evolving*

Ghana is now an independent country with a history of colonial rule, celebrating its 60<sup>th</sup> year of independence during my stay in Ghana. Without a territorial change in space after independence, people however “find the nature of their relation to place ineluctably changed” (Gupta & Ferguson, 2007, p. 10). The impact of colonial rule is, amongst others, clearly visible in the large number of underground shafts dating from colonization, which are now used by small-scale miners to obtain ore from. It is interesting to note that Ghana is classified by the World Bank as a lower middle-income country from 2011 onwards (Quandzie, 2011).

Lower middle-income countries are countries with a per capita Gross National Income (GNI) between \$1036 and \$4085 in 2012. In 2011 Ghana was even prospected by the World Bank's projections as "the fastest growing economy in Sub-Saharan Africa" (The World Bank, 2011). However, Ghana remains on the low side of the spectrum of the lower middle-income countries, with an average per capita income of \$1820 (Nketiah-Amponsah, 2015). Additionally, Dr. Nketiah-Amponsah from the University of Ghana weakens the current position of Ghana as he states that "the country has only but transited by a small margin from a low-income to a middle-income economy status" (2015). He additionally states that a lot of development indicators still belong to the level of a low-income country, with a lot of challenges persisting in the country revolving around corruption, human capital development and infrastructure (Nketiah-Amponsah, 2015).

Shifting focus from the nation of Ghana to the mining town of Tarkwa, Tarkwa is mostly seen as a mining town with a large influx of workers prospecting a job in the gold mining sector. First of all, it is considered to be the oldest mining settlement in Ghana, with the establishment of the settlement due to gold mining in the 1880s (Gough & Yankson, 2012). The population of Tarkwa is growing fast, mostly due to the influx of people from other districts into the town who are in search of a job in the mining sector. Akabzaa and Darimani (2001) state that Tarkwa has an unusual population structure. The part of the population that is of working age (15-64 years) consists of 70%, with children up to 10 years old constituting 24,8%. However, the national average of children up to 10 years old consists of 45%. Akabzaa and Darimani (2001) attribute this to high labor migration rates in Tarkwa. In 2000, 52% of the Ghanaian population of Tarkwa was born in the locality (Gough & Yankson, 2012). Interestingly, during the research, when asking where miners came from, they related this to the place where their family was from. Even miners that were born in Tarkwa, but whose family originally came from another region, would state they were from the other region outside of Tarkwa too, indicating a strong territorial adhesion or attachment. Besides a large amount of migrant workers from within Ghana, there is a significant influx of Chinese migrants, coming to Ghana to invest in and equip technology for the mining sector.

Tarkwa's popularity when it comes to gold mining is attributed to the fact that Tarkwa is rich with gold as it is located on a "gold bearing reef", as expressed by one of my informants, a professor from the University of Mines and Technology in Tarkwa. As such, the whole of Tarkwa is scattered with underground mining shafts. The large network of underground shafts beneath the entire city are often connected to each other. The occurrence of mining activities in town is exemplified by a story of a member of Boboobo, the

community that I was living in. She explained to me how the whole city was full of underground tunnels, which she exemplified by the story of the time she was making *fufu*, a local Ghanaian dish which needs to be prepared by repeatedly pounding on the dough-like substance. While pounding *fufu*, she was approached by miners telling her to stop her activities as people were working underground. The miners stated that the noise was very loud for them and they expressed a fear that if she would continue to pound the *fufu* it might cause the ground to collapse. At another occasion, the same community member felt the earth shaking beneath her, as people blasted stone just under her house. She pointed out the cracks in the walls of her house and the surrounding houses, according to her all caused by the blasting of rock by small-scale miners. These stories exemplify how small-scale mining is omnipresent throughout the town.

Gough and Yankson regard the rise in population as a result of miners searching for mining jobs and even talk of “severe overcrowding” in Tarkwa (2012, p. 664). Gough and Yankson (2012) also notice that it is not only the mining sector that has grown, but say the mining sector stimulated a rise in commerce and service sectors in the town, with “the economy of the town being closely linked to the fortunes of the mining industry” (Gough & Yankson, 2012, p. 664). As Gough and Yankson (2012) explain it, whenever the mining sector is experiencing hardship or misfortune, the whole town is suffering. However, with good gold prices in the last years, “the mining sector is thriving and Tarkwa is booming” (Gough & Yankson, 2012, p. 664). This consequently led to an expansion of the town, however without proper urban planning of infrastructure. During my fieldwork period, some of my informants showed me pictures of rural and forested areas in Tarkwa from a few years ago, after which they expressed where these pictures were taken. Only then it became clear to me that these pictures were taken at places that were now certainly part of the town, instead of being on the outskirts or even outside of town. This is illustrative of the rapid growth this town has been subject to in the last few years.

### *Mining in Tarkwa*

To get a better sense of the town and especially the mining activities, I will hereby shortly elaborate on the three types of mining methods that are prevalent and which I have encountered during my stay in Tarkwa. The three categories of mining activities are underground shaft mining, open pit mining and alluvial mining. Underground shaft mining, which was introduced during the British colonial rule, entails workers going down a shaft to obtain the ore which contains the gold. This type of mining is characterized as labor intensive,

low skilled with generally low levels of technical equipment (Tsuma, 2010). Most of the small-scale miners I have worked with during my fieldwork conducted underground mining, either working in reopened old colonial shafts that are scattered throughout the town or digging shafts themselves. In underground mining operations the surface of the land is not wasted as opposed to open pit mining, where the land is being blasted or excavated to obtain the gold from layers of the ground (Tsuma, 2010). Therefore open pit mining, or surface mining, is often considered “wasteful of land resources” (Tsuma, 2010, p. 66). Open pit mining is generally considered capital intensive, as it requires a lot of technological equipment, and is the main type of mining for large-scale mining operations. Open pit mining also occurred in Tarkwa, mainly in the two large-scale mines located in town, being Goldfields and AngloGold Ashanti. Of these two especially Goldfields is very prominent as it is in the middle of the town and can easily be spotted from several places in town. However, I have also encountered some small-scale open pit mining operations, which then requires the workers on site to hire an excavator at some points in time to take off some layers of land to reach the levels in the ground which contains the gold bearing rock. Thirdly, alluvial mining is practiced on river banks as it revolves around the process of obtaining gold particles from water bodies, causing serious problems regarding water quality. I have encountered alluvial mining two times in Tarkwa. However I could not get close to these people, as water was a physical boundary that I could not cross at that time.

Besides the different types of mining activities, the heterogeneity of small-scale mining sites is striking. This means that I have seen great differences between underground mining operations - as they are most prevalent in Tarkwa - with amongst others great differences in scale, available technologies and types of organization of the small-scale mining sites. As such, the categorization of the small-scale mining sector as being labor intensive with low levels of access to mechanization, technology and capital investment does not do justice to the diversity and heterogeneity of small-scale mining operations in Tarkwa. By acknowledging these differences in small-scale mining practices, it is of importance to say that these are not the differences that will be focused on in this research. The differences that will be focused on are those that occur or that are reported to have occurred as a result of the legal status of the small-scale mining site, or happen to be prevalent on the different mining sites that have been visited while enacting this research.

Lastly, my research in Tarkwa can be related to a general view of small-scale mining in an urban area, especially one that is highly influenced by the colonial past, with the presence of underground mining shafts scattered throughout the city. The characteristics that I

found to apply to small-scale miners in Tarkwa can therefore be found outside of Tarkwa in other urban mining settings in and possibly beyond Ghana. As such, one commonality I noticed with all miners was that they were not too positive about the mining activities they were undertaking daily, as it is physical, dirty and generally dangerous work. As such, they all expressed they did the work because they need the money to provide for their family. Small-scale mining is often described as poverty driven, which is partly true, but a nuanced view must be given here. Great differences exist between the income and living standard of miners, but generally speaking miners were able to pay for food and decent accommodation, with many trying to live off as little money as possible enabling them to save up money which they can use for paying for expenses of their family and sometimes by sending it to their family in other parts of Ghana. As such, a lot of miners admitted that they chose this job over another, which would provide them with money however not with as much as they were making now.

#### **1.4 Conducting fieldwork: a word on methodology**

After elaborating on the town where I conducted the research, here I will go into the methodology of the conducted research, specifying amongst others the entry into the field and the type of informants and reflecting on the chosen methodology.

##### *Gaining access to informants*

Upon coming to Ghana I was mostly concerned with getting access to informants, as I realized that this was a crucial element of conducting the research. However, soon after arriving in Tarkwa for the first time, I realized that access would not prove to be a major issue, especially due to two factors. First of all, upon arrival in Tarkwa, I was accompanied by a professor from the University of Leiden and two other students, one of which would also be conducting research in Tarkwa. The professor had been in Tarkwa once before and during the two days we spent together in Tarkwa, we were introduced to some miners who, as it turned out, proved to become key informants. A second beneficial factor is the factor of space, namely the decision to be conducting this research in Tarkwa, a mining town that is scattered with mostly underground shafts and washing sites – where the ore is respectively taken from the subsoil and where the ore is crushed and washed to obtain the gold particles. I soon noticed that there were so many places to conduct the research, which made me feel more secure regarding ensuring access to miners. This realization however did not make the first steps into the research easy. Besides the fact that conducting anthropological research was

totally new for me, it was also the first time on a mining site and this first visit overwhelmed me – amongst others due to the high prevalence of men on the sites - as there are generally no women on the site except for some who mostly sell food.

However, I had been looking forward to this process of conducting research for such a long time that I could fairly easily put aside the overwhelming and intimidating feelings I felt. I started close to my home in Tarkwa, as there were several washing sites located just 2 minutes walking distance from the home I lived in. When entering different sites, I quickly noticed whether I felt comfortable there and whether there were people there who were willing to talk to me and interact with me. Freilich, as quoted in Robben and Sluka has stated that “success in fieldwork is more a function of personal ability than of previous training in specific techniques” (2012, p. 1). In this case I feel my general enthusiastic behaviour towards new things and people sparked people to be open to me too and thereby being able to help me with the research.

One of the reasons of feeling overwhelmed during my first visit to a mining site in Tarkwa did not occur to me until later. I figured first that it was solely my own discomfort with the new situation and with the prevalence of men on the site. As it turned out that day, and what I would encounter many times after, the men we were talking to were not speaking directly to me, but to the two male students that joined us. Additionally, I was struggling a lot with understanding the for-me-unfamiliar English accent the Ghanaians had. Then, the fact that they were directly speaking to the male students instead of talking in my direction, complicated my first encounter with a mining site. During the rest of the fieldwork, I was living together with Pablo, the other student who was also in Tarkwa to conduct research, and about half of the time we went to a mining site together and the other half we went separately. Therefore, I very well noticed the difference between going to a mining site with him or without him. Sometimes when I would visit a mining site with him, the miners were almost only responding to him and directed towards him, even though it was me who was asking the question they were answering. In these cases I did not feel it was successful to try extra hard to get included into the situation, so in these situations I decided to keep a low profile and mostly observe and listen. However this did not happen too often and I feel that the people we spent more time with and who ended up being good informants did treat us more like equals when it comes to gender, as they saw we were both conducting serious research and both Pablo and me were equal in that sense. Additionally, living together with Pablo during the research enabled me to reflect on this gender issue, besides other both methodological as well

as content-wise struggles. As such, the living situation proved beneficial to me as it enabled me to share my experiences, possible doubts and insights at that time.

#### *Establishing a relationship with informants*

Cultural anthropologists' information is often based on participant observation “which hinges on the dynamic and contradictory synthesis of subjective insider and objective outsider” (Robben & Sluka, 2012, p. 2). Therefore, it is important for an anthropologist to become an 'insider'. Besides the fact that I am a woman, an important factor that I have discussed above, I am white with a completely different background as I grew up and lived most of my life in the Netherlands. This made it quite impossible to become an insider. However, during my research I felt it was generally a benefit, as people were happy to help me and were eager to explain about the work they do. To get a good relationship with the informants, I felt it was most important to just take time to be there and especially show how invested I was. It helped to learn a bit of the local language, tell the miners that I am eating the local foods, which generally led to great laughter as they probably did not expect an *obroni* (local word for foreigner) to eat their food, and to help a bit wherever I could or follow them into the underground shafts. Also telling people where I was living sparked reactions which - I believe - changed their views about me in a positive way. This is so because the particular community I was living in, called Boboobo, was considered quite underdeveloped as for instance there was no running water and the community relied on community boreholes and wells. One informant, when hearing where I was living, even became angry and asked me who took me there and how he could have done that, as he did not consider this place good enough for me, as an *obroni*. However, I explained him - as well as most other informants - that I was happy staying at this community as this allowed me getting a chance to get close to this community and its inhabitants.

As easy as getting access was, establishing a good relationship with my informants proved to be quite difficult. Firstly, I tried to draw on tips of Berreman (2012) who states that especially during the start of the fieldwork, generally more useful knowledge comes from observing, as people wish to give a favourable impression and in conversations and interviews therefore would state the favourable answers. However, during the first few visits to the mining sites, miners were generally happy to show me the process they were doing, thereby often showing the gold they obtained. Therefore, I was mostly interacting with them and felt I was making good connections. Then, however, after coming back a few times and also wanting to do some observations without asking questions, some miners seemed puzzled

about why I was not asking questions anymore and why I was, basically, just hanging around at their sites. It happened a few times that some informants that were very open during the first (few) meetings, then at another time were all of the sudden not there anymore, even though I had arranged to meet up, or were very much closed off. Fortunately, there were quite some informants that I really got a good connection to, as such enabling me to join them during their daily work or occasionally meet up after work.

### *Reflecting on the type of informants*

Reflecting on the difficulty I had with establishing a good relationship with some miners, goes hand in hand with reflections on the types of informants I had during my research. Gupta & Ferguson additionally acknowledge how “cultural difference is produced and maintained in a field of power relations in a world always already spatially interconnected” (2007, p. 17) and urge us to explore how these cultural differences came into being and continue to be reproduced. Therefore, to do justice to the interconnectedness of the town and its various inhabitants, it is of importance to shed light on the background of the informants in this research and the existing power relations within the small-scale mining sector of Tarkwa. Of the 3 months that I spent in Ghana, I spent 2,5 months in Tarkwa, conducting fieldwork. During this time, I have conducted research with various actors, with a clear focal point on miners coming either from Tarkwa or from elsewhere in Ghana. The group of mining informants consists of solely male miners from both registered and unregistered sites, doing all kinds of jobs, ranging from owning a mining or washing site, to going down into shafts to obtain the gold bearing rock. Generally, a lot of miners spoke really well English, which therefore did not pose a great problem whilst conducting research. I talked to numerous miners, but here I will mention solely the persons that I had substantial conversations with, which led to interesting insights for the research. As such, I talked to 24 miners, of whom 13 I saw at least on 4 different occasions. I met these miners on 6 mining sites and 4 washing sites. More formal interviews, in which I had clear questions written down which were asked one after the other, were conducted with two government officials, a chief and a university professor of the University of Mines and Technology in Tarkwa, all of whom I visited either 2 or 3 times.

Initially, I was putting a lot of emphasis on the need to spend time with both “lower” and “higher” ranking miners - as I put it during the phase of preparation for the research - meaning site owners and overseers versus people who do the physical labour. This was the case because I expected a lot of different knowledge and especially different standpoints

amongst different ranks on the mining sites. As it turns out, it was easier to visit a mining site and talk to the overseers, who mostly had time to spare. It was more difficult to make appointments and spend time with the miners who do the actual work, which includes going down into the shafts for days. This makes sense, as miners who do the physical work get paid on the basis of how much gold they obtained and overseers receive a daily or monthly allowance. The extent to which the miners are busy had a great impact on the relationship I was able to build with them. From the start I established a good relationship with two overseers at two different registered mining sites, however in the course of the research period I put more emphasis on spending time with the miners. Most of the workers on the mining sites including the owners and overseers regarded topics in quite a similar way. However, at some (especially registered) mining sites - I did regard a difference between the perspective of the overseers and the workers. Therefore, it was beneficial to regard this difference in ranks. At these places, I talked to the miners and the overseers separately, thereby trying to overcome the ethical concern that people are not voicing their real opinions.

The reason of becoming close to some of my informants has to do with a mutual interest and willingness to talk when meeting each other. Therefore, I did not spend a lot of time with initially shy people or people who felt their English was not good enough to communicate with me. However, as the research period is only 2,5 months, I felt it was most important to continue the research with people I had a good connection with from the start. Most of the time with miners on mining sites was spent having mostly informal conversations or observing. In the first visits to mining sites I wanted to get acquainted with the miners and the mining process, as such not writing down much. However, after a while I usually held my notebook in my hands in conversations, enabling me to write down interesting quotes or important storylines.

#### *Registered and unregistered mining sites*

Lastly, as I was from the start interested in a comparison between registered and unregistered sites, it was of great importance to visit both types of mining sites. There are two aspects regarding this issue which need to be addressed here. First of all, during the course of my research, my research focus shifted. Before coming to Ghana, I was planning on shedding light on the topic of (il)legality from both the perspective of the miners as of the government, by also interviewing a few civil servants in both Tarkwa and Accra. However, once in Ghana, I was immediately in doubt about this, due to the space barrier. The journey from Tarkwa to Accra takes about 6 hours, subsequently complicated by the traffic situation in Accra, as

sometimes it is quite difficult to move around due to traffic jams. More importantly, making appointments with civil servants already proved to be quite a challenge in Tarkwa, as setting a meeting was very difficult and once this had been accomplished, it would easily be cancelled on the day of the meeting. Taking the journey to Accra and subsequently taking the risk of not meeting someone in Accra, was something that prevented me from holding on to the initial research focus. I also noticed that people working on the mining site had interesting and diverse stories and challenges, which made me decide to shift my research focus to unraveling and understanding the unclearness that I soon noticed surrounded the distinction between legal and illegal. I still set up some meetings with a commissioner at the Minerals Commission in Tarkwa, who provided me with necessary information regarding views from and actions taken by the government against unregistered small-scale mining operations. Additionally, I studied newspapers to gain insights into the expressions of national officials on small-scale mining.

Secondly, I had trouble ascertaining whether the informants from the different mining operations were operating as a registered or an unregistered site, due to different definitions of (il)legality and due to the big differences between several mining sites. However, as I soon learned, the differences that could be spotted, such as the size of the operation, did not correlate to the legal status of the mining operation, which complicated finding out which site was registered or not. In the end, this is where the commissioner of the Minerals Commission helped, as he could provide me with information on the registered sites in Tarkwa. Consequently, I could ascertain which sites were not registered, which enabled me to draw conclusions on differences between registered and unregistered sites, as this is one of the main foci of my research.

## **Chapter 2 Theoretical framework**

This chapter will provide the theoretical insights and concepts on which this research is based and on which this research provides insights. Firstly, the notion of governance is elaborated on, thereby exemplifying how various actors in the public sphere can influence the supposed sovereignty of the state and can produce legitimate authority. Secondly, to report on differences between registered and unregistered operations it is of great importance to discuss scholarly debates about definitions of (il)legality. Here, the differences between the concepts legality, formality and licitness will be discussed, as these will play a role in explaining how miners define (il)legality and correspondingly view mining activities they take part in. Here, there will be a focus on (il)legality in urban areas, as this research contributes to specific knowledge regarding the urban small-scale mining setting. Lastly, as scholars such as G. Hilson (2001) put access to employment forward as one of the main benefits of small-scale mining and as this is one of the main themes by which registered and unregistered operations will be compared, the concept of access is elaborated on.

### **2.1 Governance, sovereignty and authority**

From the 1970s onwards, scholars reject the single notion of government which suggests that the state is one main actor which is in charge. Since, scholars speak of governance, hereby also acknowledging the role actors play that traditionally do not belong to the sphere of the state. For these actors do play a role in public affairs, and can establish either a juxtapositional, opposing or complementing relationship to the traditional state (Blundo & Le Meur, 2008). The existence of different actors in the public sphere cause differences in, amongst others, how the rules for certain government services are produced and controlled and how these services are performed. Therefore, Blundo and Le Meur (2008) state that in order to get a grip on governance and its actors, there is a need to observe public services and the way in which different levels and actors of governance act according to different logics and how they interact.

Taking the nation state as a starting point for government makes sense as “national governments claim sovereignty over their territories and the resources therein” (Emel, Huber, & Makene, 2011, p. 70). Whilst talking about control over natural resources - in this research subterranean gold - there is a “commonsense conception of national-scale resource sovereignty” (Emel et al., 2011, p. 71). However, Emel et al. argue that sovereignty is situated in many global and local relations and flows of power and capital that can therefore not be

delineated (2011). Additionally, Emel et al. argue that sovereignty is rather territorialized at a local scale (2011). As such, we must “keep attuned to the ways in which local populations living in the spaces of extraction are constantly interrupting state-capital sovereignty projects” (Emel et al., 2011, p. 73).

The abovementioned insights from Blundo and Le Meur (2008) and Emel et al. (2011) link up to the term hybrid governance, which acknowledges how governance practices are a hybrid of “externally imposed orders (national policies, global discourses) and existing local institutions” as has been stated by Olivier de Sardan in Geenen (2016, p. 7). Geenen researches mining concessions and the way in which cohabitation of transnational companies and a local community - which itself is made up of a heterogeneous field - “makes for an interesting case of hybridity” (2016, p. 7). Hereby she focuses on the way in which the various actors produce legitimate authority whilst governing - mostly focusing on establishing security and public infrastructure and provisioning of social service. One focal point of Geenen (2016) is the local political dimension. As such, Geenen states that “chiefs, as well as other state and non-state actors, engage in a constant struggle to establish and consolidate their authority, and to legitimize their governance actions” (2016, p. 6). Heipon, linking to the research of Geenen (2016) therefore describes chiefs as “hybrid governors [... who are] able to (continue to) install their own conventions.” (2016, p. 14).

Linking Blundo and Le Meur (2008), Emel et al. (2011) and Geenen (2016) we learn that the state - by having the rights to the subterranean resources - positions itself as the “paramount authority” (Heipon, 2016, p. 13), with their sovereignty highly influenced by both global and local, and state and non-state authorities. Heipon’s insights are of great value for this research, as she states that “despite the state nominating itself as sovereign authority, other non-state authorizers also implement and uphold certain conventions and regulations” (Heipon, 2016, p. 14).

When it comes to the delivery of state services in rural and urban areas by governance actors, Geschiere and Gugler, in Blundo and Le Meur argue that the rural/urban division should be bypassed and should be considered by seeing it by means of a “connection” and of “the flows of individuals, norms, ideas and resources that contribute to the reshaping of the issue of collective and public services” (2008, p. 3). This is an important lesson that is taken into consideration in this research. Whilst in the rest of the research the emphasis is on the fact that the research is conducted in an urban setting, attention will be paid to the way in which flows on different scales influence the urban setting.

## 2.2 Distinguishing legality, formality and licitness

Legality is often strictly linked to nation-states, as the producers of legality within legislative frameworks. Here, legality is defined as that which is considered by states to be legitimate (Abraham & van Schendel, 2005), therefore in this research legal action is considered action that adheres to that which is legal according to the law. As has been showed in the discussion in the previous section, state action and performance are influenced by the various actors in the public sphere. As such, various scholars reject the dominant image of the state making up and fighting against illegal activities as it gives a simplistic view of reality (Abraham & van Schendel, 2005; Elyachar, 2002; Hansen & Vaa, 2004). As such, these scholars show that ideas of illegality do not necessarily link up with beliefs and norms that are prevalent in society.

Hansen and Vaa (2004) state that it has been known that, for a great amount of people in urban areas in Africa, economic livelihoods are provided informally, through informal work. Hansen and Vaa (2004), in their study on informality in urban Africa, give a short history of the terms formal and informal, which gained acknowledgement in the 1970s after the International Labour Office - hereafter abbreviated as ILO - used the terminology for its case studies. The ILO characterized the term informality on the basis of a few characterizations such as ease of entry; family ownership of enterprises; and the small scale of the operation (International Labour Office, 1972). Characteristics for the formal sector are then, amongst others the following: “difficult entry; corporate ownership; and large scale of operation” (International Labour Office, 1972, p. 6). This characterization is interesting as it gives certain characteristics that are often linked to characterizations of the terms formality and informality, even though in reality these characteristics might not be present, as can be seen in this research. Therefore Hansen and Vaa (2004) give another definition of informality, which is used in this research, defining informality by means of one characteristic, namely extra-legality. Thereby, informality is not linked to a certain level of economic development or type of operation, but merely to what it is not, namely that it is not formally included in nation-states’ rules and regulations.

Elyachar, in her article on projects of development, defines the informal economy as "a social space in which objects, services, and money are exchanged according to rules of the game other than those sanctioned by the state" (2002, p. 496). Her aim is to show how a development strategy aimed at developing the informal economy creates a way in which rules are not (exclusively) made by the state. In the development discourse, focusing on the informal economy therefore leads to more economic activity that is “conducted outside the

space over which the state is sovereign” (Elyachar, 2002, p. 509). As such, the notion of informality “plays a role in downsizing the nation-state and creating a populace liberated from the state” (Elyachar, 2002, p. 509). Applying this notion of Elyachar (2002) to the research on formalization of small-scale mining in Ghana, we see the importance to grasp the distinction between illegality and informality. Practices or domains of social life that create ingredients of economic success, such as unregistered small-scale mining, can be targeted by the state once the emphasis is on the ingredients of economic success instead of on the idea that it is illegal. To intervene as a state, it is of importance to take away the stamp and idea of illegality, for instance in supporting the local civilians. Seeing jobless people as entrepreneurs enables a terrain for intervention by the state, for instance by giving them access to capital. Elyachar (2002) thereby emphasizes the importance in a language shift from illegal to informal, by acknowledging practices of network and social capital and acknowledging people as entrepreneurs.

Abraham and van Schendel (2005) also reject the dominant imagery of nation-states concerning law enforcement and argue that issues of (il)legality should not take the state as a definite starting point. They argue that the nation-states' legislative framework is inherently implicit, by using vague terminology and allowing for various interpretations of the law, and a classification of legal or illegal is therefore not so easily made. Abraham and van Schendel (2005), in their article on international crime, propose to make a distinction between what the state acknowledges to be according to the law and what people perceive as legitimate, with the former being described as legal and the latter as licit. Thereby, Abraham and van Schendel state: “when we shift our nomenclature to the distinction between "licit" and "illicit," we refer less to the letter of the law than to social perceptions of activities defined as criminal” (2005, p. 18). As such, Abraham and van Schendel (2005) state that powerful people and groups establish the practices that are considered to be legal and illegal, by struggles over legitimacy. Struggles over legitimacy are continuous as “[the struggle] falls short of either winning popular consent or fully suppressing criminalized practices. As a result, licit and illicit practices coexist in social life and are together imbricated in state processes” (Abraham & van Schendel, 2005, p. 7).

Heyman clearly states the importance of anthropological insights on the act of defining legality, as anthropological scholars are good at “demonstrating the relations of power and inequality in the operations and ideologies of law, and exploring ethnographically the complicated and ambiguous terrain between legality and illegality” (2013, p. 304). One way forward he proposes is seeing illegalization not as “states of being” (Heyman, 2013, p. 304)

but as processes, as this makes us regard the underlying classifications that are put in place, such as in legalization processes. Along with Elyachar (2002) and Abraham and van Schendel (2005), he rejects the division between state and non-state, and rejects the dichotomization between the two. Generally, he proposes a middle-range generalization, with for example a distinction between types of legalization or illegalization or between certain types of (legal or criminal) types of organizations on different levels. As he argues that not all legal and illegal activity is equivalent in a moral sense, he proposes that the discussion of (il)legality should be based on moral arguments. Here, Heyman (2013) agrees with Abraham and van Schendel (2005), however as their distinction between legal and licit is based on a certain social group and their perspective, he emphasizes the need to widen and generalize the moral arguments.

Formality and informality co-exist and interact both in rural and urban settings, but in this study the urban setting is highlighted and therefore it is of importance to look at informality in the city. Thereby, in 2001 the UN predicted a rise of 2 billion people to existing cities and towns in the developing world (UNCHS, 2001). Hansen and Vaa (2004), in their study on informality in urban Africa, discuss the informal city, which consists of “extra-legal housing and unregistered economic activities” (Hansen & Vaa, 2004, p. 7). The formal city however is constituted by “urban government and its agents, institutions and rules and regulations that over time have been introduced in order to control urban space and economic life” (Hansen & Vaa, 2004, p. 8). Interestingly, Hansen and Vaa (2004) comment on the interfaces of these two types of cities, being formal and informal cities, having to do with government policies and practices. Formal and informal cities meet whenever laws are adjusted or when enforcement of certain policies is arbitrarily enforced whereas other policies are neglected or barely enforced. Additionally, Hansen and Vaa (2004), in conjunction with Abraham and van Schendel (2005), state that some practices that are technically illegal can be considered legitimate by the actors involved. Therefore, a regulatory system does not make up the urban space, as it is “a dynamic field of interaction for economic, social, cultural and political processes” (Hansen & Vaa, 2004, p. 8).

As the creation of jobs is one of the main benefits of small-scale mining (G. Hilson, 2001) and access to income is one of the focal points in this research, we focus here on extra-legal economic activities as constituting the informal city. Hansen and Vaa (2004) reject the notion that informality or illegality is necessarily linked to the poor segments of society. They state that it is often the case that entrepreneurs who can generally be considered well off gain most from the informal businesses they own, while the workers “work under highly exploitative conditions with little job security and no legal protection” (Hansen & Vaa, 2004,

p. 8). Here they state that often informal work goes hand in hand with exploitation of workers. However, to reject the informal economy because of its possible negative consequences ignores the potential of the informal sector to provide access to income to many. The International Labour Organization ILO has coined the 'dilemma of the informal sector', that centres around the question whether the informal sector should be "promoted as a provider of employment and incomes or should regulation and social protection be extended to it, thereby possibly reducing its capacity to provide jobs and incomes?" (Hansen & Vaa, 2004, p. 16). To be able to get access to income in the mining sector, be it at a formal or an informal mining site, means to be able to benefit from the work that can be done. This relates to the notion of access, which is described below, to get a grip on the question of access to income in the formal and informal economy.

The mentioned discussion on the different concepts of legality, formality and licitness will prove to be useful in this research, as it clearly distinguishes between that which is legal in the lawful sense - being considered by the state to be legitimate - and that which is considered to be illegal by the state. What the scholars however point to is the need to view not only that which is considered legal by the state, but what people engaging in these to be considered illegal activities perceive as legitimate - which are considered licit activities. This opens up room for nuance and does justice to the different moral perspectives of various actors in the mining sector. This viewpoint is of great importance, as the focus of this research is providing a grassroots perspective on (il)legality. Therefore, both the concept of licitness and legality in the lawful sense - in this research mentioned as registered and unregistered - will be utilized in this research.

### **2.3 The concept of access and the mechanisms that shape it**

Ribot and Peluso (2003) in their article on notions of access state first of all that it is of importance to note the differences between the notions of access and property. They define access as "the ability to benefit from things—including material objects, persons, institutions, and symbols" (Ribot & Peluso, 2003, p. 153). Property has been characterized by MacPherson, as stated in Ribot and Peluso as "a right in the sense of an enforceable claim to some use or benefit of something" (2003, p. 155). Property rights theorists have broadened property rights literature by not only considering formal property rights, but by considering collective resources and how these are ingrained in political and economic relationships (Ribot & Peluso, 2003). Ribot & Peluso frame access even more broadly by stating that instead of focusing on

rights as has been done with property theorists, the focus on an ability [to benefit] “brings attention to a wider range of social relationships that can constrain or enable people to benefit from resources” (2003, p. 154). Therefore the difference between an ability and a right is that an ability refers to access whereas a right refers to property. Property then is one way of obtaining access (Ribot & Peluso, 2003). In this research on formalization of small-scale mining in Ghana, a license is a concession to abstract ore from the soil, which can be seen as a property. Also, licenses provide property rights to the owners, but obtaining a license is still a process of access to the application and granting of licenses.

As the concept of access is a way to analyse who benefits in what way, this notion of access is of importance to research who benefits from the policy of formalization. In theories of access it is of great importance to consider the powers which influence the way in which people can benefit. Ghani, as stated in Ribot & Peluso argues that people and institutions draw on different “bundles of powers” (2003, p. 158), during different times and on different scales, thereby altering power relations and ways of access. Here, Ribot & Peluso draw on Foucault as he pointed out that “power has as much to do with positionality and the particular imbrications of men and things as with the formal powers that people might hold” (2003, p. 158). To pay attention to the fact that certain people and institutions handle and control access - thereby being a mechanism of access - whilst others are dependent on gaining access through those who have control, is of great importance to see the process of access as being dynamic (Ribot & Peluso, 2003). As Ribot and Peluso state: "access analysis also helps us understand why some people or institutions benefit from resources, whether or not they have rights to them" (2003, p. 154).

Ribot and Peluso (2003) finally also provide ways in which access mechanisms and the corresponding power relations can be categorized, such as rights-based access, and structural and relational access mechanisms. Regarding rights-based access, when someone has the right to something based on the law, these are commonly regarded as property, including access via the holding of, as is applicable in this research, licenses. Besides rights attributed by law there are other rights-based ways of benefiting from resources. As such, illegal access, “the enjoyment of benefits from things in ways that are not socially sanctioned by state and society” (Ribot & Peluso, 2003, p. 164), is also a way of retrieving access to resources. Access to technology is one aspect that is mentioned by Ribot and Peluso (2003), as technology, such as the use of certain tools, is often indispensable when extracting the concerned resource. Another important aspect for this research is the access to labour or labour opportunities, as resources may be gained by becoming an employee of the one who

controls access to the resource (Ribot & Peluso, 2003), which in this research can be the license holder. As such, the concept of access provides a tool for thinking about the ability to conduct mining activities and how this relates to the need to have access to for instance capital, technology and knowledge about mining practices.

The common thread that follows from the various theoretical notions that have been elaborated on, is the need to focus not only on formal authority or property, but on expanding our notions of government and property beyond formalities. Focusing merely on either the state as one actor, legality as produced by the state or formal property rights does not do justice to the variety of actors influencing and participating in these processes and concepts. Rather, focusing on governance, various concepts of legality, formality and licitness and on access instead of property opens up room for nuance and does justice to the different perspectives of various actors.

## **Chapter 3 Scholars versus reality: scholarly consensus on formalization and the miners' discrepant notions of (il)legality**

After elaborating on the theoretical notions that form the basis of this research, the following chapter will first of all provide insights into the scholarly consensus on the need to formalize the small-scale mining sector. As the focus of the research however is specifically on the perspective of miners, the remainder of this chapter will contrast these scholarly ideas with the practice of how miners regard (il)legality. Hereby, insights will be given into the way in which miners construct and utilize various definitions of (il)legality.

### **3.1 Scholarly consensus in favor of formalizing the small-scale mining sector**

The small-scale mining sector is generally considered to cause “high social and environmental costs” (Salo et al., 2016, p. 1058), such as causing environmental pollution and deforestation and with its workers working under poor working conditions, including conducting dangerous work. Most small-scale gold mining activities in the world are “part of the extralegal economy” (Siegel & Veiga, 2009, p. 52). However, there is a growing consensus amongst scholars and policy makers that efforts to develop the small-scale mining sector should be focused on and will be aided by formalizing the small-scale mining sector (Siegel & Veiga, 2009). Formalization is defined here as “absorbing existing customary practices - developed informally by miners - into the mainstream of a country’s legal and economic affairs” (Siegel & Veiga, 2009, p. 51). It is of importance to differentiate between legalization and formalization, as formalization is not only focused on putting in place policy and regulatory frameworks in order to legalize the small-scale mining activities. McQuilken and Hilson argue that “the extent to which such laws and regulations are successfully activated, implemented, and enforced by the relevant authorities is also central to the formalization process” (2016, p. 10).

Siegel and Veiga argue that the importance of formalization lies in the establishment and recognition of rights to miners, who are then recognized as “having the right to mine” (2009, p. 52). Looking at the matter from a - mostly - economic viewpoint, Siegel and Veiga (2009) argue that formal miners are more likely to obtain access to capital and governmental support, to improve their operations and as such create a more sustainable operation. This relates to Ribot and Peluso (2003) who argue that an ability refers to access whereas a right refers to property. By formalizing the mining sector, miners can handle and control access themselves, instead of being dependent on gaining access through those who have control –

be it the ones who are in possession of the property rights (Ribot & Peluso, 2003). Besides a transferral of rights upon formalizing the operation, duties are also imposed on miners such as complying with certain labour rights and environmental standards. The assumption is therefore that formalization will lead to miners abiding to social and environmental norms.

Formalization does not only impact miners, it also influences governmental actors. Salo et al. argue that formalization “provides a platform to better govern and consequently manage the social and environmental impacts of mining (i.e., to minimize its negative impacts, and to harness its positive impacts)” (2016, p. 1058). This can be explained by the fact that governments are better able to register and track formalized mining activity. As such, formalization is often desired by governments as it provides them with a tool by which the accompanied social and environmental impacts can better be controlled.

Therefore Siegel and Veiga argue that formalization is often a “win-win situation for both miners and the state” (2009, p. 52). Upon formalization, miners are empowered by gaining property rights, providing them with stability in two ways. Miners are then aware of the costs of taxation, instead of being insecure about the amount of bribes that need to be paid - being hidden costs. Secondly, Siegel and Veiga argue that it “reduces stress over the cost of rebuilding after military actions taken against them” (2009, p. 52). Additionally, the government gains extra taxation income and is able to reduce “vulnerability for a part of the population and the environment” (Siegel & Veiga, 2009, p. 52).

In spite of this scholarly consensus in favour of formalizing, it is clear that formalization efforts are not invariably welcomed and accepted by miners. Salo et al. (2016) argue that formalization schemes often do not sufficiently take into account the perspective of the local mining sector and its actors. Often, formalization efforts then “inevitably disrupt and seek to break already existing habits and practices” (Salo et al., 2016, p. 1059). Salo et al. (2016) show how small-scale mining formalization efforts in Peru have not offered any benefits for miners and how the formalization process is resisted by miners. Whilst conducting the research, Salo et al. (2016) have however seen participatory miners willing to locally design and implement policies that are beneficial to both miners and government. Therefore, Salo et al. (2016) argue that in the process of formalization, more emphasis should be put on the way in which institutions and formalization practises are perceived by miners, thereby allowing the formalization process to be governed more as a bottom-up process.

As such, in the next section light will be shed on the way in which formalization of the small-scale mining sector is perceived by small-scale miners in Tarkwa. This will clearly show the difference between scholarly ideas about formalization versus the outcome of

formalization processes in practice, by means of providing a ‘grassroots’ perspective. Therefore, I will provide insights into the way in which miners construct and utilize various definitions of (il)legality.

### **3.2 Miners’ discrepant notions of (il)legality**

What follows from the scholarly debates about formalization is that informal practices should be absorbed into the legal framework of a country (Siegel & Veiga, 2009). The Ghanaian government has facilitated this formalization process by establishing the Small-scale Gold Mining Law. This legal framework makes a distinction between legal and illegal small-scale mining activities on the basis of whether or not the small-scale mining site is in the possession of a license to mine the subsoil. This governmental framework will be elaborated on in the following chapter. Here, the way in which miners perceive (il)legality is elaborated on, as it provides a clear break with scholarly insights into formalization and provides essential insights into the practice of formalization policy.

Especially during the start of the fieldwork in Tarkwa, I had trouble ascertaining whether I was at a registered or an unregistered site. Interestingly enough, I soon noticed that this was fed by responses of miners I talked to, due to a discrepancy and ambiguity when it comes to definitions of (il)legality of small-scale mining sites. Miners mostly do not conform or adhere to the definition of (il)legality which is provided by the legal framework. Several miners expressed the fact that alluvial mining is - in their view - illegal, whereas shaft mining and surface mining is not. Therefore, a lot of miners responded that the mining activities they were undertaking were legal, as their activities did not involve alluvial mining. There were some miners who defined legality in terms of the possession of a license - as legality in the lawful sense -, but linking up alluvial practices to illegal practices was a more common response. An initial fear that arose in me was that people felt unsafe or insecure to express the fact that they were working at an unregistered site and therefore argued that they were in fact working at a registered operation. However, when asking miners that regarded themselves as legal because they were not conducting alluvial mining, they expressed the fact that all mining sites in Tarkwa are registered, as they do not pollute water as there is no to hardly any alluvial mining activity in Tarkwa.

Additionally, a few informants also used another definition of (il)legality, which to a great extent has to do with the different levels of authority in the Ghanaian society. Traditional authorities play a significant role in the government structure and are able to assert

local autonomy “against the globalizing and modernizing power of the state” (Ubink, 2007, p. 127). Additionally, Luning and Pijpers (forthcoming) have argued that the support of Ghanaian local chiefs is often required when working out an arrangement concerning access of small-scale miners to resources. Hereby they state that “the [large-scale] company may officially own the concession and mineral rights, but local artisanal miners consider their appropriation of this resource legitimate and see their chief as the appropriate authority” (Luning & Pijpers, forthcoming, p. 2). I have also observed this in Tarkwa. Some miners stated that they were operating at a legal/registered mine because the land belongs to the chief and the chief accords the mining activities taking place. Here, a conflict evolves between traditional authorities such as chiefs and the central government, making this another factor where ambiguity of the definition of (il)legality comes up.

Adding to the ambiguity of the definition of (il)legality, is the way in which the term *galamsey* is used in multiple ways by various actors. In the scholarly literature and in expressions by the national government, *galamsey* refers to miners working on unregistered small-scale mining sites, coming from the term “gather them [the gold] and sell” (Amankwah and Anim-Sackey 2003: 132). *Galamsey* miners therefore refers to those miners who work on a mining site that is not licensed. However, interestingly, I have found that the definition is used in multiple ways. When it comes to definitions by small-scale miners themselves, the term *galamsey* does not solely represent miners on unregistered sites. In practice, a lot of the informants in Tarkwa referred to *galamsey* as workers who mainly use their manpower to do the work instead of using - either any type or big and heavy - machinery and equipment. As such, there were informants who referred to themselves or others as *galamsey*, whom however did work on a registered mining site. Additionally, this complicated the process of acknowledging which mining sites were registered or unregistered. Whenever someone referred to himself or others as *galamsey* I could not deduce from this if this was then a registered or an unregistered site. Therefore, as there is disagreement regarding the term *galamsey* between scholars and government officials versus usages of the word by small-scale miners themselves, I will refer in this thesis to the small-scale mining informants as either workers on registered or unregistered sites. This represents their activity and their legal status and does not use an ambiguous or unclear term which miners themselves use with another meaning.

The variety of definitions and usages of (il)legality amongst miners and between miners and the government shown here exemplifies how issues of (il)legality should not take the state as a definite starting point as this does not reflect the views of the subjects of the law.

In this case, a clear difference can be observed between that which is according to the law and what people perceive to be legitimate, with the former being described as legal and the latter as licit (Abraham & van Schendel, 2005). In this case it is most clearly shown that miners thought of their work to be legitimate, as many expressed that they were not destroying the water bodies. This explains how it happens that even though the operation certain miners are working on is unregistered - thus illegal in the lawful sense -, miners themselves consider their work to be legitimate. It can be stated that the practice of how miners regard (il)legality is not static, but rather fluid.

In the literature, Heyman suggests to view legalization as a process instead of “a state of being” (2013, p. 304) thereby opting for the need to explore legality and illegality processes on the basis of morality. This process appears to be enacted by actors in the mining sector. As many miners see alluvial mining as wasteful and destructive to the environment, they distinguish between different types of mining and attach a different status to different types of mining. Miners therefore seem to be making their own moral arguments when it comes to illegality. Heyman argues that “not all illegalities are morally equivalent” (2013, p. 305), and interestingly, this notion seems to be applied in the views of miners. The term fluid legality is introduced here, which is twofold. Besides the fact that the concept of legality is fluid - in the sense that there is a discrepant usage of the concept - fluid legality also refers to the moral judgments of miners condemning alluvial practices as illegal.

#### *Introducing possible causes for the discrepant notion of (il)legality*

Why miners distinguish between legality and illegality on the basis of morality is amongst others to be explained whilst regarding the way in which alluvial mining is portrayed in the press and by the government, as will be elaborated on in chapter 4. As such, in expressions of national governmental actors such as the president on unregistered small-scale mining, the destructive nature of alluvial practices on water bodies is emphasized. It is interesting to see how these expressions on alluvial mining appeared to have trickled down to miners. Relating to this is the interesting observation that alluvial mining seems to be generally regarded as very bad for Ghana by a large part of the population. In conversations about the type of research I was conducting it happened mostly that people - both miners but also people I met otherwise such as shop owners, members of the community of Boboobo that I was living in or Ghanaian citizens I met during travelling - expressed how destructive and negative the small-scale mining activities are for Ghana. Thereby most people immediately referred to the

spoiled rivers, which indicates that illegal alluvial mining is a topic which is very visible, and therefore is especially problematized.

One important factor to regard whilst trying to explain the discrepancy in the definition of (il)legality is the way in which small-scale miners view governmental intervention as a whole. As the government makes the distinction between legality and illegality in the lawful sense - by providing the lawful framework -, it is interesting to see how miners actually view government in a general sense and the role the government plays in the mining sector. This provides an understanding about the way in which the government is able - or rather seems not to be able - to assure its authority, thereby causing ideas about (il)legality not to be mirrored in society. Finally, another topic to regard in explaining the discrepancy of the definition of (il)legality is the way in which local law implementers interpret and subsequently implement the legal framework of small-scale mining. Both topics will be elaborated on in the following chapter.

This chapter has provided essential insights into on the one hand the scholarly arguments in favor of formalizing the small-scale mining sector and on the other hand the practice of the notion of (il)legality and the way in which this is defined in discrepant ways. Scholars often consider formalization to be a “win-win situation for both miners and the state” (Siegel & Veiga, 2009, p. 52), as it empowers miners and enables governments to better manage both negative and positive impacts of the sector, besides gaining additional governmental income. However, from the literature it already follows that formalization practice is mostly not so straightforwardly positive. Salo et al. (2016) argue that formalization schemes do not sufficiently take into account the local mining actors’ perspective. This research strengthens and adheres to this argument, as it has become clear that miners make up (il)legality on the basis of their own moral arguments, which in many cases leads to viewing alluvial mining practices as illegal. As such, the term ‘fluid legality’ has been introduced, referring to both the fact that legality is not a definitive notion and the fact that miners make up the notion of (il)legality on the basis of the distinction between alluvial versus non-alluvial mining. This discrepancy provides us with essential insights for the implementation of formalization policy. To enjoy the benefits of formalization policy as noted by scholars, there is a need to take into account this discrepancy, to ensure that policy and practice are properly connected. As such, it can be warranted that policy actually reflects practice.

## **Chapter 4 The role of governmental actors in formalizing the small-scale mining sector**

Insight has been gained into the scholarly arguments in favor of formalizing the sector, contrasted by the discrepant usages of the concept of (il)legality by small-scale miners. Now it is time to shed light on the way in which the Ghanaian government has tried to put formalization into reality, by elaborating on the small-scale mining law. To gain more insights into the governmental efforts of formalizing the sector, the process of obtaining a license will be addressed, along with its corresponding challenges. Subsequently, a view of the practice of law enforcement is provided, thereby elaborating on how powerful and effective the government actors seem to be in implementing policies, firstly on a general level and thereafter specifically elaborating on the policy of formalizing the small-scale mining sector. Finally, the practice of the local law implementers in Tarkwa will be elaborated on. As such, this chapter will show how the discrepancy of the concept of (il)legality is both caused by and adhered to by governmental actors.

### **4.1 The small-scale mining law typified**

The small-scale mining sector has until 1989 been regarded by the government as an informal sector, regardless of the thousands of people working in the sector (G. Hilson, 2001). As such, until then miners conducted, in the state's perspective, largely unmonitored, uncontrolled and unregulated practices, and received little to no support from the government (G. Hilson, 2001). As a direct response to the general economic decline of the 1980s, the national Economic Recovery Plan was implemented in 1983, with the main objective to "remove the barriers hindering the growth of export earnings" (G. Hilson, 2002a, p. 23). To do justice to the interconnectedness of places, as showed by Gupta and Ferguson (2007), it must be noted that both the World Bank and the International Monetary Fund were consulted whilst drafting the plan. During the 1980s Ghana additionally underwent the Structural Adjustment Programs of these two institutions, receiving loans on the basis of enacting neoliberal policies. As such, in the Economic Recovery Plan, foreign investment in mining was promoted, amongst others through tax benefits for foreign investors. Correspondingly, in 1989, the Ghanaian government developed the Small-scale Gold Mining Law, which in the meantime has been amended several times with the last alteration taking place in 2006, upon the establishment of the Minerals and Mining Act of 2006 (Bansah et al., 2016). This legal framework makes up

the formalization policy of the government and as such it enables mining operations to transition from the extralegal to the legal sector.

One of the main arguments for the Ghanaian government to formalize the small-scale mining sector is the additional income it provides for the government, as before the formalization efforts a lot of tax revenue was lost through smuggling routes and illegal trade (G. Hilson, 2001, p. 4). When the Small-scale Gold Mining Law was established in 1989, the sector was perceived as labor-intensive, performed by uneducated people. The government of Ghana believed that the formalizing the small-scale mining sector would be an “income generating solution” (Ferring, Hausermann, & Effah, 2016, p. 173), thereby ensuring economic sustainability for Ghanaians. This belief comes from the fact that Ghanaians would be able to invest in mining without the enjoyment of large capital and the plan to make large investments. As such it could be regarded as a pro-poor initiative (Ferring et al., 2016).

As Ferring et al. (2016) state, the characterization of the small-scale mining as only having access to low levels of technology, mechanization and capital investment and being labor intensive is not only utilized on the national level but is amplified on an international level, by policy documents of for instance the World Bank. Banchirigah and Hilson, as mentioned in Ferring et al. (2016) emphasize that both states and international bodies have characterized the formalization of small-scale mining as a pro-poor initiative which may be utilized as an income-generating solution to further amongst others poverty alleviation. By using these characterizations as a starting point, policy plans - as described in policy documents of the World Bank - often require “certain (often predetermined) forms of expertise and intervention to create “efficient” and “profitable” development opportunities” (Ferring et al., 2016, p. 173). However, from 1989 to now the small-scale mining sector has developed and the classification of small-scale mining as a poverty-driven sector with uneducated workers utilizing no to little technology does not do justice to the small-scale mining sector anymore. As such, these various policy documents overlook and deny the complexity of the small-scale mining sector, which has been developing greatly over the past decades.

Besides establishing legality and illegality, formalization efforts have also emphasized or resulted in various unequal social power relations that make up the small-scale mining sector. As such, the Small-scale mining law emphasizes the unequal power relation between the government and the people of Ghana. Ownership of the minerals in the subsoil belongs to the state and “is vested in the President in trust for the people of Ghana” (Minerals Commission, 2006: section 1). As such, the President, as the head of the state, is given the

authority over the available minerals, who has subsequently transferred the authority to grant licenses to the Minister. Interestingly, when granted a license in order to conduct small-scale mining activities, one obtains access to mine the subsoil, where the minerals are located. This right therefore initially belongs to the state, making this a system of ‘subterranean sovereignty’ (Luning & Pijpers, forthcoming). The corresponding wealth also initially belongs to the state and Luning and Pijpers therefore regard the state as “the ultimate owner of subsoil mineral wealth” (forthcoming, p. 3). The right to the minerals in the subsoil that is transferred to individuals obtaining a license is temporal, as a license is initially obtained for a maximum of five years. In short, access is granted, but property rights are not transferred. This is one example of how the law emphasizes the different social relations in the mining sector.

#### *4.1.1 Becoming a registered operation and its corresponding challenges*

As more insights have been gained into the legal framework of small-scale mining and its intended effects, it is noteworthy to realize that the illegal small-scale mining sector in Ghana is however very large. To try to get a grasp of the unregistered sector and its “ubiquitous” nature, as it has been described by G. Hilson and Potter (2003), the process of acquiring a license will be elaborated on here. In the Mining and Mineral Act of 2006 it is stated that a small-scale mining license can solely be attained by Ghanaian citizens above the age of 18. This provision is an attempt to assure that the formalization process is beneficial for Ghanaian citizens, for instance in ensuring access to income generating opportunities. As such, it can be concluded that the Ghanaian government is well aware of the importance as well as the potential of the small-scale mining sector for access to income for Ghanaian citizens. This relates to the scholarly argument in favor of formalizing the small-scale mining sector, as one of the main positive impacts of small-scale mining is the provision of employment, as the sector generates “socially inclusive economic growth contributing to poverty reduction” (Salo et al., 2016, p. 1058).

Additionally, the applicant must go through a number of administrative stages in order to obtain the license, which are discussed by G. Hilson and Potter (2003). The costs will be mentioned too, which are derived from the list of fees - in dollars stated - that is mentioned on “Ghana’s Mining Portal”, on the page describing the Minerals Rights, Licenses, Permits and Procedures (Ghana's Mining Portal, 2017). First of all, the applicant must submit ten copies of an application form to the small-scale mining district center in the vicinity. This costs 70 US dollars. Subsequently, an environmental permit must be obtained from the Environmental Protection Agency. The application is sent to the Minister of Miners to be approved, after

which a processing fee of 150 US dollars must be paid. Finally when a formal approval is given, the applicant is required to pay 1000 US dollars for the approval.

In the literature it has been stated that the process of acquiring a license to legally mine is “cumbersome and highly inefficient which strongly discourages miners from registering” (Teschner, 2012, p. 308). Additionally, it is mentioned that registering practices involve high fees and a great amount of paperwork, which is often a great barrier, amongst others because of the fact that many miners are illiterate (G. Hilson & Potter, 2003). This is an observation I also made in the field. Many miners were for instance not able to properly write down their name or the name of the mining site we were on at that moment. The various stages in the application process cause the process to take a long time. G. Hilson and Potter (2003) state that this process is known to take at least a year. In this case it is important to note that the license is obtained for just 5 years, after which the license should be extended.

Additionally, miners are mostly required to go to Accra to obtain the necessary information regarding the availability of parcels of land (G. Hilson & Potter, 2003). The lack of decentralization in all stages of the application is often described as burdensome by applicants (G. Hilson & Potter, 2003). Another articulated problem - in this case by a professor from the University of Mines and Technology in Tarkwa and adhered to by several miners - is the fact that miners are not allowed to conduct a reconnaissance mission before applying for a license. As small-scale mining operations are not allowed to do exploration on the field they consider as their possible prospective mining site, they are unable to ascertain if and to which extent there is mineralization underground. Imaginably it is a big problem for companies to start digging a hole and apply for a license without being reassured of the fact that the place bears gold, in order for the company to be able to reclaim the money they invest.

#### *4.1.2 Current government's expressions: stop (alluvial) galamsey operations*

The current government of Ghana, led by president Nana Akufo-Addo, has expressed the aim to stop all miners working on unregistered small-scale mining sites, or *galamsey* - as workers on unregistered small-scale miners are referred to in most newspaper articles. As such, the current government has launched a campaign to discourage people from conducting unregistered small-scale mining activities. Additionally, the government has announced a comprehensive approach, with the objective of - as stated by the president Akufo-Addo - “dealing with this phenomenon once and for all in our country”. (Brako-Powers, 2017a).

An active stance from the government against galamsey is not to be taken for granted. As such, the former government, led by president John Mahama, is criticized for its lack of

actions taken against *galamsey*, as “his failure to deal with illegal mining has led to the destruction of the water bodies that serve as source of drinking water for millions of Ghanaians” (Agyemang Asante, 2016). However, in 2013 he has set up the still existing Inter-Ministerial Taskforce on Illegal Mining, as a partnership between assemblies on the metropolitan, municipal and district level together with regional - and district security councils. The Taskforce has the task to conduct “sweeps of unlicensed and informal mining operations to arrest and deport illegally operating foreign miners, clamp down on *galamsey* operators, and seize equipment” (McQuilken & Hilson, 2016, p. 28). These law enforcing agencies are therefore authorized to officially stop unregistered small-scale mining activities from taking place. In 2016 the Minerals Commission however argued that “the taskforce has failed to flush out activities of *galamseyers* whose activities are the results of the current water problem in the country” (Today Newspaper, 2016).

It is interesting to see how expressions of national officials emphasize the destructive nature of - specifically - alluvial mining practices. There seems to be a sole focus on the destruction of water bodies, with many newspaper articles that report on messages from national officials addressing the unregistered activities and thereafter immediately pointing to the pollution of water bodies (Brako-Powers, 2017b; Kenu, 2017; The Statesman, 2017). Thereby they give examples of rivers drying up such as the Tano River or the Brim River which is being muddied (Brako-Powers, 2017b). In an article of The Statesman from 27-04-2017 it is described how the current President of Ghana addressed his population regarding problems of *galamsey*, saying that “mining along the water bodies cannot continue if we want to preserve nature and our water” (The Statesman, 2017). Additionally, another article describes the expressions of Lands and Natural Resources Minister John Peter Amewu who says “political bigwigs who allegedly front for prospective investors to engage in illegal mining and destroy water bodies will not be spared” (Kenu, 2017). In these, and numerous other articles, it is striking how much emphasis is placed on the destruction of water bodies. Here it becomes clear that *galamsey* are framed as causing degradation of the environment as a whole - however especially focusing on the destruction of water bodies.

#### **4.2 Perspective on governmental intervention from small-scale miners**

After elaborating on the legal framework and the current governments’ expressions, it is interesting to regard the governments’ effectiveness in implementing their policies. This will be elaborated on by respectively mentioning the lack of trust in and opportunities generated

by government, the lack of expectancy of governmental action and the insignificant role the government plays in supporting registered small-scale mining sites.

#### *4.2.1 Lack of trust in government*

During the fieldwork, I was constantly struck by the lack of confidence in and satisfaction regarding governmental services. In the first conversation with most miners, and for that matter most non-miners as well, the topic of Ghanaian government came up. It was mostly the case that people were very keen on going to another, namely Western, country to work or live. As I am from the Netherlands, I was asked how to get a visa for the Netherlands many times. Most miners and non-miners that I met that voiced a wish to leave Ghana did so because of the lack of opportunities in the country. People expressed the government's unwillingness to help young people with finding and creating jobs and the lack of following-up on plans that are suggested - for instance when it comes to innovative water storing ideas. Additionally, people expressed that policies that are put in place are not well implemented and policed, which causes these policies to fail. The lack of trust in governmental officials is exemplified by the story of one of my informants, a gold buyer in Tarkwa. He is a registered buyer and is therefore required to pay taxes once a year. As such, governmental officials will come by his office to collect the taxes. However, my informant said that he will never pay the officials at that moment, as he does not trust the money to be handed in (fully) to the tax authorities. Therefore, the informant stated that he will always go to the local tax authorities himself to pay his taxes there.

#### *4.2.2 No governmental action expected*

The abovementioned quote exemplifies the general view of Ghanaians towards the national government, which seems to coincide with the insignificant role the national government ostensibly plays when it comes to the mining sector. As such, views on government support to registered small-scale mining operations were scarcely voiced. Exemplifying this is the fact that it only occurred once that a miner on itself voiced the wish for the government to change the situation, which in this case revolved around the flood of the underground shafts due to too much water. During the rest of the fieldwork, upon encountering dozens of problems on various mining sites, there was no one who voiced hopes of action or change from (part of) the government. Generally, it seemed as if government actors were not considered as a factor that could influence their situation in any way. This can be understood using Elyachar's

notion of the informal economy, whereby more economic activity takes place “outside the space over which the state is sovereign” (2002, p. 509) thereby downsizing the nation-state.

Relating to the mining sector, but also very much to general views of government in Ghana, is the following response to a question of frequency of check-ups on a washing site, conducted by the district office of the Minerals Commission. The informant, being the owner of the washing site, responded with “this is Africa”, saying this as a statement on its own, needing no further explanation. After asking him to elaborate on this statement, he said the government is not able to implement, maintain and check up on policies. This seems to be the general view on government as it is shared by many if not most people I have met.

#### *4.2.3 The government’s insignificant role in the mining sector*

One of the benefits of formalizing the sector, as stated in the literature, is that government would be better able to manage the positive impacts of small-scale mining, besides minimizing negative effects, such as social and environmental impacts (Salo et al., 2016). This is however not the overall view that has resulted from this research. Besides the general views on the insignificant role the government seems to play in the daily life of the population, miners elaborated on the government’s role concerning specific processes in the small-scale mining sector. As such, one story from the two registered small-scale mining sites that are part of this research will be elaborated on. These stories will exemplify the insignificant role the government plays in supporting registered small-scale mining sites<sup>2</sup>.

##### *Stejoan Mining Group*

Stejoan - as the site will be named from here on out - is one of the two registered small-scale mining sites I have included in this research, which has been registered by two investors both Tarkwa and Accra. Normally, over 100 miners work at this site, making it a rather large site. However, the level of technological equipment that is used is rather low, in comparison to the other registered site which has Chinese investors. Informants at Stejoan - both miners and overseers at the site - stated that the site ran into trouble two years back, as a result of the fact that the electricity bill had not been paid for. As the electricity bill had not been paid for, the pumps that usually pump out the water from the underground shafts were not working. This obstructed the mining activities as water needs to be pumped out in order to properly mine the

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<sup>2</sup> Both sites are regarded as small-scale as they have small-scale mining concessions. However, sometimes I was struck by the relative medium-scale of the operations. Some informants argued that the government was working on legislation on medium-scale mining.

underground shafts with its low underground levels. Stejoan, with over 100 miners working on the site at that time, was unable to continue their operations. For about 1,5 years the miners were either unable to go down into the shafts or later during the 1,5 years could only reach a certain level underground, which did not contain a lot of gold. During the fieldwork, I was struck by all the externalities that caused mining operations to shut down, for different amounts of time, ranging from just a day to several years. As one of the supposed benefits of formalization policy is the fact that governments are better able to manage the positive impacts of small-scale mining - such as access to income - it could be assumed that there would be support from the government to enable registered operation to continue its work. However, when asking the miners on the site for the support they had obtained from the government, they were not able to give me any answers.

#### *Mohammed & Co Mining*

Mohammed & Co is the second registered small-scale mining site that is part of this research. Mohammed & Co differs from Stejoan mostly due to the fact that the company hired Chinese contractors who brought in Chinese technical equipment. Interesting in this case is the fact that Mohammed & Co is made up of two different organizational mining sites, together however comprising the small-scale mining site Mohammed & Co and working on the same small-scale mining concession. One part consists of Ghanaians working with Chinese investors/contractors that have access to more technological equipment, which consequently will be called the Chinese part of the operation. This is also how the main informant - being an overseer at the site - called that part of the operation. The other part of the small-scale mining operation consists of galamsey - which is how the informant himself called these workers -, that rely on low levels of technology to conduct the mining activities.

In the Chinese part of the company, Chinese contractors were in charge of a great deal of the company, amongst others supplying technology but also of arranging - both Chinese and Ghanaian - personnel. My informant told me that the Chinese contractor gets up to 90% of the earnings for the work they do, whereas the Ghanaian part of the company only receives the other 10%. I asked the informant if the government knows about this arrangement and if they - in his eyes - would mind this arrangement. The informant responded to this by saying “no they do not mind, because on paper it is a Ghanaian who holds the license and they make money”. The informant believed that as a Ghanaian holds the license, the national government therefore does not seem concerned about who does the work and who consequently gains from this. As such, in spite of the limitation in the law that enables solely Ghanaians to obtain

a license, small-scale mining sites can be mostly beneficial to non-Ghanaians. This exemplifies how the legal governmental framework for small-scale mining is not solely or mostly beneficial for Ghanaian and how the government seems to play an insignificant role in this process.

In sum, it is clear - from both from the general perspective on governmental intervention and the role the government specifically plays in the small-scale mining sector - that miners do not rely on governmental support in both their daily life and whilst conducting small-scale mining activities. There is a lack of trust in governmental actors and miners do not expect governmental action to be taken. Additionally, the minor role the government plays in supporting registered small-scale mining sites is exemplified by reviewing the case of the two registered sites that have been part of this research. Showing the insignificant role the government plays helps in explaining why miners adhere to discrepant definitions of (il)legality. As the government makes up such a minor role in the daily life of miners, the legal framework provided by the government does not prove to be an influential factor in constructing (il)legality. As such, governmental ideas about (il)legality are not mirrored in society and miners rather construct their own ideas of (il)legality.

#### **4.3 The perspectives and actions of local governmental actors**

After giving an overview of the perspective on governmental intervention from small-scale miners, including shortly elaborating on the two registered sites and the way in which miners view governmental input in these operations, a light will be shed on the main local law enforcers in Tarkwa. By shifting the focus to the city of Tarkwa and the type of interventions that are enacted there, it can be found out how abovementioned discussions about the construction of (il)legality and the role of the government in this process play out in the local urban context.

One needs to take into account that there is not solely one governmental actor involved in actions such as discouraging, obstructing or stopping unregistered small-scale mining. Additionally, as Blundo and Le Meur (2008) state, different governmental actors can play different, sometimes even opposing, roles in enacting the same policy, which is in this case stopping unregistered small-scale mining. Here, it is interesting to look at different logics and reasons for certain behavior and how these different governmental actors interact. As this research is based on fieldwork conducted in Tarkwa on views from workers in Tarkwa, I will discuss the main governmental authorities influencing the small-scale miners, which were

mentioned in the stories of the miners. These are the district office of the Minerals Commission, law enforcement and the chief.

#### *4.3.1 The District Office of the Minerals Commission in Tarkwa*

##### *Tasks and reality*

Firstly it is interesting to look at the lawful duties of the Minerals Commission and its purpose when it comes to small-scale mining. In the Minerals Commission Act of 1993, the Minerals Commission was established as a regulatory body under the auspices of the Ministry of Lands and Natural Resources. The main function of the Minerals Commission is “the regulation and management of the utilization of the mineral resources of Ghana” (Minerals Commission, 2006). In this function statement of the Minerals Commission, the word ‘utilization’ is one that stands out. The focus on utilization of the minerals becomes additionally clear in the vision of the Minerals Commission. On the site of Ghana’s Mining Portal the vision of the Minerals Commission is described as “the main promotional and regulatory body for the minerals sector in Ghana” (Ghana Mining Portal, 2017).

The Minerals Commission per se is not included in this research, as this level of government does not have direct involvement with small-scale miners in Tarkwa. The Minerals Commission however has seven ‘district offices’ aimed at supporting registered small-scale mining operations, of which one is based in Tarkwa. The functions of the district office of the Commission are as following: “ (a) compile a register of small-scale miners and prospective small scale miners specifying particulars that may be determined by the Minister; (b) supervise and monitor the operations and activities of the small scale miners and prospective small scale miners; (c) advise and provide training facilities and assistance necessary for effective and efficient small scale mining operations, (d) submit to the Commission in a form and at intervals directed by the Commission, reports or other documents and information on small scale mining activities within the District; and (e) facilitate the formation of Small Scale Miners Association” (Minerals Commission, 2006).

In the three meetings I had with the district officer - which is the highest official - of the district office in Tarkwa, the officer stated that they were involved in different types of activities when it comes to registered small-scale mining, amongst others organizing stakeholder meetings. Stakeholder meetings are organized every few months for chiefs, (prospective) miners and relevant government actors such as the inspectorate division of the Minerals Commission, in charge of overseeing large-scale mining companies, to talk about

the problems these various actors face. Secondly, when workers on unregistered sites are caught working on the concession of a large-scale mining operation, the district office enables a dialogue between the chief of the community involved and the large-scale mining operation, with cooperation of the inspectorate division of the Minerals Commission.

The district officer told me the district office carries out bi-monthly visits to registered small-scale mining sites, which serve the purpose of checking the mining sites on amongst others safety and environmental practices. Initially, the district officer of Tarkwa told me he was able to take me on one of his visits. However, as soon as I wanted to plan this, the officer's car broke down which obstructed him from visiting the sites, or so he told me. Additionally, he made a lot of visits to Accra, which also kept me from going with him on visits to the mining sites. I am very much aware of the fact that this might well be a polite way of keeping the visits off, as he was not interested in taking me on these visits. However, when asking around on registered small-scale mining sites about the district office of the Minerals Commission and their visits, they were very vague about the last visit of the district office and the next time this would happen. As such, it is questionable whether the district office visits these mining sites bi-monthly. Besides the fact that in practice I have not seen or heard of these visits, other supportive practices undertaken by the district office that are well documented in the literature and were voiced when talking to the district officer, were not voiced during talks with workers of registered sites and the overseers. Therefore, it is questionable how frequent and existent these practices are. This story exemplifies the insignificant role local law implementers have in supporting registered operations.

#### *The perspective on (il)legality and actions taken*

The district office additionally monitors registered small-scale mining sites, whereby they appear to be focusing on water issues. This can be illustrated by the story of one informant working on a washing site in Tarkwa, who noted that the district officer came to the washing site to monitor the activities once. The informant said that the district office officials saw that there is a water management system in place at the washing site, by which they reuse water without losing water into the river and as such the river is not spoilt. The informant stated that “they know we use water in a good way”. As such, the informant explained that the district office allowed the activities taking place and they did not visit the washing site again. However, it is of importance to note here that I am not fully aware of the legal status of these small-scale washing sites, as the process of washing ore is not formally registered or unregistered, with the formalization policy focusing on the presence of a license to mine the

subsoil. However, the illustration is striking, as it shows how the district office focuses on water issues to a large extent when distinguishing registered and unregistered activities.

These mentioned activities focus both on prevention of unregistered small-scale mining and supporting registered small-scale mining. However, it is striking that unregistered small-scale mining activities are not mentioned in the mission and function statement of both the district offices and the Minerals Commission as an activity that needs to be prevented or that needs to be acted upon. The aim of the district office seems mostly focused on supporting already registered small-scale mining operations. The disregard of the presence of unregistered small-scale mining is something that is clear from the talks I had with the district officer of Tarkwa. Whenever the topic of prevention of unregistered mining practices was discussed, the district officer kept on referring to alluvial unregistered small-scale mining activities. As such, the district officer mentioned the district office's activities concerning alluvial practices, such as helping to set up meetings with chiefs and the local community to provide information on the risks of doing unregistered alluvial small-scale mining. Questions regarding actions taken against unregistered underground shaft mining - a practice that is very common in the urban area of Tarkwa as opposed to alluvial mining - were not met by clear answers.

Additionally, in one meeting I was trying to find out exactly which of the mining sites I visited were registered or not. The district officer had named some of the registered operations in the urban area of Tarkwa. Therefore, I asked him about names of certain mining sites that I had visited but of which I was not sure whether these were registered or unregistered. The question about a certain underground mining operation in a prominent place in Tarkwa was met first of all with uncertainty, as if he had never heard of the place. The officer answered my question irritatingly with "how would I know of that place". However, gradually he also made responses that made me aware of the legal status of the place. It became clear that these sites were in fact not registered and his slight irritation was caused by the fact that I was pointing out sites that were indeed not registered.

However, as noted, the unregistered sites were omnipresent in the town, something that was also noted by a university professor who was one of my informants. An illustration of the commonness of the places in Tarkwa is the fact that when I asked the professor about unregistered mining operations in Tarkwa, he could immediately point out the big unregistered operations, and he explained that authorities know of these places but are refusing to acknowledge their existence. Although it remains unclear as to exactly why the district officer essentially tried to deny the existence of unregistered small-scale mining sites

in Tarkwa, it is exemplary of how governmental actors lack the tools - and possibly the interest - to stand up to unregistered practices. One plausible reason for this was expressed by the professor, when he said that corruption in low positions is a big problem in Ghana. People who should be in charge of enforcing the law can often not be trusted with this task, as will be elaborated on in the following paragraph on law enforcement.

#### *4.3.2 Law enforcement*

Looking beyond the discrepant definitions miners and both national and regional government officials give to legality and illegality, it is a given that unregistered small-scale mining operations are ubiquitous in the urban mining town of Tarkwa. Therefore, it is interesting to look at governmental authorities with the task of stopping unregistered small-scale mining operations. As the Minerals Commission and its district offices do not seem to pay high regards to the presence of unregistered small-scale mining operations in the town, there are other authorities focused on this task, which are bundled here and termed as law enforcement. It is again of importance to realize that there is not one governmental actor involved in law enforcement but that there are multiple agencies, organizations and individuals involved in this. Security forces such as police, the army, fire services, the security council in the districts and the bureau of national investigation all play a part when it comes to halting unregistered small-scale mining.

#### *The focus of law enforcement on alluvial mining*

When it comes to law enforcement on unregistered small-scale mining operations, a clear division should be made between action taken against alluvial small-scale mining and other small-scale mining practices. As follows from the stories of the miners in this research, actions by law enforcement are mostly undertaken against unregistered alluvial mining - which can be explained due to the destructive nature of alluvial mining.

Additionally, it is necessary to make the distinction between the urban area of Tarkwa and rural or peri-urban areas. Peri-urban areas refers here to “a zone or area where urban and rural development processes meet, mix and inter-react on the edge of the cities” (Nottingham and Liverpool Universities, 1999, p. 5). When asking informants working and living in Tarkwa about police interference with their activities, they would always refer to stories of other miners or of their past, which related to rural or peri-urban areas. This, together with the fact that actions by law enforcement are mostly undertaken against unregistered alluvial

mining - with alluvial mining activities not being practiced widely in Tarkwa - makes for a strong consideration that police intervention within the urban area of Tarkwa is not common or not present at this time.

A surprising and related discovery is the fact that when hearing these stories about law enforcement, it became clear that it is mostly not the government who sends police forces to unregistered mining sites, but this action is sparked by large-scale mining operations. It has been noted that “intense dispute” (G. Hilson, 2002b, p. 149) can follow the encroachment of unregistered small-scale miners on the land plots of large-scale mining companies. This is in line with information obtained in this research on the peri-urban area around Tarkwa, of which Abosso is one mining center with a lot of unregistered underground small-scale mining activities taking place. One informant in Abosso mentioned that law enforcement does not check up on the mining community of Abosso, as the government is mostly attacking alluvial mining. Therefore, he said “there is no reason for the government to interfere”. The only actor that disturbs this unregistered underground small-scale mining community is the large-scale company Gold Fields, who owns the concession to mine the subsoil from which workers in Abosso retrieve their ore. The informant from Abosso mentioned that army soldiers, who are often hired by the large-scale mining company, can seize technical equipment from the workers on unregistered sites in order for small-scale miners to be unable to continue the mining activities. The informant remembered only one incident where equipment was seized on a big scale in Abosso. Eventually, the community bribed the soldiers that were sent to the community, in order to re-commence the mining activities.

Another peri-urban mining community where some of my informants worked is a mining community called Nsadwoso. This is a mining community in the forests that I have not visited. However, I have encountered many people who worked in Nsadwoso, while they were processing their ore on a washing site in Tarkwa. From these informants I have also understood that most trouble with policing authorities is caused by the large-scale company Gold Fields sending soldiers to the mining community, as the community is mining on the concession of Gold Fields.

#### *Problems with enforcing the law*

The problematic task of law enforcement to structurally stop unregistered small-scale mining activities was exemplified, amongst others, by an employee of the Ghana Water Company Limited, the state owned Ghanaian water provider. The employee took me on a one-day visit to the water treatment plant of Bonsa, which provides the area with clean drinking water,

amongst others in Tarkwa. The employee said that workers at the plant report on unregistered alluvial mining activities on the river Bonsa to policing authorities. He stated they had a good link to the policing authorities, ensuring that a lot of these unregistered mining operations will be sent to court. However, he also mentioned the persistent nature of these unregistered mining operations, with operations reappearing time after time at the Bonsa River.

There is attention here to one important complicating factor, namely the profitability of unregistered small-scale mining and the way in which this complicates the work of law enforcement. Many miners during the research have raised concerns when it comes to the prosecution or punishment of workers on unregistered sites that have been caught. Most miners do not believe the court to be deterrent enough. When workers of an unregistered small-scale mining operation are caught, they are likely to be able to fund the comeback of the company, as they are generally running a profitable operation. As such, one informant told the story of an unregistered small-scale mining operation he knew of which was convicted to pay a certain fee, which equaled the amount of earning of that operation of a day. Additionally, there is a general belief by miners that judges can be paid off, in order for workers on unregistered sites to be let off with a generally low fine.

This is the case whenever small-scale mining operations are caught and sent to trial. However, small-scale mining operations additionally have ways of working together with law enforcement in order to avoid getting caught. Many informants told stories about law enforcement working together with miners, whereby law enforcing actors will let the miners know when a raid will be taking place. This allows miners to disappear for a while, by either moving their operations - in case of alluvial mining - or cease the work temporarily. In this case, whenever the police will check up on these operations, there will be no one there which makes it impossible for law enforcing authorities to make an arrest. The university professor, along with most of the other informants that have voiced their opinions regarding this topic, have expressed that they feel the problem does not have to do with the high officials within the national government, but especially with corruption in low positions, such as the people entrusted with checking and policing unregistered small-scale mining sites. The relative wealth of unregistered small-scale mining operations causes these unregistered operations to be able to pay law enforcement in exchange for these measures, ensuring them their ability to continue their unregistered small-scale mining activities. Thereby, it is exemplified how governmental actors lack the tools (and interest) to stand up to illegal practices.

### *4.3.3 Chiefs*

Besides the involved state actors that are mentioned - in this research represented by the district office in Tarkwa and law enforcement - in Ghana there is another important group of actors with great influence when it comes to governance of the mining sector. These are the traditional authorities, or the chiefs. However, it is of importance to note that the state - in the Minerals and Mining Act - does not formally acknowledge the role of non-state authorities, such as chiefs (Minerals Commission, 2006). During my time in Tarkwa, I have been in contact with one chief of the community of Boboobo. The small-scale mining activities in Boboobo are unregistered, as the concession belongs to the registered large-scale mining company Gold Fields. However, the small-scale mining activities are taking place in between two communities. Therefore, the chief explained that there is no space for Gold Fields to conduct their mining activities there, as the large-scale company requires a lot of space for their surface mining practices.

#### *The facilitating role of the chief*

Chiefs play a role in the small-scale mining sector when it comes to, amongst others, facilitating co-habitation plans. Hereby, chiefs present the wishes of the community of small-scale miners with large-scale mining companies, to allow small-scale mining activities to take place on the plots of land of large-scale mining companies, thereby ensuring job availability and reducing disputes between these groups (G. Hilson, 2002b). Ubink has argued that, by voicing the needs of the communities chiefs can assert local autonomy “against the globalizing and modernizing power of the state” (2007, p. 127).

The insights of Blundo and Le Meur (2008) are striking in the role the chief of Boboobo plays. Blundo and Le Meur (2008) state that different levels and actors of government act according to different logics, which is helpful in regarding the relationship between state governmental actors and traditional authorities. In this case - as showed above - governmental actors are mostly focused on establishing registered small-scale mining sites, whereas the chief of this community is invested in acquiring job possibilities and opportunities for his community. This relates to the role of the chief as being the link between governmental actors and the inhabitants in the community. However, it is interesting to note that it is highly unlikely that this actual mediation role was taken up by the chief. He expressed the process of enabling miners to do the work, as the government should provide this opportunity of generating income. However, the mining site in this community was in fact not registered, which means that this process has not taken place or has failed. This shows

that there is indeed a sign of an opposing relationship between the state and the traditional authority (Blundo & Le Meur, 2008).

### *The opposing role of the chief*

As Blundo and Le Meur (2008) have stated, the existence of different actors in the public sphere can cause differences in the production of rules, which is the case here. The chief - being an important mode of authority in the community - has the opinion that workers should be able to work in the designated mining area in the community, as Gold Fields will not work there, and “they will never work there”. However, this is not in accordance with state rules, causing differences in the production of rules, which consequently causes uncertainties to the mining community. One of the important effects of the involvement of different authorities in this research therefore is that this seems to be contributing to the discrepancy of definitions of (il)legality amongst miners.

As such, the chief explained that a lot of his people are not able to find a job in another sector. The chief believes that whenever these people do not have a job they will resort to other ways of making money, such as stealing. The chief therefore allows people to do mining work as the area is “suitable” to conduct mining activities, in the words of the chief. By suitable here he explained that he refers to the fact that the mining activities should not take place on the river, as this causes water pollution. The views of the chief seem to correlate with those of the miners and government officials, all distinguishing between illegal and licit actions on the basis of morality.

During conversations with the chief one thing was clear: the current governments’ aim to stop illegal small-scale mining (Brako-Powers, 2017b) is described as a mission impossible. As such, the chief, together with his spokesperson, laughed when I brought up this pronounced goal. He said “they will overthrow the government. Sorry for him, but the government cannot stop the galamsey”. This is a most interesting remark, especially whilst taking into account the following remark of Ubink (2007). Ubink (2007) argues that chiefs are in the position to implement laws and policy from the national government and are at the same time the transmitter of the wishes and views from the community to the governmental actors. However, as we see here, the chief of Boboobo does not seem to create awareness on the wishes and views of the community but creates a division between national government on the one side, versus practices and traditional authority on the other. The chief seems aware of the wishes of the community - namely to have access to income -, but is not able or willing to link this up with state actors by means of official co-habitation schemes.

This chapter has provided insights into the legal framework enabling the formalization process in which mining operations can transition to a legal - thus registered - mining site. Subsequently, it became clear that miners are not reliant or expectant of support or benefits from government actors. Thereby, government is not viewed as a potential actor which provides support or benefits, causing miners not to rely on governmental support in their daily mining practices - which is the case both when it comes to registered and unregistered small-scale mining sites. Finally, we have shown how local governmental actors including the district office, chiefs and law enforcement agencies enact the policy of formalization. These actions are mostly focused on stopping alluvial small-scale mining, whereby action against unregistered underground shaft mining practices even seems to be avoided or neglected in Tarkwa.

Therefore, this chapter has showed how the discrepancy between the lawful definition of (il)legality and the definition of (il)legality that miners adhere to is both adhered to and caused by governmental actors - both on the national and the local level. These insights can help in explaining the discrepant usages of the definition of (il)legality. Namely, these insights show how miners rather rely on a moral basis upon constructing (il)legality - especially when this discrepancy is also adhered to by various local and national governmental actors - than taking into account the legal framework by a government which's role is generally viewed as insignificant.

## **Chapter 5 Differences in practices of miners between registered and unregistered mining sites**

After elaborating on the construction and usage of various definitions of (il)legality - including the way in which this is both partially adhered to and caused by (local) governmental actors, insights will be provided into the practice of the policy of formalization and the corresponding effects this policy has on the work of miners. Therefore, I will go through the main stages of the small-scale gold mining process in this chapter. In all these stages I will distinguish between practices on registered and unregistered sites. The first step of the mining process is gaining access to the mining site, which enables miners to acquire income. Subsequently, respectively process of obtaining ore from the underground, washing the ore and selling the gold will be discussed.

First of all it is interesting to reflect on my personal expectations of visiting both registered and unregistered small-scale mining sites. I expected to be able to clearly view the difference between registered and unregistered sites, amongst others due to the fact that in the literature government support for registered operations is focused on (G. Hilson, 2001). As such, I expected to clearly and immediately apprehend the legal status of the site on the basis of for instance the technological development or the working conditions. My actual experience however was very different. As stated before, it was unclear to me which mining sites were in fact registered or unregistered for the longest time of my research period, mostly due to the discrepancy between definitions of (il)legality mentioned above, but certainly also considering the fact that clear differences in the exterior of small-scale mining sites cannot be attributed to the legal status of the small-scale mining operation. This will be elaborated on below.

### **5.1. Access to income: introduction**

Ribot and Peluso (2003) distinguish access to employment as one mechanism which ensures access to resources, as a miner gets access to a site of someone who controls access to the resource. Emphasizing the term employment however does not do justice to the small-scale mining sector, as it suggests an organized and formal relationship with an employer. The work that is conducted on small-scale mining sites can mostly be characterized as open-ended and non-binding work. As such, here we will speak of access to income generating opportunities, henceforth shortly termed as access to income. Providing access to income is believed to be one of the main benefits of small-scale mining, amongst others due to the

general labor-intensive nature of small-scale mining. One of the main benefits of formalization policy is believed to be managing the positive impacts of small-scale mining (Salo et al., 2016). Additionally, G. Hilson states that small-scale mining “has a major impact on the employment situation in the developing world” (2001, p. 5). Combining insights of G. Hilson (2001) and Salo et al. (2016), it could be assumed that registered small-scale mining sites provide more or more sustainable access to income.

Following the dire situation of the job market - with many informants in this research expressing the lack of job availability as a pressing issue - the insights of G. Hilson (2001) seem to apply in Tarkwa, where mining poses income generating opportunities for many. This can be exemplified by a story of one of my informants, a miner working on an unregistered small-scale mining site. He is from Kumasi, where his family - including his pregnant wife and his children - were still living. He is a trained electrician, however as the company he was working at had less work, he was forced to stay at home - sometimes for months at a time. This imaginably caused great problems, as he needed to provide for his family. Finally, he felt he had no other option than to come to Tarkwa to undertake mining activities. This is one particular story from one particular miner. However, I have heard a version of this story from at least ten miners. Additionally, the chief of the Boboobo community stated that there would be a lot of jobless people in his community, were it not for small-scale mining. These stories not only exemplify the difficult Ghanaian job market, but more so the income generating opportunities the small-scale mining sector does offer. As such, gaining access to mining is a highly important stage in the mining process that will be discussed in more detail here than the other mining stages. This will be elaborated on, by focusing on how access is both arranged and constrained on registered and unregistered sites. This will provide the insights which will lead to the conclusion of this sub-section of access to income, thereby remarking on the effect of formalization policy on access to income.

### *5.1.1 The mechanisms of access to income for miners*

In this paragraph, a general view of access to income for miners will be given. Hereby, I will elaborate on both situations of registered and unregistered small-scale mining operations, in order to finally make a comparison between access to income on registered and unregistered operations.

Generally, it was clear that access to income is arranged through the social network of the miner. Both miners that work at registered and unregistered small-scale sites expressed that they were introduced on the mining site by a family member or friend, which enabled

them to work on the mining site. As such, in talks with owners of mining sites and washing sites, it was clear that they also saw the benefits of attracting workers through current workers of the site. Even on the registered small-scale mining site of Mohammed & Co, where the Chinese workers present at that site arrange personnel, social contact play the most important role in gaining access to income. As such, Chinese informants expressed how they were attracting Ghanaian workers by asking for workers through Ghanaians they knew. It can therefore be concluded that access to income - both on registered and unregistered small-scale mining sites - is very much dependent on the social contacts of the miners.

Ribot and Peluso claim that those who own property control the access of others, as owners have the rights (2003). As such, owners of the mining site are the ones who control access to the resources. This shows how generally owners of mining sites are in a powerful position. On most mining sites - both registered and unregistered sites - it is common practice and mandatory to give a certain percentage of the obtained ore to the owners of the site, in exchange for the owners arranging amongst others technical equipment such as water pumps. On most mining sites this percentage ranged from one-third to half of the obtained ore. In this way the notion of access and property helps us in clarifying who handles and controls access, whilst others are dependent on gaining access through those who have control. As such, owners of mining sites can decide upon the need to have more workers on the sites, thereby bringing in more people and enabling access to income for these miners.

It has to be noted here that there are solely men doing the underground work. During the fieldwork I have entered underground shafts on multiple occasions. I have however also encountered 3 situations in which I was not allowed to enter on the basis of my sex, as no females were allowed to enter. This involves two underground shafts but also the entire mining community Nsadwoso, where women were not allowed at all. Although I was unable to get clear answers as to the reason for this prohibition, this seemed to be associated with ancient beliefs. As such, Addei and Amankwah found that women in their period are often not allowed to enter pits “for the fear that the gods seeing an ‘unclean’ person will withdraw the gold which is believed to belong to the gods” (2011, p. 249). Besides that, other mining activities such as crushing and washing the ore in Tarkwa are also predominantly conducted by men. During the fieldwork, I have only seen women active in the mining process on 3 occasions. All of these times, women were employed in order to carry the stones from the entrance of the underground shaft to the washing sites. As such, access to income on mining sites is predominantly obtainable to men.

When it comes to the underground work, this can be easily explained, and has to do with the one prerequisite that is in place in order to gain access to income - both on registered and on unregistered sites: having the own physical strength that is needed in order to conduct the heavy underground mining activities. As such, when asking what was needed in order to conduct the underground work, one miner just said: “you have to be strong”. Here, the miners refer solely to physical strength, not making any mention of mental strength to be a prerequisite. Some miners expressed the need to be able to control one’s fears whilst conducting the underground work. Some miners smoked weed or used other sorts of drugs to be able to do the work. With physical strength being the only prerequisite to conduct the work, gaining access to income on a mining site is therefore generally possible for most men. However, several of the workers on washing sites expressed that they initially did underground work, as this usually generates more income, but soon learned themselves they did not have the strength to do the work. Therefore they resorted to a job operating machines on washing sites.

Lastly, the formal prerequisites on registered small-scale mining sites need to be taken into account here. The registered site Stejoan reportedly used to have a system in place in which miners were required to have insurance and needed to be registered as a worker at the site, by means of getting a tag. This meant that their picture was taken, after which they received a tag which they would have to show when entering the shaft. This ensured the company to know who entered the shaft and check if everybody had come back up at the end of the day. Stejoan had been experiencing trouble for the last 1,5 years due to the flooding of the shafts. Therefore, this system was not in place during the time of the research.

My informant - an overseer and part of the family who owned the concession - at the registered mining site Mohammed & Co was planning on putting a similar system in place, including insurance, tags and even the provisioning of a pension, which would be deducted from the salary. As for now this system was not in place at both registered small-scale mining sites. Therefore, these reported plans cannot be taken into account as real prerequisites for miners to gain access to income.

### *5.1.2 Constrained access to income for miners*

Focusing on access as an ability to benefit “brings attention to a wider range of social relationships that can constrain or enable people to benefit from resources” (2003, p. 154). There are various problems that obstruct miners in their access to conduct work on small-scale mining sites. The problems that occurred most frequently in Tarkwa were caused by

natural processes, the mismanagement of the site or the introduction of increasing levels of technology. As such it will be shown again how certain groups or people handle and control access, whereas others need to depend on gaining access through those who control it (Ribot & Peluso, 2003).

#### *Natural processes and the mismanagement of the site*

Interestingly, some factors constraining access are not directly caused by people or groups of people, but initially by natural processes. Here, I refer to problems with water obstructing access to underground shafts. This will be exemplified by two stories, one of a registered and one of an unregistered small-scale mining site. An overseer of an unregistered site in Abosso - the peri-urban mining community just outside of Tarkwa - told the story of a time the water was rising so high in the underground shafts it obstructed miners to conduct underground mining activities. Water rising in the shafts is common - due to the fact that underground mining activities also take place below the water table -, but he explained how power relations caused this problem to arise. Normally, there was an agreement with a contractor, who pumps out the water which enables miners to do the underground work. However the contractor was aware of the powerful position he was in - as ceasing his work irrevocably meant the inability to work for the community - and therefore demanded more money for his pumping services. The community was headstrong and refused to pay him anymore, therefore causing a situation in which the water kept on rising, making it unable for workers to enter the shafts. As such, we see that the process of access is a dynamic one with certain people and institutions handling and controlling access - in this case the water pump contractor - and others being dependent on gaining access through those who are in control.

Secondly, access to work on the registered small-scale mining site Stejoan proved to be restricted due to mismanagement of the mining site. As has been explained, the owners of the site had been unable to pay the electricity bill, causing water to rise, as the water pumps could not run. This led to a shutdown of the operation for about 1,5 years. As such, one informant working at Stejoan expressed that this inability to work at the mining site was the moment for him to go back to school to further his education with the money he had been saving up from mining. Both situations are initially caused by the natural process of rising water, but eventually lead to someone or groups of people handling and controlling access, and other people being constrained from gaining access.

*Increased levels of technology: the case of Mohammed & Co*

Another - more permanent - obstruction of access to income can be caused by the introduction of more or heavier machinery on a small-scale mining site. This will be exemplified by the activities taking place on the registered small-scale mining site Mohammed & Co. Mohammed & Co had hired Chinese contractors who brought in Chinese technical equipment. As has been explained in section 4.2.3, the company Mohammed & Co consists of two parts, namely the Chinese part and the galamsey part of the company. The technical equipment is solely available for the Chinese part of the company, with the galamsey part of the company not being allowed to work with the Chinese equipment.

In the Chinese part of the company the technical equipment performs the tasks that are otherwise performed by manual labor. This is exemplified by picture 1, which portrays the work of respectively the galamsey part of the company and the Chinese part of the company. During one morning at Mohammed & Co, I observed two men. First of all there was a man - being part of the galamsey part of the company - carrying sacks of ore on his back to the place where the ore would be washed. At the same time there was a man driving on a mechanized tricycle - of the Chinese part of the company - that would transport a lot more ore per trip. Additionally, for every time the man who carried the ore walked by, the man on the tricycle would have already made at least 3 trips to the washing place.

Interestingly, Ribot and Peluso (2003) acknowledge access to technology as one mechanism of gaining access to resources. However, in this case the introduction of technology by owners of the site - who handle and control access - will constrain access to income for miners. This is exemplified by the pictures, showing how many more men are needed to get the ore to the washing site in the galamsey part of the company. The company therefore still employs plenty of Ghanaian workers, however mostly in the galamsey part of the company.



Picture 1: Miners working on the registered small-scale mining site Mohammed & Co. Left portrays the work of a miner in the galamsey part of the company; right shows the technologically developed work the Chinese part of the company conducts. Pictures taken by author.

### *5.1.3 The effect of formalization policy on access to income*

After providing a general view of access - and constraining factors - to income on both registered and unregistered mining sites, here we take another look at formalization policy and how formalization influences access to income. Salo et al. argue that formalization policy enables governments to govern the sector in a better way, which thereby amongst others are better able to manage the sector's positive impacts (2016). Providing access to income is described as one of the sector's positive impacts, which would therefore be able to be managed in a better way, following Salo et al. (2016). Clear differences in the case of access to income for miners either on registered or unregistered sites in Tarkwa have however not been noticed during the fieldwork. The mechanisms for providing access to income for miners are similar, as social contacts seem to play a vital role.

Additionally, it is interesting to look at the factors that constrain access to income. We have identified the factors constraining access in Tarkwa as problems caused by natural processes, the mismanagement of the site and the introduction of increased levels of technology. There is however no evidence that these factors are less prevalent on registered sites. As such, problems with the site management - and particularly those resulting in

electricity cuts - seem to occur both at registered and unregistered sites, compelling some miners to wait for the site to resolve its issues. Even more so: access seems to be constrained on the registered site of Mohammed & Co. It seems that in the future access to income on this registered site will be limited by increasingly mechanizing the operation, therefore making labor forces to a certain extent abundant.

Finally, in trying to find out what effects formalization policy has on the access to income on registered and unregistered sites in Tarkwa, it is interesting to take into account the dilemma of the informal sector. The dilemma of the informal sector - formulated by the International Labour Organization ILO - makes for an interesting theory, as it questions if the informal sector should in fact be promoted for ensuring access to income, or if there is a need for increased regulation and protection which might cause the work-capacity to reduce (Hansen & Vaa, 2004).

As registered small-scale mining sites are required to go through the entire process of obtaining for a license, it is a logical assumption that there might also be more funding available to ensure a certain standard of mechanization. As we have seen in the case of Mohammed & Co this might result in a reduced necessity of physical labor on registered small-scale mining sites. The differences between handling or controlling access versus being dependent on others who control access (Ribot & Peluso, 2003) becomes yet again clear from the case of Mohammed & Co. Owners of registered sites may be in the position to own more property - such as technical equipment. The power to restrict access to income for miners on registered mining sites is therefore also increasingly high, as the work of these miners can become unnecessary or redundant by the introduction of (more) machinery. It goes too far to conclude from the single case of Mohammed & Co that registered small-scale mining sites in general reduce its workforce in favor of technological development. However, the research does show that it is incorrect to assume and emphasize formalization policy to have a positive impact on income opportunities as such.

As becomes clear from the research: there are no clear differences regarding access to income that are caused by the legal status of the small-scale mining sites in Tarkwa. This is the case first of all regarding access to income, which is obtained mainly through social contacts. Additionally, this is also the case for factors constraining access to income, which are caused by natural processes, the mismanagement of the site and the introduction of increasing levels of technology. Therefore, to state that formalization enables governments to better manage the positive impacts of the sector - one of which is the access to income it provides - goes too far. There is even some precarious evidence suggesting that formalization

of sites might reduce the necessity of physical labor on small-scale mining sites, in line with the dilemma of the informal sector.

## **5.2 Obtaining the ore: safety measures**

After elaborating on factors concerning access to income, I will hereby focus on the subsequent stage in the mining process: obtaining the ore. Hereby, I will focus on underground shaft mining activities as most of the informants in this research conducted underground mining work. Shaft mining is considered to be very dangerous work due to the possibility of collapse of the shafts. During my fieldwork, I often heard recent stories of miners being killed by a collapse and have even visited the funeral of a miner who died from a collapse. Therefore, formalization policy would serve its purpose of minimizing negative consequences when it is clear that these dangers are reduced or eliminated on registered small-scale mining sites. There seem to be no clear rules regarding the underground work both on registered and unregistered small-scale mining sites, with the exception of one registered site. The miners at Stejoan were prohibited to go down the shafts alone, as this posed a big risk. However, in practice all the miners I had talked to went down in groups of at least two, which mostly had to do with the dangers that are associated with the work. All the miners I talked to, including miners on both registered and unregistered sites, were very aware of the dangers the underground mining work posed, which is logical to explain with deaths taking place so often.

The overseers at registered small-scale mining sites stated that the registered sites are in fact a lot less dangerous. The overseers attributed this to the fact that the district office comes to check up on these registered sites and enforces these sites to ensure safety measures, such as putting in place boulders to ensure stability. Additionally, registered small-scale mining sites are required to report on casualties to the authorities. However, I wondered how workers on registered sites who actually go down into the shafts themselves regarded the issue of safety, and if they indeed felt more safe working on a registered site. When asking them about the benefits of working on a registered small-scale mining site, mostly however they did not point to the benefits regarding safety. Even more so: they often would not know what to say.

Rather, I found that miners have their own way of enhancing their physical safety in the absence of formal means: this is related to the familiarity with the underground shafts. This is illustrated by the story of the miners at Stejoan. I wanted to find out why miners

working at Stejoan still stayed at this operation given the problems the company was facing, rendering it impossible for them to work at full capacity. To illustrate the negative consequences: this meant that the miners were not able to reach the underground levels which contained most of the gold. This led miners to settle for places that contained less gold, thereby in the end making less money. After asking this question, it became clear to me that the motivation to keep working at this site did not have to do with benefits due to the legal status of the mining site at all. The familiarity with the place underground was a great factor here, as miners were conscious of the dangers that could arise underground, and felt safe in this place that they knew. One miner in Abosso expressed that he had been unable to mine for more than a year due to the water obstruction. However, he did not search for another mining site where he could conduct his mining activities. As such, one of the informants even said straight up that there were no benefits for him to be working at a registered site, but his allegiance to this site was first and foremost due to the familiarity of the underground. Additionally, both workers on registered and unregistered sites emphasized that the dangers of the work all depend on the worker who does the work, instead of the legal status with its possible check-ups by the government. The workers were aware of the dangers of the work, but felt confident that they were well trained and experienced enough to avoid any accidents.

In sum, overseers at registered sites feel confident that the legal status of the registered site enhances the level of safety for the work that is to be done underground. However, it became clear that miners rely on their own familiarity with the underground which provides them with a sense of security, whilst they do not express to feel safer due to the fact that the site is registered.

### **5.3 Washing the ore: restricted negotiating power**

After obtaining the ore from the ground, the miners bring the ore to washing sites, to grind and wash their load in order for them to obtain the desired gold particles. As stated, the issue of (il)legality is based on subtracting minerals from the subsoil and does therefore not revolve around the washing site. Therefore, the legal status of the washing sites remains fairly unclear. However, the differences between registered and unregistered small-scale mining practices regarding the washing stage can still be reviewed. Namely, I found that workers on unregistered small-scale sites were generally free to bring their ore to any washing site of their choosing, whereas miners working on a registered concession were obliged to bring their ore to a specific designated washing site.

During the research I was puzzled by the many washing sites in Tarkwa and tried to find out the different reasons for miners to go to specific washing sites, as most miners seemed to have clear preferences of the place where they took their ore. This was clear as most miners always came back to the same washing site. As time went by, I learned how the process of bringing the ore to a certain washing site is underlined by multiple factors. As such, washing sites may for example offer to pay for transportation of the load or offer special prices for the use of the equipment that is needed for crushing the ore. In addition, washing site owners can also make agreements about sharing the income of the so called tailings of the mining process with the miners. The tailings are made up of the crushed ore that is left after the washing process, as small-scale miners are unable to take out all the gold particles employing their techniques. It is believed that those tailings still contain 70% of the total amount of gold in the ore, meaning that small-scale miners can only take out 30% of the gold. These tailings remain at the washing site until they are bought up by large-scale companies who can extract most of the gold by using certain chemicals. As the tailings contain such high amounts of gold, washing site owners are generally able to ask high prices for these tailings. Miners can therefore make agreements with the washing site owner to obtain a share of the profit of the sale of tailings. During talks to owners of washing sites, they explained their dependency on “customers” - which are in this case miners - for bringing the load to their washing site. This dependency puts miners in a beneficial position, who are therefore able to make price agreements and negotiate a good deal for themselves. However, as said this benefit was in place solely for workers on unregistered sites, as workers on registered sites were initially obliged to take their ore to designated washing sites.

The main reason for registered small-scale mining sites to oblige the workers to bring the ore to a pre-specified washing site also revolves around the acquirement of the tailings. By compelling workers to bring the ore to their washing site, the owners of the registered small-scale mining site make sure they acquire as many tailings as they can. The owners subsequently gain as much as they can from the collection and finally the sale of these tailings. The workers on registered small-scale sites I have talked to seemed unhappy with these pre-specified washing sites. This is best exemplified by the fact that several miners talked to me about ways they could bypass this rule and bring the ore to a place of their own choosing. They would for instance pay the guards at the mining site to be able to transport the ore themselves. The obligation for miners on a registered site of bringing the ore to a designated washing site, thereby restricting the negotiating power of miners on registered sites, highly relates to the corresponding obligation in the next mining process, namely the sale of gold.

#### **5.4 The sale of gold: restricted negotiating power**

After small-scale miners have gone through all the above mentioned stages, they receive money from the sale of the gold they have obtained. Whilst conducting the research it became clear that small-scale miners on unregistered sites are mostly free to sell their gold to whomever they may choose. On the two registered sites that are part of this research, the small-scale miners were obliged to sell the gold back to the company who owns the concession and who buys the gold from the miners for a lower price than the market price. This enables the company to make profit on the sale of gold, as they are able to sell it for a higher price to the market. This does not mean that workers on unregistered sites always get a better price for the gold they are selling: they are also subject to the whims of gold buyers and the amount of money buyers are willing to pay. However, in practice it does mean that miners working on a registered site are restricted to sell their gold to the company, whereas workers on registered sites were able to sell to whomever they chose. Therefore, miners working on unregistered small-scale mining sites are initially in a better position to establish a good price for the gold.

One might think that it is more difficult for miners of unregistered small-scale mining sites to sell their gold, as gold buyers would want to buy gold that was obtained from a registered mining site. However, as becomes clear from an informant who is a gold buyer, in practice gold buyers do not seem to mind if they buy gold from a miner working on a registered or on an unregistered site. The informant was a registered gold buyer, which means he was required to pay taxes once a year. When I asked him if he would buy gold only from workers on registered sites, he looked at me strangely and I felt he almost had to laugh. He remarked that he would buy gold from anyone that he trusted or feel he could trust. The precondition of trust which he states here has two reasons, the first being the fact that there are a number of small-scale miners skilled in forging gold, thereby selling something that looks exactly like gold to most. The gold buyer explained that he was skilled in detecting this forgery, however this forgery still posed a risk for him.

Secondly, gold buyers often give out loans for small-scale miners who are in the process of obtaining the gold but are not finished with the whole process yet, therefore making it impossible for them to sell gold at that moment. Going through the whole process of obtaining gold for miners can take different amount of days, ranging from just a few days to a few months. Miners decide themselves and among the people they work with how often they want to wash their gold. Some miners choose to go underground only one or a few days, after which they wash the ore and are able to sell the gold to the buyer. However, some

miners decide to go underground for a few weeks, after which they wash the ore. This enables them to sell gold only once every month or few weeks. In the latter case the miners are able to save up their ore, which leads them to obtain more gold for the moment they sell their gold. Especially in these cases, gold buyers will give out *chop-money* to the miners. This is money miners use to buy food during the periods when they are not able to sell gold yet. In return, the gold buyer ensures the sale of the gold to himself instead of to other buyers, and he mostly subtracts this borrowed amount from the next gold deposit he buys from the miners. What this illustrates is that gold buyers seem to be fairly careful when selecting who to buy gold from, as they are aware of the risks that are attached to their profession. However, even though the informant himself was a registered buyer however, he did not care at all about the legal status of the miner he bought his gold from.

In sum, it can be concluded here that miners working on registered small-scale mining sites have a restricted negotiating power when it comes choosing whom to sell their obtained gold to. This creates a disadvantaged position for miners working on registered small-scale mining sites. Additionally, we see how gold buyers do not seem to make a distinction between gold that has been obtained from a registered or an unregistered site.

After reviewing the different stages in the small-scale mining process - thereby attempting to get a clear view on the benefits of formalization policy of small-scale mining for miners - we are left with an ambiguous view. Possible benefits of working at a registered small-scale mining site have to do with a possible decreased level of danger when conducting the mining activities, a factor that is however not widely acknowledged amongst miners. Moreover, miners do not see the supposed benefits regarding safety upon formalization, as they rely on their own familiarity with the underground, thereby being responsible for their own safety. The research additionally shows that formalization policy does not seem to have a positive impact on opportunities regarding access to income. Not only does it become clear that there is no difference between gaining access to income on either registered or unregistered sites; it appears so that formalization of sites even reduces access to income, as the necessity of physical labour on formalized sites is more likely to decrease. Clear disadvantages of formalization for small-scale miners have additionally been shown in the process of obtaining the ore and selling the gold. This especially has to do with restriction of making own choices regarding where to take the ore and where to sell the gold. Following these outcomes, whether the policy of formalization is therefore righteously described as the path towards economic development (G. Hilson & Hilson, 2015; McQuilken & Hilson, 2016) - and serves the

purpose of managing the positive impacts and minimizing negative impacts of small-scale mining - is therefore questionable as it proves unjustified in practice.

## **Chapter 6 Discussion and conclusion**

This research focused on the supposed need for formalization of the small-scale mining sector as posited by scholars and policy makers. By these actors it is assumed that formalization enables governments to govern the sector in a better way, managing the sector's positive and negative impacts, such as respectively social and environmental impacts (Salo et al., 2016). However, the high prevalence of unregistered small-scale mining practices up to date sparks curiosity as to how formalization policy is perceived by small-scale miners themselves. The aim of this research was therefore - by providing a 'grassroots perspective' - to obtain more insights into the practice of formalization of small-scale mining operations. The research illustrates how legality and illegality are definitions that are not definite and absolute but are constructed and produced by various actors in the small-scale mining sector.

One of the main observations in this research is that miners and local law implementers, as well as national governmental officials, base the construction of (il)legality on the way in which mining practices are conducted. Water pollution and the destruction of water bodies is a considerable and emphasized problem, both by national officials, as well as Ghanaians that were part of this research. It is clear that these actors first and foremost criticize unregistered small-scale mining operations for the harm that is done to water bodies. Actors therefore categorize alluvial mining practices as illegal practices, thereby constructing the definition of (il)legality on the basis of morality. As such, a clear distinction can be seen in what the state formally considers to be legitimate - that which is legal - and what involved actors consider to be legitimate - which can be called licit (Abraham & van Schendel, 2005). This means that (il)legality in the lawful sense - solely related to the possession of a license to mine the minerals in the subsoil - is discrepant to the in practice constructed notion of (il)legality, as some miners and law implementers relate illegal practices solely to alluvial practices. As such, the term fluid legality has been introduced. This refers to the fact that legality is firstly a concept that is not static, but rather fluid. Secondly, it refers to the way in which legality is constructed on the basis of morality - titling alluvial practices as illegal. This is a valuable insight considering the scholarly and governmental wish to formalize the sector. Policy makers should first of all be aware of the discrepant notions of (il)legality in practice, to realize that governmental ideas about (il)legality are not mirrored in society. By being aware of the discrepancy, policy makers are able to alter their policy and method of implementation, to assure that policy reflects practice.

This comprehension links up to and adds to knowledge on the production of state authority, governance and power. In line with Abraham and van Schendel (2005), Elyachar (2002) and Hansen and Vaa (2004) it has become clear that the dominant image of the state making up and fighting against illegal activities merely gives a simplistic view of reality. Additionally, it has been elaborated that governing power is very much divided over a number of governmental actors and agencies, trying to contest and negotiate their own and others' governing power. As such, in this research we have seen how a local actor - in this case the chief of a local community - contests and contradicts the legal framework of the government, thereby adding to the discrepancy of the notion of (il)legality. Interestingly, we have also seen how local governmental actors establish an opposing relationship with the national legislative framework, by adhering to the discrepant usage of (il)legality. As such, the research adds to the notion of how the nation-state's sovereignty is highly influenced by global and local, and state and non-state authorities.

Furthermore, this research illustrated how the lack of differences in practices between registered and unregistered small-scale mining sites might allow for a high prevalence of unregistered small-scale mining sites. We are left with an ambiguous view when it comes to the benefits that prevail for miners on registered small-scale mining sites. As such, local government officials and overseers at registered mining sites state that there is a possible decreased level of danger when it comes to conducting the underground mining activities. Interestingly, this is however not voiced by miners themselves, who express that own personal strength and experience is the only factor influencing the level of danger that is part of the work. However, disadvantages of working on a registered small-scale mining site have in fact been identified, mostly relating to the limited negotiating power of miners when it comes to the place to respectively wash the ore and sell the gold. As examples of possible benefits and disadvantages are given, this should most importantly not be overstated. As such, most small-scale miners expressed insignificant differences between registered and unregistered small-scale mining sites. Whether or not the policy of formalization is therefore righteously described as the path towards economic development (G. Hilson & Hilson, 2015; McQuilken & Hilson, 2016) is questionable.

The insignificant difference between registered and unregistered small-scale mining operations might be explained by the way in which government actors support registered small-scale mining and obstruct unregistered small-scale mining - and which might also allow for the high prevalence of unregistered small-scale mining activities. The governmental actors included in this research - being the district office of the Minerals Commission in Tarkwa,

law enforcement agencies and chiefs - are mostly focused on stopping alluvial small-scale mining, of which the practices are very scarce in Tarkwa. As such, it appears that the district office and law enforcement agencies mostly deny the existence of or avoid dealing with unregistered underground mining practices in Tarkwa. This is exemplary of the lack in tools - or possibly interest - of governmental actors to stand up to unregistered practices.

Additionally, one aspect that is focused on in this research is access to income, with access proving to be an important concept, as it describes "the ability to benefit from things" (Ribot & Peluso, 2003, p. 153). As such, income generating opportunities are put forward by G. Hilson (2001) as one of the main benefits of small-scale mining, amongst others due to the general labor-intensive nature of small-scale mining. However, this research shows that the mechanisms of providing access to income are rather similar for registered and unregistered sites, with social contacts playing a vital role. The factors that have been identified in constraining access to income were caused by natural processes, the mismanagement of the site and the introduction of increasing levels of technology. Both registered and unregistered small-scale mining sites in this research have shown problems concerning access to income due to inadequate site management, with certain mining sites being unable to operate for a period of time. There is both no evidence that registered sites are less prone to encounter these problematic periods, and that registered sites that encounter problems are more likely to be operational sooner due to possible governmental support.

Following these outcomes, it is not possible to conclude that formalization enables governments to better manage the positive impacts of the sector - one of which being providing (safer) access to income. On the registered small-scale mining sites that were part of this research the presumed advantages of registration did not materialize. Moreover, in one case the necessity of physical labor even diminished. This can be explained by the fact that owners of the site who are able to go through the costly and timely process of obtaining a license, might also be more likely to obtain money or attract investors to mechanize the site - thereby reducing the necessity of the amount of physical labor. It goes too far to conclude from a single case that registered sites in general reduce its workforce in favor of technological development. However, this finding provides precarious evidence which adds insights into the dilemma of the informal sector. This dilemma raises the question whether the informal sector should "be promoted as a provider of employment and incomes or should regulation and social protection be extended to it, thereby possibly reducing its capacity to provide jobs and incomes?" (Hansen & Vaa, 2004, p. 16).

The notion that the small-scale mining sector is most heterogeneous and can for long not be described anymore by the characterizations of low levels of technology and investment, as described by Ferring et al. (2016), becomes ever more clear in this research. Another way of categorizing small-scale mining operations is by means of differentiating between registered and unregistered operations, as has been done in this research. This research however has shown how trying to make distinctions between registered and unregistered small-scale mining sites are in fact not constructive. This does not mean that the focus on this distinction in this research has been ill-advised, on the contrary. It exactly shows how insignificant differences in practices on legal and illegal small-scale mining sites are and how this situation is mostly sustained by local law implementers. This is a valuable lesson learned, especially when realizing that scholars and government emphasize the need for formalization of the sector. It is not suggested here that formalization is not to be an aspired course of action. The outcome of this research however shows that the benefits of formalization are not static and straightforward, but are currently rather insignificant and unsubstantial for small-scale miners. As is clear from this research, miners generally do not have a notion of the legal status of their activities but focus rather on the fact that they have access to income, and therefore are able to provide for their families.

Interestingly, adhering to the broad notion of formalization, as given by McQuilken and Hilson, explained as “the extent to which such laws and regulations are successfully activated, implemented, and enforced by the relevant authorities is also central to the formalization process” (2016, p. 10), one can argue whether the process of formalization takes place at all. Reflecting on the research, as laws and regulations are mostly not properly activated, implemented or enforced, it seems clear that the distinction between registered and unregistered is inexpedient. What this research shows however, are some characteristics of small-scale mining sites that in fact are of great influence on working conditions for small-scale miners. As such, it would be beneficial for further research not to focus on the legal-illegal division either but to explore the many other interesting and puzzling aspects to small-scale mining.

The presence or absence of large investors on small-scale mining sites is one characteristic that causes clear differences on and amongst small-scale mining sites. These investors - often originally from China - are willing and able to invest in bigger machinery for small-scale miners. The occurrence of increased technological equipment alters the characteristics of the site to a great extent, leading to all kinds of interesting power relations on the site. Making a division of small-scale mining sites on the basis of this characterization

would make for interesting insights into various power relations existing on the mining site. These relate amongst others to the distinction between access versus property, as Ghanaians have access to become a registered small-scale mining site, whereas (Chinese) investors have property, but are not able to gain complete access as they cannot obtain a license).

Additionally, future research could focus on the contingencies on small-scale mining sites such as the breakdown of electricity due to mismanagement of the site, which tends to occur very regularly. Miners therefore are mostly concerned with being able to work. Interesting to look into, and providing many research angles, are the alternative job possibilities there are for small-scale miners. By focusing on the differences between workers on registered and unregistered sites, it became clear that miners were mostly contented with the work, but by far most miners additionally stated that they would hope to be practicing another vocation soon. Generally they expressed that they were now unable to find other jobs, but this also has to do with the amount of money they earn. Many miners expressed that they themselves or other miners get used to a certain lifestyle and certain income and therefore do not even consider other possibilities. This is exemplary of how categorizing the small-scale mining sector as poverty-driven is inaccurate and misguided (G. Hilson & Hilson, 2015).

Finally, by studying the small-scale mining sector and by differentiating between legal and illegal small-scale mining operations, it becomes clear that categorizations and definitions are widely applied, however also produced by different actors in different ways. This makes these categorizations and definitions susceptible to change and various interpretations. Acknowledgement of the production of definitions and categorizations allows for different views to be taken into account and nuances to be picked up, such as different views of (il)legality and different views of the benefits of formalization policy. As such, viewing the small-scale mining sector as pre-defined by legal and illegal actors and operations does not do justice to the variations that exist within the small-scale mining sector in Ghana, and would overemphasize the importance of the legal status of small-scale mining operations.

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