



**Corporate Social Responsibility in the value  
chain of Bolivian chia**

**Sacha Handgraaf - Master's thesis  
MSc Sustainable Development - International Development  
Utrecht University - July 2015**



Master's thesis Sustainable Development – International Development

**Title: Corporate Social Responsibility in the value chain of  
Bolivian chia**

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Research commissioned by: Centre for the Promotion of Imports from  
developing countries (CBI), part of the Netherlands Enterprise Agency (RVO)

M.Sc. Sustainable Development – International Development  
Faculty of Geosciences  
Utrecht University, The Netherlands  
July 2015



**Universiteit Utrecht**

Cover photo: field with chia plants near Santa Cruz de la Sierra, taken by Boris Vasquez (UAP)

*This master's thesis is dedicated to the memory of Onno Lange,  
because he was not able to finish his master's thesis,  
I felt extra encouraged to finish my thesis for him.*

## ACKNOWLEDGEMENTS

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This Master's thesis is a result of a research commissioned by the Centre for the Promotion of Imports from developing countries (CBI) in order to gain a master's degree in Sustainable Development – International Development at Utrecht University. While I was not able to conduct my research as I wanted, I am nevertheless proud of the result and am thankful for the support which was given to me during this time.

Conducting this research would not have been possible without the facilities provided by CBI, and especially Eva Smulders. She helped a lot by introducing me to the research subject and by introducing me into the Bolivian chia sector. I would also like to thank her successor, Daphne ter Braak for her final feedback on my thesis. Also, I would like to thank the CBI experts, Jan-Willem Richelmann and Michel Peperkamp for providing me with extra information on their experience in the field. Besides that, a special word of thanks goes to my thesis supervisor Dr. Femke van Noorloos. Her feedback during fieldwork and on my writings always gave me new insights and was very helpful. I also want to thank Dr. Guus van Westen for being my second reader.

Moreover, I would like to thank the staff of CADEX for the opportunity to work in their office in Bolivia and helping me with contacts in the chia sector. I am also thankful to the chia companies and other organizations that were willing to be interviewed, and especially the companies that were willing to show me around at their processing plant or farm field.

*- Me gustaría dar las gracias al personal de CADEX para la oportunidad de trabajo en su oficina en Bolivia y ayudarme con contactos en el sector de la chía. También, estoy agradecido a las empresas de chía y otras organizaciones que estaban dispuestos a ser entrevistados, y en especial las empresas que estaban dispuestos a proporcionarme un recorrido en su planta de procesamiento o campo de cultivo.*

Also, I would like to thank Kasper Lange, Lia Handgraaf, Nico Handgraaf, Meta Drummen, Igo Lange and all other people who supported me during my fieldwork and while I continued my research back in the Netherlands.

Sacha Handgraaf

July 2015, Utrecht

## SUMMARY

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This thesis describes the performance of Corporate Social Responsibility in the value chain of Bolivian chia by using a value chain analysis, ranking thirteen CSR topics based on the OECD guidelines and a case study in which the CSR performance of the well-known mining sector is compared with the new chia sector. Finally, recommendations are given with regards to improvements of the chia sector's CSR performance.

The value chain analysis shows that there are three main components of the Bolivian chia sector value chain: production, processing and export. The interviewed companies are either active in all three of these components or in only part of the chain. The ranking done in this research shows that the three most important and critical CSR topics in the chia sector are: 'Lack of traceability on the origin of raw materials used for production', 'Corruption in the sector' and 'Occupational health and safety dangers for workers'.

This thesis also shows the link between data from the chia sector with a sector that is known for its problems with CSR: the mining sector of Latin America. The main similarities between the two sectors are found in the working conditions of unskilled workers, inequalities in profit distribution and environmental pollution. The main difference is the large problem with local communities and indigenous peoples in the mining sector, which creates many social conflicts. This is not a large issue in the chia sector.

Several improvements of general CSR performance in the chia sector are suggested. In general, it is important to first place CSR on the development agenda of Bolivia. Also, most CSR policies are based on 'northern' perspectives, while these policies are implemented in a 'southern' context. To improve the CSR performance, CSR policies thus should be linked to the 'southern' context of Bolivia by use of a business case based on CSR. Based on the three aforementioned main risks in the sector, it is concluded that corruption is an issue that is occurring throughout different sectors in Bolivia. Therefore, the occurrence of this issue is more difficult to decrease. General improvements of CSR performance are more applicable here because these focus on better CSR performance in the whole Bolivian context. When the traceability of the value chain is increased the working conditions at the supplier's side will be visible and consumers can demand better working conditions in the chain. Several tools could be implemented to make improvements with regards to transparency and working conditions in the chain. Those tools could be better use of the internet, extra cooperation between partners in the chain and the integration of third- parties to gain an objective perspective.

# INDEX

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<b>LIST OF ABBREVIATIONS .....</b>	<b>1</b>
<b>LIST OF FIGURES AND TABLES .....</b>	<b>2</b>
<b>1. INTRODUCTION.....</b>	<b>3</b>
1.1 PROBLEM DESCRIPTION .....	3
1.2 RESEARCH OBJECTIVES AND QUESTIONS.....	4
<b>2. THEORETICAL FRAMEWORK .....</b>	<b>6</b>
2.1 CORPORATE SOCIAL RESPONSIBILITY (CSR) .....	6
2.1.1 DEVELOPMENT OF CSR.....	6
2.1.2 DEFINITION OF CSR .....	9
2.1.3 CSR IN DEVELOPING COUNTRIES.....	10
2.2 VALUE CHAINS .....	11
2.2.1 THE VALUE CHAIN.....	11
2.2.2 VALUE CHAIN ANALYSIS .....	12
2.2.3 TRANSPARENCY IN THE VALUE CHAIN.....	14
2.2.4 IMPLEMENTATION OF CSR IN AGRICULTURAL VALUE CHAINS.....	15
2.2.5 SUSTAINABILITY IN AGRICULTURAL VALUE CHAINS .....	18
<b>3. CONTEXTUAL FRAMEWORK.....</b>	<b>19</b>
3.1 HISTORICAL AND POLITICAL CONTEXT OF BOLIVIA.....	19
3.2 REGIONAL AND AGRICULTURAL CONTEXT OF BOLIVIA.....	20
3.3 CHIA CULTIVATION IN SANTA CRUZ DE LA SIERRA .....	21
3.4 CURRENT CSR PERFORMANCE IN BOLIVIA .....	23
<b>4. METHODOLOGY.....</b>	<b>30</b>
4.1 CONDUCTION OF FIELDWORK .....	30
4.1.1 RESEARCH PREPARATION AND SELECTION.....	30
4.1.2 THE BASIS FOR CSR ANALYSIS.....	30
4.1.3 CONDUCTION OF RESEARCH .....	32
4.1.4 THE RESEARCH AREA.....	32
4.1.5 GENERAL NOTES.....	33
4.2 ANALYSIS OF DATA .....	33
4.2.1 QUALITATIVE DATA .....	33
4.2.2 RANKING.....	34
4.3 INFLUENCES ON THIS RESEARCH.....	34
4.3.1 GENERAL LIMITATIONS .....	34
4.3.2 BIAS IN RESEARCH .....	35
4.3.3 RESEARCH EPISTEMOLOGY AND ONTOLOGY.....	36

<b><u>5. VALUE CHAIN ANALYSIS OF THE BOLIVIAN CHIA SECTOR.....</u></b>	<b><u>37</u></b>
5.1 CHIA COMPANIES .....	37
5.2 ORGANIZATIONS INFLUENCING THE CHAIN.....	42
5.3 RELATIONS IN THE VALUE CHAIN.....	46
5.4 MARKET INFLUENCES IN/ON THE VALUE CHAIN .....	47
5.5 CONCLUSION OF VALUE CHAIN ANALYSIS .....	49
<b><u>6. CSR PERFORMANCE AND RISKS IN THE VALUE CHAIN .....</u></b>	<b><u>51</u></b>
6.1 RANKING OF CSR TOPICS .....	51
6.2 THE THREE HIGHEST RANKING CSR TOPICS.....	52
6.3 OTHER CSR TOPICS.....	55
6.4 CONCLUSION OF CSR RANKING.....	59
<b><u>7. CASE STUDY: LINKING DATA WITH CSR PRACTICES IN THE MINING SECTOR .....</u></b>	<b><u>61</u></b>
7.1 PROBLEMS IN THE MINING SECTOR .....	61
7.2 COMPARING THE DATA AND THE CASE STUDY.....	68
7.3 CSR POLICIES IN THE BOLIVIAN MINING SECTOR.....	70
7.4 CONCLUSION OF CASE STUDY COMPARISON .....	71
<b><u>8. DISCUSSION.....</u></b>	<b><u>73</u></b>
8.1 CURRENT CSR PERFORMANCE IN THE SECTOR .....	73
8.2 IMPROVEMENTS OF CSR PERFORMANCE IN THE SECTOR .....	75
8.3 FUTURE DEVELOPMENT OF THE CHIA SECTOR.....	77
<b><u>9. CONCLUSION.....</u></b>	<b><u>80</u></b>
<b><u>10. RECOMMENDATIONS.....</u></b>	<b><u>83</u></b>
10.1 RECOMMENDATIONS FOR RESEARCHERS .....	83
10.2 RECOMMENDATIONS FOR CBI AND OTHER PRACTITIONERS.....	84
<b><u>11. REFERENCES .....</u></b>	<b><u>88</u></b>
<b><u>12. APPENDICES.....</u></b>	<b><u>95</u></b>
APPENDIX 12.1 LIST OF INTERVIEWEES AND THEIR EXPERTISE.....	95
APPENDIX 12.2 FORM FOR RANKING CSR TOPICS DURING INTERVIEWS.....	96
APPENDIX 12.3 MOTIVATION FOR 45 EC .....	97
APPENDIX 12.4 CALCULATION OF RANKING CSR TOPICS.....	99
APPENDIX 12.5: TABLE WITH THE SOCIAL RESPONSIBILITY TOOL.....	101



## LIST OF ABBREVIATIONS

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ABT	Autoridad de Bosques y Tierra - Forest and Land Authority
ANAPO	Asociación de Productores de Oleaginosas y Trigo - Association of Oilseeds and Wheat Producers
CADEX	Cámara de Exportadores de Santa Cruz - Chamber of Exporters of Santa Cruz
CBI	Centre for the Promotion of Imports from developing countries
COMIBOL	Corporación Minera de Bolivia - Mining Corporation of Bolivia
CSR	Corporate Social Responsibility
FPIC	Free and Prior Informed Consent
HACCP	Hazard Analysis and Critical Control Points Systems
IBCE	Instituto Boliviano de Comercio Exterior - Bolivian Foreign Trade Institute
IBNORCA	Instituto Boliviano de Normalización y Calidad - National Institute of Agricultural and Forestry Innovation
ILO	International Labour Organization
ISO	International Organization for Standardization
INIAF	Instituto Nacional de Innovación Agropecuaria Y Forestal - National Institute of Agricultural and Forestry Innovation
OECD	Organization for Economic Cooperation and Development
PASB	Pan American Silver Bolivia
PLUS	Plan de Uso de Suelo - Land Use Plan
UAP	A Bolivian chia company
WOFEC	A Bolivian chia company

## LIST OF FIGURES AND TABLES

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Figure 1: CSR pyramid .....	7
Figure 2: Revised CSR pyramid for developing countries.....	8
Figure 3: A general agricultural value chain. ....	11
Figure 4: A value chain for coffee.....	12
Figure 5: An overview of possible relevant CSR issues in an agricultural value chain .....	16
Figure 6: Main areas of chia production in Santa Cruz. ....	22
Figure 7: An overview of the value chain of Bolivian chia.....	38
Figure 8: An overview of the different options within the value chain. ....	38
Figure 9: Farm with family house .....	41
Figure 10: The seal for the IBNORCA-certification .....	43
Figure 11: The ‘Triple seal of Bolivia’: The CSR certification by IBNORCA and IBCE .....	44
Figure 12: An overview of the roles of the various organizations. ....	46
Figure 13: Cold storage space with chia at a processing plant. ....	48
Figure 14: Farm field with chia plants between ‘curtains’ of trees and bushes to protect the plants .	54
Figure 15: Frame of a sleeping tent for seasonal farmworkers .....	55
Figure 16: Location of the San Vicente mine.....	64
Figure 17: Outcome of social responsibility risk analysis.....	85
Table 1: List of topics for a sustainable food supply chain.....	18
Table 2: List of corporate social responsibility topics. ....	31
Table 3: An overview of the ten interviewed chia companies and their role in the value chain.....	40
Table 4: Prices of conventional and organic chia in different regions at the beginning of 2015.....	49
Table 5: Ranking of CSR topics according to interviewees.....	52
Table 6: Comparison of CSR performance in the mining and chia sectors. ....	68
Table 7: Recommendations for CSR policies in Latin America .....	71
Table 8: List of interviewees.....	95

# 1. INTRODUCTION

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## 1.1 PROBLEM DESCRIPTION

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There is a growing demand for chia in Europe and the United States of America (USA), mainly due to its nutritional properties as a 'superfood' (CBI, 2013; CBI, 2014a). Chia (*Salvia hispanica*) is a plant native to Southern Mexico and Guatemala. It is grown commercially for its seeds, which are rich in omega-3 fatty acids and can be used as flavour additives. In Europe, chia was officially authorized in 2009 as a food ingredient for bakery products. In January 2013, this authorisation was extended to the use of chia in certain food products as well as pre-packed chia with a maximum recommended consumption of 15 grams per day (CBI, 2014a). About a third of the international demand of chia in the last years has been met by Bolivia, with most of its export going to the USA. The growth of international trade in chia reflects a growing interest in healthy food and 'superfoods' (CBI, 2014a). Therefore, it is a niche product, similar to for example quinoa (CBI, 2014b)

Currently, chia is primarily produced in Argentina, Australia, Bolivia, Ecuador, Guatemala, Mexico, and Nicaragua. A percentage of the chia being grown in each country is certified organic. Importers in Europe have identified organic chia as a new niche product (CBI, 2014a). The increasing consumption of chia in the USA and Europe creates a higher production demand (CBI, 2013). However, literature suggests that there is little to no control concerning social and environmental responsibility in Latin America; one of the main producing regions of chia (Haslam, 2007; Sagebien et al., 2008; Slack, 2012). In Latin America, foreign and local companies have often been portrayed as exploitive of their workers, while their employees work in an environment with weak local norms of social responsibility (Haslam, 2007; Bebbington et al., 2008; Slack, 2012; Yakovlevo & Vazquez-Brust, 2012; Pozas et al., 2015). But are these problems of social and environmental responsibility also occurring in the relatively new chia sector? This question is especially important when looking at the increasing production and popularity of chia seeds worldwide. Bolivia is one of the main producing countries of chia and it is therefore important to understand the possible issues with social and environmental responsibility of this Bolivian sector. Currently, there is no literature available on the issue of social and environmental responsibility in the Bolivian chia sector and very little on this topic for Bolivia in general. Corporate Social Responsibility (CSR) can contribute to the sustainable development of sectors by focusing on the social and environmental responsibility of companies (Moon, 2007). Therefore, this thesis assesses the current situation of CSR in the Bolivian chia sector.

The concept of CSR is becoming an increasingly important topic worldwide (Nasrullah & Rahim, 2014). CSR is focused on the conscious, responsible actions of corporations, and whether these companies reflect on their policies for e.g. unfair treatments of employees and suppliers (Murphy & Schlegelmilch, 2013). According to Prieto-Carrón et al. (2006, p. 978) CSR is “*a concept whereby companies integrate social and environmental concerns in their business operations and their interaction with their stakeholders on a voluntary basis*”. Therefore, with increasing consumption, higher demand of production and concerns for negative consequences in the local community and environment, the concept of CSR can provide interesting new perspectives.

In reference to the concerns described above and the possibilities created by CSR, the Centre for the Promotion of Imports from developing countries (CBI) (a department of the Netherlands Enterprise Agency (RVO)) has requested an analysis of the possible increase in risks and opportunities regarding social responsibility issues, such as child labour or environmental pollution, for the value chain of chia in Bolivia. Therefore, this master’s thesis is focused on the main issues regarding CSR in the value chain of Bolivian chia.

## 1.2 RESEARCH OBJECTIVES AND QUESTIONS

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This thesis has several research objectives:

- I. To give a better understanding of the value chain of Bolivian chia.
- II. To describe current CSR performance in the Bolivian chia sector.
- III. To give recommendations for further research on CSR in Bolivia and/or Latin America.
- IV. To give policy recommendations for CBI and other practitioners.

To meet these objectives, the following main research question will be answered:

### **Main research question**

- *To what extent and how are corporate social responsibility practices integrated into the value chain of chia seeds and what are the opportunities for improvement?*

To answer this main question, the following sub-questions have been formulated:

### **Sub-questions:**

- *How does the value chain of Bolivian chia function?*
- *Who are important actors regarding corporate social responsibility in the value chain of Bolivian chia and how do they cooperate?*

- *Which corporate social responsibility practices are critical in the value chain of Bolivian chia and why?*
- *What can be learned from CSR practices and policies in the Latin American mining sector?*
- *What can be done to improve corporate social responsibility performance in the value chain of Bolivian chia?*

This thesis is structured as follows: chapter two will present a theoretical framework, discussing the important concepts and theories that were used as a basis for this research as well as during the conduction of the research. Chapter three will present a contextual framework, describing various important contexts such as the political and historical context of Bolivia, the ethnic variation in Bolivia and state of CSR in Bolivia according to the thirteen CSR topics that are used as a basis for this research. Chapter four will present the methodology used and will also give the limitations in conducting this research. Chapter five through seven will present the relevant results found during fieldwork with an extra chapter linking the data from this fieldwork with literature on CSR in the Bolivian mining industry. The chapters are divided according to the sub-questions described above. Chapter eight will discuss the discussion of these results, followed by the conclusion in chapter nine. Chapter ten will give further policy recommendations as well as recommendations for additional research. The references and appendices can be found in chapter twelve and thirteen, respectively.

## 2. THEORETICAL FRAMEWORK

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This theoretical framework is divided into two main parts. The first part discusses the concept of Corporate Social Responsibility. In this part the development of CSR in the literature, the definitions of CSR and the CSR performance in developing countries is discussed. The second part focuses on value chains. First, the concept of a value chain is explained further, after which the concept of value chain analysis is described as well. Also, transparency in value chains is discussed because it is one of the important CSR topics for this research (which is explained later in this thesis). Moreover, literature on the implementation of CSR in value chains is given. Finally, literature on sustainable value chains in general and its link with CSR is discussed.

### 2.1 CORPORATE SOCIAL RESPONSIBILITY (CSR)

---

Since markets have changed to a more neoliberal way of conducting business, the role of several actors in the economy has changed. This happened mainly because of the withdrawal of government interventions from the market. In countries with capitalist economies, the government only has a supporting role towards companies<sup>1</sup>, which creates more freedom of conducting business, both nationally and internationally (Crouch, 2008). While this creates a lot of freedom for companies, it could also have negative effects on the society: who controls the societal and environmental effects of these companies? In order to make the companies responsible for their actions, the concept of Corporate Social Responsibility (CSR) has been developed. This thesis analyses the CSR performance of the Bolivian chia sector. Therefore, the development of the concept of CSR and its implementation in developing countries is discussed in this subchapter.

#### 2.1.1 Development of CSR

---

Social responsibility was first mentioned by Bowen (1953), where he described it as the 'social responsibilities of businessmen' (Murphy & Schlegelmilch, 2013). This first view was mainly focused on the impact of the decisions by managers on the larger society, but not on the internal business of the company. Later on, Carroll (1979) described four types of CSR: economic, legal, ethical, and philanthropic. He argued that these types of CSR should be used as a basic starting point for effective CSR. The perspective for the economic part is that business is the basic economic unit in society. This

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<sup>1</sup> The word 'company' will be used throughout this report when every type of business, firm company is meant.

means that a company always has an economic responsibility towards itself. The legal part focuses more on expectations of legal compliance, where society expects companies to achieve economic goals within the legal frameworks. The ethical part of the model focuses more on the fact that business should be moral, and doing what is just, right, and fair. Within the philanthropic part of CSR business decides on specific activities or philanthropic contributions which aim to give back to society. Carroll (1991) later revised this four-part model of CSR and created a pyramid in which these four types are included, but all have a different importance. This pyramid is illustrated in figure 1.

Visser (2008) advocates that Carroll’s four-part pyramid from 1991 can be used to determine how CSR has manifested itself in a developing country. However, Visser argues that the order of the responsibilities is different for developing countries. The revised pyramid by Visser can be seen in figure 2. Visser suggests that the economic responsibilities still have the highest importance, but philanthropy is given the second higher priority followed by legal and ethical responsibilities.



FIGURE 1: CSR PYRAMID (CARROLL, 1991, P. 42).



FIGURE 2: REVISED CSR PYRAMID FOR DEVELOPING COUNTRIES (VISSER, 2008, P. 489).

The economic responsibility is the most important layer for developing countries because the economic contributions of companies are highly valued due to the shortage of investment, the large unemployment rates and the extensive state of poverty. Philanthropy is the second important layer because of five reasons: 1) there is a strong indigenous tradition of philanthropy; 2) philanthropy is considered the norm based on the socio-economic needs of the developing countries; 3) because companies cannot succeed in malfunctioning societies, philanthropy is seen as the most direct path to improve the function of communities; 4) developing countries are in an early stage of CSR, which means that some local companies think CSR is the same as philanthropy instead of applying a more integrated CSR-approach; and 5) many developing countries have been relying on foreign aid and/or donor assistance, thus there is often a culture of philanthropy present. Legal responsibility is the third most important layer in this pyramid, which means they have a general lower priority in developing countries compared to developed countries. This is mainly because developing countries generally have badly developed legal frameworks that often lack enforcement by the government due to limited resources and administrative inefficiencies. And finally, ethical responsibilities have the lowest priority in developing countries. Visser argues that in an ideal CSR-pyramid ethical responsibilities should have the highest priority, however he also states that this is often not the case in developing countries (Visser, 2008). As is shown in this subchapter, CSR can be explained through various concepts and definitions. The next subchapter will describe this debate and will give a final definition for CSR that will be used throughout this thesis.



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### 2.1.2 DEFINITION OF CSR

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The concept of CSR is known to be vague and confusing, and the concept still lacks a wholly agreed-upon definition (Rivoli & Waddock, 2011). There are two main groups that stand out in the academic debate on the definition of CSR. The first group believes that ‘the business of business is business’, meaning that the sole responsibilities of a company is to make money and obey the relevant laws (Friedman, 1970). The second group believes that a company is ‘a corporate citizen’ that acts on behalf of its members and bears the duties and obligations as a person (Goodpaster & Matthews, 1982). This first view is a narrow concept of CSR entailing only economic and legal responsibilities, whereas the latter translates into a wider view entailing economic, legal, ethical, and philanthropic responsibilities (Carroll, 1991).

One of the main problems with CSR definitions is that the same terminology has been used with different meanings, as described by Votaw:

*“Corporate social responsibility means something, but not always the same thing to everybody. To some it conveys the idea of legal responsibility or liability; to others, it means socially responsible behaviour in the ethical sense; to still others, the meaning transmitted is that of ‘responsible for’ in a causal mode; many simply equate it with a charitable contribution; some take it to mean socially conscious; many of those who embrace it most fervently see it as a mere synonym for legitimacy in the context of belonging or being proper or valid; a few see a sort of fiduciary duty imposing higher standards of behaviour on businessmen than on citizens at large.”*

(Votaw, 1972 in Garriga & Mele, 2004, p. 51)

Matten & Moon (2008) argue that a lack of common definition is to be expected because of two reasons. First of all, CSR is an umbrella term for many concepts, and secondly, CSR naturally changes over time when people’s values change. Currently, CSR has gained a more broadened scope which not only focuses on social, environmental and human rights issues, but also on the role of business in relation to poverty reduction in the developing world (Prieto-Carrón et al., 2006). According to these authors, CSR can now be defined as:

*“A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis”.*

(Prieto-Carrón et al., 2006, p. 978)

This definition will be adhered throughout this thesis.

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### 2.1.3 CSR IN DEVELOPING COUNTRIES

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This research is focused on Bolivia, which is generally seen as a developing country. Therefore, it is also important to look into some theories specifically focused on CSR in developing countries.

Prieto-Carrón et al. (2006), Dobers & Halme (2009), and Murphy & Schlegelmilch (2013) all show that the main research on CSR so far has focused on developed countries. However, in the last few years more scholars have written about CSR in developing countries (Visser, 2008; Jamali & Neville, 2011).

Scientific literature on CSR performance in the Bolivian chia sector, such as problems with e.g. working conditions or environmental pollution, is non-existent. Scientific literature on general CSR performance in Bolivia is scarce, except for the mining, gas, and oil sectors, which are important sectors in Bolivia and Latin America (Guenther et al., 2006; Jenkins & Yakovleva, 2006; Raufflet et al., 2014). For example, Raufflet et al. (2014) illustrate the different environmental and social challenges mining companies are faced with, such as conflicts between the company and indigenous groups. The authors argue for new institutional and management standards to overcome these differences and focus on the CSR practices shared by a group of organizations. More about CSR in the Latin American mining sector will be discussed in chapter seven, where this sector will be used as a case study for comparison with the data from this research.

Jamali & Neville (2011) present a multi-layered institutional framework for CSR research in developing countries. They mainly focus on the concept of convergence versus divergence of CSR in the context of a developing country. While specifying their own research on Lebanon, the general analytical framework is also applicable to other countries or contexts. The concept of convergence versus divergence mainly addresses the influence on CSR by both global institutional pressures as well as local contexts. Therefore, they conclude that CSR policies in developing countries are both influenced by global and local institutional pressures. They suggest the need to strengthen the national institutional drivers for CSR by developing healthy political and economic conditions, competitive market pressures, the role of a strong state, an active civil-society and a strong clear CSR discourse in order to decrease the gap between the global and local pressures. Also, they argue that it is necessary to identify existing cultural and religious norms and values that exist throughout the developing world in order to channel these norms and values more effectively for CSR policies in general.

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## 2.2 VALUE CHAINS

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Because this thesis is focused on CSR in the value chain of Bolivia chia, this subchapter describes the characteristics of a general agricultural value chain followed by the theory on value chain analysis. After that, several concepts that can help with the implementation of CSR in value chains will be described, such as ‘economic rent’ and ‘transparency’.

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### 2.2.1 THE VALUE CHAIN

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The use of the concept of ‘value chain’ started in the 1960s and 1970s to analyse the development for mineral-exporting economies. However, during the 1990s ‘value chains’ and ‘value chain analysis’ became widely used terms in all industries, mainly due to writings of Porter (1990) and Gereffi (1999). While Porter focused more on the concept of value chain development in different countries, Gereffi focused more on a global commodity chains. The theory behind value chain analysis is discussed in the next subchapter.

A general agricultural value chain is the full range of activities that are required to bring the product from growing at the farm field to the selling to importers or consumers (Tallontire & Greenhalgh, 2005). Generally, it would take the form depicted in figure 3. When a company owns more than one component of the chain, the chain is driven by vertical integration.

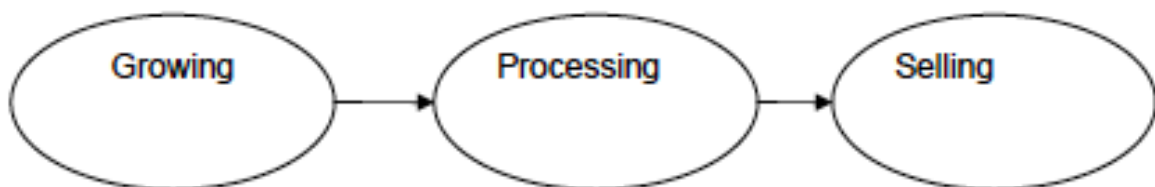


FIGURE 3: A GENERAL AGRICULTURAL VALUE CHAIN (TALLONTIRE & GREENHALGH, 2005, P. 27).

While the value chain for the agricultural sector shown above provides a simplistic overview, agricultural value chains are often more complex with more components and different power relations between the actors. An example of this complexity is given by Tallontire & Greenhalgh (2005) by looking into the coffee sector. This more complex value chain of the coffee sector is shown in figure 4.

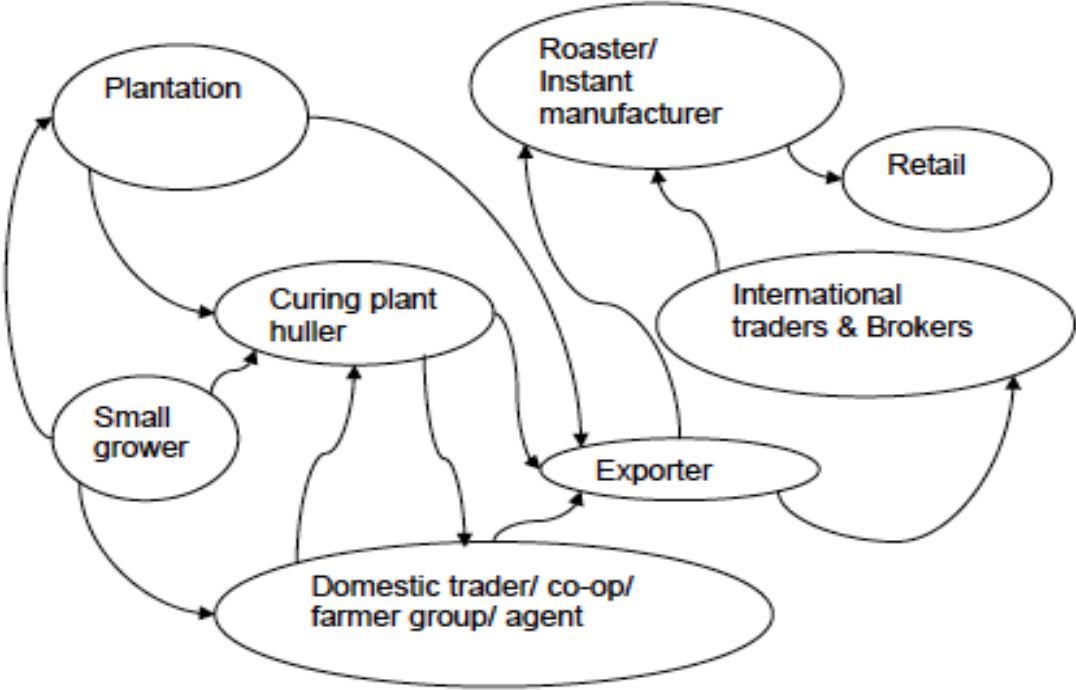


FIGURE 4: A VALUE CHAIN FOR COFFEE (TALLONTIRE & GREENHALGH, 2005, P. 33).

This value chain shows that there are several routes in the chain from grower to retailer. Also, there are different links between the actors in the chain. The different power relations between the actors in the chain create even more complexity. For example, in the coffee sector the balance of power has shifted from producing countries basing their price on quotas to buying countries as a result of the market power of key multinational firms. In this sector, there is almost no vertical integration because there are a lot of different actors in the chain who all own a part of this chain (Tallontire & Greenhalgh, 2005).

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### 2.2.2 VALUE CHAIN ANALYSIS

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When researching a value chain, value chain analysis can be an interesting tool to further understand the components in the value chain and the roles of the different actors. According to Kaplinsky (2000), there are three important components of value chains that need to be recognized and can transform the value chain into an analytical tool:

- 1) Value chains store rent, and these rents are dynamic.
- 2) An effective value chain must include some form of governance.
- 3) An effective value chain is based on a systematic efficiency instead of point efficiency.

The first point is mainly focused on economic rent. Economic rent is the positive difference between the actual payment made for production to the producer and the payment expected by the producer based on exclusivity or scarcity. This rent is created in the value chain in the case of differential productivity in the chain. Most economic rent is in essence dynamic due to forces of competition. Because more countries have developed capabilities for production activities, the barriers to entry the production or chain of a certain sector are gone and the competitive pressures within a sector have increased. The second point, the need for governance, is mainly important because the concepts of governance is a major contribution to the understanding of the way the value chains work. For example, the distinction between different types of chains can be identified. Finally, systematic efficiency is important because companies often need to govern their chains to achieve broader levels of systematic integration in order to achieve competitive advantage (Kaplinsky, 2000).

According to Tallontire & Greenhalgh, (2005), value chain analysis can help to identify the forms in which CSR is occurring in the chain, how CSR is driven, and which standards are likely to be important. Value chain analysis in the agribusiness is concerned with the coordination of markets, which roles are played by different actors along the chain, the identification of economic rent, which categories the value chain consists of and the governance of the value chain. This governance of the value chain focuses on the rules of the chain, how the rules are made and enforced<sup>2</sup>, who ultimately drives the chain and how the benefits of trade are distributed along the chain. For example, in agricultural sectors a large part of the rules in the value chain are written in law, but some of the rules are voluntarily.

When looking specifically into the implementation of CSR in the agricultural sector, Tallontire & Greenhalgh (2005) argue that the actors that have most power in the chain should bear the costs of CSR implementation. While there also may be benefits due to this implementation, it could often occur that the actor that pays for the costs of implementation does not receive the benefits. Thus, the costs and benefits are not necessarily distributed fairly along the value chain. For example, when there are certain CSR standards implemented, the main costs of this implementation are likely to

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<sup>2</sup> This thesis only focuses on regulation concerning CSR.

occur at the supplier's side, while many of the benefits are likely to occur at the end of the chain. The distribution of these costs and benefits is influenced by the nature of the chain and the governance that is present in the chain. Also, it should be noted that the benefits from adopting CSR are often only experienced in the long term, while the costs are often directly paid (Tallontire & Greenhalgh, 2005).

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### 2.2.3 TRANSPARENCY IN THE VALUE CHAIN

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Transparency of the value chain is becoming more and more important for both consumers and producers, especially in the agro-food chains. While this importance started because of quality and safety reasons due to legal requirements implemented by governments, sectors are now also focusing on transparency to create socially and ecologically responsible chains because the consumers are demanding to know where the product is coming from. This transparency (or supply chain transparency (SCT)) is defined by Bastian & Zentes (2013) as:

*“The degree to which as supply chain player has access to relevant information about products, processes and flows of capital without loss, noise, delay and distortion.”*

(Bastian & Zentes, 2013; p. 554)

The authors argue that when trying to improve the transparency of a value chain, companies in the agro-food sector should start with the reformation of the value chain. The two most important factors influencing this transparency are: fewer actors in the chain to reduce complexity and a specific choice of countries of origin with high ethical standards. Other factors are: creating highly developed communication routines, the formalization of ethical standards and integration of third parties into the value chain. The integration of a third-party is beneficial because these parties are not directly dependent or in a hierarchy with chain-members and are therefore objective (Bastian & Zentes, 2013). However, it should be noted that while it is often recommended to work with fewer actors in the chain to reduce complexity and increase transparency, this does imply that companies should own as much of the value chain as possible. This could mean that smallholder farmers who sell their agricultural product to the larger companies will have fewer companies to sell their produce to, which will decrease their business. When trying to create sustainable local development, this dilemma should be taken into account (Markelova et al., 2007).

According to Trienekens et al. (2012), the key enablers of transparency in the agro-food sector are: information exchange; governance and; food quality and safety standards. They argue that supporting organizational arrangements, such one central information centre for the whole sector,

and compliance with quality and safety standards are important for trusted information exchange and transparency. This is also argued by Wognum et al. (2011), but these authors describe other solutions to increase transparency as well. First, they argue for the increase in use of internet; internet can help exchange more information between actors in the value chain at low costs. Second, they address the extra cooperation of partners in the value chain and also between companies and the government. The third point is focused on an improved communication and information exchange on technical innovation opportunities. As mentioned above, these authors also argue for the importance of the role of the government, mainly by stimulating innovation and improving competitiveness. This can be done by for example extra subsidies. And finally, Wognum et al. (2011) argue for ways to limit administrative burdens such as certification and branding.

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#### 2.2.4 IMPLEMENTATION OF CSR IN AGRICULTURAL VALUE CHAINS

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When looking into CSR performance in agricultural value chains, several issues could be important. Trienekens (2011) gives an overview of possible relevant CSR issues in such value chains, as is depicted in figure 5.

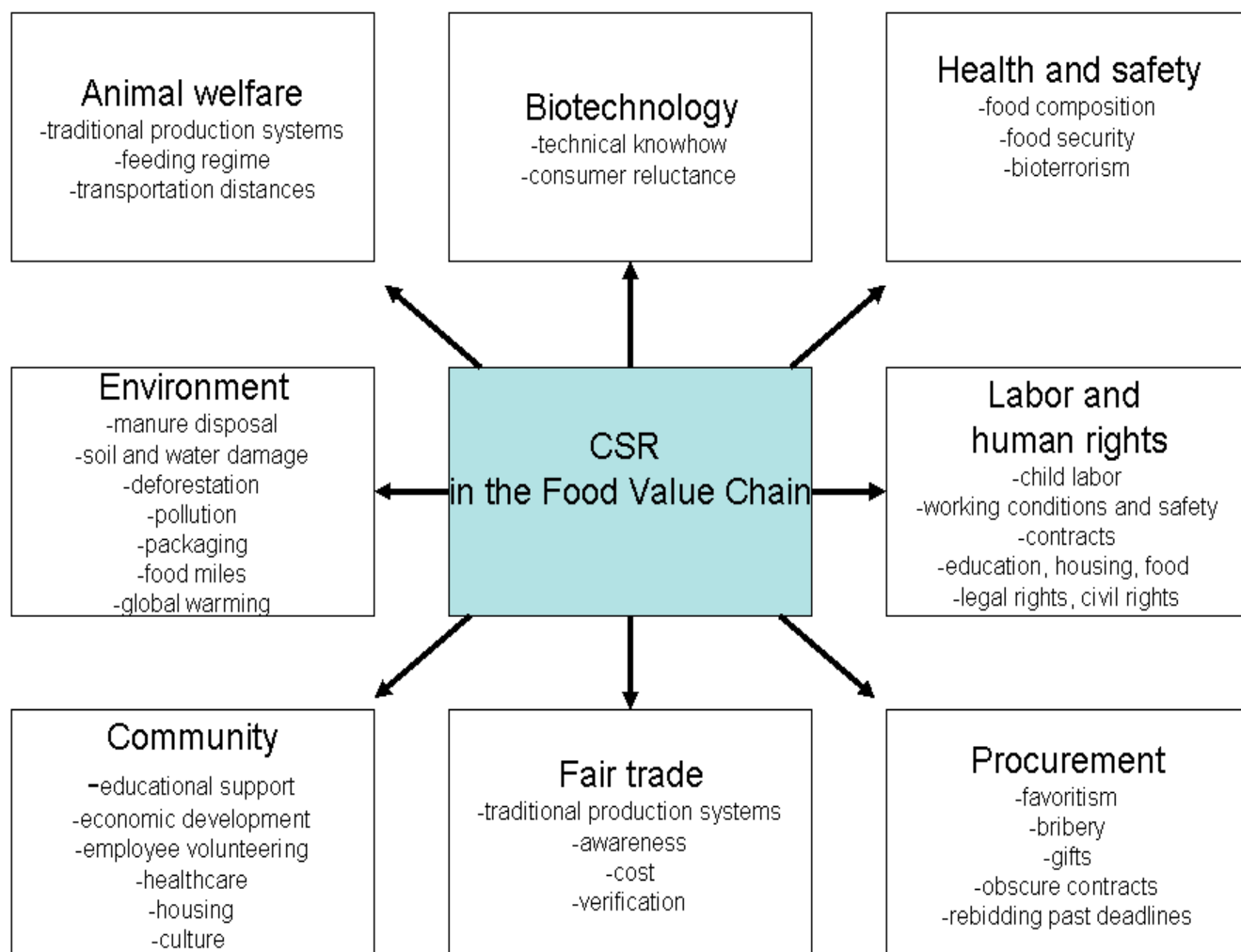


FIGURE 5: AN OVERVIEW OF POSSIBLE RELEVANT CSR ISSUES IN AN AGRICULTURAL VALUE CHAIN (TRIENEKENS, 2011, P. 69).

Figure 5 depicts several CSR issues for a food chain. This figure is mostly focused on social issues such as 'Health and safety' and 'Labour and human rights' and has only one box focused on more environmental concerns in the box 'Environment'. The issue 'Animal Welfare' is not that relevant for the chia sector, because all labour is either mechanical or manual without the use of animals. The CSR topics that are used for analysis in this thesis are described in the methodology.

When looking further into the implementation of CSR standards in the agricultural sector, some authors argue for the use of a business case (Tallontire & Greenhalgh, 2005; Slack, 2012). According to Tallontire & Greenhalgh (2005), the nature of such a business case can differ at different parts of the chain. At the producer's part of the chain, the benefits of CSR are mainly focused on cost-saving and better access to international markets, while the importer can benefit from brand recognition and reputation assurance. It should be noted that the benefits of such a business case are often



noticed on a long-term scale, it is not beneficial for a supplier who is not confident of retaining its access to the buyer.

In the Bolivian chia sector most of the companies are small or medium-sized (CADEX, sine anno). Smaller companies often have less influence on the conditions in the sector through their own policies. Also, implementation of such a business case could limit their functionality in the specific sector because they are limited to certain CSR standards while other companies are not. It is therefore important to look for means of implementing CSR beyond the business case. Tallontire & Greenhalgh (2005) argue that the government plays an important role in this. The government should therefore focus on long-term, sustainable improvements of social and environmental performances of companies, instead of quick, short-term fixes of a business reputation. Tallontire & Greenhalgh (2005) propose four areas where governments can play an important role.

First of all, governments can set and promote CSR standards. However, there are often little incentives for companies to comply with such CSR standards. It is therefore important to have an effective enforcement of regulations for good social and environmental practices, which can be the foundation of achieving the CSR standards. For example, the government should develop regulations upon which codes of conduct<sup>3</sup> of companies can be based. Also, the government can try to ensure that these CSR standards are linked with local legislation and understanding. By doing this, legislative policies and CSR policies can support each other through co-regulation. Secondly, the government can ensure capacity building by supporting promotional activities of the core bodies of a sector. While developing countries may not have the funds for such support, they could recognize the importance and try to create possibilities and chances for such initiatives. As a third point, empowerment of workers and smallholders is focused on raising awareness of workers and the empowerment of these workers in cases of code violation. Public action can be used to improve the effectiveness of agricultural trade unions, which is very important because they are typically weak and not legitimately recognized as the voice of the workers. Besides that, the agricultural sector is a difficult sector to organize due to its logistics. Focusing specifically on smallholder farming, which is part of the Bolivian chia sector, empowerment is also an important issue. It is important to make new codes applicable to smallholder's needs and providing specific information on the requirements of such codes. And finally, it is important to use incentives for compliance with CSR standards. For example, a government can help companies that comply with CSR standards to access low interest loans for investments in improvements focused on CSR standards (Tallontire & Greenhalgh, 2005).

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<sup>3</sup> A code of conduct is a set of rules describing the social norms and responsibilities of a company.

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### 2.2.5 SUSTAINABILITY IN AGRICULTURAL VALUE CHAINS

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While this thesis focuses on CSR in the chia sector, it is also interesting to look into the similar concept of sustainable development. As described in the introduction, CSR could be a tool to help assess the degree of sustainability in a sector. A sustainable value chain could be benefiting for all actors in the chain, which is also the goal when improving the CSR performance of a sector (Moon, 2007). The UK Sustainable Development Commission (SDC) has created a list of topics that together make a sustainable food supply chain, which is described in table 1.

TABLE 1: LIST OF TOPICS FOR A SUSTAINABLE FOOD SUPPLY CHAIN (SMITH, 2008, P. 850).

1	Produce safe and healthy products in reaction to market demands, also ensure that all consumers have access to nutritious food and to accurate information about the food products
2	Support the viability and diversity of rural and urban economies and communities
3	Enable viable livelihoods using sustainable land management
4	Respect and operate within the biological limits of natural resources
5	Achieve consistently high standards of environmental performance by minimizing resource inputs, reducing energy consumption and using renewable energy when possible
6	Ensure a safe and hygienic working environment and training for all employees involved in the food chain
7	Achieve consistently high standards of animal health and welfare
8	Sustain the resource available for growing food and supplying other public benefits over time, except when alternative land uses are essential to meet other needs of society

When comparing this list to the possible CSR issues in the food supply chain described in the previous chapter, it can be argued that while sustainability focuses more on land and natural resource management and CSR focuses more on social issues (see subchapter above), both concepts are addressing both social and environmental issues.

### 3. CONTEXTUAL FRAMEWORK

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This contextual framework first illustrates the historical and political context of Bolivia, to explain the several changes in Bolivia in the last decades. Secondly, this chapter also discusses the regional and agricultural context of lowland Bolivia. These two subchapters are specifically focused on the historical and political socioeconomic differences in order to explain the outcome of the value chain analysis and CSR analysis more clearly later on in this thesis. Finally, more specific information on chia cultivation in Bolivia and the current state of CSR performance in Bolivia will be given.

#### 3.1 HISTORICAL AND POLITICAL CONTEXT OF BOLIVIA

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Bolivia (in full: Plurinational State of Bolivia) is located in the western-central part of Latin America with a population of 11.2 million (Trading Economics, 2015). According to the World Bank, Bolivia is one of the poorest countries in Latin America and a lower middle-income country (World Bank, 2015). Around 60 % of the Bolivians live below the national poverty line. This percentage is higher in rural areas, where three out of four people live in poverty (IFAD, 2015).

During its history the majority of the population has been settling in the high Andean region because of the rich agricultural lands and minerals, such as silver, gold, copper, and tin. Bolivia has the highest percentage of indigenous peoples in Latin America. Indigenous peoples constitute around 62% of its population. There are 36 recognized groups, Quechua (50.3%) and Aymara (39.2%) being the largest. There are also indigenous peoples in the lowland areas, such as Chiquitano (3.6%) and Guaraní (2.5%). However, the majority of indigenous people live in the Andean highlands; around La Paz, Oruro, Potosí and Cochabamba. About 30% of the Bolivian population is 'mestizo'; a mixture between European and indigenous ancestry (ILO, 2015a).

For centuries, during the Inca, colonial and contemporary times, the region that is now called Bolivia has been the interest of many mining projects. During these times, the mining was dependent on the large group of indigenous peasants. A small white elite group (mainly descendants of the Spaniards) dominated the economic and political institutions, while the larger indigenous group had less legal rights such as with regard to land ownership (Canessa, 2007). The inequality between the white elite group and the indigenous peoples has changed with the 1952 revolution, which resulted in a major social transformation. Agrarian reforms returned land to indigenous peasants and education was brought all over the country side. The political system came to be dominated by urban 'mestizos' (people of mixed descent) and white people who were not aligned with the previous hierarchy.

However, indigenous people were still not given formal recognition as a group nor were they represented in positions of power, even though they supported the revolution and played a large role in its success (Canessa, 2007).

During the 1970s and 1980s there were several military dictatorships, during which the economy of Bolivia was rapidly changed and created severe fiscal tightening. The poorest sectors of the country suffered the most which resulted in a large migration of highland people (indigenous) to the larger cities and lower valleys, where there were better prospects for agriculture and other work. At the end of the 1990s, it became increasingly visible that most indigenous people were still not enjoying the same positions of power and influence as other ethnic groups (Canessa, 2007).

During the national election of 2005, Evo Morales was elected president, and he is still in office today. He is the first indigenous president of Bolivia and his policies are focused on improving the rights of the indigenous population. His government tries to improve the healthcare system and provides access to school of indigenous people and articulates a sense of an indigenous national pride to conquer the embedded discrimination. Also, currently there is a significant amount of indigenous people in the cabinet and ministries of the government (Canessa, 2007). The Morales administration has changed Bolivia into a 'plurinational' state in 2009 as recognition of the multicultural nature of the country (Canessa, 2014). The government has a large influence on the socio-political environment of the country; the indigenous peoples are now more included rather than excluded (Canessa, 2007; 2014). However, Canessa (2014) points out that there is still discrimination occurring in the country.

### 3.2 REGIONAL AND AGRICULTURAL CONTEXT OF BOLIVIA

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The tension between the elite groups and the indigenous peoples, as described above, has resulted in a regional division between the highland Bolivians (indigenous peoples) and the lowland Bolivians (the elite groups). This division can also be seen in the economic differences: the poorest groups live in the highlands while the richest groups live around Santa Cruz (lowland) (Schroeder, 2007).

The main agricultural production is also located in the lowlands of Bolivia, which is also where the chia is cultivated. More information on chia cultivation in this region is described in the next subchapter. The lowlands of Bolivia are occupied by groups with different socioeconomic characteristics. These groups have different land and forest rights resulting from decades of conflict and negotiation with the state because of changing development policies. Therefore, the occupation of the lowland area by these groups is a relatively complex process. Traditionally, the main area of

the lowlands was used by a part of these groups. They mainly focused on the use the land for subsistence farming. Later on, these lands were gradually invaded by other farmers. Around 1955, the national government designed a plan to stimulate domestic food production resulting in an increase in medium and large-sized farms. However, the largest expansion of commercial agriculture in Bolivia started in the 1980s. This expansion mainly took place in the eastern part of Santa Cruz by Brazilian investors that wanted to benefit from cheap lands and the creation of market openings with Andean countries. Also, it could be that these investors wanted to avoid the stricter environmental policies in Brazil. The investments have led to an increase in medium- and large scale mechanized agriculture, mainly for soy production (Müller et al., 2014).

Currently, there are many actors located in the lowlands that now also have more influence on land use. There is a wide variety of actors, from indigenous communities that focus more on subsistence farming and sell a their overproduction to other companies as well as business groups with large-scale operations that own a large amount of land (Müller et al., 2014).

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### 3.3 CHIA CULTIVATION IN SANTA CRUZ DE LA SIERRA

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The cultivation of chia takes about three months. In Bolivia, chia is planted in March/April and harvested around June/July. During the rest of the year, the land is often used for other crops, such as soy and maize. Chia is therefore often a rotation crop. However, there are also companies that only grow chia on their land. A company needs about five to twelve hours of manual labour per hectare of chia, from plantation to harvest, depending on the available technology and the soil quality. Companies with more hectares of land mainly use machines to do the work. However, even the companies with a large amount of land need to use manual labour to weed between the plants. Therefore, there are many seasonal workers working on the fields. Bolivia has an estimated amount of 3,000 to 4,000 chia farmers who work with farmworkers nearby or seasonal farmworkers (CBI, 2014a). The production of chia costs around 500 US\$ per hectare (CADEX, sine anno), which is spend on for example the payment of workers, the use of chemicals and the use of machinery. The yield per hectare depends on the specific region, the climate, and the cultivation techniques and equipment. Bolivia currently has an average yield of 0.65 tons per hectare. This is relatively low compared to other producing countries such as Argentina and Paraguay that can reach up to 0.8 to 0.9 ton per hectares if the circumstances are well (CBI, 2014a).

The main production of Bolivian chia is in the department of Santa Cruz accounting for about 92 % of national production. The production of chia seeds mainly takes place in the north and east of Santa

Cruz, which is shown in figure 6 by the red circles. Many chia companies have their offices in Santa Cruz as well (CADEX, sine anno).

The international trading price of chia was about 8,000 to 12,000 US\$ per ton, but dropped to 3,000 US\$ at the end of 2014 due to high availability on the market (CBI, 2014a). In 2013, 48 % of chia from Bolivia was exported to the USA (IBCE, sine anno). Chapter five, on the value chain of the Bolivian chia sector, gives more information on current prices and describes the effects these fluctuations have on the Bolivian chia sector. The quality of the chia can differ per region, depending on the temperature, rainfall and altitude of the region. The quality mainly differs with respect to seed type and omega-3 levels. According to CBI (2014a), Bolivia has a good reputation concerning quality due to the fertile and toxic-free grounds. However, the Bolivian chia is also primarily watered by rain, making it more difficult to maintain its quality. Specific quality standards for chia are not yet available (CBI, 2014a).

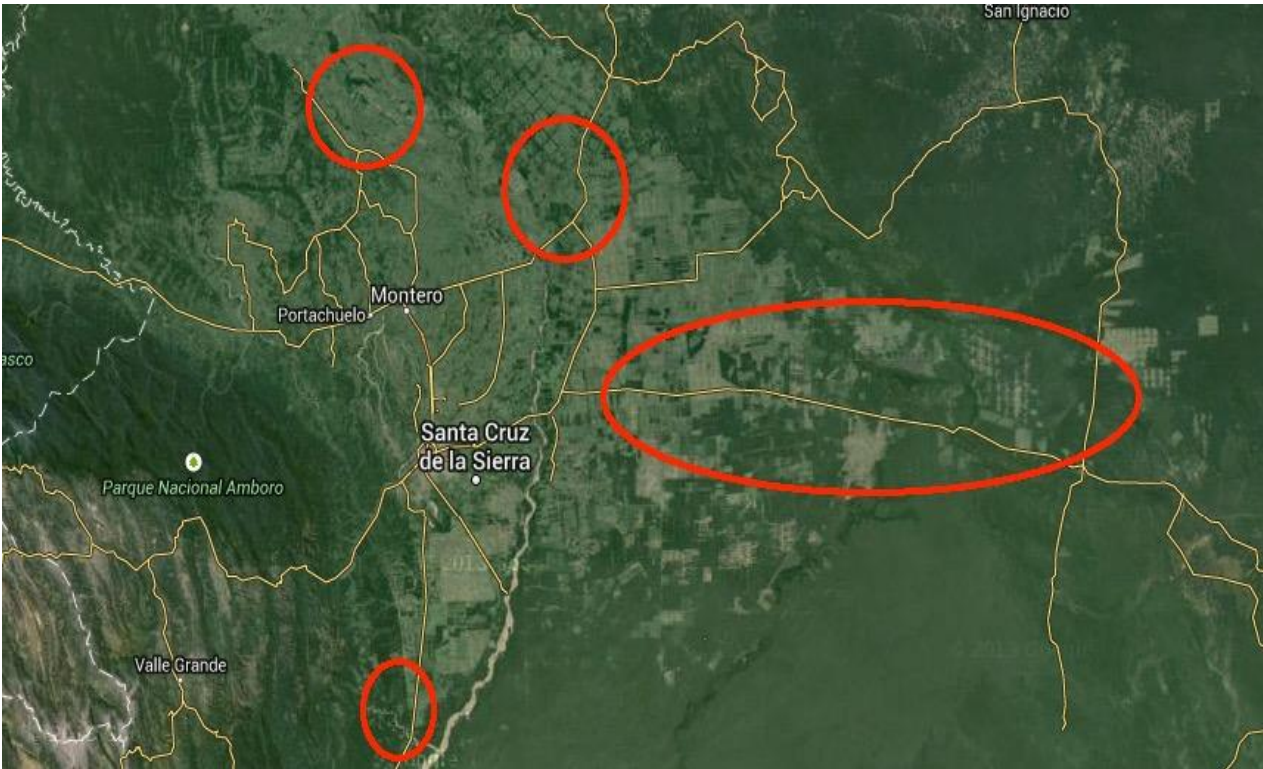


FIGURE 6: MAIN AREAS OF CHIA PRODUCTION IN SANTA CRUZ (GOOGLE EARTH & CADEX, SINE ANNO).

### 3.4 CURRENT CSR PERFORMANCE IN BOLIVIA

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This subchapter gives more information on the CSR topics used as a basis for this thesis. These thirteen CSR topics are: forced or compulsory labour; child labour; unfair employment terms; lack of freedom of association; unequal opportunities for women; health and safety risks; violation of human rights; discrimination of workers; non-compliance with local and/or international environmental regulations; excessive use of natural resources; environmental harms by polluted water, harmful gases and/or other waste; corruption in the sector; and lack of traceability on the origin of raw materials used for production. They are based on the OECD guidelines for Multinational Enterprises and CBI's social responsibility policy framework.

It should be noted that while in this part many regulations and laws are described, there are differences between the laws itself and the actual manifestation and control of these laws. For example, the current government in Bolivia strongly favours 'social control', which has no formal institutional oversight. Because the social control is imparted outside the formal legal system and its regulations, the manifestations of the law vary considerably within Bolivia (Centellas, 2011).

#### FORCED OR COMPULSORY LABOUR

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Forced or compulsory labour is labour with a focus on: harassing, abusive and/or threatening working condition, debt bondage, and trafficking. The International Labour Organization (ILO) has made a Declaration on Fundamental Principles and Rights at Work; forced labour is one of the fundamental principles in this declaration. According to the ILO, forced labour occurs when work or services are demanded by a group or by individuals who have the power to threaten workers with severe hardships; such as withholding food, land, sexual abuse or physical violence and/or restricting peoples' movement (ILO, 2014a).

According to the Global Slavery Index (2014), Bolivia is ranked 94<sup>th</sup> out of the 167 (lower ranks indicate higher rates of slavery). When looking only at the Americas, Bolivia is ranked at 9<sup>th</sup> out of the 27. The three main areas in which forced labour occurs in Bolivia are: the sugar cane sector, the Brazil nuts sector and on private ranches in the region of the Chaco<sup>4</sup>. The forced labour takes some form of debt bondage, mainly occurring with indigenous peoples, particularly those working in the Chaco. First, the debt is created by advances of money and later on it is sustained by purchases of foods and goods on credit along with interest charges on the debts. These debts are a mechanism to

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<sup>4</sup> The Chaco is a region in the south-eastern part of Bolivia, bordering with Argentina and Paraguay.

control and maintain labour. This form of forced labour is mostly used by private companies (Anti-Slavery International, 2006).

#### CHILD LABOUR

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The abolition of child labour is one of the other four fundamental principles within the Declaration on Fundamental Principles and Rights at Work as created by the ILO (ILO, 2014a). In general, the ILO states that child labour is work done by children under the age of 12, any non-light work done by children by ages of 12-14 and any hazardous work done by children by ages 15-17 (ILO, 1973). However, not all work done by children should be classified as child labour. Children's participation in work that does not affect their development and health or interferes with their schooling is generally seen as something positive. Therefore, child labour is labour that denies children their childhood, their potential and dignity. Activities around home during school holidays could contribute to a child's development and to the welfare of their families (ILO, 2014b).

In 2014, the Bolivian government changed the law which allows children from 10 years and older to work. Many organizations, as well as the ILO, criticized this decision (Global Slavery Index, 2014; ILO, 2014c). However, the Bolivian government argues that child labour is occurring anyway, and in this way they have better regulations to protect the working children (NPR, 2014). In Bolivia it is generally accepted that children work in all forms of slavery or practices similar to slavery, such as selling and trafficking of children, debt bondage and other forced labour. Most children work in the sugar cane sector, the Brazil nuts sector, the mining sector and in domestic service. These children have no choice but to work and do not have any freedom of movement. They are often in debt bondage, together with their parents. Also, children can inherit their parents' debts with private companies if the parents died (Anti-Slavery International, 2006).

#### UNFAIR EMPLOYMENT TERMS

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Fair employment terms focus on below- minimum wages and excessive working hours. The ILO and other reports show that normal working weeks differ per country and are often around 40 hours per week. In Bolivia, the weekly normal work hours are set on 48 hours per week (Lee et al., 2007; ILO, 2014a). Also, the ILO states that every person should have a break of at least one day (24 hours) per week (ILO, 2014d). Individuals who work more than these 48 hours per week and do not have a break of 24 hours every week, are classified as working excessive hours.

In Bolivia, 80 per cent of the men are employed and 60.6 per cent of the women. In general, 70.7 per cent of the whole Bolivian population has work. 40 per cent of the working population works in the agricultural sector (NationMaster, 2015). The minimum wage is the lowest monthly salary that is



allowed by the national government. Minimum wages in Bolivia are increasing every year; in June 2015 the minimum wage was set on 1656 BOB<sup>5</sup> per month (Trading Economics, 2015).

Most temporary (or seasonal workers) that migrated from other parts of Latin America or Bolivia come to the Santa Cruz de la Sierra (hereafter: Santa Cruz) for work because of the cheap farmland and available space. The Bolivian national government has developed a law in 2007 to help temporary (or seasonal) workers. Because the chia sector often works with temporary workers on the farm fields, this is an important aspect. The law is mainly focused on the creation of a social security and a retirement fund for such temporary workers. Any statistics on seasonal workers in Bolivia or, more specifically, the Santa Cruz region are difficult to find.

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#### LACK OF FREEDOM OF ASSOCIATION

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Freedom of association is one of the other four fundamental principles within the Declaration on Fundamental Principles and Rights at Work as created by the ILO. According to the ILO, the freedoms to associate and to bargain collectively are fundamental rights. The ILO argues that the role of the government to provide for an environment where this is possible is very important (ILO, 2014a).

Bolivia has many social movements and trade unions, which are highly organised and have political power. Everyone in Bolivia has the right to join a recognized trade union. In 1997, several leaders of the social movements took part in national elections, one of them Evo Morales. When the social movements and trade unions allied together in 2005, forming the Movement Towards Socialism (MAS) party, they were able to win in national elections. Since then, several leaders of social movements have been consulting the assembly of representatives in the government. Since 2007, the Morales administration has changed the constitution of Bolivia, giving more important rights to several groups. Since this change, the right to dignified work with job security is recognized, as well as the right to adequate wages and health and safety procedures (Bolivian Forum, 2014).

However in 2014, the ILO received a complaint against the national government of Bolivia presented by the Trade Union Confederation of Construction Workers of Bolivia (CSTCB). The CSTCB argued that the government failed to provide payment of certain benefits to the members of the Union of Municipal Public Works of the Municipality of Cercado Province in the Cochabamba Department and objected to a decision by the municipality to reduce a day's pay by staging a sit-down strike. This complaint has received international attention (ILO, 2014e).

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<sup>5</sup> BOB: Bolivian Boliviano, the currency in Bolivia.

## UNEQUAL OPPORTUNITIES FOR WOMEN

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In Bolivia there are still significant gender gaps, mainly seen in income, education and health. This is especially the case among the poorest and most marginalised communities in the Andean region, where girls have a comparatively low status from birth, grow up with less education and receive poorer nutrition than their brothers. Specifically in the lower regions, and thus the Santa Cruz region, women are still struggling with income and life chances which are typically less than men with a comparable socioeconomic status (Molyneux & Thomson, 2011).

The unequal opportunities for women are in this thesis focused on salary inequality, discrimination and the possibilities for maternity leave without losing their jobs. The ILO describes these three factors as important issues, which are still present throughout the world. For example, women often earn up to 25 per cent less than their male colleagues while performing similar work (Medeiros et al., 2007; ILO, 2014f; h). In Bolivia, there is a National Maternity and Child Insurance that gives universal coverage for women during their pregnancy and the following 6 months after childbirth. This insurance is for all Bolivian women (ILO, 2014g). However, salary inequality reports show that Bolivian women often receive less money for the same work (Medeiros et al., 2007; ILO, 2014h).

## HEALTH AND SAFETY RISKS

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The ILO has International Labour Standards on Occupational Safety and Health (ILO, 2014i). These standards describe that workers should be protected from sickness, disease and injury resulting from their employment. In Bolivia, the Ministry of Work, Employment and Social Security (Ministerio de Trabajo, Empleo y Previsión Social) is the responsible authority concerning the health and safety risks during work hours. Their work is mainly focused on hygiene, occupational safety and welfare, work clothes and personal protective equipment (ISLO, 2015b). However, as stated above, the control of these laws is not always done properly.

## VIOLATION OF HUMAN RIGHTS

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When looking into the human rights, the main focus is on the political rights and civil liberties in the sector. According to the Freedom House Country List (2014), Bolivia is seen as a 'partly free' country when looking at political rights and civil liberties. The freedom rate of Bolivia is ranked at 3, as well as the civil liberties and political rights (1 indicates best, 7 indicates worst). While Bolivia has agreed with the major UN human rights conventions to prohibit torture, genocide and forced labour, there are still problems with human rights violations in the country (partly due to lack of enforcement). Systematic human rights violations have declined over the last years, mainly due to legalising of coca by the Morales administration. The illegal production of this coca was the main cause of such

violations. However, it is now difficult to control human rights violations because the Bolivian Permanent Assembly for Human Rights (APDHB), which was reporting human rights abuses until 2005, stopped functioning because many of the members joined the new Morales administration (Centellas, 2011).

Human rights violation is a very broad concept: during this study the assessment for this topic was therefore based on other topics, such as discrimination of workers, lack of freedom of association, unequal opportunities for women, unfair employment terms and forced/compulsory labour. More information on how this is done can be found in the methodology.

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### DISCRIMINATION OF WORKERS

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Elimination of discrimination in employment and occupation is one of the other four fundamental principles within the Declaration on Fundamental Principles and Rights at Work as created by the ILO. There are different forms of discrimination, and they can occur in many different environments; from rural villages to urban office buildings. Often occurring discrimination is when men or women are discriminated on the basis of their gender; skin colour; national or social origin; religion; or political opinion (ILO, 2014a). Discrimination in Bolivia is often focused on the indigenous groups present in the country as well as on women (Amnesty International, 2014). More information on this issue for indigenous groups has been explained at the beginning of this chapter.

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### NON-COMPLIANCE WITH LOCAL AND INTERNATIONAL ENVIRONMENTAL REGULATIONS

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Looking at basic international rules and legal standards; there are rules concerning: the protection of flora and fauna; the protection of the marine environment; the protection of freshwater resources; protection of air quality; waste; and hazardous substances. When looking at agriculture, the regulations of the protection of flora and fauna; fresh water resources; waste; and hazardous substances have been found to be most important. International regulations of waste management is limited to regulating or prohibiting trade in certain wastes and prohibiting the disposal at sea of certain hazardous wastes. There is one type of chemical that has been prohibited internationally: Persistent Organic Pollutants, these chemicals remain in the environment for a long period and accumulate in organisms (Sands & Peel, 2005).

Bolivia has some general rules that help govern the agricultural sector. There is an act that regulates agricultural activities; this act states that the agricultural sector should achieve sustainable production systems. Therefore, the land must undergo practical rules to ensure the conservation of agro-ecosystems. The Ministry of Rural Development and Land has implemented several regulations and standards to control the use of agricultural machinery, agrochemicals, rotation systems, tillage

practices, and use of grasslands. The use of fertilizers is not bound by any specific rules. There is a specific regulation focused on clearing and burning forests. This regulation states that when trees need to be cleared for certain activities, such as agriculture, it is necessary to submit an application to the government (Instituto o direito por um planeta verde, sine anno). Although these regulations help with protection and management of the Bolivian forests, deforestation occurs at an annual rate of 300,000 hectares per years. Agriculture is mainly responsible for the main part of this deforestation (USAID, 2011).

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#### EXCESSIVE USE OF NATURAL RESOURCES

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Excessive use of natural resources in the agricultural sector is mainly focused on land and forest resources. Bolivia has more than 58 million hectares of forest, which is about 53.4 per cent of the land and 10 per cent of South America's tropical forests. The forests are rapidly shrinking due to deforestation (Slunge & von Walter, 2013). According to Slunge & von Walter, deforestation increased from an annual 168,000 hectares between 1990-2000 to an annual 330,000 hectares between 2001-2005. The deforestation in Bolivia is highest in the Santa Cruz region, north of La Paz, and in the Chochabamba region. It is difficult to identify one main cause of this deforestation, but the main causes are often large-scale agricultural expansion, logging and forest fires. It is estimated that about 60 per cent of deforestation has been caused by expansion of large-scale agricultural sectors (Slunge & von Walter, 2013).

The current national government of Bolivia has changed its plan for natural resources management, in which it recognises the rights of the protection of 'Mother Earth', and in which it plans to nationalize all key sectors so that all natural resources are nationalized and managed by the state by 2025. However, Sunge & van Walter (2013) describe the weakening of the environmental assessment system during the current government. Also, they show that government-related investment projects receive producers for environmental permitting and monitoring. Moreover, the new land reform process initiated by the current government gives more freedom to invest in agriculture. While this is seen as crucial for reducing inequality and poverty, it accelerates the already high rate of deforestation present in the country.

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#### ENVIRONMENTAL HARM BY POLLUTED WATER, HARMFUL GASES AND/OR OTHER WASTE

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The main sources of pollution in Bolivia are discharges from mining and agricultural activities and untreated industrial and household wastewater. Focusing on the agricultural sector, there is much uncontrolled use of pesticides. These pesticides are often based on organochlorinated compounds such as aldrin and endrin (Slunge & von Walter, 2013). Not many sectors in Bolivia comply with the

standards for industrial discharge. According to Slunge and von Walter only few sectors in Santa Cruz pre-treat their wastes.

When looking more at the small-holder farmers in the Amazonian agricultural area, Schiesari et al. (2013) argue that with poor education and no technical support, pesticide used by smallholders deviate highly from agricultural recommendations. This means they often over utilize hazardous compounds. They also argue that when large-scale producers have higher levels of technical expertise and resources, they comply more often with technical recommendations and even voluntary replace hazardous practices.

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#### CORRUPTION IN THE SECTOR

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Bolivia has had several changes in its economic and political policies. For example, president Morales declared a zero tolerance approach against corruption in 2005 and introduced new anti-corruption legislation, which legally prohibits all forms of corruption (Global Integrity, 2010). However, doing business in Bolivia remains rather difficult due to on-going corruption in several sectors (Business Anti-Corruption Portal, 2014). In 2014, the Corruption Perceptions Index indicated that Bolivia scores a 35 where 1 is highly corrupt and 100 is very clean (Transparency International, 2014).

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#### LACK OF SUPPLY CHAIN TRACEABILITY

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Traceability, or transparency as discussed in the literature, of the value chain is becoming an increasingly important topic, especially in agro-food chains such as the chia sector. While it started to become important because of quality and safety reasons due to legal requirements, sectors are now also focusing on socially and ecologically responsible chains. The definition of value chain transparency given by Bastian & Zentes (2013, p. 554) is used in this thesis and further explained in the theoretical framework: *“the degree to which a supply chain player has access to relevant information about products, processes and flows of capital without loss, noise, delay and distortion”*.

Not much is known on specific issues with value chain traceability in Bolivia. However, there are certain Bolivian companies that market their product by showing they have a traceable value chain, also one of the chia companies (WOFEC) describes this on their website (WOFEC, 2015).

## 4. METHODOLOGY

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This master's thesis is a result of fieldwork conducted during January and February 2015 in Santa Cruz de la Sierra, Bolivia as part of the master's programme Sustainable Development – International Development at Utrecht University. The research has been commissioned by the Centre for the Promotion of Import from developing countries (CBI) which is part of the Netherlands Enterprise Agency (RVO).

### 4.1 CONDUCTION OF FIELDWORK

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#### 4.1.1 RESEARCH PREPARATION AND SELECTION

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To answer the research questions a combination of exploratory and descriptive research was used, mainly focusing on qualitative data. The research is exploratory in the sense that there has not been any research done in the field of chia in Bolivia yet and especially no research on CSR in this sector. Also, it is descriptive because it describes more about the value chain of Bolivian chia and the concept of CSR in its value chain. Because of the timeframe given for the thesis, the research only focused on the chain within Bolivia (i.e. production, processing, and export) and not on the import and reselling of Bolivian chia in other countries.

During writing of the research proposal, I have visited Santa Cruz (Bolivia) for four days for a meeting for the chia sector organized by CADEX. Here I have met several of the companies that are active in the chia sector. I have introduced myself to several of these companies and received their contact information. During this visit, the value chain of the Bolivian chia became more clear. There are three main groups: producers, processors (who process and pack the seeds), and the exporters. Some companies act as all three actors, while some are only producing or exporting. To get a full perspective of the CSR practices in this sector, all three groups have been interviewed.

#### 4.1.2 THE BASIS FOR CSR ANALYSIS

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CBI, the commissioner of this research, has a policy for social responsibility that is based on the OECD guidelines. These guidelines are mainly developed for the use by multinational enterprises and focus on the following topics: human rights, employment and industrial relations, environment, combating bribery and extortion, consumer interests, science and technology, competition and taxation (OECD, 2011). CBI decided not to consider consumer interest, science and technology, competition and taxation as they are not relevant for CBI and CBI does not have the possibility to influence these risks.

Because this research is only focused on the Bolivian part of the value chain, these topics are also not used for this thesis. While most chia companies are not yet multinational, several are based in other countries and all of them are interested in expanding and selling their products on other continents. Therefore, in line with the OECD guidelines, CBI has decided to focus on the following social responsibility risks when performing a CSR analysis:

- Child labour
- Forced labour
- Human rights violation
- Unfair labour practices
- Health and Safety risks
- Environmental harm
- Corruption
- Lack of supply chain traceability

These social responsibility risks were translated by CBI into thirteen CSR topics, which must be used for CSR analysis prior to any new CBI programme. These thirteen topics can be seen in table 1. The final analysis for CBI was done during this research with help of a Social Responsibility Tool developed by CBI, part of which can be found in appendix 12.4. Because CBI has asked for an analysis of these thirteen topics in the Bolivian chia sector, these thirteen topics are used as the basis for this thesis as well.

TABLE 2: LIST OF CORPORATE SOCIAL RESPONSIBILITY TOPICS.

CSR topics	
<b>1</b>	Child labour
<b>2</b>	Forced or compulsory labour
<b>3</b>	Violation of human rights
<b>4</b>	Unfair employment terms
<b>5</b>	Discrimination of workers
<b>6</b>	Lack of freedom of association
<b>7</b>	Unequal opportunities for women
<b>8</b>	Occupational health and safety dangers for workers
<b>9</b>	Non-compliance with local and/or international environmental regulations
<b>10</b>	Excessive use of natural resources (energy, water and raw materials)
<b>11</b>	Environmental harm by polluted water, harmful gases and/or other waste
<b>12</b>	Corruption in the sector
<b>13</b>	Lack of traceability on the origin of raw materials used for production

Human rights violation is a very broad concept and therefore during this study the assessment of this topic was based on other topics such as discrimination of workers, lack of freedom of association, unequal opportunities, unfair employment terms and forced/compulsory labour. Also, human rights violation was therefore not ranked as a topic or mentioned specifically during interviews, this topic is therefore mentioned separately and assessed based on the other topics. Therefore, from now on only the twelve topics will be mentioned throughout this thesis.

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#### 4.1.3 CONDUCTION OF RESEARCH

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The fieldwork took place in Bolivia during two weeks in January and two weeks in February 2015. Also, I had two weeks of fieldwork in the Netherlands during which I performed interviews via Skype. In order to gain the required information of CSR in the sector, semi-structured interviews with a selection of producers, processors and exporters have been conducted. The semi-structured interviews were mainly based on the thirteen CSR topics. Also, observations at the farm fields and processing plants have been done, in order to try to get a more objective perspective on the CSR topics without creating socially desirable outcomes. To understand which CSR topics have more importance than others in the chia sector, eleven chia companies and organizations working with the chia sector were asked to rank the list of the twelve CSR topics. More information on this ranking can be found later in subchapter 4.2.2. Also, other data from interviews and observations during farm or plant visits have been used to confirm these rankings and further explain these findings.

The sample was made based on the list of chia companies provided by CADEX. These companies were all contacted and the companies willing to be interviewed were used for the research. Therefore, the sampling was based on the willingness of the population, and thus convenience sampling was used. In the end, 21 interviews were conducted, three visits to processing plants and two visits at farm fields were made. A list of all interviewees and their job description or expertise can be found in appendix 12.1.

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#### 4.1.4 THE RESEARCH AREA

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The fieldwork for this research has been conducted in the area of Santa Cruz in Bolivia, due to its importance in the chia sector as described in subchapter 3.5. The complete value chain of Bolivian chia seeds, i.e. producers, processors, and exporters, could be assessed here. Also, CADEX; a business development organization, is located in Santa Cruz. The organization has experience in and contacts with the chia sector and has provided guidance during the fieldwork. Also, the office of CADEX was available for me while working on this research.



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#### 4.1.5 GENERAL NOTES

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Due to personal circumstances I was not able to do the 2,5 month fieldwork I was planning to do according to my research proposal. Therefore, I have only conducted four weeks of fieldwork in Bolivia and two weeks of fieldwork in the Netherlands by conducting interviews via Skype, making it a total of six weeks of fieldwork. I compensated this loss in time by doing an extra literature analysis (CSR in the mining sector linked with my own data). However, within these six weeks I was able to conduct 21 interviews, 2 farm field visits and 2 visits to processing plants. This amount of interviews was possible because I was already in Santa Cruz for one week in November and had created a network of companies ready to contact. An overview of the revised planning and motivation for the 45 EC can be found in appendix 12.3.

In order to secure the confidentiality of the informants during this interview, only vague descriptions are used within this thesis, such as “owner of chia company” or “employee of a producing chia company”. This is mainly because of ethical reasons. The data that is collected regards CSR performance in the same sector as the companies are operating and to guarantee honest answers I told the interviewees I would keep their information anonymous.

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### 4.2 ANALYSIS OF DATA

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#### 4.2.1 QUALITATIVE DATA

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The main data sources on the Bolivian chia sector are from CBI and CADEX and are therefore used as a basis for this research. This research provides CBI and CADEX with additional knowledge because it will delve deeper into depth within the chia sector. The semi-structured interviews and observations were coded based on the twelve topics discussed above and further analysed by a value chain analysis, based on the theories explained by Tallontire & Greenhalgh (2005). The value chain analysis based on data from the interviews and observations gives an extra dimension; while the twelve topics are mainly focused on the separate actors within the value chain, this value chain analysis also shows the power relations between these groups. The contents of the interviews and described observations were used to give further arguments and descriptions. Also, eleven interviewees ranked the twelve topics according to their importance in the chia sector; this analysis is explained further in the next subchapter.

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## 4.2.2 RANKING

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Eleven interviewees were asked to rank the twelve CSR topics according to their knowledge on the occurrence of these topics in the chia sector (the ranking form can be found in appendix 12.2). Ten interviewees were employees at chia companies and one interviewee worked at a supporting organization that works in the chia sector. The interviewees were specifically asked to base the ranking on the sector as a whole and not only their own company, thereby reducing the bias so that the interviewee would keep to the reality of the occurrences in the sector. Also, the ranking was anonymous in order to exclude any additional bias. After the interviewees had ranked the topics they were asked to clarify their choices. In this way, I could gain extra information on the CSR performance in the sector.

The ranking lists were analysed in Excel. Per topic, the scores were scaled by how often they were given a certain rank. This means that the topic that received the highest ranks most often received the lowest score, and vice versa. This gives an overview of the relative weight of each topic. For example, the topic 'Discrimination of workers' was ranked 5<sup>th</sup> once, 8<sup>th</sup> once, 9<sup>th</sup> once and 12<sup>th</sup> twice. Thus, that topic received a score of 46 (= 5x1 + 8x1 + 9x1 + 12x2). This system thus results in a lower score for the topics that occur most in the sector and a higher score for the topics that occur less. The final ranking used in the results chapter is therefore based on these final scores. However, it should be noted that all scores calculated are relative to each other. That means that the most extreme scores (either very high or very low) can be obscured by the mean of the population. All scores and calculations can be found in appendix 14.3.

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## 4.3 INFLUENCES ON THIS RESEARCH

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### 4.3.1 GENERAL LIMITATIONS

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There are several limitations and risks involved with this research. First of all, linguistic differences were a limitation. I have conducted all interviews in Spanish and while I had a basic knowledge of Spanish when I went there and my Spanish improved very rapidly; sometimes I did not understand everything during interviews and had to ask the same question several times. This made the communication slightly more challenging and it could have caused the interviewees to 'simplify' their communication. Also, any interesting or important aspects might have been lost in the translation. To compensate for this I recorded every interview, so I could listen to it and translate it again when transcribing.

Besides that, it was difficult to provide an objective overview of the CSR topics important for the Bolivian chia sector, because the researched companies might not want to highlight the risks in their sector. I therefore tried to test the statements that they made by making field observations, for example by visiting the farms. Also I asked different questions about the same topic to diversify the answers.

Moreover, I was only able to conduct interviews with chia companies, organizations that work with the chia sector and a farm manager. Due to my changed personal circumstances I had time constraints which made it impossible to speak to any temporary farmers as well as Quechua people or indigenous peoples in general about discrimination in the chia sector. I was only able to talk about discrimination with the chia companies and other organizations.

Unfortunately, the cultivation of chia is from March-April until July-August. Therefore, it was not possible to visit farm fields that actually cultivated chia plants at the time of visiting. Instead, farm fields that contained soy but used chia as a rotation crop were visited. These same fields on the same location had had chia the year before and would contain chia that same year about two months later.

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#### 4.3.2 BIAS IN RESEARCH

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When reading this thesis, it should be noted that the researcher has personal influence on the collected data. This is due to the researcher's own bias regarding the research area and country. This is explained further in the next subchapter. Also, there is a bias of the researched towards the researcher. For example, it could be that the owner or employee of a chia company does not want to talk in a negative way about the chia sector because I could take this information to possible clients or institutions that would help them. However, during the time of fieldwork I was aware of this influence and tried to limit it as much as possible by asking more indirect questions about working conditions. For example, during site visits I asked to use the toilet in order to check if the toilets were clean and available for women.

Next to that, it is also good to be aware of the sampling bias within this research. The selection of the chia companies is based on the registered chia companies at CADEX. All registered companies in this list were contacted, and the ones that agreed to be interviewed were further researched. Thus, this was fully based on the availability and cooperation of the chia companies and not on any specific previously chosen sampling.

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### 4.3.3 RESEARCH EPISTEMOLOGY AND ONTOLOGY

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My personal ontological and epistemological background influences this research. This study focuses on the CSR performance in the chia sector. Therefore, qualitative methods were used that were focused on an inductive approach. To understand the complexities of the local context a holistic perspective was used. Using a holistic perspective requires the various dimensions of a situation to be looked at, which should come back in the methodology of the research. To include these various dimensions, the complete Bolivian value chain has been researched and perspectives from both chia companies and other organizations were used for data collection.

## 5. VALUE CHAIN ANALYSIS OF THE BOLIVIAN CHIA SECTOR

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This chapter answers the following sub-questions: *How does the value chain of Bolivian chia function?* and *Who are important actors regarding corporate social responsibility in the value chain of Bolivian chia and how do they cooperate?* These questions will be answered based on the analytical framework described by Tallontire & Greenhalgh (2005). In their report they give examples on how to analyse value chains in agricultural sectors when focusing on CSR issues. More detailed information on this analytical framework can be found in the theoretical framework. The value chain analysis in this chapter is only focused on the value chain within Bolivia and not focused on export to other countries.

As discussed in the theoretical framework, according to Tallontire & Greenhalgh (2005) a value chain analysis is focused on how markets are coordinated, the role different actors play in the chain, identification of economic rent and chain governance. Chain governance is mainly focused on the rules of the chain, how the rules are made and enforced<sup>6</sup>, who ultimately drives the chain and how the benefits of trade are distributed along the chain. Looking specifically into the implementation of CSR policies, the groups that have most power in the chain and who should bear the costs of CSR implementation are also important. Therefore, in this chapter first the chain itself and the actors involved are described. Secondly, the relations between the chia companies and the institutions that work within the chia sector are discussed. In this part it is also described who makes and enforces the rules, who drives the chain, how the benefits are distributed along the chain and how the economic rent in the chain is identified.

### 5.1 CHIA COMPANIES

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There are different forms of value chains present in the chia sector. However, all types have the same general form as is depicted in figure 7. First of all, there are companies that work within the whole value chain. This means that the company has an office that takes care of the administration as well as the exporting or selling part of the chain. Also, they own farm fields on which they cultivate the chia and a processing plant with laboratory and cold storage space in which they clean, process, control, pack, and store the chia. However, there are also companies that operate only in part of the

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<sup>6</sup> This thesis only focuses on the rules concerning CSR.

whole chain, or outsource part of this chain. A simplification of the different forms as seen and studied during fieldwork can be seen in figure 8.



FIGURE 7: AN OVERVIEW OF THE VALUE CHAIN OF BOLIVIAN CHIA (BOLIVIA ONLY).

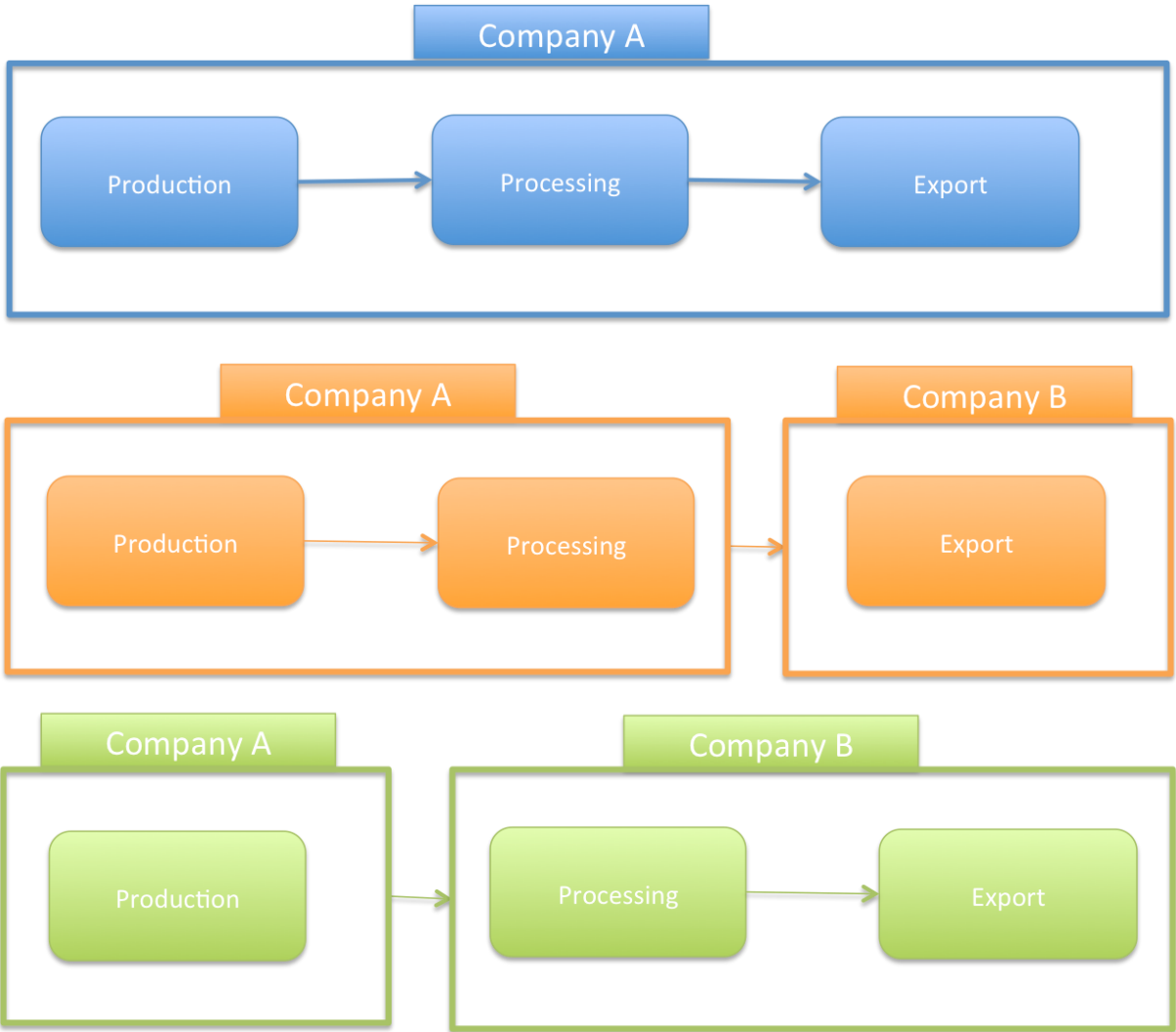


FIGURE 8: AN OVERVIEW OF THE DIFFERENT OPTIONS WITHIN THE VALUE CHAIN.

The ten interviewed chia companies and their role in the value chain are shown in table 2. Four out of the ten interviewed companies are relatively new and are only focused on chia as a new business opportunity. These four companies are: Chia Seed, ChiaBol, Chiarello and Chiacorp. Four other interviewed companies are relatively older and are also working with other products such as soy or sesame. These companies are: UAP, WOFEC, Semexa and Granicorp. And finally, two of the four interviewed companies are relatively new in business but are also working with other products besides chia, such as quinoa and soy. These two companies are: Solum and Potenza.

Table 2 shows that figure 8 is indeed a simplification; while it does provide an overview of the ownership of chia in the value chain, the chain itself is more complicated. Some companies only sell the chia, both for export or domestic markets. They have contracts with the owners of, respectively, the farming company and a processing plant. In some cases the company buys the seeds and farming equipment for the farmer, and in exchange the farmer has to sell his chia to the company. The company then buys time in the processing plant to process and clean this chia and often uses the laboratory and the cold storage space as well. For example, four of the companies that were interviewed during this study use the processing plant of one another company, Semexa. This company sells and cultivates a small amount of their own chia; but mainly rents out its processing plant and storage space to these other companies. One interviewed company only cultivates the chia on its own farmland but uses a rented processing plant. Afterwards, they sell the chia to other companies who sell it further in Bolivia or export the chia. Also, there are entrepreneurs who own farming fields on which chia is cultivated; they do not farm themselves, but outsource all work. The latter form was described by other chia companies, however no interviews were conducted with such entrepreneurs due to time constraints.

The companies gave different reasons for (not) owning part of the value chain. The companies that do own the whole value chain (WOFEC, Potenza, Granicorp and Chiacorp) explicitly stated that they owned the whole value chain so they could control and take responsibility for the whole chain in order to receive certifications such as 'organic'. The company Chiarello does not own the whole value chain because they are relatively new in Bolivia (about 1 year). They do not have their own farm fields yet. However, they do have their own farm fields in Paraguay and Argentina and are planning to buy their own farms in Bolivia in the future. Semexa and Chiaseed have contracts with landowners to buy their chia. They argued that this was the most beneficial way of doing business for them because they do not have the maintenance of the farm fields but do have the reliability of chia due to the contract. And finally, they are several companies that use the processing plant and storage space of another company. The companies that use these plants are smaller and do not own their

own plant yet. It is therefore more beneficial for them to rent the processing plant from another country and not having to make the investment of buying a plant themselves.

TABLE 3: AN OVERVIEW OF THE TEN INTERVIEWED CHIA COMPANIES AND THEIR ROLE IN THE VALUE CHAIN.

Company	Production	Processing	Export
WOFEC			
Semexa			
Potenza			
Chia Seed			
ChiaBol			
Chiarello			
Granicorp			
Solum			
UAP			
Chiacorp			

	: Own the land or plant, organize the process and own the chia.
	: Rent the land or plant but own the chia.
	: Have a contract with the landowners to buy their chia.
	: Buy/sell the chia and are not in this part of the chain.

Semexa, Chia Seed and Chiarello buy their chia from other farmers. This can be from larger producing companies that have a large amount of land such as ChiaBol, but it can also be from smallholder farmers with less amount of land that work on their own land close to their house. These farmers use part of their produce for their family and use the rest as cash crop. One interviewed farmer produces chia as a rotation crop, which means that he produces other products during other parts of the year. His lands are on the same land as his house, where he lives with his wife and children. When he cultivates chia and he needs more men to weed between the plants, he hires other men to help him. He has a separate shed where the men then live during this time. Figure 9 shows his lands, with on the left (with the white fence) the house where he lives with his family. Finally, there are several



Mennonite communities in the Santa Cruz region that mainly have farming as a livelihood, the largest is called Nueva Holanda (New Holland). Most of them are smallholder farmers: they are farming for their own farming as well as selling their extra crops. According to one interviewed Mennonite, about 40 % of Mennonite farmers cultivate chia. In conclusion, there are thus several types of farms for chia cultivation in the Santa Cruz region.



FIGURE 9: FARM WITH FAMILY HOUSE (SOURCE: AUTHOR).

Some of the companies also have farm fields and plants in other countries, mainly located in Argentina, Paraguay and Ecuador. Some have farm fields in Argentina and Paraguay but not in Bolivia. This value chain analysis is focused on the Bolivian chain, and therefore the information in table 2 is only based on the chain of the company in Bolivia. For example, Chiarello owns farm fields in Paraguay and Argentina, but in Bolivia they buy the chia from farmers. The latter is also shown in table 2. However, it is relevant to mention the size and the international characteristic of the interviewed companies. UAP, Granicorp, Potenza, WOFEC, Semexa and Chiabol are located in Bolivia only. The other interviewed chia companies are also located in other countries. While Chiaseed does

not have their own chia farm fields in Bolivia (as can be seen in table 2), it does have its own farm fields in Argentina. Also, the company has more capacity in Argentina: they have about 500 employees in Argentina and about fifteen employees in Bolivia. Chiacorp is located in Bolivia, Argentina and Ecuador. Their office in Argentina is the main selling point of chia from Latin America to other continents. However, all three countries produce and process chia. In Bolivia they have about 22 employees. Solum is a company that started in the north of Argentina and has expanded to Bolivia in 2013. They have bought land in Bolivia and rent the same processing plants as the other interviewed companies. And finally, Chiarello is based in Bolivia, Paraguay and Argentina. The company just started to work in Bolivia, and therefore does not have its own farm fields or processing plants yet (as is stated above as well). They buy the chia from Bolivian farmers, rent a plant to process the chia and then export it. However, they are planning to buy farming lands in the future. They have about 30 employees in Bolivia who work in the office of Santa Cruz and who control the processing plant.

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## 5.2 ORGANIZATIONS INFLUENCING THE CHAIN

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The value chain is not only influenced by the chia companies but also by other organizations that provide assistance, for example, by helping the companies to improve their market position and make sure they have information on current prices. Therefore, these organizations also play an important role. The most influential organizations and their role in the value chain and on CSR performance are discussed below.

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### IBNORCA

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IBNORCA (Instituto Boliviano de Normalización y Calidad) is a private, non-profit organization that is qualified with standardization of norms and product certification for all sorts of companies in Bolivia. The organization is the Bolivian representative of the International Organization for Standardization (ISO). There are six regional offices in Bolivia, one of them in Santa Cruz. IBNORCA has several certifications that they can award to companies. They have their own 'IBNORCA' – certification, which relates to the management of an organization (based on ISO) and the quality of the products they make (IBNORCA, 2015). For example, figure 10 shows the IBNORCA-seal. The seal can be specified to a certain norm (specified at 'XX') and the year the certification is received (at 'YYYY').



FIGURE 10: THE SEAL FOR THE IBNORCA-CERTIFICATION (IBNORCA, 2015).

IBNORCA has developed a basic quality standard specifically for chia, called the 'Norma de Calidad Oleaginosa-Chia'. This norm has standards for certain types of chia (black/white) as well as the chemical properties of the seeds. It is not obligatory to comply with the standard, but companies that do comply with the standard can use the certification of the standard when selling their product (CADEX, 2014).

Concerning CSR, they have a certification called 'Triple Seal of Bolivia', developed in collaboration with IBCE (more information on this organization is described below), UNICEF Bolivia, the ILO and the Ministry of Labour, Employment and Social Security of Bolivia (IBCE, 2015). This certification is specifically designed for Bolivia by these five organizations, and has no direct relation to the ISO standardization. However, it is based on the ISO norms. It focuses on three main topics: child labour, discrimination and forced labour (see figure 11), these three topics were chosen because those are seen as the main problems concerning CSR in Bolivia by these organizations. Other CSR topics (as described in the methodology) are seen as part of these three main topics or are part of other norms described by IBNORCA. According to one of their employees, all twelve topics are part of one of their norms, but for CSR they only look at the three described above. For example, 'equality of women' is part of their 'discrimination' norm.

IBNORCA only describes and develops the norms, and other organizations test and certify the companies that wish to be certified. Complying with these norms is voluntary and companies apply for a certification themselves. It is not obligatory to comply with the ISO-norms in Bolivia. It is only obligatory to comply with the Bolivian laws concerning labour and supply chains, e.g. the law on child labour. Therefore, IBNORCA does not work for the national government. For example, as is described in the contextual framework there is a difference between the law on child labour in Bolivia and the international standard on child labour.



FIGURE 11: THE 'TRIPLE SEAL OF BOLIVIA': THE CSR CERTIFICATION BY IBNORCA AND IBCE (LITE: LIBRE DE TRABAJO INFANTIL (FREE OF CHILD LABOUR), LD: LIDE DE DISCRIMINACIÓN (FREE OF DISCRIMINATION), LTF: LIBRE DE TRABAJO FORZOSO (FREE OF FORCED LABOUR) (IBCE, 2015).

#### IBCE

IBCE (Instituto Boliviano de Comercio Exterior) is a private institution that mainly provides technical aid concerning international trade. Services that they provide for Bolivian companies are for example: giving advice on import and export of products, giving information on market statistics and other information of the market. IBCE collaborates with IBNORCA; they test and certify the norms described by IBNORCA. According to their website, IBCE also provides companies with market information and assistance with exportation. Both IBNORCA and IBCE are available for all sorts of Bolivian companies. According to one of their employees, IBCE has tested and certified many companies in the agricultural sector, but they have no experience with companies specifically in the chia sector because this sector is relatively new. Therefore, according to them there are no chia companies that have received a CSR certification by IBCE (the 'Tripe Seal') (IBCE, 2015).

When they test agricultural companies for this 'Tripe Seal' certification, they check the three main topics as described above; child labour, discrimination and forced labour. When a company wants to be certified, one of the IBCE-employees visits the factory and farm fields of the company and checks a standard list of questions and needed observations. Other certifications that chia companies can have, such as 'Fairtrade' and 'Organic', are not part of IBCE's work field. When the company does not comply with the norms, IBCE refuses to give the certification and give advice on how to improve. However, as explained in the part about IBNORCA, complying with the norms is voluntary.

## INIAF

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INIAF (Instituto Nacional de Innovación Agropecuaria Y Forestal) is a governmental (public) organization that conducts research on agricultural and forest-related issues and gives technical assistance to agricultural companies. Chia companies can hire them for information on technical agricultural issues, such as information on crop rotation and improved seeds. The companies pay the organization for these services. None of the chia companies specifically mentioned INIAF as one of their sources for market intelligence, while they did mention ANAPO and CADEX. However, they had heard of INIAF when asked.

## ANAPO

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ANAPO (Asociación de Productores de Oleaginosas y Trigo) is an organization that assists agricultural companies with market information, such as statistics and current market prices. They have reports on market information, statistics and other research available on their website. Several chia companies interviewed use the information of ANAPO as market intelligence.

## CADEX

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CADEX (Cámara de Exportadores de Santa Cruz) is a private, non-profit organization that assists in the exportation of products by companies based in and around Santa Cruz. They bring together companies that could collaborate in the exportation of Bolivian products. For example, they have connections with CBI (see below) with whom they collaborate to enhance trade between Bolivia and the Netherlands/Europe. Several chia companies are registered at CADEX, which means CADEX offers aid with exportation and other organizational issues. For example, they organize events to give information about the European market and link Bolivian companies to international organizations or companies from other countries. Besides CADEX, there are other similar organizations (other 'Cámaras') that also work in the chia sector, such as CABOLQUI (Cámara Boliviana de Exprtadores de Quinoa y productos orgánicos) and CNC (Cámara Nacional de Comercio). They all try to support the agricultural companies in one way or another; some only focus on companies that produce/sell organic products, while others are focused on all companies in Bolivia.

## CBI

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CBI (Centre for the Promotion of Imports from developing countries) is part of the Netherlands Enterprise Agency (RVO) and commissioned by the Dutch Ministry of Foreign Affairs. The organization is established to support producers and exporters in developing countries to get a market position in the Netherlands and Europe. CBI is the initiator of this research and wishes to support Bolivian chia companies through their new 'superfood'-program. This research on CSR in the

sector will be used as a basis for their chia-project, which is a sub-programme of the country programme of Bolivia.

### 5.3 RELATIONS IN THE VALUE CHAIN

It can be concluded from the previous subchapter that the organizations working in the chia sector have a supporting or a controlling role concerning the Bolivian companies, which is visualized in figure 12.

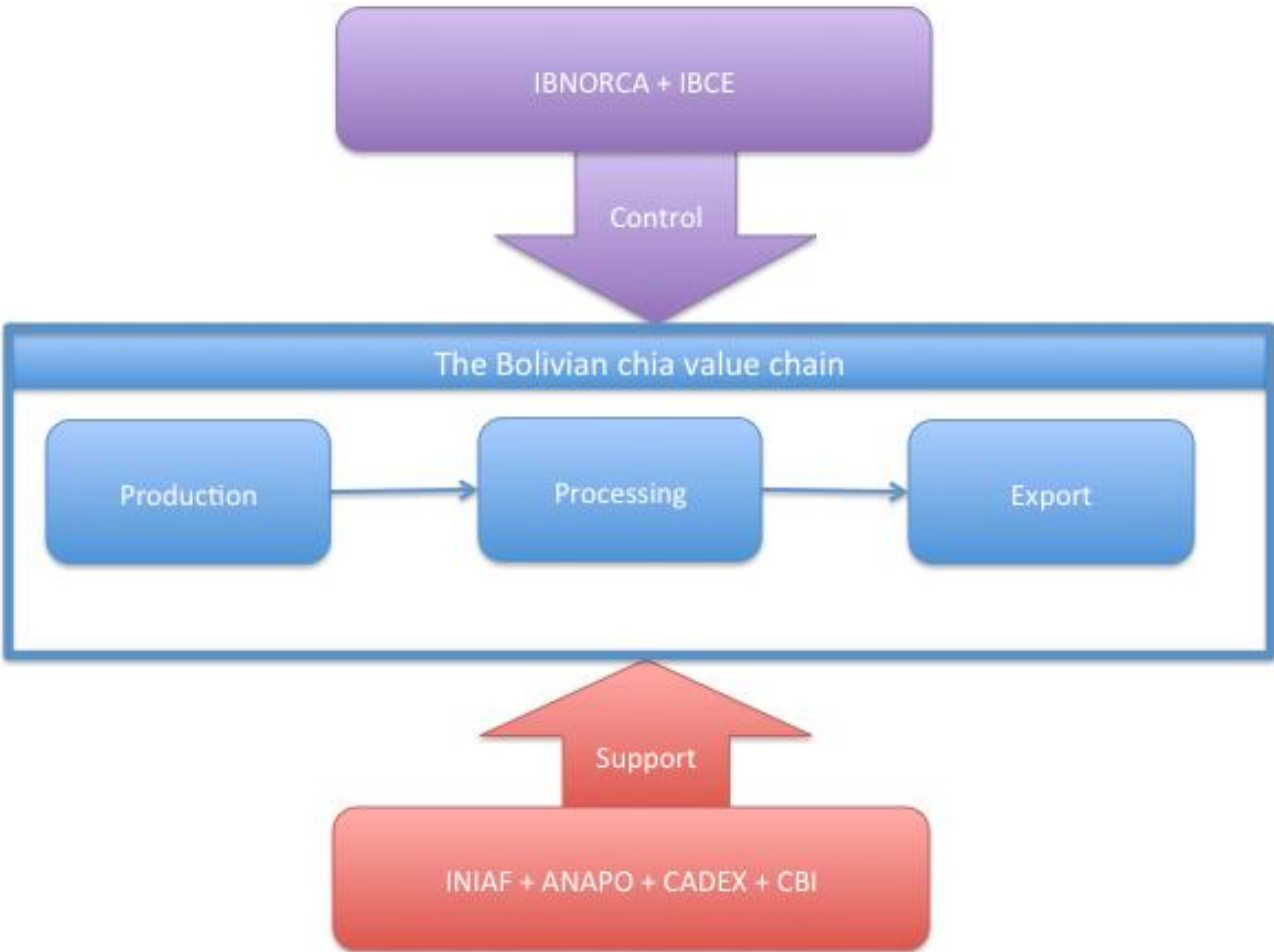


FIGURE 12: AN OVERVIEW OF THE ROLES OF THE VARIOUS ORGANIZATIONS.

As is described in the previous subchapter, IBNORCA and IBCE often work together to certificate companies and to create new certifications. Also, CBI and CADEX work together to assist chia companies (and companies in other exporting sectors) with exporting to Europe. They often organize seminars and workshops together in order to supply the companies with extra information on the

international or European market. The larger producing and exporting companies come together during such seminars to receive more market knowledge. Here, they have the opportunity to do business with each other and talk about their experiences in the chia sector. However, the farmers from whom they buy the chia and the smaller producing companies that are not enlisted at CADEX are not included during these seminars. These companies lack the network to be included in such business affairs. They can only get information on prices from ANAPO.

This shows that the larger producing and exporting chia companies that are enlisted at CADEX have a larger influence in the Bolivian sector than the smaller producing farmers. More about this market influence related to the prices is described in the next subchapter.

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#### 5.4 MARKET INFLUENCES IN/ON THE VALUE CHAIN

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As concluded in the previous subchapter, the organizations in the chain have supporting or controlling roles. INIAF, ANAPO, CADEX and CBI provide information and provide a trading platform for the companies. All companies willing to use this support could (in theory) use this. Therefore, these four organizations could increase equality among the companies by providing transparent information on prices and other market intelligence. The controlling role of IBCE and IBNORCA and the use of certification are open for all companies to use as well. However, certification provides chia companies with a better position on the market, which can help the company to ask for higher prices.

According to all interviewed chia companies the prices of chia are completely dependent on the international market. These prices are largely based on the availability of chia; the more chia available, the lower the prices. Due to an increasing popularity of producing chia, the prices were low in 2014 and have declined further still (CBI, 2014a). Three interviewed companies stated that they and other companies store keep chia produced in 2014 in cold storages while waiting for a higher market price. Also, during fieldwork two of the visited processing plants kept a large amount of chia stored in their cold storages (see figure 13). The prices on the international market depend on the availability of chia, which in turn depends on the crop yield of that specific year and the number of producers around the world. While the producers do have a partially influence on this availability, they do not have a direct influence on the level of the prices. But, these international market prices do have an influence on the price the producers receive per ton of chia.

As described in the introduction of this chapter, part of a value chain analysis is the identification of economic rent. As is explained further in the theoretical framework, economic rent is the positive

difference between the actual payment made for production to the producer and the payment expected by the producer based on exclusivity or scarcity. This gives insight into the different power relations and other influences on prices. During fieldwork, several interviewees have complained about the low prices on the chia market in 2014; because of the large availability of chia around the world the prices had dropped. Four of the twelve companies have said that they would not grow chia in 2015 because of these low prices, while the others said they were confident that prices would increase.



FIGURE 13: COLD STORAGE SPACE WITH CHIA AT A PROCESSING PLANT (SOURCE: AUTHOR).

Table 3 shows the international prices for conventional and organic chia around December 2014 according to one of the interviewed exporting companies. However, two companies that only produce chia described lower prices: between US\$ 1,000 and US\$ 1,100 per tonne of conventional chia. Here, it can be seen that there is a difference between the prices mentioned by a producing and an exporting company and thus a difference between the actual payments made for production to the producer and the payments expected by the producer based on exclusivity or scarcity. One owner of a chia company, that only produces, said that he has no influence on the prices. While he know about the higher prices, he is forced to comply with the prices given for the chia by the



companies that buy his chia; they have more leverage than he has. On the other hand; the exporting companies claim that they are influenced by the international chia market. However, according to two of the interviewees the smallholder farmers often do not know about the international market prices. Also, one farmer asked during an interview about these prices, because he did not know the current prices of chia on the market.

Most Bolivian chia is exported to the USA. The chia is bought by importers or traders, who then sell it to the supermarkets. Europe and Australia are also important buyers of Bolivian chia, but they do not import the chia in the same amounts of the USA. However, this is expected to grow. At the end of 2014, Paraguay was the largest supplier of chia to Europe (CBI, 2014a). According to one interviewed company, the amount of export of Bolivian chia depends on its quality. When exporting to the USA or Europe, a higher quality has to be met due to higher quality standards. Chia with a lower quality, for example with higher amount of pesticides used, can be sold in Bolivia or neighbouring countries. Therefore, the price is dependent on the quality of the product as well, because they receive higher prices in the USA or Europe.

TABLE 4: PRICES OF CONVENTIONAL AND ORGANIC CHIA IN DIFFERENT REGIONS AT THE BEGINNING OF 2015 (ACCORDING TO ONE OF THE INTERVIEWED CHIA COMPANIES).

Region	Conventional chia	Organic chia
US	3200 US\$ per tonne	4500 US\$ per tonne
Europe	3080 US\$ per tonne	4200 US\$ per tonne
Chile	1960 US\$ per tonne	n/a
Peru	1080 US\$ per tonne	n/a

### 5.5 CONCLUSION OF VALUE CHAIN ANALYSIS

This chapter answers the two sub-questions: *How does the value chain of Bolivian chia function?* and *Who are important actors regarding corporate social responsibility in the value chain of Bolivian chia and how do they cooperate?* It describes the value chain of Bolivia, which consists of three main components: production, processing and export. The interviewed companies are active in all three of these components or only in part of the chain. Some of the companies outsource part of the chain, but still own the chia at the end of the chain. The chia companies and other influential organisations

(as described in chapter 5.2) are important actors. In general, the organizations INIAF, ANAPO, CADEX and CBI provide assistance in the chain; by providing information and to help gain a better market position. The organizations IBCE and IBNORCA have a controlling role, especially regarding CSR and the provision of certification. However, the CSR certification of IBNOCRA only focuses on three main topics: discrimination, child labour and forced labour. This certification does not comply with the list of other CSR topics and only focuses on social issues. The environmental responsibility is not mentioned at all.

Some of the national laws focus on CSR topics as well and are therefore controlled by the government. For example, there are national laws to protect working women or to protect people against discrimination. However, most of the CSR topics discussed in this thesis are not controlled by the government but are only complied with when a company wants to receive a certification. This shows that it is difficult to make sure companies will comply with these CSR topics. Also, the CSR topics that are legally obligatory are often not controlled by the government, which is explained further in the contextual framework. The next chapter shows that these existing laws do not always protect employees against the CSR practices.

Besides the organizations influencing the chia sector, there are also different kinds of companies that have different forms of influence and/or power on the Bolivian sector. As described above, the larger producing and exporting companies come together during seminars and workshops organized by CADEX and CBI where they have the opportunity to receive more market intelligence and do business together. However, the smallholder farmers and other smaller producing companies are not included in these affairs. This creates more benefits for the larger companies, who can then discuss prices on the international market and the amount of chia available in the country. This lack of information was confirmed by one of the interviewed farmers; during an interview he kept asking the current prices for chia because he did not know it. When the farmers do not know the current prices, the larger companies that buy their chia have extra bargaining power.

## 6. CSR PERFORMANCE AND RISKS IN THE VALUE CHAIN

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This chapter answers the following research question: *Which corporate social responsibility practices are critical in the value chain of Bolivian chia and why?* The twelve CSR topics, as introduced in the methodology and contextual framework, are used in this chapter to gain a better understanding of the risk occurrence of CSR in the Bolivian chia sector. The twelve topics have been ranked by people who work in the Bolivian chia sector and extra information on each specific topic is also complemented with information gathered during all 21 interviews for this research. In this chapter, first the outcome of the ranking method will be discussed after which the three most important topics will be discussed in detail. Later on, the information gathered on the other topics will also be briefly discussed.

The CSR topic ‘violation of human rights’ was based on other topics (as is also discussed in the methodology) such as occupational health and safety dangers for workers, discrimination of workers, lack of freedom of association, unequal opportunities, unfair employment terms and forced/compulsory labour. Based on the other topics, especially with respect to the employment terms and occupational health and safety hazards for workers, it is argued within this thesis that violation of human rights takes place within the sector. Further information on these specific topics is described below.

### 6.1 RANKING OF CSR TOPICS

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To understand which CSR topics in the chia sector are more important than others, eleven interviewees were asked to rank the list of the twelve CSR topics. These interviewees were mostly owners of or employees at chia companies and employees of organizations that work with or in the chia sector. They were given a form (appendix 14.2) and asked to rank the twelve topics. After this ranking they were asked to explain their choices. More information about the calculations used and the points given for each CSR topic can be found in the methodology chapter and appendix 14.3. The ranking outcome can be seen in table 4. Table 4 shows that ‘Lack of traceability on the origin of raw materials used for production’, ‘Corruption in the sector’ and ‘Occupational health and safety dangers for workers’ are highest on the list, which means that they occur most often in the chia sector according to the respondents. An explanation why these three topics are ranked highest is given first, after which information on the other nine CSR topics is given as well.

TABLE 5: RANKING OF CSR TOPICS ACCORDING TO INTERVIEWEES.

Ranking	CSR topics
1	Lack of traceability on the origin of raw materials used for production
2	Corruption in the sector
3	Occupational health and safety dangers for workers
4	Excessive use of natural resources (energy, water and raw materials)
5	Lack of freedom of association
6	Unequal opportunities for women
7	Discrimination of workers
8	Unfair employment terms
9	Environmental harm by polluted water, harmful gases and/or other waste
10	Forced or compulsory labour
11	Child labour
12	Non-compliance with local and/or international environmental regulations

6.2 THE THREE HIGHEST RANKING CSR TOPICS

LACK OF TRACEABILITY ON THE ORIGIN OF RAW MATERIALS USED FOR PRODUCTION

All interviewees have regarded this as a high-ranking problem in the sector. The foreign companies that buy the chia cannot trace the production process of the chia. Especially when the chia has left the country of production, the importing companies often do not know anything about the circumstances at the supplier’s side. An interviewed employee of IBCE stated that there are often problems with traceability in the agricultural value chains in Bolivia.

Two of the ten interviewed chia companies market their organic chia as fully traceable and are able to do that because they own and control the whole value chain. Moreover, five of the interviewed chia companies state that they own farming fields and are responsible for the working conditions throughout the chain. There is one chia company that does not own any chia farm fields but has an engineer who specifically controls the farm fields. And finally, three of the ten interviewed chia companies do not own chia farm fields and only buy the chia; they claim that they do not have any influence on the working conditions or the use of chemicals at the farm fields. Also, concerning the working conditions, all three of them claim that they do not have a responsibility to control the conditions at the farm fields. As one employee of such a company stated: *“We do not know what is going on at the fields and it is not our responsibility, we only have contact with the manager of the fields”* (Personal communication, 13-01-2015).

While there is not a lot of certified chia, the chia that is certified (for example organic) is mainly produced by companies that own the whole value chain. In that way they have control and responsibility of the whole chain. Therefore, it will be difficult to certify the chia that is produced/sold by companies that do not own the whole chain and do not claim complete responsibility.

#### CORRUPTION IN THE SECTOR

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After talking to several companies and institutions that have relations within the sector, it can be stated that corruption is a difficult topic to talk about. Some institutions and companies claimed that there was no corruption at all in Bolivia and the chia sector. However, looking at the corruption index ranking of Bolivia described in the contextual framework, it can be stated that corruption is an issue in Bolivia and therefore there is a high probability that it is also present in the chia sector. This same answer was given by some of the interviewees; they claimed that there is corruption present in the chia sector similar to other sectors in Bolivia.

However, explicit examples of corruption in the Bolivian chia sector were given by several other interviewees. Seven of the 21 interviewed companies and institutions claimed that there are problems with corruption in the certification process; both with organic certifications as with other quality certifications such as HACCP (Hazard Analysis and Critical Control Points Systems, an international quality control certification). Often, the quality is presented better than it is in reality because the analysts in the laboratories as well as the controllers at the farm fields are affected by corruption. While president Morales has declared a zero tolerance approach against corruption in 2005 and introduced new anti-corruption legislation, which legally prohibits all forms of corruption (Global Integrity, 2010), it is embedded in the Bolivian culture (Business Anti-Corruption Portal, 2014). Since this is a sensitive subject, it is difficult to make a thorough assessment of the amount of corruption.

## OCCUPATIONAL HEALTH AND SAFETY DANGERS FOR WORKERS

The main health and safety dangers in this sector are at the supplier's side. Farmworkers (mainly men) are hired for a short period of time, about a month, to weed between the chia plants. These men are often residents of the most nearby village but could also be Brazilian or Paraguayan men that come to work in Bolivia for an amount of time (seasonal workers). It has been observed during fieldwork and claimed by four interviewees that these workers live in tents on the fields where they work without access to facilities like kitchens and toilets. Trees and bushes between the fields (called 'curtains'), which are used to protect the chia plants, are used as a toilet. A farm field with chia plants and such curtains can be seen in figure 14. As one owner of a chia company stated: *"Often, temporary farmers live in tents without electricity or clean water"* (Personal communication, 11-02-2015). The frame of such a tent can be seen in figure 15, where also a fireplace at the ground can be seen, which is used for cooking and lighting. At the two observed farming fields, there were no emergency kits or other health and safety protection equipment present.



FIGURE 14: FARM FIELD WITH CHIA PLANTS BETWEEN 'CURTAINS' OF TREES AND BUSHES TO PROTECT THE PLANTS (RICHARD BELTRAN, CHIABOL).



FIGURE 15: FRAME OF A SLEEPING TENT FOR SEASONAL FARMWORKERS (SOURCE: AUTHOR).

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### 6.3 OTHER CSR TOPICS

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#### EXCESSIVE USE OF NATURAL RESOURCES

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The main focus of excessive use of natural resources for this sector has been on deforestation, as is also explained in the contextual framework. According to all interviewees there is little or no extra deforestation specifically due to chia cultivation because the chia is mainly used as a rotation crop on already existing soy and maize fields. Thus, many interviewees stated that there is no extra deforestation at all. However, two experts on chia and forest issues explained that for organic chia the soil is required to be clean of chemicals for several years; and therefore deforestation is a simple option that is often used. Depending on the amount of organic chia in the sector this could thus become an increasing issue.

When a company wants to use forestland to cultivate crops, they have to contact the organization ABT (Autoridad de Bosques y Tierra) that can decide whether to authorize these plans. This authorization is dependent on a national law called PLUS (Plan de Uso de Suelo) in which is described how the region around Santa Cruz is allocated and should be used. This plan categorizes the land of the Santa Cruz region in for example, 'intensive agriculture', 'forest land' and 'land use restricted'

(Gobierno Departamental Autonomo de Santa Cruz, 2009). One manager of a chia company stated that the national government made it a goal to enlarge the agricultural sector and create more agricultural export, which is also described further in the contextual framework. Therefore, a significant amount of forest is converted into agricultural land, but this is all approved by the ABT, which makes it legal deforestation. An interviewed expert on forest issues estimated that the main part of deforestation is legal. However, not all parts of Bolivia can be controlled and therefore there is also illegal deforestation. However, an estimation of the amount of illegal deforestation could not be given.

#### ENVIRONMENTAL HARM BY POLLUTED WATER, HARMFUL GASES AND/OR OTHER WASTE

Conventional chia is often grown in a rotation system with other crops, mainly soy and maize. For example, at both farm fields that were visited during fieldwork, there was genetically modified soy grown at the same fields as the chia would be grown two months later. This genetically modified soy can resist chemicals that kill all other plants and weeds and therefore these chemicals are widely used at these fields. While there is no genetically modified chia yet, these same chemicals are still present in the soil a few months later. Also, other pesticides and fertilizers are used on the chia plants.

However, there are also chia companies that are certified for organic chia. It is difficult to give an estimation of the amount of organic chia in the whole sector, because all interviewees gave very different percentages and there are no general statistics for this sector. One company stated that they only have organic chia and do not use a rotation system with other crops. They plant and harvest once a year and let the soil rest the remaining time of the year. There are also companies that sell both organic and conventional chia. These companies often rent land specific for organic and conventional chia or buy the organic and conventional chia from different suppliers. However, these two companies could not say much about the cultivation systems used at these farming fields, especially when they buy if from a supplier and do not manage it on their own.

#### NON-COMPLIANCE WITH LOCAL AND/OR INTERNATIONAL ENVIRONMENTAL REGULATIONS

Within this topic the interviewees made a distinction between small-scale farmers/chia companies and larger companies that also have international ties. The smaller companies have a less clear perspective of all regulations, local and especially international. Also, there is almost no enforcement of local regulations and the companies that sell in Bolivia have no stimulant to comply with the regulations.

The larger companies that export to the USA and Europe need to comply with the international regulations in order to sell there. Therefore, the international market stimulates to comply with the



regulations. However, as described above on traceability of the value chain; larger exporting interviewed companies still claimed that they do not have an influence of the manner of production at the supplier's side; which does not correspond with their wish to comply with international regulations. Especially when they do not own the farming fields, they feel little responsibility of the environmental circumstances at the chia fields.

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#### UNFAIR EMPLOYMENT TERMS

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As stated in the contextual framework, about 40 per cent of the working population is employed in the agricultural sector. At the offices, processing plants and laboratories the employment terms are often clear. The employees have written contracts for a longer amount of time. Both women and men work at these places. While much of the work at the farming fields is mechanical, they need temporary workers to weed between the chia plants. These temporary workers are from villages around the farm area or from neighbouring countries, such as Paraguay or Argentina. Most temporary (or seasonal) workers that migrated from other parts of Latin America or Bolivia come to the Santa Cruz region for work. These seasonal farmworkers have verbal contracts. During their work they get paid per hectare they weed. According to one farm manager there are about five farmworkers needed for 20 hectares. One interviewee described: *"Everybody gets paid, but they have to work very hard and they do not get paid much"* (Personal communication, 20-02-2015). According to another interviewee, at the farming fields there is less control of working circumstances and employment terms. Many men that work there are poor and do not know a lot about negotiations for salary and their rights during working hours.

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#### FORCED OR COMPULSORY LABOUR

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In the contextual framework it is described that the main form of forced labour in Bolivia is in the form of debt bondage, mainly occurring in the sugar cane sector, the Brazil nuts sector and on private ranches in the Chaco. According to all interviewees (both chia companies and other controlling and supporting organizations) there is no forced labour in the chia sector; the farmers as well as the people working in the laboratories, plants and offices all get paid and are free to leave. However, the working conditions are below international standards (see topics on occupational health and safety).

## CHILD LABOUR

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While there is child labour present in Bolivia and child labour is generally accepted, as is described in more detail in the contextual framework, all interviewees working in the chia sector claimed that there is no child labour in the sector. This could be due to the fact that most child labour is occurring in the 'altiplano' (Anti-Slavery International, 2006) and not specifically with agricultural activities in the Santa Cruz region. IBCE also claimed that the main labour on farms is of mechanical nature; and that farm managers would not allow children to work with their expensive equipment. One interviewee did point out that some smallholder farmers that live and work with their families on the farms could use their children as extra workforce on the fields. However, this has not been observed during farm visits.

## DISCRIMINATION OF WORKERS

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While discrimination is an important topic in Bolivia, mainly focused on indigenous groups<sup>7</sup>, all interviewees claimed that discrimination is not an important issue in the Santa Cruz region. They explained that this discrimination is mainly occurring in the higher regions of Bolivia ('altiplano') where most of the indigenous peoples live. However, there are indigenous people living in Santa Cruz, mainly Quechua people. While no Quechua people were explicitly interviewed for this research, a research by Kirshner (2010), which focused on interviews with lowland and highland Bolivians living in Santa Cruz, shows that the majority of his respondents stated that they had not experienced any discrimination in Santa Cruz, either in employment, service delivery or housing. However, there were some highland Bolivians who had stated that they directly felt discrimination.

## UNEQUAL OPPORTUNITIES FOR WOMEN

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As described in the contextual framework, there are national regulations to protect working women, for example when they are pregnant or have a baby. Speaking to several women in different offices of chia companies has shown that they have a written contract and receive the same rights as men. However, one female interviewee stated that women in Bolivia always have less opportunities and rights than men and she therefore feels that unequal opportunities for women is still an issue.

Women work at the offices of chia companies and at laboratories, according to interviewees and personal observations. One company visited during fieldwork employed mostly women to work in the laboratory of the processing plant and no men<sup>8</sup>. At the processing line of the plants and farming

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<sup>7</sup> More on discrimination in Bolivia is described in the contextual framework.

<sup>8</sup> During my visit there where solely female workers present in the laboratories.

fields there are, in general, no women present, because this is considered as 'typical men's work'. In some cases, when a complete family lives at the farming fields, the women help with the work at the fields. But two of the interviewees claimed that often only the man gets paid.

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#### LACK OF FREEDOM OF ASSOCIATION

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As shown in the contextual framework, everyone in Bolivia has the right to join a recognized trade union. During an interview, an employee of IBCE stated that there are no organized registered associations specifically for workers in the chia sector, only larger ones of the agricultural sector in general. Such as the APIA (Asociacion de Proveedores de Insumos Agropecuarios), which is an association specifically for companies that supply agricultural chemicals and equipment. Or ANAPO, which is an association that offers help and gives information to agricultural producers. The farmworkers that are hired for a short period often do not know that these more general associations for the agricultural sector can help them and protect their rights. This was also stated by several interviewees; the farmworkers do not realize their rights considering working circumstances and payment. The managers of the farming fields do not pay high wages and the hired farmworkers do not have the means to negotiate because they do not know the salary that they should receive and do not dare to negotiate because they do not want to lose their job.

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#### 6.4 CONCLUSION OF CSR RANKING

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This chapter answers the sub-question: *Which corporate social responsibility practices are critical in the value chain of Bolivian chia and why?* Based on the ranking done in this chapter it can be concluded that the three most important, critical CSR topics in the chia sector are: 'Lack of traceability on the origin of raw materials used for production', 'Corruption in the sector' and 'Occupational health and safety dangers for workers'. However, many of the other topics also play an important role in the sector. While the topics 'discrimination of workers', 'forced labour', and 'child labour' are ranked higher than some of the other topics; based on the content of the interviews these are the least critical CSR topics in the sector.

All respondents have regarded lack of traceability as a high-ranking problem in the sector. Mostly because the foreign companies that buy the chia (importers) cannot trace the production process and the companies that buy the chia from producing companies (exporters) do not feel the responsibility to know what is going on at the fields. The main problems with health and safety dangers in this sector are at the supplier's side. This mainly concerns the temporary workers at the farm, who stay at the farm for a certain amount of time and sleep in hand-made tents without electricity or toilets. Moreover, corruption was a difficult topic to talk about with respondents.

However, several of them stated that there is corruption present in the chia sector, similar to other sectors in Bolivia. The corruption in the chia sector mainly occurs during the certification process. Here, the quality is often presented better than it is in reality, because the analysts in laboratories as well as the controllers at the farm fields are affected by corruption.

There are several possible reasons why the problems that are described by these CSR topics are still taking place in the sector. The problem with traceability in the sector shows that the Bolivian sector has not yet adapted to the increasing demands of traceable and certifiable products by consumers on other continents. This could be because the sector has not yet had the need to change their way of doing business. Because the European market is mainly interested in organic chia, most Bolivian chia is exported to the USA. According to respondents, the USA are mainly interested in conventional chia. Therefore, a large part of the Bolivian chia sector has not yet had an interest to become more certifiable and traceable. However, when the Bolivian chia sector intends to grow further and increase the export to Europe or other continents, the sector will be forced to become more traceable because the importers and consumers will only buy traceable chia.

The health and safety dangers of workers are also a high-ranking issue. As explained in the contextual framework, there are human rights violations occurring in the country, also when looking into employment issues. Moreover, the Bolivian Ministry of Work, Employment and Social Security is the responsible authority concerning the health and safety risks during working hours. Their policies focus on hygiene, occupational safety and welfare. However, there is a lack of enforcement of these policies by the government. And finally, several respondents stated that the farmworkers do not know anything about their rights and the working conditions they could demand. In conclusion, the health and safety dangers issues are still occurring due to lack of enforcement by the government and an overall acceptance of the working conditions by workers. It is difficult to change such working conditions, but when consumers start to demand better working circumstances for producers, the sector will be forced to change.

Literature on corruption (see contextual framework), as well as the respondents interviewed for this research, argue that Bolivia has ongoing problems with corruption. While the government has developed a zero-tolerance policy against corruption, this issue is difficult to control and change because it is culturally embedded in the way of doing business.

Therefore, the issues of traceability and the health and safety dangers for workers are easier to change by a changing demand of the international market of higher quality and increasing traceability. Corruption is a more difficult issue to change because it is culturally embedded.

## 7. CASE STUDY: LINKING DATA WITH CSR PRACTICES IN THE MINING SECTOR

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In order to develop well-founded recommendations based on the information gathered during this study, a comparison was made between the data from this study and other studies previously done on CSR in the mining sector in Bolivia and Latin America in general. Therefore, this chapter answers the following sub-question: *What can be learned from CSR practices and policies in the Latin American mining sector?* The mining sector has been chosen because it is known for its many CSR-related problems on which much research has been done. Also, the focus of that research on Bolivia and Latin America makes it comparable to the data in this thesis because there are few differences concerning regulations and culture.

In this chapter, first the problems in the Latin American and Bolivian mining sector will be illustrated. The problems discussed are mainly social, economic and environmental issues caused by the mining sector that can be connected to CSR performance. Also, because there is a large variety of mining projects an example of a mining project in Bolivia is given in box 1. Afterwards, the described issues will be linked to the issues found during fieldwork for this thesis (described in the previous results-chapters). Finally, relevant recommendations from the literature for CSR in the mining sector will be described.

### 7.1 PROBLEMS IN THE MINING SECTOR

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The mining sector is a complex sector in which many different actors are involved. First of all, besides the local companies present in the extracting sector, there are also many foreign companies mining in Latin America. These companies are interested because of Latin America's large share of global resources, the relatively attractive investment climate and lower conflict-risks in comparison to conflict regions such as the Middle East and Africa. Especially because of the geographic proximity, Canadian companies have been the main international investors of the area. Canadian companies have the dominant share of exploitation in Argentina, Bolivia, Colombia, Ecuador, French Guiana, Guyana, and Suriname (Sagebien et al., 2008). In this subchapter, first the social, economic and environmental problems considering mining in Latin America will be discussed, after which these problems will be specified for Bolivia only. Moreover, some explanations why the mining sector still has so many problems will be given as well.

## LATIN AMERICA

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Mining companies present in Latin America have been facing much criticism over the last years concerning the social and environmental impacts of their mining projects. Many scholars have written about these impacts (Gutierrez & Jones, 2004; Haslam, 2007; Bebbington et al., 2008; Sagebien et al., 2008; Slack, 2012; Yakovlevo & Vazquez-Brust, 2012; Pozas et al., 2015) and there have been forums to talk about opportunities for possible change (CERLAC, 2002; Bebbington et al., 2009). Mining operations are often associated with social disruption and human rights violations. The operations increase the conflict with and among local communities and those who oppose the mining operations are often intimidated and harassed (NACLA, 2010). Many of the affected local communities in Latin America do not have a significant voice in their own countries, and even less in an international context. This is mainly because of the large imbalance of power within these countries (Sagebien et al., 2008). This imbalance of power between the companies and the indigenous peoples is described further in the next part, where the problems specified for Bolivia are explained.

Haslam (2007) describes the exploitive working conditions of the workers in the mining sector. Both foreign and local companies have shown to let their local employers work in an environment with weak national norms for social responsibility. The miners work excessive hours in often dangerous circumstances. Also Gutierrez & Jones (2004), Haslam (2007) and Hilson (2012) describe the low involvement of the state concerning regulation and protection of these miners' working conditions. While there are certain laws to protect such workers, the government does not control whether these laws are obeyed.

There are also several environmental problems concerning the mining sector. According to Bebbington et al. (2008) the growth of the mining sector means mining into new territories; which are often located in areas with particular ecological vulnerability, such as headwater areas of drainage basins and in glacial areas. Other mining projects require the removal of a significant amount of rock and water; the effects of removing such quantities of rock in headwater areas can have a non-linear, negative effect on the water availability. While there are many technological advances that improve the safety and minimize the environmental impacts, the mining sector still removes large parts of land, vegetation and other occupants. Also, mining extraction requires the transport and use of toxic chemicals, which can have devastating effects on all living organisms (Sagebien et al., 2008).

## BOX 1: A MINING PROJECT IN BOLIVIA

An example of a mining project in Bolivia is the project in the 'San Vicente' mine located in the department of Potosi in Southern Bolivia (see figure 16). Potosi is one of the main cities for the mining industry. The mine is owned for 95 per cent by Pan American Silver Bolivia (PASB) and for 5 per cent by an affiliate of Trafigura Beheer BV. PASB owns 50 per cent of the venture interest and is the operator of the project, the other 50 per cent of the venture interest is held by Corporación Minera de Bolivia (COMIBOL), which is the Bolivian state mining company. These venture interests show who the main investors of the project are. The San Vicente mine is used to extract silver, zinc and lead and the mining is mostly done underground. In 2014, the mine had a silver production of 3.95 million ounces (PASB, 2007).



FIGURE 16: LOCATION OF THE SAN VICENTE MINE (SILVER PHOENIX, 2006).

There has been mining activity in the San Vicente region since colonial times. The first written records of mining in that region are from 1820 when the mine was known as the Guernica mine. In 1952, the Bolivian government nationalized the mine and placed it under the control of COMIBOL. In 1995, COMIBOL invited international companies to present offers after failing to organize a joint venture between national companies. COMIBOL accepted the proposal of PASB (PASB, 2007).

The mining project is located in the Andean Mountains (altiplano) at about 4,400 metres above sea level. The area has hardly any vegetation and besides the employers of the mine there are no other inhabitants in the area. Other than for mining activities, the ground is only used as a pasture for wild llamas (PASB, 2007).

Specific information of the CSR performance of this mining project that is not written by PASB itself is hard to find. PASB has sustainability reports (including the San Vicente mine) on its website both in Spanish and English, the most recent was published in 2013. The report focuses on 7 key topics: environmental; labour practices and decent work; economic; society; product responsibility; human rights; and mining and metals. According to their report, 99 per cent of their workers are from local communities and there are 41 communities in five countries (including Bolivia) that benefit from their CSR programs. Their CSR programs are based on a list of CSR guiding principles which are all focused on local social development or environmental protection. Some of the guidelines are (PASB, 2013, p. 22):

- We hire locally whenever possible in order to support nearby communities.
- We build successful partnerships with NGOs and local governments that enhance our programs and increase transparency.
- We ensure that child labour and forced labour are absent from all our operations.
- We foster environmental stewardships through setting an example and promoting community participation in environmental programs.
- We respect indigenous rights. None of our operations are on or adjacent to indigenous territories.

However, it should be noted that this report is written by PASB itself and that no reports could be found that have been written by an objective party. Therefore, this sustainability report should be interpreted with care. An example of a disagreement between workers and the company occurred in July 2014. During this time, the workers at the San Vicente mine participated in a strike for two weeks, which was organized by the Union Federation of Bolivian Mine Workers (Federación Sindical de Trabajadores Mineros de Bolivia). The workers went on strike because the management of the company had increased production by 50 per cent and banned chewing of coca leaves, which is a culturally-embedded socially accepted tradition. After two weeks an agreement was made between the company and the union. However, the details of this agreement were not made public (Mining Technology, 2014).



## BOLIVIA

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There are several social issues that are occurring in Bolivia due to the mining sector. First of all, the mining sector changes the distribution of access to and social control of the resources that they mine so that certain groups lose complete or partially access to these resources (Bebbington et al., 2009). There have been many problems concerning property rights in Bolivia and also many changes in the national law concerning mining, ownership and property rights in Bolivia. The most recent, the Mining Code of 1997, regards the state of Bolivia as the direct and only owner of all minerals that exist within Bolivian territory, but through the process of alienation it can sell or lease the rights of management or exclusion of the minerals (Arsel et al., 2014). Also, while president Morales had the plan to nationalize all mining companies during his presidency since 2005, private multinational firms still extract the majority of the Bolivian natural gas and minerals. The main change since Morales' presidency is that an increasing share of the profit reaches the national government (Kohl & Farthing, 2012).

Many of such existing mining projects are located at territories of indigenous peoples (Pozas et al., 2015). The participation of indigenous people in the Bolivian mining sector has a long history of protest and conflict. The indigenous peoples, in Bolivia mainly the Aymara and Quechua, have rarely been given opportunities for equitable participation and often are marginal actors in the debate of mining development. Many of the conflicts between the mining sector and the indigenous people are based on the indigenous peoples' lack of land rights, different beliefs on land and resource management, the alienation of the indigenous communities from the central government and the government's decisions on land access and mine exploration (Whiteman & Mamen, 2002), as is also described above. However, since the presidency of Morales the political environment in Bolivia has changed. The Morales administration has had a large influence on the socio-political environment of the country; the indigenous peoples are increasingly being included instead of excluded (Canessa, 2007).

The local communities and indigenous peoples surrounded by the mining sector can use the concept of Free and Prior Informed Consent (FPIC); this is an international and legally-binding instrument stated in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). It has been recognized by a number of intergovernmental organizations, international bodies, conventions and international human rights law in varying degrees and increasingly in the laws of State. FPIC can be used by local and/or indigenous people to protect their land, become part of the decision-making process and to improve their bargaining position for compensation and sharing of the benefits (UN, 2008). However, according to research done by Pozas et al. (2015), while consultation based on FPIC is compulsory, it does not guarantee that the local people are included in the decision-making

process especially when they do not have the expertise to clearly make decisions that benefits them as well. Also, both Schilling-Vacaflor (2012) and Pozas et al. (2015) argue that there is often a lack of consultation with local communities in the early stages of the mining process, when the company is exploring new territories and is starting to negotiate for new lands and resources.

Economic impacts in Bolivia created by the mining sector are, firstly, that the sector creates new employment inequalities; only part of the local population is able to access the jobs provided by the sector. This is mainly because the provision of unskilled labour occurs through local labour mobilizing groups, which are often created by pre-existing local and community elites. By collaborating with such groups, the inequalities of wealth within the community are increased. This inequality is also present in the creation of new markets; only some enterprises are able to participate. An important final point is the distribution of profit. There is a large difference between the people at the point of extraction and those who finally benefit from the extraction. Most of the companies that benefit from the extraction are based in other countries or in Santa Cruz; Santa Cruz has become the place where the high salaried positions are concentrated and where strategic decisions are made. Thus, Bebbington et al. (2009) argue that the mining sector has not helped in creating a richer or more equal Bolivia and is actually enhancing the existing inequalities. This issue of inequality is also present in the conflict between the indigenous population and the mining sector.

Besides these social and economic issues caused by the Bolivian mining sector, there are also several environmental issues. According to Slunge & von Walter (2013) the main problem in Bolivia caused by the mining sector is water pollution. Discharges from mining activities can have high concentration of dangerous heavy metals (such as zinc and mercury) and are discharged in water basins without treatment. There are also problems with land degradation due to the contamination of rivers by such discharges. These discharges create contaminated riverbeds, spread the contamination further on the land and transport the contaminated water to other areas (Slunge & von Walter, 2013).

## WHY ARE THESE PROBLEMS STILL PRESENT?

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While are these problems still present while they have been known since the 1990s (Dashwood, 2012)? Kohl & Farthing (2012) describe that these problems are mainly occurring due to the political and policy decisions and processes surrounding the mining sector. These decisions and processes in Bolivia have deep historical roots. Starting with the Spanish conquest in which the Spanish restructured Andean society to create high labour yields at the mines in Potosi. After the independence in 1825, the majority of the population, the indigenous peoples, did not receive any better rights because a small elite group still ruled and owned all the lands (as is also explained in the contextual framework). Currently, the indigenous peoples legally have equal rights, especially since the presidency of Morales in 2005. Kohl & Farthing (2012) argue that these past experiences have contributed to a deeply rooted public perception that the indigenous peoples and their country have been exploited for the benefits of others. Also, while mining was nationalized after the revolution of 1952, the benefits of the nationalization did not reach most Bolivians. This was mainly due to the military domination of politics until 2005, which led to a growth of the national, private mining sector. Between 1985 and 2005 the country adopted several neoliberal adjustments, including a partial privatization in 1996 and dismantling of the Bolivian State Oilfields Company. These neoliberal adjustments together with a weak administrative capacity of the state limit the amount of control of social and environmental regulations in the sector (Kohl & Farthing, 2012) and create a deregulation of land tenure systems (CERLAC, 2002).

However, Slack (2012) gives another argument for the continuing problems in the mining sector. According to him, the problem is that top managers of large mining companies are still mainly compensated based on their economic performance instead of their CSR performance. This means that there is only a weak incentive structure for companies to commit to CSR. CSR policies are often perceived as an extra part of business and thus not as a top priority. Also, the managers are not accountable when their CSR policies fail. Slack therefore argues to begin compensating managers based on measurable performance of the CSR policies and practices. Duarte (2010) also argues that the role of managers in the outcome of their CSR policies is very important and that the role of their personal values is important in the operationalization of the CSR policies. For example, a manager living in Latin America or Bolivia can have different personal values concerning CSR than a manager living in Europe or Asia. This creates different perspectives on the need to comply with CSR guidelines.

## 7.2 COMPARING THE DATA AND THE CASE STUDY

Linking the data from this research with the case study on CSR in the mining sector is a challenging task, mainly because the mining sector has been present in Bolivia for decades; much longer than the new, upcoming chia sector. Therefore, the mining sector has a deeply-rooted history of issues, many still present in Bolivia. An overview of the main issues described in the previous subchapter and the whether they are similar to the chia sector or not can be found in table 5. An explanation of this comparison is described after the table.

TABLE 6: COMPARISON OF CSR PERFORMANCE IN THE MINING AND CHIA SECTORS.

<i>Problems in mining sector</i>	<i>Problem in chia sector?</i>
<b>Social</b>	
Conflict with local communities	No
Exploitive working conditions	Yes
<b>Economic</b>	
Employment inequalities	Yes/no
Inequalities in wealth distribution	No
Inequalities in profit distribution	Yes
<b>Environmental</b>	
Water pollution	Yes
Land degradation	No

Looking at the problems concerning conflict with local communities, such as issues with participation of indigenous and/or local communities, lack of prior consultation, the problem with inequality between groups and problems with property rights are large issues for the mining sector, on which much is written in scientific literature. As described in the previous results-chapters, several interviewees stated that the discrimination and exclusion of indigenous peoples is not occurring in the chia sector nor in other agricultural sectors located in the Santa Cruz region. These problems are mainly occurring in the higher regions of Bolivia; where the mining sector is largely located and where the population of indigenous peoples is the highest. The chia sector, which based in the region of Santa Cruz (one of the lower regions), therefore does not have this problem. However, this does mean that regional inequality in increased because only the lowlands Bolivians can benefit from this development.

Exploitive working conditions are present in both sectors. In both sectors workers have to do physically demanding work, have to work excessive hours and receive relatively low wages. This seems to be an issue throughout Bolivia, mainly because of the lack of law enforcement and control. As was stated by several interviewees for this research; regulation on working condition is present in Bolivia, but is overall not enforced by the government.

Focusing on employment inequalities and inequalities in wealth distribution, there are problems with elite groups that have more access to the job market are not occurring in the chia sector; farmers have verbal contracts with the farm-owners; any farmer that can work is able to work in the sector. However, when the farm-owner hires the same group of farmers every year, which is often the case in the chia sector, a specific group benefits from this work availability. Also, many new chia companies are still being created; the chia sector is not bound to several specific locations depending on the location of the specific resources; chia can be cultivated anywhere in the Santa Cruz department<sup>9</sup>. Therefore, there is no inequality between enterprises in that context.

Both sectors have similar issues with profit distribution. Most of the chia companies as well as the mining companies are locally operated in Santa Cruz; Santa Cruz has become the place where strategic decisions are made and the high-salaried positions are concentrated. However, while the mining sector is mainly driven by foreign companies, the chia sector is mainly driven by Bolivian companies who export to other countries.

And finally, the environmental issues present in both sectors have similarities and differences. The main similarity is the problem concerning the leaking of chemicals into the environment; both sectors have problems with this. However, the kind of chemicals is very different; while the mining sector mainly leaks heavy metals, the chia sector mainly leaks agricultural chemicals used as pesticides. Another problem is the issue of land degradation and deforestation. While mining projects require the removal of significant quantities of rock and water (land degradation), the farming of chia plants often requires the removal of trees and clearance of land (deforestation). Land degradation is very specific to the mining sector, especially in the high Andean region where the land is already vulnerable to degradation (Slunge & von Walter, 2013). Deforestation is an issue throughout Bolivia and the rest of Latin America, mainly because of agricultural activities. Although regulations help with protection and management of the Bolivian forests, deforestation occurs at an annual rate of 300,000 hectares per years (USAID, 2011).

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<sup>9</sup> However, there are several preferable growing conditions for chia plants.

### 7.3 CSR POLICIES IN THE BOLIVIAN MINING SECTOR

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Many companies have been starting CSR programs and policies in response to the growing information on the social, economic and environmental impacts of the mining sector. During the 1990s, the companies in the mining sector started to include the concept of 'sustainable development' in their policies and reports. During the 2000s, almost all large mining companies issued their own reports on sustainable development. During this time, they also started to frame their CSR policies in terms of sustainable development (Dashwood, 2012). However, Slack (2012) argues that there is a large difference between companies' stated commitment to CSR and their actual CSR performance.

Slack (2012) states that companies in the mining industry have to systematically change their way of doing business, starting by changing their business model that should be based on CSR. First of all, companies need to begin by compensating their managers based on their measurable performance of CSR-related topics. Further, companies have to embed CSR into the complete project design and assessment of the project. Slack argues that companies can use this extra CSR commitment to market themselves against less committed companies and thereby positioning themselves as the 'best choice' for responsible investors. This final matter is especially interesting for 'northern' companies wanting to invest in 'southern' companies.

Thus, while many companies in Bolivia, including the mining sector, incorporate some form of CSR policies, improvements are necessary (Gutierrez & Jones, 2004; Dashwood, 2012; Pozas et al., 2015). According to Pozas et al. (2015), most actions of CSR in Bolivia are still characterized by short term thinking, lack of planning, improvisation, lack of definition of their interest groups or stakeholders aimed at CSR and isolated donations. The authors plead that the tensions between international CSR standards and practices based on 'northern' perspectives and the local 'southern' contexts often create socio-political conflicts; which makes it harder to create valuable CSR frameworks. This is also an important issue, which will be discussed further in the discussion chapter. Pozas et al. (2015) give several recommendations to improve the current CSR policies in Latin America, which are shown in table 6.

TABLE 7: RECOMMENDATIONS FOR CSR POLICIES IN LATIN AMERICA (POZAS ET AL., 2015, P. 103)

1	Place the subject of CSR squarely on the development agenda of the Latin American region
2	Promote a participatory approach and engagement with CSR from a multicultural and pluralistic perspective
3	Promote investment that aims at eradicating poverty
4	Give priority to well-being and human rights when it comes to making decisions
5	Develop and implement a more rigorous approach to claims (complaints)
6	Demand accountability and transparency
7	Encourage companies that belong in the same category, and/or are alike to set up benchmarks on social and CSR issues, and create standards to help promote good practices in a participatory way
8	Increase clarity on the respective roles of companies and the state on CSR-related themes

7.4 CONCLUSION OF CASE STUDY COMPARISON

Looking at the link made between the social, economic and environmental problems in the mining and chia sector; there are several similarities and differences. The main similarities can be found in the working conditions of unskilled workers, inequalities in profit distribution and environmental pollution. The main difference is the large problem with local communities and indigenous peoples in the mining sector, while this is not a very large issue in the chia sector. It is assumed that this is mainly because the mining sector (mainly at the Andean high region) is located in regions with a high population of indigenous peoples while the chia sector (mainly in the Santa Cruz region) has a lower population of indigenous peoples.

Also, box 1 shows an example of a large mining company with a CSR program and annual sustainability report. While the objectivity of such a report should be taken into account, the company does show that it has policies to decrease its social and environmental impact. As can be concluded from the previous results-chapters, the chia companies are relatively new and therefore do not yet have such CSR programs and do not publish annual sustainability reports. This difference should be taken into account when comparing these two cases. Also, it is interesting to reflect on why these problems with CSR performance are still present in the mining sector while more and more companies publish such sustainability reports.

The previous subchapter shows that companies in the mining industry should start working with a CSR-based business model in which top managers are rewarded with high measurable value of CSR performance and where companies embed CSR into their complete project design and assessment. Such companies can use this embedded CSR-commitment to create an extra market value for their products and become the 'best choice' for responsible investors and buyers. This concept is also relevant for the new, upcoming chia sector. Many of the chia produced in Bolivia is exported to the USA and Europe, and the chia companies can benefit from the 'northern' perspectives of these continents that are often more focused the importance of CSR values. Responsible consumers and investors can be extra interested in chia companies that have embedded a CSR-based business model and use this concept to market their products.

However, this chapter also looks into the reasons for the continuing problems in the mining sector. Here, two authors argue that managers of companies have an important role to play. One problem is that top managers of large mining companies are still mainly compensated based on their economic performance instead of their CSR performance. This means that there is only a weak incentive structure for companies to commit to CSR. CSR policies are often perceived as an extra part of business and thus not as a top priority. Also, the managers are not accountable when their CSR policies fail. Also, the role of their personal values is important in the operationalization of the CSR policies. For example, a manager living in Latin America or Bolivia can have different personal values concerning CSR than a manager living in Europe or Asia. This creates different perspectives on the need to comply with CSR guidelines. The role of the managers is also important in the chia sector, mainly in deciding whether the company wants to increase e.g. its traceability or comply with higher environmental standards. Therefore, when looking for an increased CSR performance in the chia sector, the role of managers and their perspective on CSR should also be taken into account.

The above recommendations based on improving CSR policies in Latin America in general are relevant for the chia sector as well, because they are not specified for one sector but focused on the Latin American current practice of CSR policies in general. The recommendations can be used for any sector or company in Latin America that is implementing CSR policies. Because CSR is still a relative new subject in the chia sector; the first recommendation is still the most important one: *Place the subject of CSR squarely on the development agenda of Bolivia.* After a while, the other recommendations could become more relevant to create better CSR practices in the chia sector.



## 8. DISCUSSION

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In this discussion chapter the results are linked to the theories discussed in the theoretical framework. This could provide new insights and show how to improve CSR performance in the value chain. The first part discusses the current CSR performance and links this with other relevant research. The middle part of this chapter deals with the final sub-question: *What can be done to improve corporate social responsibility performance in the value chain of Bolivian chia?* And the final part describes what should be taken into account in the future development of the Bolivian chia sector.

### 8.1 CURRENT CSR PERFORMANCE IN THE SECTOR

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This thesis describes the CSR performance in the Bolivian chia sector by means of a value chain analysis and a ranking of several CSR topics. Both analyses show that there are three main risks in the sector concerning CSR: ‘Lack of traceability on the origin of raw materials used for production’, ‘Corruption in the sector’ and ‘Occupational health and safety dangers for workers’. However, many of the other topics also play an important role.

As discussed in the theoretical framework, CSR is a concept that has many different definitions and layers. When comparing the CSR definition used in this thesis, which focuses on the integration of social and environmental concerns in a company’s business operations and their interaction with stakeholders (Prieto-Carrón et al., 2006), with the CSR performance in the Bolivian chia sector it can be concluded that the chia sector generally does not comply with this definition of CSR because several CSR risks are still present in the sector. However, it is difficult to conclude this specifically for certain chia companies, because the ranking and questions during interviews were focused on the chia sector in general. Moreover, the sector is influenced by the organizations IBNORCA and IBCE (see chapter 5). These two organizations created a CSR certification (Triple Seal of Bolivia) that only focuses on three main social issues: discrimination, child labour and forced labour. Environmental responsibility is not mentioned at all in this certification. Therefore, this could make it even harder for the sector to comply with the list of thirteen CSR topics for this research because these influential organizations only focus on three of the issues.

An increasing number of scholars has begun writing about CSR in developing countries (Visser, 2008; Jamali & Neville, 2011) but, as explained in the theoretical framework, scientific literature on CSR performance in the Bolivian chia sector is non-existent. Scientific literature on general CSR

performance in Bolivia is scarce, except for the mining, gas, and oil sectors, which are important sectors in Latin America (Guenther et al., 2006; Jenkins & Yakovleva, 2006; Raufflet et al., 2014). In the case study used for this research, the chia sector has been compared with this Bolivian mining sector, which has shown some interesting results. As is described in more detail in chapter 7, the main similarities between these two sectors are found in the working conditions of unskilled workers, inequalities in profit distribution and environmental pollution. The main difference is the large problem with local communities and indigenous peoples in the mining sector, which is not a serious issue in the chia sector. It is assumed that this is mainly because the mining sector is predominantly active in higher altitudes that have a higher population of indigenous peoples, while the chia sector mainly operates in the Santa Cruz region that has a lower population of indigenous peoples.

When looking at the CSR performance of this value chain, it should be noted that the tension between international CSR standards and practices based on 'northern' perspectives and the local 'southern' contexts are still relevant when applying recommendations. For example, while CBI wants to support a selection of Bolivian chia companies, they want the companies to comply with certain international CSR standards. However, such international guidelines are often developed based on global perspectives, while the Bolivian chia companies are also influenced by the local context (Jamali & Neville, 2011). Also, because the working and environmental conditions in Bolivia are culture-dependent, it is difficult to expect certain changes herein because of European consumers' demands. However, companies that want to export to Europe are eventually forced to comply with these demands. This tension for CSR between global pressures and the local context of a developing country is discussed by Jamali & Neville (2011). This could also become an increasingly important issue for the expanding chia companies because they still work in their own culture and context, but when exporting more to other continents these global institutional pressures will increase. Jamali & Neville (2011) suggest the need to strengthen the national institutional drivers for CSR by developing healthy political and economic conditions, competitive market pressures, the role of a strong state, an active civil-society and a strong clear CSR discourse in order to decrease the gap between the global and local pressures. As is explained in this thesis before, the Bolivian government does not have a strong, controlling role. Therefore, the development of a strong state and healthy political and economic conditions will be an important first step to improve the CSR performance in the Bolivian chia sector.

## 8.2 IMPROVEMENTS OF CSR PERFORMANCE IN THE SECTOR

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The analysis in this thesis based on the list developed by CBI shows that there are several improvements possible for the CSR performance in the Bolivian chia sector. General improvements for the whole sector as well as improvements specifically focused on the three highest-ranking topics will be discussed next.

### GENERAL IMPROVEMENTS OF CSR PERFORMANCE IN THE SECTOR

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Based on the outcome of the value chain analysis, the ranking and the case study comparison, several improvements of general CSR performance in the chia sector can be made. In general, scholars argue for a better understanding of CSR in Latin America and for CSR policies that are developed specifically in context of the Latin American content specifically (Dashwood, 2012; Pozas et al., 2015). In order to achieve this, it is important to first place the subject of CSR on the development agenda of Bolivia.

As is also stated in the previous subchapter, most CSR policies are based on 'northern' perspectives, while these policies are implemented in a 'southern' context. To improve this CSR performance, the CSR policies thus should be linked to these 'southern context' of Latin America and Bolivia. When looking at the possible improvements presented below this tension between different contexts should be taken into account.

First of all, certifications for food products are widely used throughout the world (Fulponi, 2006). However, the results show that the Bolivian chia sector has problems with corruption in their certification process. It could therefore be more beneficial to improve the CSR performance through other mechanisms. Also, the Bolivian chia companies do not have any CSR policies yet, which makes the development of such CSR standards a priority. Applying general CSR standards to Bolivian chia companies can be done by using a business case (Tallontire & Greenhalgh, 2005; Slack, 2012). The nature of this business case can be different at different parts of the chain. At the producer's part of the chain, the benefits of CSR are mainly focused on cost-saving and better access to international markets, while the seller can benefit by brand recognition and reputation assurance. It should be noted that because the benefits of such a business case are often noticed on a long-term scale, it is not beneficial for a supplier who is not confident of retaining its access to the buyer.

An example of applying CSR into a business case is the development of a CSR-based business model in which top managers are rewarded with high measurable value of CSR performance and where companies embed CSR into their complete project design and assessment. Such companies can use this embedded CSR-commitment to create an extra market value for their products and become the

'best choice' for responsible investors and buyers. This concept is also relevant for the new, upcoming chia sector. Many of the chia produced in Bolivia is exported to the USA and Europe, and the chia companies can benefit from the 'northern' perspectives of these continents, which are often more heavily focused on the importance of CSR values. Responsible consumers and investors can be interested in chia companies that have embedded a CSR-based business model and use this concept to promote their products (Slack, 2012). Governments can play an important role in relation to: setting and promoting CSR standards; building the capacity of industry associations and others enabling producers to meet and audit standards; empowering workers and smallholders so that they are aware of standards and are able to meet and benefit from them; and by improving incentives for compliance with CSR standards.

#### IMPROVEMENTS SPECIFICALLY FOR THE THREE HIGHEST-RANKING CSR TOPICS

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As is explained in chapter six, corruption occurs throughout many sectors in Bolivia, and is not specifically only an issue for the chia sector. Therefore, this issue is more difficult to change, because it is embedded in the 'working culture'. In order to change the performance of this topic, the improvements described above in the part of 'general improvements of CSR performance' are more applicable because they focus on the development of improved CSR performance in the whole Bolivian context and culture.

When the traceability of the value chain is increased and the working conditions at the supplier's side become visible consumers can demand better working conditions in the chain. While the traceability of the value chain can also be affected by the more general improvements described above, more specific improvements can be made as well. Key focus points of transparency in the agri-food sector, and thus the Bolivia chia sector, are: information exchange; governance and; food quality and safety standards. Such supporting organizational arrangements and the compliance with quality and safety standards are important for trusted information exchange and transparency (Trienekens et al., 2012). As is described in the contextual framework, such lack of enforcement by the government and compliance with standards are the problems throughout Bolivia and it is assumed that this is the reason that transparency is also a problem in the Bolivian chia sector.

Looking at increasing transparency in the chain, there are several tools that could help. First of all, the internet can help with the exchange of more information between actors in the value chain at low costs. For example, actors in the chain can have contact with each other through e-mailing and send each other information about the product. Secondly, extra cooperation of partners in the value chain such as between companies and the government creates extra control, transparency and

thereby also trust. And thirdly, as is stated above as well, the role of the government is important, mainly by stimulating innovation and improving competitiveness through for example subsidies. And finally, the integration of third parties into the value chain governance can be beneficial because these parties are not directly dependent or in a hierarchy with chain-members and are therefore objective. In the case of this sector, such third-parties would be CADEX or CBI (Wognum et al., 2011; Basruab & Zentes, 2013).

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### 8.3 FUTURE DEVELOPMENT OF THE CHIA SECTOR

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When looking into the future development of the Bolivian chia sector, it is important to reflect which actors have the most influence in the chain and could have an influence in increasing the CSR performance. As is described in the previous chapters, the government plays an important role in demanding a higher CSR performance of companies but often lacks the enforcement of regulations in Bolivia. The results of this research also show that larger producing and exporting companies come together during seminars and workshops organized by CADEX and CBI where they have the opportunity to receive more market intelligence and do business together. However, the smallholder farmers and other smaller producing companies are not included in these affairs. This creates more benefits for the larger companies, who can then discuss prices on the international market and the amount of chia available in the country. When the farmers do not know the current prices, the larger companies that buy their chia have extra bargaining power. For the future of the Bolivian chia sector it is important to take these different power relations into account, especially when looking into the role of the smallholder farmers. The smallholder farmers are also part of the value chain and sustainability of their livelihood should therefore be taken into account when focusing on a sustainable development of the whole sector.

The analysis of CSR in the sector is based on a list of CSR topics developed by CBI and based on the OECD guidelines. While the OECD guidelines are used throughout international research and literature, it is necessary to reflect whether these thirteen CSR topics are relevant to analyse the CSR performance of the Bolivian chia sector. The theoretical framework shows the important CSR topics in a food value chain according to Trienekens (2011). The list developed by CBI generally complies with the list made by Trienekens when looking into topics such as labour and human rights; environment; and health and safety. As is also discussed in the theoretical framework, the issue of animal welfare is not applicable for the chia sector because all labour is either mechanical or manual by humans. The two topics that could be implemented to further decrease the social and environmental impacts of the sector further are the topics of 'biotechnology' and 'community'.

When looking into other literature such as the ISO 26000 guidelines<sup>10</sup>, community development is shown as an important issue with regard to the CSR performance of a company or sector (ISO, 2010).

The list developed by CBI therefore lacks the focus on a more general support in the community in which the sector operates. For example, a company could invest more in educational support, housing and healthcare so that the community as a whole can benefit from the company working there. Also, focusing on biotechnology, the chia sector could focus on spreading technical knowhow on for example the growth of chia plants and perfect growing conditions. The sector as a whole could benefit from sharing such knowledge. By including these two topics when analysing the chia sector, the social impact in both the sector itself as well as the community in which it works could improve. Therefore, for further development of the sector it is recommended to include these two topics in future analysis as well.

Moreover, looking into the concept of sustainability in general can provide insights into the use of CSR as a development strategy. The theoretical framework shows that it can be argued that while sustainability focuses more on land and natural resource management and CSR focuses more on social welfare, both concepts are addressing both social and environmental issues. This research has illustrated that the highest-ranking CSR issues are all mainly focused on social welfare. The use of a concept such as CSR is therefore relevant for the Bolivian chia sector and could provide insights into further development and improvements of the sector.

While this research analysed the CSR performance of the chia sector, it is also interesting to reflect whether the future development of the chia sector, and the agricultural sector in general, is beneficial for Bolivia. As is described in the contextual framework, the national government is stimulating the agricultural sector to increase production and export. While this should ideally be done in a more sustainable way, it is first of all questionable whether this is really beneficial to the country as a whole. For example, while growing of chia is creating more diversification among the rotation systems, it is often cultivated on the same lands as soy and maize. Therefore, it does not increase the diversification of new and other agriculture lands. While this could be more sustainable because of a decrease in deforestation for new lands, it might increase problems with diversification of agriculture as is also argued by Eakin & Webbe (2009). Eakin & Webbe looked at vulnerability and resilience in social-environmental systems in Latin America, specifically focusing on lacking

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<sup>10</sup> The ISO 26000 guidelines are developed by ISO and provide guidance on how companies and organizations can operate in a socially responsible way.

diversification in agricultural lands that can create problems at the ecosystem-level. Without a diverse use of the land, soils can lose its nutrients and its fertility can decline. Decisions taken by agents at the farm-level (e.g. decisions on expansion or diversification) can therefore have important large-scale or long-term consequences for these lands, such as the long-term sustainability of the farmer's own livelihood depending on the agricultural lands. This illustrates the importance to not only reflect on the circumstances in the value chain but also the actual benefit of the growth of the chia sector itself.

## 9. CONCLUSION

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This master's thesis is based on research commissioned by the Centre for the Promotion of Imports from developing countries (CBI) and answers the following main research question:

*To what extent and how are Corporate Social Responsibility practices integrated into the value chain of chia seeds and what are the opportunities for improvement?*

The value chain of Bolivia has three main components: production, processing and export. The interviewed companies are active in all three of these components or only in part of the chain. Some outsource part of the chain, but still own the chia in the end. The chia companies and influential organisations are important actors. In general, the organizations ANAPO, CADEX, INIAF and CBI provide assistance in the chain; helping with information and to gain a better market position and the organizations IBCE and IBNORCA have a controlling role, especially regarding CSR and the provision of certification.

Twelve CSR topics based on the OECD guidelines were ranked during this study. These CSR topics are all focused on social, economical and environmental issues that could possibly occur in the value chain. The ranking done in this research shows that the three most important and critical CSR topics in the chia sector are: 'Lack of traceability on the origin of raw materials used for production', 'Corruption in the sector' and 'Occupational health and safety dangers for workers'.

All interviewees have regarded lack of traceability as a high-ranking problem in the sector. The foreign companies that buy the chia cannot trace the production process of the chia. Especially when the chia has left the country of production, the importing companies often do not know anything about the circumstances at the supplier's side. Also, concerning the working conditions, some companies have stated that they feel that they do not have a responsibility to control the conditions at the farm fields. The main health and safety dangers in this sector are at the supplier's side. Farmers are hired for a short period of time to weed between the chia plants. These men often live in the most nearby village or are Brazilian or Paraguayan men that come to work in Bolivia for an amount of time (seasonal workers). This research showed that these workers often live in tents on the fields where they work without access to facilities like kitchens and toilets or bathrooms. Corruption is a difficult topic to talk about. Some institutions and companies claimed that there was no corruption at all in Bolivia and the chia sector. However, the corruption index Transparency



International shows that corruption is an issue in Bolivia and therefore there is a high probability that it is also present in the chia sector. This same answer was given by some of the interviewees; they claimed that there is corruption present in the chia sector similar to other sectors in Bolivia. Also, this research shows that there are problems with corruption in the certification process, both with organic certifications as with other quality certifications. Moreover, many of the other topics also play an important role in the sector, such as 'Environmental harm by polluted water, harmful gases and/or other waste' and 'Excessive use of natural resources'.

Based on the outcome of the value chain analysis, the ranking and the case study comparison several improvements of general CSR performance in the chia sector were proposed. In general, it is important to first place the subject of CSR on the development agenda of Bolivia. Moreover, CSR policies are based on 'northern' perspectives, while these policies are implemented in a 'southern' context. To improve this CSR performance, the CSR policies thus should be linked to these 'southern context' of Latin America and Bolivia. General CSR standards can be applied to a Bolivian chia company by using a business case. The nature of this business case can be different at different parts of the chain. At the producer's part of the chain, the benefits of CSR are mainly focused on cost-saving and better access to international markets, while the seller can benefit by brand recognition and reputation assurance. It should be noted that the benefits of such a business case are often noticed on a long-term scale, it is not beneficial for a supplier who is not confident of retaining its access to the buyer. Governments can play an important role in relation to: setting and promoting CSR standards; building the capacity of industry associations and others enabling producers to meet and audit standards; empowering workers and smallholders so that they are aware of standards and are able to meet and benefit from them; and by improving incentives for compliance with CSR standards.

Focusing on the three aforementioned main risks in the sector concerning CSR, it is concluded that, corruption is a problem that is occurring throughout many sectors in Bolivia, and is not specific for the chia sector. Therefore, this issue is more difficult to change, because it is embedded in the 'working culture'. In order to change the performance of this topic, the improvements described above are more applicable because these focus on the development of better CSR performance in the whole Bolivian context and culture. When the traceability of the value chain is increased the working conditions at the supplier's side will be visible and consumers can demand better working conditions in the chain. With respect to improving the transparency in the chain, there are several tools that could help. First of all, the internet can help with the exchange of more information between actors in the value chain at low costs. Other systems for improved communication and

information exchange on technical innovation opportunities can help to create a more transparent chain as well. Second, extra cooperation of partners in the value chain for example between companies and the government creates extra control, transparency and thereby also trust. And thirdly, the role of the government is important for transparency, mainly by stimulating innovation and improving competitiveness. And finally, the integration of third parties into the value chain governance can be beneficial because these parties are not directly dependent or in a hierarchy with chain-members and are therefore objective. In the case of this sector, such third-parties would be CADEX or CBI.

When looking into the future development of the Bolivian chia sector, it is important to reflect which actors have the most influence in the chain and could have an influence in increasing the CSR performance. The government plays an important role in demanding a higher CSR performance of companies but often lacks the enforcement of regulations in Bolivia. The results of this research also show that larger producing and exporting companies come together during seminars and workshops organized by CADEX and CBI where they have the opportunity to receive more market intelligence and do business together. However, the smallholder farmers and other smaller producing companies are not included in these affairs. This creates more benefits for the larger companies, who can then discuss prices on the international market and the amount of chia available in the country. For the future of the Bolivian chia sector it is important to take these different power relations into account, especially when looking into the role of the smallholder farmers. The smallholder farmers are also part of the value chain and sustainability of their livelihood should therefore be taken into account when focusing on a sustainable development of the whole sector.

## 10. RECOMMENDATIONS

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### 10.1 RECOMMENDATIONS FOR RESEARCHERS

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This thesis uses thirteen CSR topics as a basis for analysis of CSR performance. While much literature can be found on some of the topics, there is no solid research to be found for some of the other topics. The main topics that have a need for further research are:

1) *Corruption in Bolivia*. Corruption is culturally and economically embedded in Bolivia and Latin America as a whole. However, when more and more companies start to sell their products to other continents these companies have different and often stricter rules to comply with, also regarding corruption. Therefore, it is important to understand the role of corruption in Bolivia but also how Bolivian companies can show that they are not involved with such practices in order to comply with demands from importers and consumers from other countries.

2) *Traceability of Bolivian value chains*. While there is much theoretical literature on value chains and also on their traceability; not much is written on traceability of value chains in Latin America or in Bolivia. Specifically for this continent, with its own context and culture, research on the traceability can give new insights and can show whether the traceability of companies needs extra attention from international buyers or investors. This is especially interesting because this research has shown that traceability is a critical topic for chia companies and also because corruption (as part of being traceable) is an important topic as well.

3) *Statistics of deforestation*. While there are statistics on the deforestation in Latin America, it was difficult to find reliable and up-to-date information on the statistics of deforestation in Bolivia. Moreover, it is interesting to look into the influence of the current policy of the national government on expansion of agricultural lands. While there is much speculation on this influence, no actual reliable data can be found. On the other hand, deforestation is a difficult topic and it will not be easy to investigate.

4) *The role of women and children in the Bolivian agricultural sector*. There is much literature on the role of children in the Bolivian mining sector as well as the role of women in the Bolivian culture in general. However, specifics about the role women and children play in the agricultural sector are hard to find. During this research several interviewees have stated that women and children help with farming while not getting paid. However, others stated that the agricultural sector often uses large machines that cannot be used by women or children. This depends, of course, on the scale of

the farming fields. Finally, there is a characterization of typical work for men and women in the sector; men mainly work at the fields and in the processing plants, while women often work in the offices and laboratories. These dynamics create interesting discussions and further research might provide new insights in the role of women or children in this sector.

5) *The role of the Bolivian government with respect to control of regulations and certifications.* As is often mentioned in this thesis, there are laws to protect employees in several sectors, but the control of such regulations is not that strong. Therefore, the protection of the working conditions as well as environmental protection is often lacking. Also, this research has shown that corruption in the business of certification is present but it is not clear in which numbers. Both these topics could be influenced by the national government, but they are not. It would be interesting to further analyse the role of the government regarding the control of these topics and what instruments the government can use to improve their influence.

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## 10.2 RECOMMENDATIONS FOR CBI AND OTHER PRACTITIONERS

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This research was commissioned by CBI and therefore part of the CSR analysis in this thesis is specifically focused on recommendations for CBI. At the start of a new programme, CBI conducts a CSR analysis that helps them to find focus points for the programme. This analysis was done during this research with help of a Social Responsibility Tool developed by CBI, part of which can be found in appendix 12.4. The table in appendix 12.4 was filled out with data from this research, giving a final output in a spider diagram. This spider diagram can be found on the next page (figure 16), it shows the eight main risks on which the thirteen CSR topics are based: forced labour, child labour, corruption, environmental harm, human rights violation, health and safety risks and lack of chain traceability (as is also explained in the contextual framework). The spider diagram shows the current risk of the eight CSR main topics (blue) and their anticipated risk level after support by CBI (orange). CBI specifically stated that filling in the tool should not have a scientific character; therefore the tool itself was filled in based on my own perspective concerning the chia sector. However, this perspective is of course based on the data that is gathered by doing scientific research.

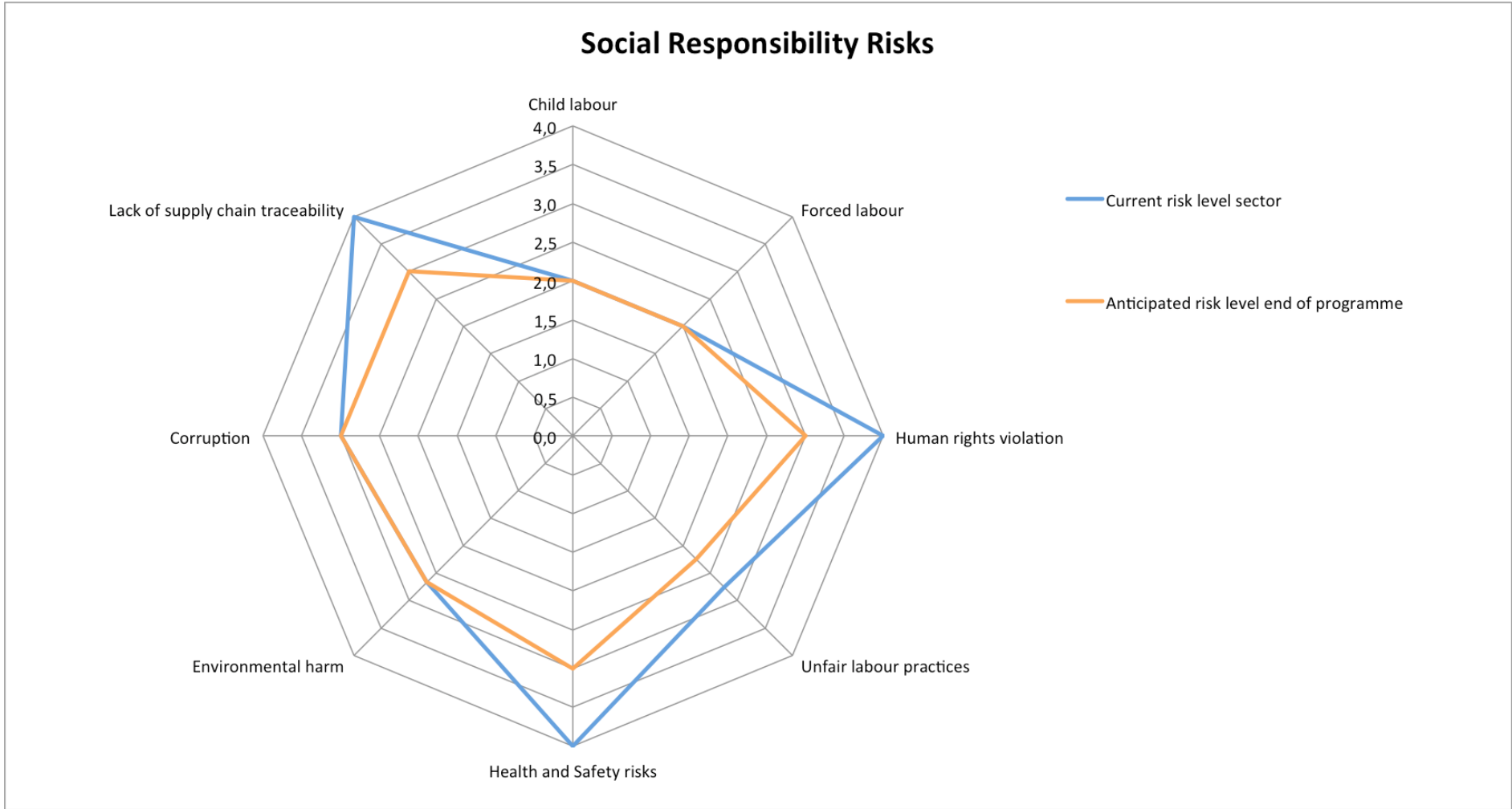


FIGURE 17: OUTCOME OF SOCIAL RESPONSIBILITY RISK ANALYSIS.

The diagram shows that there are some topics that are expected not to change by influence of CBI or other practitioners. These are: forced labour, child labour, corruption and environmental harm. The first three topics are not expected to change because they are embedded in the Bolivian culture and because they are not specifically a risk only for the chia sector but for all sectors in Bolivia. The risk of environmental harm is not expected to change because most of the chia is grown as a rotation crop with soy, and there are problems with environmental pollution for both crops. Even when chia companies try to reduce the environmental harm they cause, they are still dependent on the use of chemicals by the soy industry or other industries in the same area.

However, concerning the other topics: human rights violation, unfair labour practices, health and safety risks and lack of traceability, CBI or other practitioners are expected to have an influence in the sector. This is mainly because when they support a selected group of chia companies, they can demand several improvements before they provide their support. This is also recommended by the literature described in this thesis. CBI and other practitioners working with Bolivian chia companies therefore have the most influence when:

1) *They demand better working and employment circumstances at the supplier's side.* Chia companies that do not own the whole chain of production described that the working circumstances at for example the farm fields were not their responsibility. CBI can demand that chia companies should claim this responsibility, the chia companies can then demand better working circumstances at the farming field or find another supplier.

2) *They demand clearer traceability of the complete value chain of the company.* This point is connected to the previous one; CBI can demand that chia companies should claim the responsibility of the whole value chain, the chia companies then should know where they buy their chia or where they cultivate their chia and what the circumstances of this production are.

Currently, there is a selected group of chia companies that will benefit from the support by CADEX and CBI (*Consortio de agro-exportadores de Chia*). These chia companies could set up new codes of conduct in which they can show that they will comply with the list described above.

Also, there are some general recommendations for further analysis and development of the value chain and CSR performance of the Bolivian chia sector:

3) *Include the impact of the community and the spreading of knowledge (biotechnology) in the social responsibility analysis as described by CBI.* While these two topics are not included in the CSR list developed by CBI, both the results of this research and other literature shows that these two topics are also important when looking into CSR performance.

4) *Acknowledge the role of the smallholder farmers in the value chain.* Several of the chia companies buy their chia from smallholder famers or other chia producing companies. These companies have little influence on the business done in the chain and sometimes do not even now the market prices. To create a more fair chain, the role of these farmers should therefore be acknowledged so that they can be included in workshops and seminars organized by CADEX and CBI. In that way they can also benefit from the extra market information and have a more equal bargaining position.

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## 12. APPENDICES

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### APPENDIX 12.1 LIST OF INTERVIEWEES AND THEIR EXPERTISE

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TABLE 8: LIST OF INTERVIEWEES.

#	Job description	How?
1	CBI expert on chia en Latin America	Face-to-face
2	Operational manager of a chia company	Face-to-face
3	Manager of processing plant of a chia company	Face-to-face
4	Employee International Sales of a chia company	Face-to-face
5	Communication officer at an institution	Face-to-face
6	Standardization officer at an institution	Face-to-face
7	Owner of a chia company	Face-to-face
8	Owner of a chia company	Face-to-face
9	CSR manager at an institution	Face-to-face
10	Co-founder of a chia company	Face-to-face
11	CBI expert on chia and Bolivia	Face-to-face
12	Owner of a chia company	Face-to-face
13	Employee at chia company	Face-to-face
14	Forest expert at institution	Face-to-face
15	Forest expert at institution	Face-to-face
16	Farm field manager	Face-to-face
17	Chia farm owner	Face-to-face
18	Chia farm owner	Skype
19	Owner of a chia company	Skype
20	Manager of a chia company	Skype
21	Owner of a chia company	Skype

APPENDIX 12.2 FORM FOR RANKING CSR TOPICS DURING INTERVIEWS

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Nombre:

Función en la empresa:

Empresa:

Fecha:

#	Los temas de responsabilidad social
	Trabajo forzoso
	Trabajo infantil
	Condiciones de empleo injustas
	Falta de libre de asociación
	Desigualdad oportunidad de mujeres
	Riesgos de salud y seguridad
	Discriminación de trabajadores
	El incumplimiento de las regulaciones ambientales locales e internacionales
	El uso excesivo de los recursos naturales
	Daños ambientales por la contaminación del agua, gases nocivos y / otros residuos
	Corrupción en el sector
	La falta de trazabilidad en la cadena

Muchas gracias!



## APPENDIX 12.3 MOTIVATION FOR 45 EC

The approved research proposal (for 45 EC) for this thesis includes a planning with ten weeks of fieldwork. However, due to personal circumstances I was not able to conduct ten weeks of fieldwork. Instead, I did four weeks of fieldwork in Bolivia and two weeks of fieldwork in the Netherlands (by doing interviews via Skype). This makes it a total of six weeks of fieldwork. To compensate for the loss of time, I performed a case study analysis in which I linked my own collected data with relevant scientific literature. Also, to compensate for the loss in weeks, I worked more than 40 hours per week on my thesis for several weeks. The planning and motivation for the amount of weeks is shown below.

Activities	Weeks
Research proposal + conference	4
Specifying CSR topics	1
Traveling to Bolivia and settling in	1
Fieldwork	6
Analysis of data	3
Rewriting chapters	2
Writing results	4
Reading for and writing policy analysis	3
Writing conclusion, discussion and recommendations	2
Incorporating feedback on draft	3
Finishing total report	1
Preparing presentation	1
<b>Total</b>	<b>31</b>

Week	Dates	Activities
1	10 Nov – 16 Nov	Research proposal
2	17 Nov – 23 Nov	Conference in Bolivia + research proposal
3	24 Nov – 7 Dec	Research proposal
4	8 Dec – 14 Dec	Deadline research proposal
5	15 Dec – 21 Dec	Specifying CSR topics
	22 Dec – 28 Dec	CHRISTMAS
6	29 Dec – 4 Jan	Traveling to Bolivia and settling in
7	5 Jan – 11 Jan	Fieldwork
8	12 Jan – 18 Jan	Fieldwork
	19 Jan – 25 Jan	Back in NL due to personal circumstances
	26 Jan – 1 Feb	Back in NL due to personal circumstances
9	2 Feb – 8 Feb	Back to Bolivia/fieldwork
10	9 Feb – 15 Feb	Fieldwork
11	16 Feb – 22 Feb	Back in NL: fieldwork via Skype
12	23 Feb – 1 Mar	Back in NL: fieldwork via Skype
13	2 Mar – 8 Mar	Analysis of data

<b>14</b>	9 Mar – 15 Mar	Analysis of data
	16 Mar – 22 Mar	Holidays
	23 Mar – 29 Mar	Holidays
	30 Mar – 5 Apr	Holidays + back to NL
<b>15</b>	6 Apr – 12 Apr	Analysis of data
<b>16</b>	13 Apr – 19 Apr	Rewriting chapters
<b>17</b>	20 Apr – 26 Apr	Rewriting chapters
<b>18</b>	27 Apr – 3 May	Writing results
<b>19</b>	4 May – 10 May	Writing results
<b>20</b>	11 May – 17 May	Writing results
<b>21</b>	18 May – 24 May	Writing results
<b>22</b>	25 May – 31 May	Reading for policy analysis
<b>23</b>	1 June – 10 June	Writing chapter policy analysis
<b>24</b>	11 June – 14 June	Writing chapter policy analysis
<b>25</b>	15 June – 21 June	Writing discussion
<b>26</b>	22 June – 28 June	Writing conclusion + recommendations
<b>27</b>	29 June – 5 July	Work on feedback
<b>28</b>	6 July – 12 July	Work on feedback
<b>29</b>	13 July – 19 July	Work on feedback
<b>30</b>	20 July – 26 July	Final editing + <b>deadline thesis</b>
<b>31</b>	27 July – 2 Aug	Preparing presentation

APPENDIX 12.4 CALCULATION OF RANKING CSR TOPICS

TABLE 8: CALCULATION OF CSR SCORES FOR RANKING.

#	Ch	Sc	For	Sc	Unf	Sc	Dis	Sc	Fre	Sc	Un	Sc	Oc	Sc	No	Sc	Ex	Sc	En	Sc	Co	Sc	Tr	Sc
1	0	0	1	1	2	2	0	0	1	1	4	4	2	2	2	2	2	2	0	0	1	1	6	6
2	0	0	0	0	2	4	0	0	1	2	1	2	3	6	0	0	0	0	1	2	2	4	2	4
3	1	3	2	6	1	3	0	0	1	3	0	0	1	3	0	0	1	3	2	6	1	3	2	6
4	2	8	0	0	1	4	0	0	0	0	0	0	0	0	0	0	1	4	2	8	1	4	0	0
5	0	0	1	5	1	5	1	5	0	0	0	0	3	15	2	10	1	5	2	10	1	5	0	0
6	0	0	1	6	0	0	0	0	0	0	1	6	1	6	3	18	0	0	0	0	1	6	0	0
7	1	7	1	7	0	0	0	0	2	14	0	0	0	0	2	14	1	7	2	14	0	0	0	0
8	0	0	0	0	1	8	1	8	0	0	1	8	0	0	0	0	1	8	0	0	0	0	0	0
9	1	9	0	0	0	0	1	9	1	9	0	0	0	0	0	0	0	0	1	9	0	0	0	0
10	0	0	0	0	1	10	0	0	0	0	1	10	0	0	0	0	1	10	0	0	0	0	0	0
11	1	11	0	0	0	0	0	0	0	0	0	0	0	0	1	11	0	0	0	0	0	0	0	0
12	1	12	2	24	1	12	2	24	1	12	1	12	0	0	0	0	0	0	0	0	0	0	0	0
<b>T</b>	7		8		10		5		7		9		10		10		8		10		7		10	
<b>TR</b>		50		49		48		46		41		42		32		53		39		49		23		16

**Abbreviations of table 8:**

**#:** Rank, **Sc:** Score (rank x amount of times ranked), **Ch:** Child labour, **For:** Forced or compulsory labour, **Unf:** Unfair employment terms, **Dis:** Discrimination of workers, **Fre:** Lack of freedom of association, **Un:** Unequal opportunities for women, **Oc:** Occupational health and safety dangers for workers, **No:** Non-compliance with local and/or international environmental regulations, **Ex:** Excessive use of natural resources (energy, water and raw materials), **En:** Environmental harm by polluted water, harmful gases and/or other waste, **Co:** Corruption in the sector, **Tr:** Lack of traceability on the origin of raw materials used for production, **T:** Total, **TR:** Total of ranking scores.

TABLE 9: FINAL RANKING OF CSR TOPICS BASED ON SCORES.

Ranking	CSR topics	Total of ranking scores
1	Lack of traceability on the origin of raw materials used for production	16
2	Corruption in the sector	23
3	Occupational health and safety dangers for workers	32
4	Excessive use of natural resources (energy, water and raw materials)	39
5	Lack of freedom of association	41
6	Unequal opportunities for women	42
7	Discrimination of workers	46
8	Unfair employment terms	48
9	Environmental harm by polluted water, harmful gases and/or other waste	49
10	Forced or compulsory labour	49
11	Child labour	50
12	Non-compliance with local and/or international environmental regulations	53

APPENDIX 12.5: TABLE WITH THE SOCIAL RESPONSIBILITY TOOL

Likelihood / Impact	Minor	Moderate	Major
Almost certain	orange	orange	red
Likely	yellow	orange	red
Unlikely	yellow	yellow	orange
Rare	green	yellow	orange

TABLE 10: PART OF THE SOCIAL RESPONSIBILITY TOOL DEVELOPED BY CBI.

Social responsibility risk indicator	Value from index or ranking	Index score translated in risk level	Current risk level sector	Comments risk level	Actor to whom risk applies	Possibility for solution (CBI or 3rd party)	CBI solution	Third party solution	Anticipated risk level end of programme	CBI contribution to anticipated risk level
Children under age of 15 are employed	26%	red	yellow	Not much child labour. But possible that children help out on fields.	Supplier	No	N/A		yellow	None
Forced or compulsory labour	116	yellow	yellow	Little or none specific forced labour. But working conditions are not always good.	Supplier	No	N/A		yellow	None
Violation of human rights (political rights, civil liberties)	3	yellow	red	Based on other topics, especially with respect to the employment terms and occupational health and safety hazards for workers.	Supplier	Yes	Demanding better working circumstances at supplier's side.		orange	Major

Unfair employment terms (under minimum wages, excessive working hours)				At offices and plants employment terms are clear. On fields the workers often have verbal contracts and get paid per hectare the weed. Workers often live in tents on the fields without access to facilities like kitchens and toilets/bathrooms.	Supplier	Yes	Demanding better working circumstances at supplier's side.			Major
Discrimination of workers (disadvantageous treatment of a person or group of people)				No discrimination of specific Bolivian groups.	Exporter & Supplier	No	N/A			None
Lack of freedom of association (trade unions)				No organized associations specifically for chia sector. Interviewees stated that the farmworkers do not realize their rights considering working circumstances and payment.	Exporter & Supplier	Yes	E.g. Creating a committee for chia/soy farmers within programme.			Moderate
Unequal opportunities for women (salary inequality, limited promotion opportunities, no maternity leave)	93			Women work at offices and laboratories; at the processing plants and farming fields there are no women present, because this is considered as 'typical men's work'.	Exporter & Supplier	No				Minor

Occupational health and safety dangers for workers				This is mainly relevant at the supplier's side. Temporary workers weed between the chia plants. The workers often live in tents on the fields without access to kitchen/toilets/bathrooms. Bushes between the fields are used as toilet. No protection against exposure to chemicals.	Supplier	Yes	Demanding better working circumstances at supplier's side when company wants to enter the programme			Major
Non-compliance with local and/or international environmental regulations				Companies know the regulations, but if they do not own the farming fields, they have little responsibility of the environmental circumstances at the chia fields.	Exporter & Supplier	Yes	Demanding clearer traceability of environmental circumstances at supplier's side.			Moderate
Excessive use of natural resources (energy, water, raw materials)				Main focus on deforestation. Little deforestation because chia is mainly used as a rotation crop on already existing soy fields. But, illegal/legal deforestation is still an issue in Bolivia.	Supplier	No				None
Environmental harm by polluted water, harmful gases and/or other waste				Main pollution is due to the use of agrochemicals.	Supplier	No				None

Corruption in the sector (the abuse of entrusted power for private gain)	106			Problems in certification process; with organic and quality certifications. Difficult to make a thorough assessment of the amount of corruption.	Exporter & Supplier	No				None
Lack of traceability on the origin of raw materials used for production				Foreign companies cannot trace the production process of the chia. Companies buy the chia seeds from small farming companies and claim to not have any responsibility about the working conditions or other circumstances under which the chia is produced.	Exporter & Supplier	Yes	Demanding clearer traceability of the complete value chain of the company.			Major