

The Dark Sites of Granite

Modern slavery,
child labour and
unsafe work in
Indian granite
quarries

What should
companies do?



SCL - Stop Child Labour



ICN - India Committee
of the Netherlands

kerk
in actie

Kerk in Actie

August 2017

Colofon

The Dark Sites of Granite

Modern slavery, child labour and unsafe work in Indian granite quarries - What should companies do?

Authors: Glocal Research (Hyderabad), India Committee of the Netherlands (Utrecht) & Stop Child Labour (The Hague)

Layout: Fridy Visser Knof

Photos: Joerg Boethling / Alamy Stock Photo (cover photo), Glocal Research (page 7, 13, 19, 33, 40, 42, 44, 54, 66), Granite Association (labour union) in Telangana (page 64), The Hans India (page 22) and Alamy Stock Photo (page 25, 47)

Acknowledgements

The authors would like to thank all workers involved in quarry operations and the processing of granite waste stone who were interviewed and shared their stories. Furthermore, the India Committee of the Netherlands and Stop Child Labour would like to thank Dr. Davuluri Venkateswarlu, P. Kranthi Kumar, Ravi Raj, Dr. Rapolu Saidulu and B. Purushotham from Glocal Research, for their dedication to investigating the South Indian granite industry.

This report has been made possible with financial assistance of Kerk in Actie and Stop Child Labour. The content of this report is the sole responsibility of Glocal Research, the India Committee of the Netherlands and Stop Child Labour.

Published by:



India Committee of the Netherlands

Landelijke India Werkgroep

Mariaplaats 4e

3511 LH Utrecht, The Netherlands

Tel: +31 (0)30 2321340

E-mail: info@indianet.nl

Website: www.indianet.nl



Stop Child Labour

Stop Kinderarbeid

Raamweg 16

2596 HL The Hague, The Netherlands

Tel: +31 (0)70 376 55 00

E-mail: info@hivos.nl

Website: www.stopchildlabour.org



Kerk in Actie

Joseph Haydnlaan 2^A

3533 AE Utrecht, The Netherlands

Tel: +31 (0)30 880 14 56

E-mail: info@kerkinactie.nl

Website: www.kerkinactie.nl

About the Authors

Glocal Research

Glocal Research provides multi-disciplinary research and consultancy services to (state) governments, non-governmental organisations, corporate bodies and national and international development agencies. The organisation has expertise in the areas of agriculture, child labour, natural resource management, rural development and rural livelihoods. In these areas Glocal Research's multi-disciplinary team of professionals has undertaken several researches, monitoring and evaluation studies and facilitates trainings and workshops. Glocal Research is established in 2000 and based in Hyderabad, India.

India Committee of the Netherlands

The India Committee of the Netherlands (ICN) is an independent non-governmental organisation campaigning and doing advocacy work on human rights issues. Central to the work of ICN are the issues of caste-based discrimination, labour rights and child labour & education. ICN cooperates with organisations in India and elsewhere in combating discrimination, poverty, oppression, exploitation and lack of education, focusing on the role of policy makers and companies. ICN is an active member of networks like the Stop Child Labour coalition, the Clean Clothes Campaign, the International Dalit Solidarity Network and the Dutch MVO Platform.

Stop Child Labour

'Stop Child Labour – School is the best place to work' (SCL) aims to eliminate all forms of child labour and to ensure quality fulltime education for all children until the age of 15. Stop Child Labour promotes an area-based approach towards the creation of 'child labour free zones' and 'child labour free production chains'. Stop Child Labour calls on consumers, companies, governments and international organisations to be part of the solution.

Stop Child Labour is a coalition coordinated by Hivos. The coalition consists of four non-governmental organisations and two trade unions based in the Netherlands as well as NGOs and unions in Asia, Africa and Latin America.

Contents

Acknowledgements	2
Acronyms	5
1 Introduction	7
1.1 Why this report?	7
1.2 Research methodology	9
1.3 Outline	12
2 Granite quarrying industry and its buyers	13
2.1 Granite production in India	13
2.2 Legal framework	15
2.3 From quarry to kitchen top and gravestone	16
2.4 Buyers of researched quarries	19
3 Findings from the field research	22
3.1 Nature of work and composition of the workforce	22
3.2 Prevalence of child labour	24
3.3 Labour hiring practices: prevalence of modern slavery	26
3.4 Low wages and non-payment of overtime	29
3.5 Occupational hazards: health and safety risks	33
3.5.1 Occupational health and safety	33
3.5.2 Workplace facilities	35
3.6 Social benefits	37
3.7 Freedom of association and collective bargaining	38
3.8 Working conditions in granite waste stone processing	39
4 Decent work criteria	42
5 Interventions	54
5.1 Business and human rights initiatives in the natural stone sector	55
5.2 Efforts of importing companies to improve labour conditions in the granite industry	59
5.3 Efforts of exporting companies, governments, NGOs and labour unions to improve labour conditions in the granite industry	63
6 Conclusions and recommendations	66
6.1 Conclusions	66
6.2 Recommendations	69
Annex: List of trade associations	73
Endnotes	74

Acronyms

AIFTU	All India Federation of Trade Unions
APDMC	Andhra Pradesh Mineral Development Corporation
AUT	Austria
BEL	Belgium
BOVATIN	Bond voor Aannemers in Tegelwerken (trade association for tilers)
BSCI	Business Social Compliance Initiative
CAN	Canada
CEASE	Consortium of Employers' Associations for the Elimination of Child Labour
CITU	Centre of Indian Trade Unions
CoC	code of conduct
CPI	Communist Party of India
CSR	corporate social responsibility
DEU	Germany
DMF	District Mineral Foundation
EPF	Employees' Provident Fund
ESP	Spain
ETI	Ethical Trading Initiative
EU	European Union
EUR	Euro (€)
FGD	focus group discussion
FNV	Federatie Nederlandse Vakbeweging (Dutch trade union)
GBR	United Kingdom
ICN	India Committee of the Netherlands
IGEP	Indo-German Export Promotion
IGN	Interessengemeinschaft Asiatische, Afrikanische und Lateinamerikanische Natursteine
ILO	International Labour Organization
INR	Indian Rupee (₹)
IPEC	International Programme on the Elimination of Child Labour
IRL	Ireland
ISES	International Social & Environmental Standard
ITA	Italy
KSG	Krishnasai Granites UK
LIE	Liechtenstein
mm&P	mines, minerals & PEOPLE
MMDR	Mines and Minerals (Development and Regulation) Act, 1957
MML	Mysore Minerals Limited
MO&B	Michel Oprey & Beisterveld
MVO	maatschappelijk verantwoord ondernemen (corporate social responsibility)
NGO	non-governmental organisation

NLD	The Netherlands
OBC	Other Backward Class
OECD	Organisation for Economic Co-operation and Development
PPE	Personal Protective Equipment
RBS	Royal Bank of Scotland
RSP	Responsible Stone Program
SC	Scheduled Caste
SCL	Stop Child Labour
SER	Sociaal Economische Raad (Social and Economic Council of the Netherlands)
SIT	Special Investigation Team
SOMO	Stichting Onderzoek Multinationale Ondernemingen (Centre for Research on Multinational Corporations)
ST	Scheduled Tribe
TFT-RSP	TFT-Responsible Stone Program
TRS	Telangana Rashtra Samithi
TSMDC	Telangana State Mineral Development Corporation
UK	United Kingdom
UN	United Nations
UNGC	United Nations Global Compact
UNGP	United Nations Guiding Principles on Business and Human Rights
USA	United States of America
USD	US Dollar (\$)
VNNI	Vereniging Nederlandse Natuursteen Importeurs (Dutch association for stone importers)
WGDN	Werkgroep Duurzame Natuursteen (Dutch Working Group on Sustainable Stone)

Chapter 1

INTRODUCTION



1.1 Why this report?

India is one of the top five producers of natural stone worldwide. Around 10% of the natural stone traded on the world market is sourced from India. Half of the total world exports of granite comes from India, making India by far the largest global exporter of granite¹.

This report describes human rights and labour rights violations in the South Indian granite industry. Amongst other abuses debt bondage (a form of modern slavery), child labour, unsafe and unhealthy working and living conditions, low wages, non-payment of overtime and lacking workplace facilities (no provision of clean drinking water, for instance) are rampant in South Indian granite quarries.

Companies have a responsibility to respect human rights. This report reflects the urgency of effective measures against human rights abuses in lower tiers of granite supply chains of western and

other companies who are sourcing granite from South India. The report shows the need for natural stone companies as well as end-users, for example in the funeral (gravestones) and building sector (kitchen tops, floor and wall tiles etc.) to increase transparency in their supply chains, conduct risk assessments and remediate a range of human rights violations. Also, the research findings reflect the need for improved policies and enforcement of laws by the Government of India and state governments.

Background

Most research on working conditions of labourers in natural stone production in India have been focused on sandstone production in Rajasthan. A study conducted in 2005 and 2006 showed serious environmental and social issues that include child labour, sub-standard wages, wage discrimination, bonded labour, unsafe working conditions and absence of freedom of association in sandstone quarries.² Manufacturers in the granite industry, are promoting the idea that granite quarrying is more mechanised and less labour-intensive, and therefore not as prone to labour rights violations as sandstone quarrying.³

To examine working conditions in granite quarries, in 2009 a study was carried out in 57 granite quarries in Tamil Nadu by a Tamil Nadu based NGO.⁴ According to this unpublished research labour rights are violated in Tamil Nadu granite quarries. Workers are paid poorly and receive hardly any legally mandatory benefits. Migrant workers live at quarry sites in small, unsanitary huts and have limited access to health care or clean drinking water. Hazardous working conditions are common and workplace safety is inadequate, leading to accidents and chronic occupational diseases. Involvement of children was mainly observed in waste stone processing.

In 2014 the India Committee of the Netherlands (ICN) commissioned research into working conditions in granite quarries in Tamil Nadu and Karnataka, covering 18 quarries (12 in Tamil Nadu). The report titled *Rock Bottom - Modern Slavery and Child Labour in South Indian granite quarries* shows the prevalence of child labour (mainly in Karnataka, incidences of child labour were found in Tamil Nadu), bonded labour, gender based wage discrimination and unhealthy and unsafe working conditions.⁵ More than half of the 86 interviewed quarry workers have large debts to quarry owners and recruiters. Salary advances or loans are provided by quarry owners to tie workers to the job. The interest on the loan is often so high - up to 48% per year - that workers can hardly pay off the loan. In addition, some workers are even prohibited to leave the quarry and talk to people outside the quarry premises. More than 90% of the workers in sample quarries are hired on informal basis without any written employment contracts.

The report also indicates that the majority of granite produced in India is exported, amongst other countries to China, Germany, Belgium, the United Kingdom and the Netherlands. However, at the time very little information was available on granite supply chains; especially linkages between producers (quarries in India that produce granite), buyers (importing natural stone companies and wholesalers of natural stone) and end-users (consumers of the granite products in importing countries) were largely unknown. The research leading to the *Rock Bottom* report and other available research, did not specifically look into granite supply chains and mainly focused on granite quarries in Tamil Nadu and to a lesser extent on granite quarries in Karnataka. No research is thus far conducted into working and living conditions in granite quarries in Andhra Pradesh and Telangana.

Objectives

The research aims at increased insight in:

- granite supply chains, from quarries in South India to end-users in Europe and other countries;
- the prevalence of child labour, bonded labour and other labour rights violations in granite quarries that produce for export markets, located in the South Indian states: Karnataka, Andhra Pradesh and Telangana;
- measures taken by natural stone companies and business and human rights initiatives to address human rights violations in granite supply chains.

1.2 Research methodology

This section describes the methods used for data collection, sampling and analysing research findings. The data for this study was gathered through market research, desk research as well as field research.

Market research

The India Committee of the Netherlands and Stop Child Labour commissioned SOMO to conduct research into European markets for natural stone, including granite originating from India. SOMO gathered information through desk research into various corporate data bases, media sources, trade magazines and online sources on wholesale and retail markets. Information on the granite market in Western Europe, deriving from this research, is included in this report.

Desk research

The supply chain analysis is primarily based on desk research. Export data from July 2015 to August 2016 from different Indian ports and information on company websites were analysed and used to gain insight in supply chains and select sample quarries in Andhra Pradesh, Telangana and Karnataka states. All the selected quarries are either directly or indirectly involved in exporting of granite to European and other western countries; amongst other countries to the Netherlands, Germany, Belgium, United Kingdom, Spain, Poland, Italy, Canada and the United States of America (USA). Some quarries have direct linkages with foreign importers, as these quarries are operated by exporting companies themselves. Other quarries are exporting granite through intermediaries who are solely involved in the exporting business. These intermediary exporting companies buy granite products from quarries and sell it to importers. As export data offer only limited information and natural stone companies are not transparent on their suppliers it is very difficult to gain insight in supply chain linkages.

Field research

The data on employment and working conditions in granite quarries were gathered through a field survey among workers of 22 sample quarries. The field research was conducted between June and November 2016. Each sample quarry was visited twice for data collection because granite production varies among seasons (during rainy season production comes down as quarries fill with water). Of the 22 quarries, 8 are located in Andhra Pradesh, 8 in Telangana and the remaining 6 in Karnataka. The selected granite quarries are all located in the main granite production centres in the respective states, being Chimakurthi in Prakasam district in Andhra Pradesh, Karimnagar district in Telangana and Mudugal in Raichur district in Karnataka.

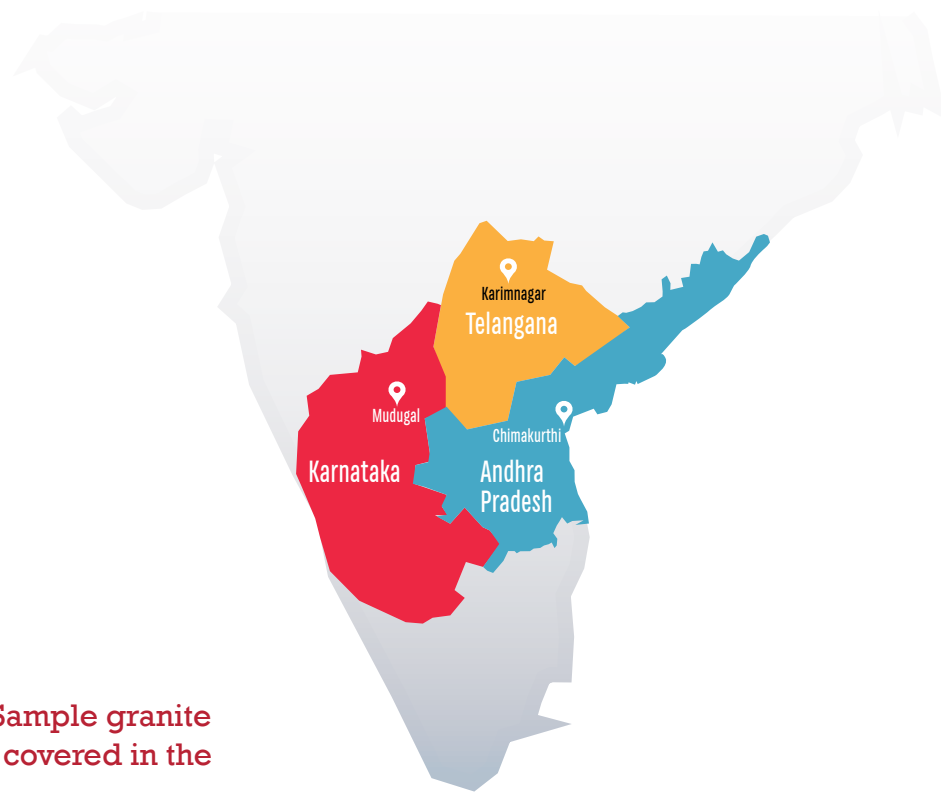


Table 1: Sample granite quarries covered in the study

Quarry number	Quarry location	Quarry size	Export linkages	Names of buyers identified Yes/No
1	Karimnagar, Telangana	Big	Export through intermediaries	No
2	Karimnagar, Telangana	Big	Export through intermediaries	No
3	Karimnagar, Telangana	Big	Export directly	Yes
4	Karimnagar, Telangana	Big	Export directly	No
5	Karimnagar, Telangana	Big	Export through intermediaries	No
6	Karimnagar, Telangana	Big	Export through intermediaries	No
7	Karimnagar, Telangana	Small	Export through intermediaries	No
8	Karimnagar, Telangana	Big	Export directly	Yes
9	Mudugal, Karnataka	Small	Export through intermediaries	No
10	Mudugal, Karnataka	Small	Export through intermediaries	No
11	Mudugal, Karnataka	Small	Export through intermediaries	No
12	Mudugal, Karnataka	Small	Export through intermediaries	No
13	Mudugal, Karnataka	Small	Export through intermediaries	No
14	Mudugal, Karnataka	Small	Export through intermediaries	No
15	Chimakurthi, Andhra Pradesh	Big	Export directly	Yes
16	Chimakurthi, Andhra Pradesh	Big	Export directly	Yes
17	Chimakurthi, Andhra Pradesh	Big	Export directly	Yes
18	Chimakurthi, Andhra Pradesh	Big	Export directly	Yes
19	Chimakurthi, Andhra Pradesh	Big	Export directly	Yes
20	Chimakurthi, Andhra Pradesh	Big	Export directly	Yes
21	Chimakurthi, Andhra Pradesh	Big	Export directly	Yes
22	Chimakurthi, Andhra Pradesh	Big	Export directly	Yes

Table 1 presents the state wise break up of sample quarries included in the field survey. Also, details are given on the export linkages and whether buyers of respective quarries are identified. The names of the researched quarries are not disclosed to protect interviewed workers from reprisals by the quarry management and/ or labour suppliers. Each quarry is assigned a separate number and these numbers are used to refer to individual quarries in the report. Furthermore, most research findings on labour conditions in sample quarries are presented at an aggregated level (in categories). Only in case of relevant differences between researched quarries, specific reference is made to a particular quarry. Furthermore, to assure the anonymity of respondents, pseudonyms are used in the report.

For the analysis quarries are categorised into small and large. The categorisation is based on the number of workers employed in the quarries. Quarries with a total number of workers employed below 50 are categorised as small and above 50 workers as large. Out of the total 22 quarries in the research sample, 7 are small and 15 are large in size.

The data on workers' profiles, labour arrangements, wages and working conditions were collected through individual interviews and focus group discussions with quarry workers. For conducting the interviews, the researchers used a semi-structured interview guide. A minimum of 10% of the workforce in a quarry was interviewed. The total number of workers interviewed for the study is 172. Out of these, 127 workers are involved in main quarry operations and 45 are involved in waste stone processing. In addition, five focus group discussions (FGD) were conducted with 6 to 10 workers in each group (two FGDs in Andhra Pradesh, two FGDs in Telangana and one FGD in Karnataka). Furthermore, the management staff of 6 quarries was interviewed.

Ranking of quarries on decent work criteria

The working conditions of labourers differ from quarry to quarry and location to location. The performance of quarries is examined on six aspects of decent work, respectively: child labour, bonded labour (debt bondage), wages and (social) benefits, health and safety and freedom of association. This is presented in a ranking. Based on the rank/ score on each of the six aspects of decent work, the average performance of each quarry on decent work is shown in an overall ranking. In the overall ranking the quarries are grouped into four categories: A, B, C and D. The performance of the quarries differs per decent work indicator, but the quarries that fall under grade A or B are performing comparatively better than quarries ranked in grade C. Quarries ranked in grade D are performing worst on decent work criteria in comparison to the quarries that fall under grade A, B and C.

Furthermore, an attempt is made to examine the link between the performance of the quarries on decent work criteria and the corporate social responsibility (CSR) policies and interventions by companies, state and national governments and NGOs and labour unions.

Review procedure

To avoid publishing any inaccuracies, the India Committee of the Netherlands and Stop Child Labour follow procedures for review. The review procedure gives companies, banks and business and human rights initiatives the opportunity to review, respond to and comment on findings that directly relate to them, before publication. Therefore, in May 2017, a draft version of this report was shared with all companies and banks linked to the researched quarries as well as business and human rights initiatives and trade associations active in the natural stone sector.

Of the 31 companies and 3 banks that are identified as buyers of the researched quarries, 5 companies, including Arte, Beltrami, Jetstone BV, Michel Oprey & Beisterveld Natuursteen BV (MO&B) and Kerasom Groothandel In Tegels BV and 1 bank, Royal Bank of Scotland (RBS), responded to the request to review a draft version of this report. Also, four business and human rights initiatives reacted to the request to review the draft version of this report. Of the 16 trade associations (see annex for the list of trade associations) the Dutch Vereniging Nederlandse Natuursteen Importeurs (VNNI) and Stone Federation Great Britain responded, but in their reply, they did not elaborate on the content of the draft version of this report. The responses of the business and human rights initiatives, companies and the bank are included in chapter 5. Nonetheless the reviewing of the draft chapters by these companies, bank and business and human rights initiatives, it is important to note that the authors of the report remain solely responsible for the contents of the report.

1.3 Outline

The report starts with a context description of the South Indian granite industry, including recent developments, in chapter 2. Chapter 3 describes the employment practices and working conditions in the researched granite quarries. The information presented in this chapter is based on the field research. Chapter 4 presents rankings showing the performance of the 22 sample quarries on six aspects of decent work: child labour, debt bondage, wages and benefits, health and safety and freedom of association. This chapter concludes with a ranking of the researched quarries showing their overall performance on decent work. Chapter 5 describes the efforts by the granite industry, governments and civil society organisations towards improved labour conditions in granite production. Specifically, this chapter focuses on the efforts of importing companies (linked to the research quarries) and business and human rights initiatives active in the natural stone sector. In chapter 6 the conclusions and recommendations are presented.

Chapter 2

GRANITE QUARRYING INDUSTRY AND ITS BUYERS



In this chapter, the main characteristics of the granite industry in India are described; including information on the scale and location of granite production, Indian laws that are relevant for the granite industry and export figures. Furthermore, detailed information on granite supply chains is presented. Section 2.4 gives an overview of identified buyers of the researched quarries.

2.1 Granite production in India

India possesses a wide spectrum of natural stone including granite, marble, sandstone, limestone, slate and quartzite, found throughout the country. The overall global market share for natural stone and natural stone products generated a trade flow of EUR 25.7 billion (INR 1811.1 billion⁶) in 2015,

out of which India's share was 9.8%.⁷ Over 20% of the world's granite resources are located in India and granite constitutes the bulk of India's natural stone export. Granite is a high value structural and decorative stone. Due to its high compressive strength, longevity and beauty, it is the most sought-after stone to be used as building material as well as decorative stone. India's granite deposits are rich, with a variety of over 200 shades.⁸

Concentration of granite production in South India

In India granite resources are found in Karnataka, Andhra Pradesh, Telangana, Tamil Nadu, Jharkhand, Rajasthan, Madhya Pradesh, Odisha and Chhattisgarh. The state wise breakup of granite resources in India reveals that Karnataka with about 25% resources has the highest concentration followed by Jharkhand (24%), Rajasthan (23%), Andhra Pradesh (6%) and Odisha (5% each). Tamil Nadu has 1.7% of the deposits.

Each state has different varieties of granite that have a wide market in and outside the country. The major production of granite in raw as well as processed form is currently concentrated in the southern states of India, in Tamil Nadu, Karnataka, Andhra Pradesh and Telangana. Granite varieties found in these states are of high value and quality, and in great demand of the international market.

The granite exporting companies in South India are largely concentrated in Andhra Pradesh, Telangana and Tamil Nadu and granite is mainly shipped from the port in Chennai. Andhra Pradesh is the largest producer of granites in the country. In Andhra Pradesh, the granite production is largely concentrated in Prakasam district and around Chimakurthi town in this district. The area is known for producing Black Galaxy, a famous granite variety which has a worldwide market. In Telangana, the production of granite is concentrated in Karimnagar and Khammam districts which produce Tan Brown and Maple Red granite, which is mostly exported to China. The important granite producing centres in Tamil Nadu are Dharmapuri, Krishangiri, Erode, Madurai, Salem, Virudhunagar and Vilupuram districts.

Karnataka is endowed with rich varieties of granite resources. Karnataka possesses approximately 100 granite varieties. Granite types with different textures and colours as well as attractive gneisses, migmatites and sober dyke rocks are abundantly available. In Karnataka, the production of granite is concentrated in Mysore, Gulbarga, Hassan, Koppal, Raichur and Kolar districts.

Table 2 presents an overview of the production of granite in different states for the years 2013-2014. The data show that more than 90% of the value of granite produced in India during 2013-2014 derives from South India, particularly from the state of Andhra Pradesh which alone accounted for 73% of the total value of granite produced. Karnataka accounted for 13% and Kerala 7%.

Table 2: State wise production of granite 2013-2014

State	Value (INR 1000)	Value (EUR 1000)	% to total value
Andhra Pradesh and Telangana	60,051,935	852,137	73.10
Chhattisgarh	810	11	0.001
Gujarat	114,300	1,622	0.14
Karnataka	10,733,541	152,309	13.10
Kerala	6,318,395	89,658	7.69
Madhya Pradesh	148,289	2,104	0.18
Rajasthan	3,737,218	53,031	4.55
Tamil Nadu	748,469	10,621	0.91
Uttar Pradesh	330,000	4,683	0.40
India	82,182,957	1,166,176	100.00

Source: Indian Minerals Yearbook 2015⁹

Policies and procedures for granite quarrying

As the granite industry falls under the category of 'minor minerals', state governments are the owners of the minerals within their geographical territory. The Departments of Geology and Mining of the respective state governments oversee the administration, licensing and exploration of minerals and mining.

Prospecting is the first step in opening a new quarry. Prospectors can obtain a two-year license to do research into new areas for sourcing minerals. If they locate a granite deposit, they can lease the area from the Department of Geology and Mines for a period between twenty and thirty years. State governments also conduct quarry operations through their own enterprises. In Andhra

Pradesh APDMC (The Andhra Pradesh Mineral Development Corporation), in Telangana TSMDC (The Telangana State Mineral Development Corporation) and in Karnataka MML (Mysore Minerals Limited) are state owned enterprises which are involved in granite quarrying, processing and marketing activities. The governments of Andhra Pradesh, Telangana and Karnataka maintain all legal rights over quarries in their respective states; only operational rights are vested in the lessee. More than 95% of the quarries in Andhra Pradesh, Telangana and Karnataka are operated by private sector agencies who take the quarries on lease from the government.

The state governments do not have a uniform policy of licensing quarry operations. Royalty rates and the leasing period vary from state to state. The state governments are pursuing an aggressive mines and minerals development policy and in many states the mineral sector is considered crucial for economic growth. States focus on the sourcing of specific, often high value, minerals like granite.¹⁰

Granite quarrying in South India is largely under the control of economically powerful and politically influential people. The issues of large scale corruption in the allocation of mines, granting permits and illegal mining have received wide attention since 2010. Illegal granite mining became a very big political issue in Tamil Nadu in 2012 (see chapter 5 for more information).

2.2 Legal framework

This section gives an overview of Indian law relevant for the granite industry.

The Mines and Minerals (Development and Regulation) Act, 1957 (MMDR), and the Mines Act, 1952¹¹, together with the rules and regulations framed under them, constitute the basic laws governing the mining sector in India. The 'minor minerals' including natural stone, come under the purview of the state governments. However, labour laws are basically the same for every state. Some of the laws of relevance to workers in granite quarries are:

The Mines Act, 1952, as well as the Child Labour (Prohibition and Regulation) Amendment Act, 2016¹², prohibits the employment of children under 18 years in mining operations.

The Contract Labour Regulation and Abolition Act, 1970, protects contract labourers. The act makes a number of provisions for the welfare of contract workers including payment of minimum wage, social security benefits and others. The government can also decide to prohibit the use of contract labour to perform core activities of the enterprise of perennial nature.

The Industrial Establishments Act requires businesses employing ten or more workers at any time to provide formal employment contracts.

The Inter-State Migrant Workmen Act, 1979¹³, concerning migrant workers, prescribes that companies need government documentation and approval to employ migrant workers. The Act allows for payment of travel and/ or suitable residential accommodation for migrant workers.

The Minimum Wages Act, 1948, in India guarantees payment of minimum wages to workers in various sectors, including the mining sector.

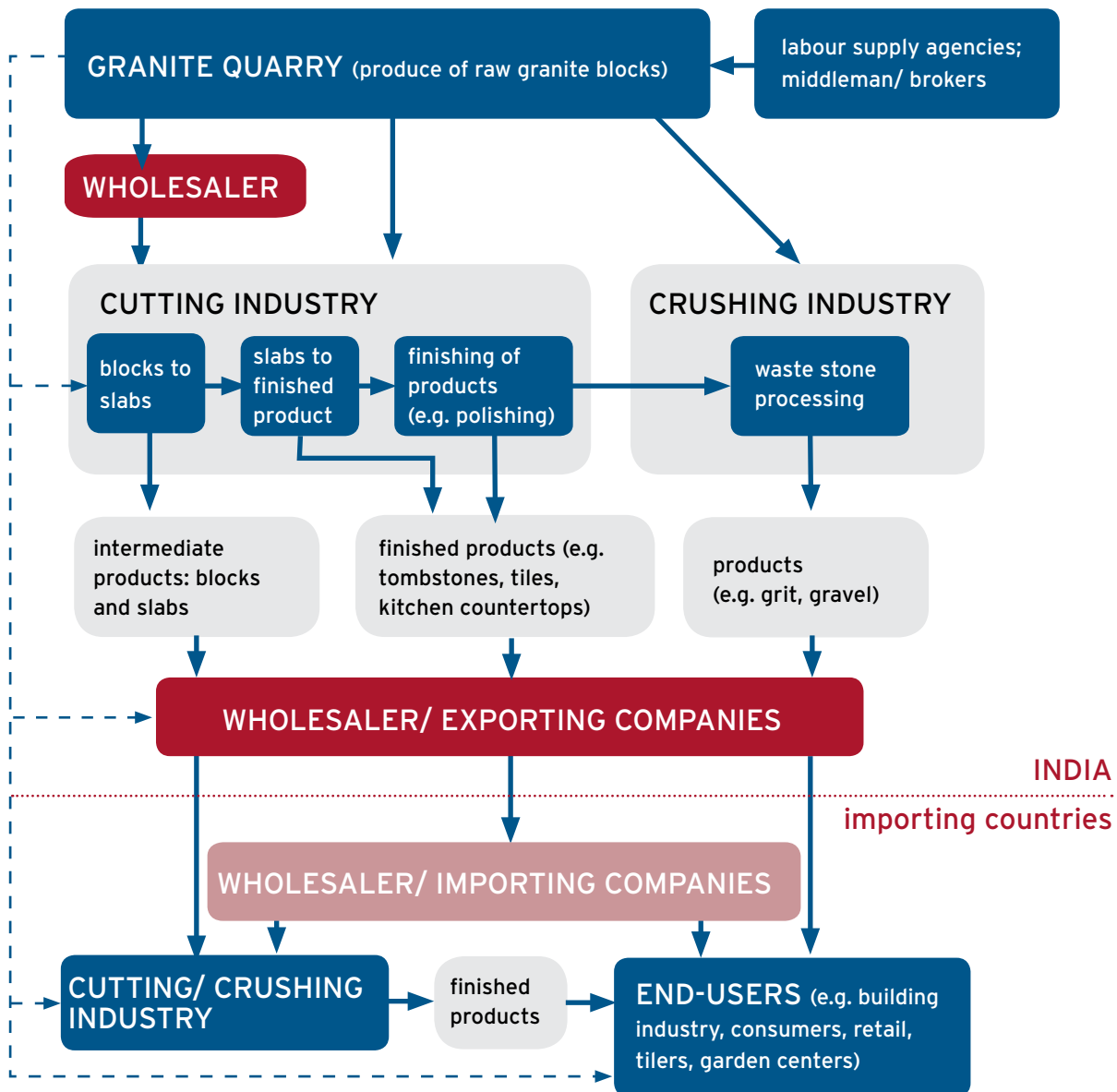
The Bonded Labour Abolition Act, 1976, prohibits the practice of bonded labour, by which quarry owners may enslave their workers. This Act purports to abolish all debt agreements and obligations arising out of India's longstanding bonded labour system. It frees all bonded labourers, cancels any outstanding debts against them, prohibits the creation of new bondage agreements, and orders the economic rehabilitation of freed bonded labourers by the state.

2.3 From quarry to kitchen top and gravestone

Granite supply chain

The granite supply chain is very complex. From quarry to end-user there are several intermediaries. Figure 1 illustrates the granite supply chain and its related trade structure covering India as well as importing countries. The figure shows that markets in importing countries are entered by companies having different positions in the supply chain, including wholesalers, importers, processors and retailers. The main trading partner for Indian cutting, crushing and exporting companies are importers and wholesalers of semi-finished and finished granite products in importing countries. Besides the wholesale channel, the cutting industry in importing countries also procures semi-finished and finished granite products from Indian exporters. Also, end-users like construction material markets may import finished or semi-finished granite products directly. Furthermore figure 1 shows the involvement of labour supply agencies and middlemen that provide labour to quarries.¹⁴

Figure 1: International granite chain and trade structure



Source: Rock Bottom – Modern Slavery and Child Labour in South Indian Granite Quarries, May 2015, p.19.

India: leading exporter of raw granite

Granite constitutes the bulk of India's export of natural stone and accounted for 79% of the total natural stone exports from India in 2014-2015. India is the largest exporter of raw granite that is crude or roughly trimmed (52%) and ranks fifth in the export of processed granite products worldwide.¹⁵ With deposits and varieties in abundance, the granite industry has evolved into an export-thrust sector. According to industry data, about 85-90% of the total granite produced in the country is exported. It is exported from India either as crude or raw blocks or after cutting into blocks or slabs, as granite for monuments or buildings, as polished granite blocks and tiles and as carved or processed granite.

Granite stone produced in Andhra Pradesh, Telangana and Karnataka is exported to a range of countries in the world. Both semi-finished (unfinished blocks and slabs) as well as finished products such as tiles, garden and art ornaments and tombstones are exported. Countries importing granite from India include China, the United States, Canada, Saudi Arabia, United Kingdom, Germany, Belgium, the Netherlands, Italy, Spain, Poland and Australia. Since the early nineties, China has emerged as the largest importer of Indian granite. Since China is also the biggest processor and re-exporter of natural stone, granite exported by China can be re-exported granite originating from India.¹⁶

Table 3 shows the quantity and value of granite exported from India to different countries in 2014-2015. In terms of both quantity and value China is the biggest market for Indian granites followed by the USA and European countries. China accounted for 64% of the quantity and 31% of the value of granite exported from India in 2014-2015. Germany is India's biggest European export market for granite. Italy is the second most valuable European export market for India both for worked granite exports as well as for building stone. The UK is the third most valuable European granite export market for India followed by Poland and Belgium.

Table 3: Export of granite from India to different countries 2014-2015

	Quantity		Value		
	KG (*1000)	% to total	INR (*1000)	EUR (*1000)	% to total
China	4,195,377	63.9	30,221,046	428,837	30.7
USA	408,444	6.2	16,004,513	227,104	16.3
Turkey	154,471	2.4	4,309,348	61,150	4.4
Germany	83,251	1.3	4,051,034	57,484	4.1
UAE	130,321	2.0	3,153,750	44,752	3.2
Italy	172,934	2.6	3,116,493	44,223	3.2
UK	57,471	0.9	2,951,367	41,880	3.0
Poland	88,789	1.4	2,611,222	37,053	2.7
Belgium	74,987	1.1	2,138,022	30,339	2.2
Taiwan	163,692	2.5	1,894,617	26,885	1.9
Other countries	1,033,534	15.7	27,870,986	395,489	28.3
All countries	6,563,271	100.0	98,322,398	1,395,195	100.0

Source: Indian Minerals Yearbook 2015¹⁷

Recent trend: decline of export

The recent trends in granite production and marketing indicates a decline of granite exports, especially the export to China decreased. The granite sector witnessed a significant growth in the first decade of this century. The value of granite exports increased five folds from INR 19540 million (EUR 227 million) in 2000-2001 to INR 98507 million (EUR 1398 million) in 2013-2014. However, since 2013 there is a decline in exports. The value of exports declined by 9% from USD 871.4 million (EUR 767.9 million¹⁸) in 2013-2014 to USD 787.5 million (EUR 693.9 million) in 2014-2015.¹⁹ The economic slowdown in China - being the major importer of Indian granite - is having a negative impact on granite exports.²⁰

Table 4: Details of granite exports 2012 - 2015

Granite Category	2012 - 2013		2013 - 2014		2014-2015		2015-2016 (April to September 2015)	
	quantity	value	quantity	value	quantity	value	quantity	value
	KG (*1000)	(in millions)	KG (*1000)	(in millions)	KG (*1000)	(in millions)	KG (*1000)	(in millions)
Granite crude roughly trimmed	4,191,899	\$ 536.9 (€ 473.1)	4,623,968	\$ 575.6 (€ 507.2)	4,508,446	\$ 555.3 (€ 489.3)	1,848,557	\$ 233.1 (€ 205.4)
Granite merely cut into blocks and slabs	512,453	\$ 64.9 (€ 57.2)	587,134	\$ 80.2 (€ 70.7)	407,988	\$ 59.8 (€ 52.7)	334,370	\$ 44.1 (€ 38.9)
Granite blocks/ tiles polished	250,173	\$ 142.1 (€ 125.2)	224,376	\$ 106.9 (€ 94.2)	196,649	\$ 85.8 (€ 75.6)	72,680	\$ 33.9 (€ 29.9)
Other granite products	61,233	\$ 45.1 (€ 39.7)	188,840	\$ 108.7 (€ 95.8)	132,978	\$ 86.6 (€ 76.3)	55,130	\$ 34.6 (€ 30.5)
Total	5,015,758	\$ 789.0 (€ 695.2)	5,095,918	\$ 871.4 (€ 767.9)	5,246,061	\$ 787.5 (€ 693.9)	2,310,737	\$ 345.7 (€ 304.7)

Source: Government of India, Ministry of Commerce and Industry, Directorate General of Commercial Intelligence and Statistics.²¹

The granite industry in Karimnagar (located in Telangana state) flourished in the years before the 2008 Beijing Olympics. Almost 90% of the granite in Karimnagar, especially Tan Brown and Maple Red granite varieties, were exported to China in this period. Sales soared and the industry prospered on all fronts. Since 2014 the industry in Karimnagar is in deep crisis and several quarries closed down.²²

Processing and retail of Indian granite in importing countries

The end-users of granite in the importing countries include the granite processing industry, the building and construction industry, the funeral industry and the retail/ consumer market. The processing industry includes wholesalers and retailers involved in cutting to size, polishing, carving and



decorating granite. These companies mainly use semi-finished granite products, whilst the other industries mainly use finished products, like polished slabs. The building and construction sector uses different granite products, for example, floor and wall tiles for interior and exterior coverings, window and door sills, kitchen countertops, fireplaces, fountains, balustrades, street furniture and municipal furnishing like setts and curb stones. In the funeral industry, granite products are tombstones, gravestones and urns. The retail sector covers a wide variety of market segments, like garden centres, specialised interior shops for bathrooms and kitchens, Do It Yourself (DIY) centres and tilers and undertakers that sell or use granite products.²³ Granite waste stone pieces, a by-product, is processed in granite cobbles, pebbles and blue metal chips and used for paving, ballast for railway tracks or road construction. As granite is widely used in public buildings and for paving public spaces, governments are an important customer of the granite industry.

2.4 Buyers of researched quarries

The 22 sample quarries are owned by 21 granite companies; two quarries (quarry number 8 and 22) are owned by the same company. Arte, a Dutch natural stone company, is identified as buyer of quarry 8 and 22 because Arte shared information of their supplier with the researchers. Through export data analyses, for ten exporting quarries/ companies who are directly exporting granite to western companies, the names of buyers are identified. The 27 identified European buying companies are: Jetstone BV, Kerasom Groothandel In Tegels BV and Michel Oprey & Beisterveld Natuursteen BV in the Netherlands (NLD) (3 companies); Deisl Stein GmbH & Co. KG in Austria (AUT) (1 company); HABU Granit-Marmor, Just Naturstein GmbH, Magna Naturstein GmbH/ Magna Westfalia GmbH, M. Lampe Natursteine, Naturstein Risse GmbH and Natursteinbetrieb Schulte GmbH & Co. KG in Germany (DEU) (6 companies); Beltrami NV and Hullebusch NV in Belgium (BEL) (2); Beltrami UK Ltd, Blyth Marble Ltd, Grantech Ltd, KSG UK Ltd, mistermarble and Nile Trading UK Ltd in the United Kingdom (GBR) (6); Cosentino S.A. and Levantina in Spain (ESP) (2); General Stone

Trading Ltd in Liechtenstein (LIE) (1); Cereser Marmi SPA, Dalle Nogare geom. Sergoi Srl, Marimar Srl, Marmi Bruno Zanet Srl and Tiger Stone Srl in Italy (ITA) (6). Also 3 companies from the United States of America (USA) are identified: Daltile Corporation, M S International Inc. and World Rocks Inc. and 1 company from Canada (CAN): Worldwide Stone Inc. Furthermore, 3 banks are identified; Allied Irish Banks, HSBC Bank Plc. and Royal Bank of Scotland Plc., are all linked to the same quarry.

Table 5 presents an overview of identified buying companies of the 9 sample quarries as well as an overview of western countries where stone from the researched quarries/ exporting companies is imported. In the latter case, the export data did not provide insight in specific buyer-supplier relations but countries of destination for granite sourced from the researched quarries are identified. The data show that granite originating from quarry 15 is imported in the Netherlands, United Kingdom, Portugal, Italy, Poland, Greece and the USA. Granite from quarry 19 is also imported in Europe, namely in the Netherlands, Germany and Belgium. Furthermore, granite from quarry 18 is found to be imported in the United Kingdom, Canada and the USA. Buying companies in non-western countries are identified as well, but the report focuses on Europe and several companies in the USA and Canada.

Table 5: Link between sample quarries and buyers

Quarry number	Quarry location	Importing companies	Importing countries
15	Chimakurthi, Andhra Pradesh	KSG UK Ltd (GBR)	Greece, Italy, The Netherlands, Poland, Portugal, UK, USA
16	Chimakurthi, Andhra Pradesh	Deisl Stein (AUT) mistermarble (GBR) M S International Inc. (USA)	Austria, UK, USA
17	Chimakurthi, Andhra Pradesh	M S International Inc. (USA) Nile Trading UK Ltd (GBR)	UK, USA
18	Chimakurthi, Andhra Pradesh	Beltrami UK Ltd (GBR)	Canada, UK, USA
19	Chimakurthi, Andhra Pradesh	Allied Irish Banks (IRL) Grantech Ltd (GBR) HABU Granit-Marmor (DEU) HSBC Bank Plc. (GBR) Jetstone BV (NLD) Just Naturstein (DEU) Magna Naturstein GmbH/ Magna Westfalia GmbH (DEU) Michel Oprey & Beisterveld (NLD) M. Lampe Natursteine (DEU) M S International Inc. (USA) Naturstein Risse GmbH (DEU) Royal Bank of Scotland Plc. (GBR)	Belgium, Germany, Ireland, The Netherlands, UK, USA

Quarry number	Quarry location	Importing companies	Importing countries
20	Chimakurthi, Andhra Pradesh	Beltrami NV (BEL) Blyth Marble Ltd (GBR) Cereser Marmi SPA (ITA) Cosentino S.A. (ESP) Dalle Nogare geom. Sergio Srl (ITA) General Stone Trading Ltd (LIE) Levantina (ESP) Marmi Bruno Zanet Srl (ITA) M S International Inc. (USA) Tiger Stone Srl (ITA) Worldwide Stone Inc. (CAN) World Rocks Inc. (USA)	Belgium, Italy, Liechtenstein, Spain, UK, USA, Canada
21	Chimakurthi, Andhra Pradesh	Deisl Stein (AUT) General Stone Trading Ltd (LIE) Hullebusch NV (BEL) Kerasom Groothandel In Tegels BV (NLD) Magna Naturstein GmbH (DEU) Marimar Srl (ITA) Natursteinbetrieb Schulte GmbH & Co. KG (DEU)	Belgium, Germany, Italy, The Netherlands, Liechtenstein
8 and 22	Chimakurthi, Andhra Pradesh Karimnagar, Telangana	Arte (NLD) Daltile Corporation (USA)	The Netherlands, USA

It should be noted that importing companies mentioned by name in this report are not the only companies sourcing granite from the researched quarries, but they are the ones that could be identified as buyers through the analysis of export data (except for Arte, who gave insight in their supply chain). Due to a lack of transparency in the granite industry, private ownership of natural stone companies and limitations of export data it is difficult to gain insight in buyer-supplier relations and therefore only a limited number of buyers from the researched quarries are identified. Furthermore, the research sample includes 22 quarries in South India, but it is likely that labour conditions in other granite quarries in South India are more or less similar to the conditions in the researched quarries. For these reasons, addressing labour rights violations that are described in this report is not the sole responsibility of the buying companies named in this report, but of all companies sourcing and trading granite that originates from South India, including end-users in the funeral, retail and building and construction sectors.



Migrant workers sleeping in their accommodation

Chapter 3

Employment relations and working conditions in granite quarries:

FINDINGS FROM THE FIELD RESEARCH

This chapter describes the employment practices and working conditions of the labourers in the researched granite quarries. The observations presented in this chapter are based on interviews with quarry workers, management and on-site observations of the 22 sample quarries.

3.1 Nature of work and composition of the workforce

Granite mining and processing

The mining of granite involves different stages of operation. The core mining activity is block splitting either from a sheet rock or boulder. Other activities include the removal of the overburden (the material, soil and/ or rocks that lies above the granite) and the weathered zone (layer of granite subjected to climate conditions), lifting of cut blocks, transportation, block splitting and many other ancillary works after block splitting.

Once a deposit is located, workers 'harvest' the stone. They use drills, chisels and hammers to mark the dimensions of the stone to be cut from the parent rock, subsequently detonators use explosives to separate the marked stone. After this the separated stones are cut into blocks and dressing workers give the stones a fine edge. The stones are transported to processing factories, where granite blocks are polished and waxed, and cut into slabs. Waste stone or stone pieces unsuitable

for processing are either shaped and sold as one cubic foot bricks or are pounded into granite gravel and sold as blue metal chips.

The granite quarrying industry in South India is labour-intensive. Most of the quarries are hardly mechanised and depend upon a large number of skilled and semi-skilled labourers for carrying out various activities. Jockey drillers, stone cutters, dressing workers, detonators and other skilled and semi-skilled labourers constitute the bottom of the labour pyramid. Out of 22 quarries researched the use of heavy machinery like compressors, drilling machines, and big cranes is observed only in eight quarries (quarry 4, 8, 15, 17, 18, 19, 20 and 22).

Heavy dependence on seasonal migrant labour

A substantial portion of the workforce in granite quarries in Andhra Pradesh and Telangana are seasonal migrants.ⁱ Out of the 172 interviewed workers, 61% (105) are migrant labourers and the remaining 39% are local workers. There is a marked preference among quarry owners for hiring migrant labour for various activities in quarries. Migrant workers are preferred over local workers as they are considered to be more obedient, work longer hours and do not switch employers frequently. Migrants are able to work flexible and longer hours as they often have fewer social or familial commitments. They are less likely to strike and they are often paid lower wages.

Compared to Karnataka, the dependence on migrant labour is more common in quarries in Telangana and Andhra Pradesh. Migrant labour accounts for 71% of the workforce in Telangana and 69% in Andhra Pradesh while 22% of the workers in Karnataka are migrants. In Karnataka, most of the quarries are small in size and therefore do not require a large labour force. Migrants are attracted to quarry locations with more employment opportunities. Most of the migration (70-80%) is inter-state. The migrants from outside the states are mostly from Odisha, Chhattisgarh, Tamil Nadu, Rajasthan and Gujarat.

Caste composition of the workforce

The research sample covers workers engaged in different types of activities, including machine operators, vehicle drivers, stone cutters and stone dressers and workers involved in waste stone processing. Most of the workers engaged in stone quarry work are from Other Backward Class (OBCs)ⁱⁱ, particularly from one community called Vaddera. Stone cutting and processing is a traditional occupation for this community. The caste composition of workers is 43% (74) Other Backward Class (OBCs), 27% (46) Dalitsⁱⁱⁱ, officially called Scheduled Castes (SCs), and 11% Scheduled Tribes (STs); the remaining 19% are from other (upper) castes.

The educational background of workers shows that 31% (53) of the workers are illiterate and 36% (62) completed only primary schooling.^{iv}

ⁱ Seasonal migrant workers are those who temporarily migrate (individually or with families) to a workplace for few months in a year and stay there till completion of the season. The duration of the migration period may vary from location to location and nature of work. The typical duration of migration in the sample quarries is 6-7 months.

ⁱⁱ Other Backward Class (OBC) is a collective term used by the Government of India to classify castes which are economically, socio-culturally and educationally disadvantaged (compared to Upper Caste). It is one of the official classifications of the population of India, along with Scheduled Castes and Scheduled Tribes (SCs and STs) who are most disadvantaged.

ⁱⁱⁱ Dalits were formerly known as 'untouchables'. The legal term for Dalits is 'Scheduled Castes' (SCs).

^{iv} As per 2011 census the illiteracy rate in Andhra Pradesh is 32.5%, in Telangana 33.5% and in Karnataka 24.5%.

Gender composition of the workforce

The gender composition of the workforce shows that the largest number of the workers involved in quarrying operations are men. Out of the 172 workers interviewed 34 are women (20%) and 138 men (80%). While men are exclusively employed in key operations like drilling, cutting and shaping the stones, women are mainly employed in the processing of waste stone. Women are also employed in housekeeping activities such as cleaning offices and cooking food for workers. See table 6 for an overview of the division of labour between men, women, migrant and local workers.

Table 6: Division of labour

Category of workers/workforce	Gender	Local/migrant workers
Supervisors	Men	Mostly local
Machine operators	Men	Mostly migrant
Vehicle drivers	Men	Mostly local
Stone cutters and dressers	Men	Mostly migrant
Housekeeping/ cleaning, watchmen	Men and women	Local
Waste stone processing workers	Mostly women and children	Mostly Local

Age composition of the workforce

The age composition of the workforce shows that most of the workers are younger than 40 years. Out of the total 172 interviewed workers 88 (51%) are in the age of 19 to 30 years and 52 (30%) are in the age of 31 to 50 years. 24 workers (14%) are older than 50 years. The age of 8 workers (5%) is below 18 years, 2 under the age of 14 years and 6 in the age group of 15 to 18 years. Involvement of children below 14 years and young workers in the age group of 15-18 years are mainly observed in waste stone processing.

3.2 Prevalence of child labour

Stone quarry work is considered a hazardous activity and employment of children under the age of 18 years is prohibited in quarry activities under the Indian Child Labour (Prohibition and Regulation) Amendment Act, 2016²⁴, and The Mines Act of 1952²⁵. Despite the prohibition, the involvement of children on a small scale is observed in the researched granite quarries.

Table 7 presents the field data on the incidences of child labour observed in main quarry activities (waste stone processing not included) in the 22 sample quarries. 13 child labourers below 18 years are identified in 7 out of 22 researched quarries. Out of seven, two quarries are located in Karnataka, two in Andhra Pradesh and three in Telangana. Compared to Andhra Pradesh and Telangana the incidence of child labour is slightly higher in Karnataka. Children below 14 years are not observed in main quarry activities. Further, nearly 60% of the workers interviewed have more than 10 years of work experience in the natural stone industry and 36% started their work in granite quarries at the age of 15 to 18.



Workers loading waste stone in a truck

Table 7: Proportion of children (below 18 years) in researched granite quarries

	Number of quarries identified that employ child labour in quarry operations	Number of child labourers employed	Total workforce (approx.)
Karnataka	2 (quarry 10 and 12)	3	180
Telangana	3 (quarry 3, 6 and 7)	6	480
Andhra Pradesh	2 (quarry 19 and 21)	4	610

Prajapati: a migrant boy working in a granite quarry in Telangana

Prajapati was born 14 years ago in Thapagada village in Malkangiri district, Odisha. This boy belongs to the Adipathi, a Scheduled Tribe (ST). His father, aged about 50 years, is an agricultural labourer and his mother, aged about 40 years, a housewife. He has one elder brother who never went to school and is working in a nearby village. His younger sister who is two years old stays with her mother at home.

Prajapati completed his primary school (5 years) and dropped out. He stopped his education as there was no high school in their village. To continue his education from 6th class onwards, he should travel 10 kilometres to another village. His parents however were not willing to send him to school for further studies as they considered him as a source for additional family income. Hence his father received an advance of INR 2000 (EUR 28.38) from one of the middlemen and sent Prajapati along with some other boys of his village for work in a granite quarry (quarry 7) at Bahupet village in Telangana state. *“Many young boys like me from my village are working in granite quarries and factories around Karimnagar town,”* says Prajapati. He earns nearly INR 5000 (EUR 70.95) per month, sending INR 4500 (EUR 63.86) to his parents. He is under supervision of the middleman who brought him there. He says: *“Going to school in uniform should have made me happy too, but as I come from a very poor family that generates no profit, so, as the eldest son of my family it is my responsibility to help my family. Hence I have to earn income for my family.”*

Decline of child labour in main quarry operations

Compared to the situation of child labour several years ago, the findings of this study indicate a decrease in the magnitude of child labour in core quarry operations in Karnataka, Andhra Pradesh and Telangana. The interviews with workers, employers, local teachers and trade union leaders also confirm this. Earlier studies from 2005 and 2009²⁶ found the involvement of a large number of child labourers in granite quarrying activities. In 2014, ICN also conducted a study on modern slavery and child labour in the granite industry in Tamil Nadu and Karnataka showing that despite a significant reduction in recent years child labour continued to be an issue of concern particularly in the state of Karnataka. Children below 14 years accounted for 4.6% and 15-18 years olds for 5.1% of the total workforce in granite quarries in Karnataka.²⁷

The issue of child labour in mining activities has received wide attention in recent years and various initiatives have been undertaken by the government, natural stone industry, labour unions and NGOs to tackle the problem (see section 5.3). The impact of these interventions from various actors resulted in a decline of the incidence of child labour in this sector.

Also, the change in labour migration patterns resulted in a reduction of child labour in Andhra Pradesh. Since 4 to 5 years, quarry owners are requesting migrant labourers not to bring their families. They prefer to hire labourers that migrate alone. The reason for this, cited by quarry owners, is the legal requirement to provide proper and separate accommodation for migrate workers' families; if workers migrate alone, they can be accommodated together.

Contrary to core quarry operations, the involvement of child labour in processing of waste stone into cobbles and blue metal chips did not receive much attention thus far. As waste stone disposal is not considered a responsibility of the quarry owner, family labour is involved mainly outside the quarry. As part of this study, six waste stone processing locations were visited (two in each state) and interviews were conducted with 45 workers involved in waste stone processing. Nearly 80% of the labour force in this activity are women and children. Children below 14 years account for nearly 3% of the workforce in waste stone processing and 5% of the workforce is between 15 to 18 years old. With 8% child labour engaged in this activity, the findings of this study indicate that the magnitude of child labour in the processing of waste stone has not changed. The previous study of ICN and Stop Child Labour on child labour in the Indian granite industry found that in 2014 in Karnataka child labour accounted for almost 10% of the total workforce (4.6% below 14 years and 5.1% 15-18 years).²⁸ All children below 14 years were only involved in waste stone processing. The detailed findings on waste stone processing are further described in chapter 3.8.

3.3 Labour hiring practices: prevalence of modern slavery

More than 70% of the workforce in granite quarries are casual labourers employed on a daily wage or piece rate basis. Recruitment of labour by providing binding loans and wage advances is a widely prevalent labour hiring practice in the granite quarrying industry in all three states covered in this study. The quarry management wants a secure labour force to carry out different quarry operations. To ensure sufficient manpower they prefer to make long term arrangements with workers by paying loans and wage advances. Wage advances and loans are used by the quarry owners as a means to bind the workers to the quarries.

Recruitment of workers through labour contractors

For their requirement of labour, particularly migrants, quarry owners mainly depend on middlemen or agents. The recruitment of labour through third party labour contractors or agents (locally called 'mastries') has increased substantially in recent years. After 2005, there was a sudden rise in the demand for granite and companies increased their production. Due to scarcity of skilled local labour, companies became more dependent on migrant labour, recruited by third party labour contractors. A labour contractor supplying labour to quarry 20 and 21 shared that: *"One decade ago there were only 25-30 labour contractors in Chimakurthi village, but now this number increased to 70-80. For recruitment of migrant labour they [granite companies] prefer us. They can save a lot of money if they recruit the labour through us, because we need to provide accommodation and food to the migrant workers. If companies have to provide accommodation and food facilities it would cost them more. Also, managing labour is a big headache. In order to avoid these things companies prefer hiring labour through us."*

There is a great demand for these contractors amongst quarry owners, since most of the labour-related problems are taken care of and settled by the contractors themselves. In this way, the owners can easily escape their responsibility to obey various laws and regulations associated with the welfare of the workers. The contractors are fixing wages, working hours and allowances and are providing accommodation and food to the migrant workers, but do not provide formal employment contracts. Most of the contractors are illiterate but have practical field experience. The contractors do not know the legal requirements and are not positioned and equipped to implement them. As quarry owners also do not fulfill their responsibilities as employers, quarry workers are at the receiving end.

In almost all the quarries studied in Telangana and Andhra Pradesh migrant workers, who account for more than 70% of the workforce, are employed through labour contractors, without formal employment contracts. Also, the jockey (drilling machine) operators and jockey helpers are not directly employed in many quarries. Only the management and supervisory staff is directly hired by the quarry owners or management. The quarry management makes agreements with the labour contractors for the supply of labour. There are instances where one contractor is providing labour to different quarries and also where migrant workers are working in different quarries (especially when they work on piece rate basis or as daily wage workers). Table 8 shows that 69% of the interviewed quarry workers are hired through labour contractors.

Table 8: Direct and indirect employment of workers

Employment arrangement	Andhra Pradesh	Telangana	Karnataka	Total no. of workers
Directly	11 (18%)	15 (31%)	13 (72%)	39 (31%)
Indirectly through labour contractors	50 (82%)	33 (69%)	5 (28%)	88 (69%)
Total	61 (100%)	48 (100%)	18 (100%)	127 (100%)

There are around 40 to 50 labour contractors in Chimakurthi in Andhra Pradesh who supply manpower to quarries in that area. Each middleman supplies a workforce ranging from 20 to 100 workers. The study team met two of these middlemen. Mr. Rajendra Reddy, aged 44 years, supplies manpower to quarry 15 and 21. He migrated in 2005 from Ganjam district of Odisha. Mr. Sankar Rao, aged 45 years, from Khammam district of Telangana, who is supplying labour to quarry 15, permanently migrated in 1996. According to them, the industry did well until 2015 when they supplied approximately 100 workers each. Since 2015 many of the well performing quarries started closing down. Now they only supply 25 to 60 workers to quarries.

To ensure timely supply of labour, quarry owners provide advances to labour contractors for mobilising labour. The advance amounts vary depending upon the number of labour required by the quarries. In recruiting workers, labour contractors compete with each other on wage advances and other benefits like accommodation.

Debt bondage through loans and wage advances

Debt bondage is a major issue of concern in granite quarries. Debt bondage, also known as bonded labour, is a person's pledge of labour or services as security for the repayment for a debt or other obligation. The services demanded to repay the debt may be undefined, and the services' duration may also be undefined.^v

Labour contractors offer advance payments in accordance with the size of families and the number of workers a family can offer, encouraging struggling families to join the quarry work. Additionally, they also offer small loans to some families in need. The families use these loans for a variety of purposes: meeting domestic expenses, dowry or weddings, festivals, cultural rituals or coping with emergencies like illness, accidents or death. On these loans the labour contractors charge interest ranging from 24% to 36% per year. No interest is charged on the wage advances.

Wage advances paid to workers vary between INR 5000 (EUR 70.95) to INR 15000 (EUR 212.85) in Andhra Pradesh and Telangana; in Karnataka it varies between INR 5000 (EUR 70.95) to INR 20000 (EUR 283.30) per worker in 2016. This is equivalent to a wage of one to three months for the workers. Once the workers get an advance, they repay the amount through installments deducted from their wages every month. New advances are taken when the workers are in need. The actual amount deducted from the wage is determined through a mutual agreement between the worker and the middleman. The advances make the workers vulnerable to debt bondage, as workers can be restricted in their freedom to change employer by the heavy burden of huge advances that need to be repaid.

The wage advances and loans are primarily used as means to bind the workers. *"There is a lot of competition among labour contractors to get the workers. Without advances it is difficult for us to mobilise and retain the workers with us. If we do not pay advances there is no guarantee that they will stay with us"*, said a labour contractor who supplies labour to major quarries in Chimakurthi, including quarries included in the sample.

^v Article 1(a) of the United Nations' 1956 Supplementary Convention on the Abolition of Slavery defines debt bondage as "the status or condition arising from a pledge by a debtor of his personal services or of those of a person under his control as security for a debt, if the value of those services as reasonably assessed is not applied towards the liquidation of the debt or the length and nature of those services are not respectively limited and defined".

Source: <http://treaties.un.org/doc/Publication/UNTS/Volume%20266/v266.pdf>

As shown in the table 9, around 45% of the interviewed workers in the sample quarries is recruited through paying wage advances (without interest rates) and nearly 25% of the workers is recruited by paying loans, which carry interest rates of 24% to 36% per year. In Telangana about 42% of the local workers and 58% of the migrant workers interviewed reported that they owe large sums of money (INR 10000 (EUR 141.90) to INR 20000 (EUR 283.80)) to the quarry owners or contractors and they therefore have been working with the same quarry for more than two years. If workers want to leave the employer they must first clear the amount they owe to the employer.

Table 9: Payment of wage advances and loans to workers

Bonded labour system	Andhra Pradesh	Telangana	Karnataka	Total
Loans with interest	8 (13%)	17 (35%)	7 (39%)	32 (25%)
Wage advances without interest	25 (41%)	31 (65%)	6 (33%)	62 (49%)
No loans or advances	28 (46%)	0	5 (28%)	33 (26%)
Total	61 (100%)	48 (100%)	18 (100%)	127 (100%)

In 9 quarries (quarry 3, 5, 6, 7, 11, 12, 13, 19 and 21) bonded labour is prevalent as huge recurring advances (up to INR 20000 (EUR 283.30)) are paid to labourers working in these quarries. In 3 of these quarries (quarry 3, 7, 12) recurring advances have high interest rates. In 10 quarries (quarry 1, 2, 4, 9, 10, 14, 16, 17, 18, 20) there is a risk on the prevalence of bonded labour as advances up to INR 20000 (EUR 283.30) are paid to workers. Only in three quarries (quarry 8, 15 and 22) wage advances are small and therefore it is unlikely that bonded labour is prevalent in these quarries.

3.4 Low wages and non-payment of overtime

The wages paid to workers in granite quarries are relatively low compared to several other sectors. There are three types of wage payments. Depending on the nature of labour arrangements, workers are paid on a monthly, daily or piece-rate basis.

The permanent or regular workers of which the number is very small are paid on a monthly basis. The workers involved in stone drilling, cutting and dressing are paid on daily rate as well as piece-rate basis. Piece-rate arrangements are preferred by the quarry owners during peak production season when there is more work to be completed. Also, they prefer to hire local workers on piece-rate basis. There is a growing preference for hiring workers for these activities on a piece-rate system as it reduces the need for continuous supervision of work.

Table 10: Statuary minimum wages versus prevailing market wages for daily wage workers in granite quarries

Category of labour	Minimum wages as per notification issued in April 2016*		Prevailing wage rates per day (recorded in October 2016)		
	Work below ground	Work above ground	Karnataka	Andhra Pradesh	Telangana
Highly skilled (e.g. supervisors, heavy machine operators, accountant, head mastery)	INR 495 (€ 7.03)	INR 436 (€ 6.19)	INR 500 - 600 (€ 7.10 - 8.51)	INR 500 - 700 (€ 7.10 - 9.93)	INR 500 - 660 (€ 7.10 - 9.37)
Skilled (e.g. foreman, wireman, drillers, drivers, fitters, crusher operator vehicle drivers)	INR 436 (€ 6.19)	INR 374 (€ 5.31)	INR 400- 500 (€ 5.68 - 7.10)	INR 400- 500 (€ 5.68 - 7.10)	INR 400 - 500 (€ 5.68 - 7.10)
Semi-skilled (e.g. jockey operators, stone cutters, dressers)	INR 368 (€ 5.23)	INR 312 (€ 4.43)	INR 250 - 320 (€ 3.55 - 4.54)	INR 300 - 350 (€ 4.26 - 4.97)	INR 275 - 325 (€ 3.90 - 4.61)
Unskilled (e.g. housekeeping, cleaner, loading/unloading, helper)	INR 312 (€ 4.43)	INR 250 (€ 3.55)			

* This wage rate applies to men and women equally. The normal working day is eight hours; for overtime work, the workers are entitled to wages twice the minimum wage rate.

Table 10 presents the minimum wage rates for daily wage workers in the granite industry as prescribed by the Government of India in April 2016. According to this notification, mining operations are classified as work below the ground and work above the ground. In most cases granite quarrying is considered as work above the ground. Different types of labour are divided into four categories: highly skilled, skilled, semi-skilled and unskilled labour. For each labour category wage rates are fixed for work above and below ground. The daily wage rates for unskilled labour is fixed at INR 250 (EUR 3.55), INR 312 (EUR 4.43) for semi-skilled labour, INR 374 (EUR 5.31) for skilled labour and INR 436 (EUR 6.19) for highly skilled labour.^{vi}

The Minimum Wages Act, 1948, in India stipulates payment of minimum wages to workers in various sectors, including the mining sector. A minimum wage is defined as a wage that not only guarantees bare subsistence but also provides for education, medical requirements and some level of comfort. The fixation of minimum wages and enforcement of the act in the mining sector is the responsibility of the central government, while state governments are responsible for providing quarry licenses. In spite of the legal requirements, actual payment of minimum wages is often not in line with the law for stone quarrying.

^{vi} In January 2017, the Government of India has further revised the minimum wage rates for workers in different sectors. According this latest notification the minimum daily wage rate for unskilled labour in non-agricultural sectors, including granite mining, is INR 350 (EUR 4.97). As the field research is conducted during the period June to November 2016, the legal minimum wages that came into effect in April 2016 are used for analyses.

As per the information collected during the field research in October 2016 the daily wage rates paid to semi-skilled and unskilled workers who are involved in stone drilling, cutting and dressing activities varies between states. Depending upon the activity, daily wage workers are paid between INR 300 (EUR 4.26) to INR 350 (EUR 4.97) in Andhra Pradesh, INR 275 (EUR 3.90) to INR 325 (EUR 4.61) in Telangana and INR 250 (EUR 3.55) to INR 320 (EUR 4.54) in Karnataka. If the work is entrusted on a piece-rate basis the amount is paid on per unit basis, often per feet. According to the interviewed workers they earn more money per day (INR 50 (EUR 0.71) to INR 75 (EUR 0.99) extra) when working on piece-rate basis compared to a daily wage arrangement. As wage rates are low, workers hardly meet their basic requirements. In case of unexpected expenses like health expenses, festivals, burials etc. workers are often taking loans to be able to pay for this.

In 2015, the Centre of Indian Trade Unions (CITU) reached a wage agreement with the quarry owners associations in Andhra Pradesh. According to this agreement quarry owners agreed to a daily wage rate of INR 310 (EUR 4.40), which is INR 20 (EUR 0.28) more than the minimum wage of INR 290 (EUR 4.12) for semi-skilled labour set by the Government of India in 2015. However, this government wage rate is still prevalent now, while minimum wage rates are revised by the central government in April 2016. According to the revision, the minimum wage rate for a semi-skilled worker is INR 312 (EUR 4.43) per day which is close to the prevailing market wage rate. In April 2016, the trade unions demanded a revision in the wage rate from INR 310 to 350 (INR 38 extra more than the minimum wage rate fixed by the Government of India) but they did not succeed. Instead, the quarry owners decided to only pay the minimum wage rate fixed by the Government of India as per April 2016.

In 5 quarries (quarry 7, 9, 10, 11 and 12) minimum wages are not paid. Furthermore, when taking the number of working hours into consideration the wages in 10 researched quarries (quarry 3, 5, 7, 9, 10, 11, 12, 14, 16, 17) do not meet the legal requirement. A normal working day is eight hours as per the law, 6 days a week; for overtime work, workers are entitled to wages at twice the minimum wage rate. In most quarries, the normal working day is eight to nine hours. The work begins between 8.30 - 9.00 am and continues till 6.00 pm with one hour lunch break. However, overtime work is very common in quarries. During peak production season (summer months) the workers are required to work an additional one or two hours each day. In quarries where overtime is not paid in line with the law, overtime is usually compensated through various incentives such as providing tea and snacks during overtime work or a bottle of local liquor (for men) at the end of the workday, as the consumption of alcohol is very common among quarry workers. By providing liquor to workers the consumption of alcohol is stimulated by employers and used as a way to bind the workers.

Bhimaraju Pathrua: a migrant worker from Odisha

Bhimaraju Pathrua is a 45-year-old man belonging to a backward caste from Ganjam district in Odisha. He started working in a quarry at the age of 17. Currently he is operating a drilling machine in one of the quarries in Chimakurthi.

He completed his primary education and joined his father in agricultural labour in his village. When he was 17 years, his father received an advance of INR 5000 (EUR 70.95) from one of the middlemen and sent him to work as helper in quarries of Chimakurthi. The middlemen provided shelter and work. Once every 6 months he was allowed to go home. The money he earned was given to his father whenever they needed money. He says: *"I used to get little money like INR 500 or 1000 (EUR 7 to 14) for minor expenses."*

Since the start of his work he changed middlemen twice. He has been working for the current middlemen for 10 years. He says: *"I have to redeem the advance that I received during all this years. The outstanding amount is INR 22000 (EUR 312.18) which I have to repay all through work only."* He adds: *"My middleman very much prefers me to work with him, and whenever I need money he will help me, so we both benefit."*

Moreover, experience shows that when one leaves the current middlemen, few other middlemen are willing to offer you work. In addition, it would be financially difficult because the advances provided will be very low, so low that they are insufficient for family needs.

When Bhimaraju married, he initially migrated with his wife and rented a room, but that was very expensive, so now he migrates alone. In addition, both the quarry management and the middlemen discouraged family migration during the last 4 to 5 years, to save costs associated with good accommodation and other facilities for migrant families (school for the children, work for female family members, etc.). Now he visits his family once every three months, with a handful of money. His wife returned to their hometown and works as an agricultural labourer. His father is old, ill and bed-ridden for four years now. Bhimaraju has two children studying at a government school. He has decided that his children will not live bonded to debt.

Bhimaraju says: *"Working in a quarry is very risky, at any time there can be an accident with everyone. We need to climb to the top of the hill with a ladder. 100 to 150 feet high drilling in rocks requires courage, and it's very scary to look at others as small as ants."* If an employee is seriously injured in an accident, the compensation is paid by the quarry management, and if the employee wants to quit his job, he must pay off the outstanding debts to the middlemen.

Usually, except on Sundays, work is available, but due to unhygienic living conditions, four or five days a month are lost due to illness or fever. There are 15 to 20 people housed in one room, and in summer most of them sleep outside or in the hallways. During the rainy season, most people return home because it is off-season and not much work is available. In winter, it becomes difficult because all 15 of them have to stay in one room, which hardly offers place for 6 to 8 people. The rooms offered by the middlemen change frequently and usually there is only one or no toilet facility available. In some cases, rooms are taken far outside the village and are so isolated that employees have to walk 3 to 4 km to get on the company vehicles to go to the quarry.

Nowadays Bhimaraju receives a salary of INR 310 (EUR 4.40) per day, of which INR 5 (EUR 0.015) is commission for the middlemen. He spends INR 2000 (EUR 28.38) per month on food, INR 80 (EUR 1.14) per day on liquor and INR 30 (EUR 0.43) on smoking beedis. In addition, he spends INR 100 to 150 (EUR 1.42 to 2.13) every month on entertainment (cinema or visiting a nearby town).



Quarry workers operating the drilling machine without using protective equipment

3.5 Occupational hazards: health and safety risks

Granite quarrying is hazardous in nature, as even a minor mistake can be fatal to workers. Quarry workers face many occupational hazards like explosions, large moving stones, dust and back-breaking labour. Accidents at the work place, sometimes resulting in the death of workers, occur frequently in quarries. Quarry workers are especially vulnerable to work related illnesses, as the loud sounds of machines may create hearing problems; carrying heavy weights, mainly in shallow quarries and in non-mechanised plants, may cause serious back injuries and eye problems can be caused by granite particles. Exposure to silica dust causes lung diseases and reduces lifespan considerably. Unsanitary living conditions, malnutrition, lack of clean drinking water and substandard medical care also contribute to the poor health of quarry workers.

3.5.1 Occupational health and safety

Occupational health and safety is a serious issue of concern in quarrying. More than 80% of the workers interviewed and also other stakeholders like trade union members, community leaders and

school teachers opined that health and safety is the major issue of concern in granite quarrying and processing. Four key aspects of workers' health and safety in granite quarries were identified: access and use of Personal Protective Equipment (PPE), job-related chronic illnesses, accidents and death frequency and first aid and medical facilities.

Access and use of Personal Protective Equipment and job-related chronic illnesses

The government regulations²⁹ stipulate quarries to provide appropriate safety equipment to workers, including helmets, goggles, boots, respirators/ masks, gloves etc. Most of the quarries visited in Karnataka, Telangana and Andhra Pradesh are not following work safety guidelines. The situation is slightly better in some big quarries (quarry 4, 8, 15, 18, 19, 20, 22) but even in these quarries the access and use of PPE is largely confined to a small section of permanent workers who are mainly involved in supervising quarry activities.

During field visits to sample quarries the study team observed workers doing various activities at quarry sites including drilling, wire saw cutting^{vii}, shaping the stone, loading and unloading. As granite contains silica particles, cutting, drilling or grinding of granite exposes workers to silica dust. The inhaling of silica dust particles can cause silicosis, an incurable lung disease that is highly prevalent among stone quarry workers.³⁰ For preventing the exposure of workers to silica dust, dust can be captured or minimised at the source by using vacuums or water to suppress dust development. When water or vacuums are not feasible, an appropriate respirator should be used; however, respirators will not fully protect workers working close to the source.³¹ In most of the visited quarries workers were seen without any PPE when cutting, shaping or drilling stone. Especially the drilling activity generates a lot of dust and is very noisy. In none of the quarries that were visited, workers involved in drilling operations were seen wearing any respirator and ear and eye protection. Wet drilling is observed in four quarries (quarry 15, 18, 20 and 22).^{viii} Furthermore, even in quarries where quarrying takes place at the depth of 50 meters, workers are working without a helmet or other protective equipment.

In 25% of the sample quarries, mostly small quarries located in Karnataka and Telangana, workers were unsure if any protective equipment was available at the worksite. Nearly 62% of the workers interviewed in sample quarries reported that they are not provided any safety equipment by their quarry management, except during labour department inspections. Of the remaining 38% who reported that they have received safety shoes and helmets from their employers, only 24% reported that they have been using them regularly. Part of the reason for not using the PPE is the negligence of workers, but there is also no compulsion from the management to use them. Few workers said they are not very comfortable working with shoes.

Accidents and death frequency

The majority of quarry owners do not provide all legally required PPEs nor do they train the workers on health and safety risks and how to use the PPEs. The lack of investment in the personal safety of the workers greatly increases the exposure to occupational hazards. Many workers get injured due to the accidental fall of materials or stones. Another cause of accidents is the breakage of the metal cable of wire saws, mostly caused by improper installation. The lack of space for the heavy

^{vii} A wire saw is a powered saw that uses a metal wire or cable for cutting. Mining and quarrying industries commonly use a wire saw to cut hard stone into large blocks that can then be shipped to processing plants to be further refined (in the case of ore dressing) or shipped to distributors (in the case of granite or marble for building).

^{viii} Wet drilling is a process in which water is used to suppress dust development when drilling or cutting the stone.

vehicles to move also leads to accidents, as the trucks have too little space to turn and they roll down the loaded rocks, or even worse, the trucks roll down the hill as whole. The Ministry of Labour and Employment has registered the main risks regarding accidents in which mine workers get killed or seriously injured. These risks correspond to the findings of the field research, being: roof and side fall, wheel and trackless transport vehicles, explosives and blasting, slope and dump failures, fall of persons and fall of objects.³² Occupational safety has become a crucial issue with the increasing mechanisation process in quarries. Untrained labourers are incompatible with the requirements related to deployment and operation of the machines.

From the sample quarries in all three states, 60% of the workers reported that every month they spend a significant amount of their earnings for medical reasons. Non-accessibility of PPE is resulting in frequent injuries of workers every day in one quarry or the other and sometimes workers die in the quarries. A CITU Mandal Coordinator said: *“On average at least 3-4 workers die in quarry accidents every year. There was a death in one of the quarries in April 2016, where the worker fell from approximately 90 feet height and was left dead. It could have been prevented if he had the safety belt tied to the rope. These incidents happen once every 3 months. The quarry managements are not serious in providing proper PPE that can help workers.”* In 2010, there was an accident in a quarry in Chimakurthi in which 12 workers lost their lives. According to data of the Ministry of Labour and Employment, 78 workers were killed in accidents in non-coal mines in the year 2011 alone, of which 17 workers were killed in granite quarries.³³ In fact, these fatal accidents in 2011 also included two of the quarries of this study, quarry 3 and quarry 15. The deadly incidents of quarry workers are reported by the media very frequently. Moreover, there are many deadly accidents that remain unreported in the media or are not known to any outsider.

First aid and medical facilities

All the quarries should provide a first aid room which should be accessible for the workers. However, field observations in the sample quarries reveal that there often is a room titled first aid, but most of the time it is locked or used as storage room. A few workers said that in spite of the facility they do not prefer using it at the time of need as there are no proper facilities available in the room. A few big quarries are maintaining first aid rooms well, but not many of the workers are trained to provide first aid, so workers need to wait for the doctor or a trained person to attend the injured. In Chimakurthi the study team noted that *“one of the quarries [quarry 15] has come to an agreement with a local private hospital where all the workers working in their quarry can approach and use the facility free of cost by showing their ID cards.”* Workers feel proud working in this quarry as no other quarry has such a facility in Chimakurthi. In most of the quarries there are first aid boxes available as small injuries are very common when working with hard rocks. Like one worker said: *“Working in the quarry without any injury is like walking in the rain without an umbrella and presuming not to get wet.”*

3.5.2 Workplace facilities

The main basic facilities to be provided by the management at the worksite are clean drinking water, a rest area, toilets and transportation from home to the workplace and back. Except for transportation, all other facilities are legal requirements as per The Mines Act, 1952.³⁴

Basic amenities

As quarry work involves work in open air in extreme working conditions, the management is responsible to provide a few basic amenities to the workers. For instance, safe drinking water should be provided, but in 50% of the sample quarries clean drinking water for workers is lacking. Further-

more, workers need a rest area for their (lunch) breaks. In most of the sample quarries visited there is no rest area provided or the rest area is far away from the worksite hence the workers cannot use it. In four big quarries (quarry 4, 15, 20 and 22) there are toilet facilities for the workers and they are maintained well. In most of the quarries there is no toilet facility for the workers and they use the open area in and around the quarry. Regarding transportation of workers to the workplace, 14 of the 22 quarries provide transportation, but the vehicles used are good carriers or trucks, not vehicles for passenger transportation. In each truck, approximately 60 to 80 workers are brought to the quarry at once. Few quarries have one or two mini-buses but these are only used for supervisors, managers and foremen/ administrative staff, not for workers.

All required basic amenities are lacking at the quarry sites, which has a direct impact on the health of the workers. As many as 90 workers reported that due to such an unhealthy working environment they do not attend work at least for 2 to 4 days per month and they spend a major portion of their earnings on health care. Furthermore, malaria is rampant in Chimakurthi, as per the records of the Andhra Pradesh government health department. The water-logged quarries have become breeding spots for mosquitoes and as a result many workers are suffering from malaria.

Living conditions of migrant workers

Migrant workers in Andhra Pradesh are almost always provided accommodation outside the quarry sites in neighbouring towns and villages. In Telangana migrants are living in a separate colony outside the quarry premises and in some quarries migrant workers live at the quarry site. The migrant workers live in very poor conditions, as the accommodation provided to them is grossly inadequate. The living conditions of migrant workers in the three researched states are more or less similar.

In Andhra Pradesh workers migrate individually as accommodation and food is provided by the middlemen. In Telangana workers with families live separately in a colony, while workers without families are housed in a common room so small that most workers prefer to sleep outside during warm nights. These common rooms do not have proper facilities. Little or no provision is made for sanitation or safe drinking water which contributes to the unhealthy living conditions and poor health of migrant workers. Also, there is no privacy or social protection. While workers living within the quarry premises are not restricted from interacting with outsiders and are free to move in and out of the quarry, still they are constantly being watched and they cannot leave the quarry without informing the quarry management. Restrictions on freedom of movement are a strong indicator of forced labour.³⁵

In Andhra Pradesh, the workers have all the freedom to go anywhere they want, but the restriction is related to wage advances. According to one of the middlemen, *“most of the workers take advances on Sundays to consume alcohol. As a result, alcoholism and HIV prevalence is very high among migrant workers in this location.”* In Andhra Pradesh 80% of the migrant accommodation consists of a semi-pucca house^{ix}, roofed with tin or asbestos sheets with one lamp and one fan, where 12 to 15 persons are accommodated. The ventilation of the rooms is so poor that one can barely see without light during daytime.

^{ix} Pucca housing refers to dwellings that are designed to be solid and permanent. This term is applied to housing in South Asia built of substantial material such as stone, brick, cement, concrete or timber.

3.6 Social benefits

Every employee has the right to get certain social benefits while working in any industry. This is defined in several labour regulations, including The Unorganised Workers' Social Security Act, 2008³⁶, The Inter-State Migrant Workmen Act, 1979³⁷ and The Mines Act of 1952.³⁸ The granite industry is one among those industries where workers are deprived of their right to social benefits.

Employees' Provident Fund

Workers, both temporary and permanent, are entitled to the Employees' Provident Fund (EPF). The EPF is a retirement scheme, in which both employer and employee contribute to the individual EPF account of the employee, usually on monthly basis. EPF is mandatory to all salaried employees in any company with over 20 employees.^x In all the three states included in this research, interviewed workers reported that only regular workers who are directly employed by the quarry are receiving this benefit. None of the casual workers who are employed on temporary basis interviewed in Karnataka and Telangana reported that they are receiving EPF. In Andhra Pradesh and Telangana 5 big quarries (quarry 2, 4, 19, 21 and 22) are paying EPF to temporary workers as well as to workers recruited through labour contractors. However, the temporary workers and seasonal migrant workers have little clarity on what EPF is and how they can benefit from it, as they consider it a regular deduction that will never come back. Most of the workers are not aware of having EPF accounts. Sometimes, EPF reductions are not actually deducted but withheld by labour contractors or the quarry management.

Health insurance and medical benefits

Most workers who are directly hired in the researched quarries do get medical services through health insurance as per the legal requirement. But none of the workers hired through middlemen are covered under formal health insurance, while these workers are most exposed to health risks of quarry work. In some quarries, informal health services are provided to workers. Table 11 shows how many of the interviewed workers receive medical benefits from their employer. If a worker received medical benefits at least once from their employer it is considered 'yes'. In Andhra Pradesh 61% of the workers never received any form of medical benefits, in Telangana this counts for 98% of the workers and in Karnataka 83%. In two quarries (quarry 1 and 22) workers receive an amount of INR 1000 (EUR 14.19) to INR 2000 (EUR 28.38) per year from the quarry management for their medical expenses.^{xi} In three quarries in Andhra Pradesh (quarry 8, 15 and 18) workers are covered under life insurance, as group life insurance started recently in these quarries. The provision of life insurance is not legally mandatory.

Table 11: Medical benefits provided to workers

Workers received medical benefits (yes/no)	Andhra Pradesh	Telangana	Karnataka	Total
Yes	24 (39%)	1 (2%)	3 (17%)	28 (22%)
No	37 (61%)	47 (98%)	15 (83%)	99 (78%)

^x This scheme is maintained and overseen by the Employees Provident Fund Organisation of India (EPFO) and any company with over 20 employees is required by law to register with the EPFO.

^{xi} For regular workers companies pay around INR 3000 (EUR 42.57) annual premium for health coverage.

Occasionally quarry managements organise medical camps for general health checkups of the quarry workers. Table 12 shows that 66% of the workers in Andhra Pradesh, 21% in Telangana and 50% in Karnataka benefited from medical camps. Several big quarries (quarry 8, 15, 16, 17, 18, 20 and 22) are organising medical camps on a yearly basis. In total 53% of the interviewed workers from all three states did not receive health services through medical camps. Through medical camps only general health checkups (blood test, sugar test, blood pressure etc.) are conducted and medicines are provided free of cost. In most cases the camps do not include checkups for occupational diseases like tuberculosis and silicosis.

Table 12: Medical camps organised by the employer

Workers benefited from medical camps (yes/no)	Andhra Pradesh	Telangana	Karnataka	Total
Yes	40 (66%)	10 (21%)	9 (50%)	59 (47%)
No	21 (34%)	38 (79%)	9 (50%)	68 (53%)

Food and shelter

There are additional costs involved for middlemen to arrange food and shelter for migrant workers. For every 15 workers supplied by middlemen quarry owners in Andhra Pradesh are paying them INR 2000 (EUR 28.38) per month for room rent, INR 1800 (EUR 25.54) per month for firewood and INR 310 (EUR 4.40) per day for a cook for the workers. The middlemen deduct an amount of INR 2000 (EUR 28.38) from workers' monthly salary for food; which is about 25% of workers' monthly income. In some quarries middlemen or the quarry management have constructed temporary shelters to accommodate migrant workers. In few quarries in Telangana and Karnataka temporary shelters are located at the quarry premises, sometimes very close to the quarry pits. No accommodation is provided to workers who migrate with their families, they have to find shelter on their own.

3.7 Freedom of association and collective bargaining

Labourers in the granite industry in South India are largely unorganised. Even though thousands of labourers are working in stone quarries and processing units, no trade union or workers' organisation is effectively mobilising these workers for collective bargaining at a substantial scale. Several reasons can be identified for the failure of trade unions in mobilising quarry workers: prevalence of piece-rate work, employment through contractors, seasonal migrant labour and non-availability of work in quarries during the monsoon period (July to September).

For a long time, there were no trade unions or worker organisations addressing labour issues in granite quarry areas in Andhra Pradesh and Telangana. In the early 2000s the Centre for Indian Trade Unions (CITU), affiliated to the Communist Party of India (CPI), started its activities in quarry areas in Prakasam district. In Telangana, there are also trade unions like the Karimnagar Granite and Quarry Workers Union, affiliated to All India Federation of Trade Unions (AIFTU), CITU and Telangana Rashtra Samithi (TRS).

AIFTU, CITU and TRS labour wings started their activities in the early 2000s. The key issues taken

up by these trade unions include bargaining for better wages, compensation for accidents and death cases, migrant workers' accommodation and child labour. Though the situation has slightly improved after the entry of these trade unions their role in mobilising workers and bargaining for improved working and living conditions among granite workers is hardly visible. In Telangana, it is alleged that some trade unions are more inclined to act in favour of quarry owners/ contractors than workers. In the study area in Karnataka there are no trade unions actively working on labour rights issues in granite quarries.

3.8. Working conditions in granite waste stone processing

The workforce composition, labour hiring practices and working conditions of the labourers in granite waste stone processing differs from main quarry activities. Women and children are primarily involved in waste stone processing.

Workforce composition

As part of this study, six waste stone processing facilities are visited (two in each state covered in this research) and interviews were conducted with 45 workers involved in waste stone processing. Nearly 80% of the labour force in this activity are women and children. Children below 14 years accounted for nearly 3% and children in the age group 15-18 years accounted for 5% of the workforce in waste stone processing. Most of the waste in the stone industry is stone itself. Stone waste is generated in processes of blasting huge rocks and cutting blocks into slabs. Granite waste stone is commonly used as building material. Scrap stone/ waste stone pieces unsuitable for processing into slabs or tiles are either processed into flagstones/ cobble stones or are pounded into granite gravel and sold as blue metal chips on the domestic market and used for paving roads and streets and constructing buildings.

Wages

Most of the families involved in waste stone processing are also involved in main quarrying activities. While the male members of the families are involved in main quarry operations, women and children of these families are often engaged in waste stone processing. Quarry workers and their families are aware of the possibility to generate income from waste stone processing. The workers who process waste stone into flagstones/ cobble stones or crush them into small pieces are compensated for their output on piece-rate basis. The per day wage earnings of workers in waste stone processing vary between INR 150 (EUR 2.12) and INR 250 (EUR 3.53) for eight to nine hours of work. This is below the legal minimum wage rates prescribed for unskilled workers in granite quarries. The children who have some experience in cutting stones also work as intensively as women and earn similar wages.



Khajabee and Moinuddeen: waste stone workers

Khajabee is a 40-year-old Muslim woman who has been working with her husband in the granite industry since 2006 in the village of Mudugal in Karnataka. She has 3 children, one boy and two girls, who go to school. Both she and her husband collect waste stones from the nearby quarries and process the waste stone into blue metal chips outside the quarry. She comes with her husband Moinuddeen and her lunchbox to work at the waste stone dump every day, from morning till evening. If they have processed a truck of stone of 4mm chips, they get paid between INR 700 (EUR 9.93) and INR 800 (EUR 11.35). Filling a truck with chips takes about two days, so they are paid at INR 350 to 400 (EUR 4.97 to 5.68) per day for two persons.

During school holidays, their daughter who is studying in the 7th class, also participates in the work. The work changes regularly throughout the month, depending on the demand at the market. As they need more money during the festive season, they try to supplement their low incomes by working more hours during the heat wave and school holidays in April and May, together with their children.

The basic nature of their work requires strenuous physical labour in heat and dust. During days off, Khajabee travels at least 4 to 5 km for firewood from dried plants. Due to the low income, most of the families involved in waste stone processing are fully dependent on firewood or cow dung as fuel for cooking. Khajabee is also exposed to the risk of accidents: falling, being hit by falling stones, crush injuries and back injuries are the main risks she is exposed to.

Employment arrangements

The quarry owners or management is responsible for the processing of waste stone. They are legally required to keep the waste stone in a proper place and use it to refill the quarries when quarrying is completed or finished.³⁹ The processing of waste stone is conducted in two different ways. Either the quarry management hires the workers for processing the waste stone or the processing of waste stone is conducted without the involvement of the quarry management. In the latter case, the quarry management dumps the waste stone in a corner of the quarry and allows local people to process and sell the waste stone.

In Andhra Pradesh and in a few quarries in Telangana the waste stone is processed on piece-rate basis by workers who are hired by the quarry management. In Karnataka and a few quarries in Telangana the waste stone workers are not directly hired by the quarry management, but indirectly they are linked to the quarry operations. In these locations, the quarry management dumps the waste stone in a corner of the quarry and local people collect, process and sell the waste stone. With the permission of the quarry management anybody can use the waste stone material and process it into cobbles or blue metal chips and sell it at the market. By allowing local people to process the waste stone the quarry management is avoiding their responsibility for proper waste stone removal and processing, including ensuring decent working conditions in waste stone processing.

Export of granite cobbles and pebbles

Most of the processed waste stone is used for domestic consumption. However, export data show that hand cut granite cubes and cobble stones, curbstones and pebbles are also imported in the USA and numerous European countries including Germany, Belgium, the Netherlands, Spain, Italy, Denmark, Finland, Sweden and the United Kingdom.

CHAPTER 4

THE PERFORMANCE OF QUARRIES ON DECENT WORK CRITERIA





















In this chapter, the performance of the 22 sample quarries on six aspects of decent work - child labour, debt bondage, wages and benefits, health and safety and freedom of association - is examined. These aspects of decent work derive from the core labour standards of the International Labour Organization (ILO). For ranking quarries on wage advances, wage rates, social benefits and health and safety parameters, only temporary and casual workers hired through third party contractors are included, as they constitute the vast majority of the workforce. For each of the decent work aspects quarries are ranking 1st (best performance) to 5th (worst performance), based on their performance on the indicators for each of the decent work aspects. The chapter concludes with a ranking showing the overall performance of quarries on decent work.



Ranking of quarries on child labour criteria

Table 13 shows the performance of sample quarries on child labour. The four indicators used for child labour are a) employers' and workers' awareness about child labour laws and regulations, b) the absence of children below 18 years in the workforce, c) presence of an age verification system and d) presence of a prevention and rehabilitation system for child labour. Quarries fulfilling all the four cri-

Table 13: Performance of quarries on child labour criteria

Rank	Awareness on Child Labour Law	No child labour in quarry activity	Age verification system	Presence of prevention and rehabilitation system	Number of quarries	Importing companies
1					None	-
2					6 (quarry 15, 16, 17, 18, 20 and 22)	Arte (NLD) Beltrami (BEL) Beltrami UK (GBR) Blyth Marble (GBR) Cereser Marmi (ITA) Cosentino (ESP) Dalle Nogare (ITA) Daltile Corporation (USA) Deisl Stein (AUT) General Stone Trading (LIE) KSG UK (GBR) Levantina (ESP) M S International (USA) Marmi Bruno Zanet (ITA) mistermarble (GBR) Nile Trading (GBR) Tiger Stone (ITA) World Rocks (USA) Worldwide Stone (CAN)
3					9 (quarry 1, 2, 4, 5, 8, 9, 11, 13 and 14)	Arte (NLD) Daltile Corporation (USA)
4					7 (quarry 3, 6, 7, 10, 12, 19 and 21)	Allied Irish Banks (IRL) Deisl Stein (AUT) General Stone Trading (LIE) Grantech (GBR) HABU Granit-Marmor (DEU) HSBC Bank (GBR) Hullebusch (BEL) Jetstone (NLD) Just Naturstein (DEU) Kerasom (NLD) M S International (USA) M. Lampe Natursteine (DEU) Magna Naturstein (DEU) Magna Naturstein/ Magna Westfalia (DEU) Marimar (ITA) Michel Oprey & Beisterveld (NLD) Naturstein Risse (DEU) Royal Bank of Scotland (GBR) Schulte Naturstein (DEU)
5					None	-

teria are ranking 1st and those not fulfilling any of the four criteria are ranking 5th. It should be noted that child labour found in waste stone processing is not included in this ranking, as direct linkages between waste stone processing locations and individual quarries were not identified.

As shown in table 13, none of the sample quarries are eligible for 1st rank, meaning that none of the quarries have a prevention and rehabilitation system for child labour in place. Seven quarries employ children below 18 years, which is a violation of the Indian child labour law.⁴⁰ A total of 13 child labourers were involved in various activities in the quarry (drilling, cutting, loading and unloading etc.). Quarries using child labour are ranking 4th. Quarries not using child labour and having an age verification system in place are ranking 2nd. The six quarries (quarries 15, 16, 17, 18, 20 and 22) that are ranking 2nd are all located in Andhra Pradesh and are big quarries that have direct export linkages with companies in Europe and/ or other countries.

Ranking of quarries on debt bondage criteria

Table 14 presents the performance of sample quarries on debt bondage. Five prevailing practices of paying wage advances and loans for hiring labour are identified in sample quarries. Regarding wage advances and loans there may be different practices in each quarry but for the ranking one dominant practice is used, based on the information given by the majority of the interviewed workers. None of the quarries qualify for the 1st rank (no payment of advances), meaning that recruitment of labour through wage advances is prevalent in all researched quarries. When advance amounts are huge and there is a practice of paying recurring advances, debt bondage is considered prevalent in these quarries. In nine quarries (quarry 3, 5, 6, 7, 11, 12, 13, 19 and 21), who are ranking 4th and 5th, debt bondage is prevalent. In these quarries workers' freedom to choose or change employer is restricted through the heavy burden of huge recurring advances. Most of these quarries are located in Telangana and Karnataka. In three of these quarries (quarry 3, 7 and 12), there are also high interest rates on the recurring advances, therefore these quarries are ranking 5th. In ten quarries (quarry 1, 2, 4, 9, 10, 14, 16, 17, 18 and 20), who are ranking 3rd, advances as high as 1 to 4 monthly salaries are paid to workers, meaning that there is a risk of debt bondage in these quarries. In 3 quarries (quarry 8, 15 and 22), who are ranking 2nd, small advances are paid and debt bondage is unlikely.



Table 14: Ranking of quarries on debt bondage criteria













Rank	Prevailing practice of advanced payments and debt bondage in quarries.	Number of quarries	Importing companies
1	No advance payments or debt bondage	None	-
2	Small advance payments (INR 1000 (EUR 14.19) to INR 5000 (EUR 70.95)). Debt bondage is unlikely as workers in this arrangement can easily exercise their freedom to choose or change employer.	3 (quarry 8, 15 and 22)	Arte (NLD) Daltile Corporation (USA) KSG UK (GBR)
3	Bigger advance payments (INR 5000 (EUR 70,95) to INR 20000 (EUR 283.80)) In this arrangement there is a risk of debt bondage as the amounts of advances are high (up to 3 to 4 months' salary).	10 (quarry 1, 2, 4, 9, 10, 14, 16, 17, 18, 20)	Beltrami (BEL) Beltrami UK (GBR) Blyth Marble (GBR) Cereser Marmi (ITA) Cosentino (ESP) Dalle Nogare (ITA) Deisl Stein (AUT) General Stone Trading (LIE) Levantina (ESP) M S International (USA) Marmi Bruno Zanet (ITA) mistermarble (GBR) Nile Trading (GBR) Tiger Stone (ITA) World Rocks (USA) Worldwide Stone (CAN)
4	Prevalence of debt bondage through big recurring wage advances.	6 (quarry 5, 6, 11, 13, 19 and 21)	Allied Irish Banks (IRL) Deisl Stein (AUT) General Stone Trading (LIE) Granttech (GBR) HABU Granit-Marmor (DEU) HSBC Bank (GBR) Hullebusch (BEL) Jetstone (NLD) Just Naturstein (DEU) Kerasom (NLD) M S International (USA) M. Lampe Natursteine (DEU) Magna Naturstein (DEU) Magna Naturstein/ Magna Westfalia (DEU) Marimar (ITA) Michel Oprey & Beisterveld (NLD) Naturstein Risse (DEU) Royal Bank of Scotland (GBR) Schulte Naturstein (DEU)
5	Prevalence of debt bondage through huge recurring wage advances and loans with high interest rates.	3 (quarry 3, 7 and 12)	-









Note: Quarries are given the ranks based on the prevailing practice of wage advances and loans as reported by the majority of the interviewed workers in the respective quarry.

Ranking of quarries on wage and social benefits criteria

Table 15 shows the ranking of sample quarries on wage and benefits criteria. The four indicators used for these criteria are as per the law: a) Payment of legal minimum wages, b) overtime payment, c) payment of provident fund to workers and d) paid holidays.⁴¹ Quarries fulfilling all the four criteria are ranking 1st and those not fulfilling any of the four criteria are ranking 5th. As shown in table 15, in five quarries (quarry 7, 9, 10, 11 and 12), who are ranking 5th, wage rates are below the legal minimum requirement. Four of these quarries are located in Karnataka (quarry 9, 10, 11 and 12) and one in Telangana (quarry 7). In the quarries (quarry 3, 5, 14, 16 and 17) that are in 4th rank minimum wages are paid, but workers do not receive overtime payment, provident fund and paid holidays. In quarries that are ranking 3rd (quarry 1, 6, 8, 13, 15, 18 and 20) minimum wages and overtime is paid. Quarries that are paying legal minimum wages, overtime (twice the minimum wage rates) and provident fund are ranking 2nd. Five quarries (quarry 2, 4, 19, 21 and 22) qualify these criteria; most of these are big exporting quarries located in Andhra Pradesh. None of the sample quarries are eligible for 1st rank. None of the quarries are providing paid holidays to workers who are hired on temporary basis.

Table 15: Ranking of quarries on wage and social benefits criteria

Rank	Payment of legal minimum wages	Overtime payment	Provident Fund	Paid holidays	Number of quarries	Importing companies
1					None	-
2					5 (quarry 2, 4, 19, 21 and 22)	Allied Irish Banks (IRL) Arte (NLD) Daltile Corporation (USA) Deisl Stein (AUT) General Stone Trading (LIE) Grantech (GBR) HABU Granit-Marmor (DEU) HSBC Bank (GBR) Hullebusch (BEL) Jetstone (NLD) Just Naturstein (DEU) Kerasom (NLD) M S International (USA) M. Lampe Natursteine (DEU) Magna Naturstein (DEU) Magna Naturstein/ Magna Westfalia (DEU) Marimar (ITA) Michel Oprey & Beisterveld (NLD) Naturstein Risse (DEU) Royal Bank of Scotland (GBR) Schulte Naturstein (DEU)
3					7 (quarry 1, 6, 8, 13, 15, 18 and 20)	Arte (NLD) Beltrami (BEL) Beltrami UK (GBR) Blyth Marble (GBR) Cereser Marmi (ITA) Cosentino (ESP) Dalle Nogare (ITA) Daltile Corporation (USA) General Stone Trading (LIE) KSG UK (GBR) Levantina (ESP) M S International (USA) Marmi Bruno Zanet (ITA) Tiger Stone (ITA) World Rocks (USA) Worldwide Stone (CAN)

Rank	Payment of legal minimum wages	Overtime payment	Provident Fund	Paid holidays	Number of quarries	Importing companies
4					5 (quarry 3, 5, 14, 16 and 17)	Deisl Stein (AUT) M S International (USA) mistermarble (GBR) Nile Trading (GBR) Schulte Naturstein (DEU)
5					5 (quarry 7, 9, 10, 11 and 12)	-























Ranking of quarries on health and safety criteria

Table 16 and 17 show the ranking of sample quarries on occupational health and safety criteria. Please note that the ranking of quarries on health and safety criteria is focusing on facilities provided by the quarries to casual workers who are recruited indirectly through third party contractors. The facilities provided to regular workers are not covered here. Based on the access and use of PPE five indicators are used for safety criteria. As described in section 3.5 most of the quarries are not following safety precautions as per the law. The use of PPE by workers is very poor. Quarries where there is full access and use of basic PPE observed are ranking 1st. None of the quarries qualify for these criteria. The use of helmets and shoes is only observed in quarry 15; but not all basic PPEs are provided in this quarry. The access to some of the basic PPEs is observed in most of the quarries but its usage is very poor.

Table 16: Ranking of quarries on safety management criteria

Safety management		Number of quarries	Importing companies
Rank	Basic PPEs - helmet, shoes, reflector jacket and mask -		
1	All 4 basic PPEs (helmet, shoes, reflector jacket, mask) are available and used by most of the workers	None	-
2	At least 2 basic PPEs are available; but only helmets and shoes are used by some workers	3 (quarry 15)	KSG UK (GBR)
3	At least 1 basic PPE is available; but only helmets are used by some workers	13 (quarry 1, 2, 4, 5, 8, 9, 16, 17, 18, 19, 20, 21 and 22)	Allied Irish Banks (IRL) Arte (NLD) Beltrami (BEL) Beltrami UK (GBR) Blyth Marble (GBR) Cereser Marmi (ITA) Cosentino (ESP) Dalle Nogare (ITA) Daltile Corporation (USA) Deisl Stein (AUT) General Stone Trading (LIE) Grantech (GBR) HABU Granit-Marmor (DEU) HSBC Bank (GBR) Hullebusch (BEL) Jetstone (NLD) Just Naturstein (DEU) Kerasom (NLD) Levantina (ESP) M. Lampe Natursteine (DEU) M S International (USA) Magna Naturstein (DEU) Magna Naturstein/ Magna Westfalia (DEU) Marimar (ITA) Marmi Bruno Zanet (ITA) Michel Oprey & Beisterveld (NLD) mistermarble (GBR) Naturstein Risse (DEU) Nile Trading (GBR) Royal Bank of Scotland (GBR) Schulte Naturstein (DEU) Tiger Stone (ITA) World Rocks (USA) Worldwide Stone (CAN)
4	At least 1 basic PPE is available but PPE is not used by workers	6 (quarry 3, 7, 10, 11, 12 and 14)	-
5	PPE is not available	2 (quarry 6 and 13)	-

Table 17: Ranking of quarries on health management criteria






Health management						Importing companies
Rank	First aid	Rest area	Safe drinking water	Health insurance	Number of quarries	
1					None	-
2					8 (quarry 4, 8, 15, 16, 17, 18, 20 and 22)	Arte (NLD) Beltrami (BEL) Beltrami UK (GBR) Blyth Marble (GBR) Cereser Marmi (ITA) Cosentino (ESP) Dalle Nogare (ITA) Daltile Corporation (USA) Deisl Stein (AUT) General Stone Trading (LIE) KSG UK (GBR) Levantina (ESP) M S International (USA) Marmi Bruno Zanet (ITA) mistermarble (GBR) Nile Trading (GBR) Tiger Stone (ITA) World Rocks (USA) Worldwide Stone (CAN)
3					9 (quarry 1, 3, 6, 9, 11, 13, 14, 19 and 21)	Allied Irish Banks (IRL) Deisl Stein (AUT) General Stone Trading (LIE) Grantech (GBR) HABU Granit-Marmor (DEU) HSBC Bank (GBR) Hullebusch (BEL) Jetstone (NLD) Just Naturstein (DEU) Kerasom (NLD) M. Lampe Natursteine (DEU) M S International (USA) Magna Naturstein (DEU) Magna Naturstein/ Magna Westfalia (DEU) Marimar (ITA) Michel Oprey & Beisterveld (NLD) Naturstein Risse (DEU) Royal Bank of Scotland (GBR) Schulte Naturstein (DEU)
4					5 (quarry 2, 5, 7, 10 and 12)	-
5					None	





Four indicators are used for ranking the performance of quarries on health management: a) first aid facility, b) rest area, c) safe drinking water and d) health insurance for the workers. For the ranking only the access to facilities and not the actual usage of the facilities by workers is taken into account. Quarries meeting all these four criteria are ranking 1st and those not meeting any of these are ranking 5th. None of the quarries are providing health insurance to casual workers hired through contractors. Eight quarries (quarry 4, 8, 15, 16, 17, 18, 20 and 22) qualify for 2nd rank which is given to quarries providing access to first aid, a rest area and safe drinking water. Most of these quarries are located in Andhra Pradesh, that have direct linkages with foreign importers.

Ranking of quarries on freedom of association criteria

Table 18 shows the ranking of sample quarries on freedom of association. The three indicators used are: a) presence of a labour union b) membership of the union and c) status of the union: active or passive. In none of the researched quarries an active labour union is present. In eight quarries (quarry 1, 4, 15, 16, 18, 19, 21 and 22) workers' unions are present but they do not play an active role.

Table 18: Ranking of quarries on freedom of association criteria

Rank	Workers union	Membership	Status of union	Number of quarries	Importing companies
1			active	None	-
2			passive	8 (quarry 1, 4, 15, 16, 18, 19, 21, 22)	Allied Irish Banks (IRL) Arte (NLD) Beltrami UK (GBR) Daltile Corporation (USA) Deisl Stein (AUT) General Stone Trading (LIE) Grantech (GBR) HABU Granit-Marmor (DEU) HSBC Bank (GBR) Hullebusch (BEL) Jetstone (NLD) Just Naturstein (DEU) Kerasom (NLD) KSG UK (GBR) M S International (USA) M. Lampe Natursteine (DEU) Magna Naturstein (DEU) Magna Naturstein/ Magna Westfalia (DEU) Marimar (ITA) Michel Oprey & Beisterveld (NLD) mistermarble (GBR) Naturstein Risse (DEU) Royal Bank of Scotland (GBR) Schulte Naturstein (DEU)
3		few workers	passive	6 (quarry 2, 3, 5, 8, 17, 20)	Arte (NLD) Beltrami (BEL) Blyth Marble (GBR) Cereser Marmi (ITA) Cosentino (ESP) Dalle Nogare (ITA) Daltile Corporation (USA) General Stone Trading (LIE) Levantina (ESP) M S International (USA) Marmi Bruno Zanet (ITA) Nile Trading (GBR) Tiger Stone (ITA) World Rocks (USA) Worldwide Stone (CAN)

Rank	Workers union	Membership	Status of union	Number of quarries	Importing companies
4			N/A	5 (quarry 6, 7, 9, 12, 14)	-
5			N/A	3 (quarry 10, 11 and 13)	-

Quarries' overall performance on decent work criteria

Table 19 provides an overview of the overall performance of quarries on decent work, based on the ranking of quarries on the six decent work aspects given before. The overall ranking of quarries on decent work is an average of their score on the six decent work aspects above; and ranges from 1 (best performance on decent work) to 5 (worst performance on decent work). The overall ranking is divided into four categories: A, B, C and D. Companies that score between 1 to 2 points are placed in grade A; companies with 2.1 to 2.5 points fall under grade B, companies with 2.6 to 3.5 points fall under grade C and companies with 3.6 to 5 points are in grade D. Companies that fall under grade A are performing best on decent work criteria and companies under grade D are performing worst.

Table 19: Overall performance of quarries on decent work criteria

Group	Quarry number	Child labour	Bonded labour	Wages and Benefits	Safety Management	Health Management	Freedom of Association	Average score for all criteria	Importing companies
Grade-A (1-2)	-	-	-	-	-	-	-m	-	-
	-	-	-	-	-	-	-	-	-
Grade-B (2.1-2.5)	15	2	2	3	2	2	2	2.17	KSG UK (GBR)
	22	2	2	2	3	2	2	2.17	Arte (NLD) Daltile Corporation (USA)
	4	3	3	2	3	2	2	2.5	-
	18	2	3	3	3	2	2	2.5	Beltrami UK (GBR)
Grade-C (2.6-3.5)	8	3	2	3	3	2	3	2.67	Arte (NLD) Daltile Corporation (USA)
	16	2	3	4	3	2	2	2.67	Deisl Stein (AUT) M S International (USA) mistermarble (GBR)
	20	2	3	3	3	2	3	2.67	Beltrami (BEL) Blyth Marble (GBR) Cereser Marmi (ITA) Cosentino (ESP) Dalle Nogare (ITA) General Stone Trading (LIE) Levantina (ESP) M S International (USA) Marmi Bruno Zanet (ITA) Tiger Stone (ITA) World Rocks (USA) Worldwide Stone (CAN)

Group	Quarry number	Child labour	Bonded labour	Wages and Benefits	Safety Management	Health Management	Freedom of Association	Average score for all criteria	Importing companies
continued: Grade-C (2.6-3.5)	1	3	3	3	3	3	2	2.83	-
	17	2	3	4	3	2	2	2.83	M S International (USA) Nile Trading (GBR)
	2	2	3	2	4	3	3	3	-
	19	4	4	2	3	3	2	3	Allied Irish Banks (IRL) Grantech (GBR) HABU Granit-Marmor (DEU) HSBC Bank (GBR) Jetstone (NLD) Just Naturstein (DEU) M. Lampe Natursteine (DEU) M S International (USA) Magna Naturstein/ Magna Westfalia (DEU) Michel Oprey & Beisterveld (NLD) Naturstein Risse (DEU) Royal Bank of Scotland (GBR)
	21	4	4	2	3	3	2	3	Deisl Stein (AUT) General Stone Trading (LIE) Hullebusch (BEL) Kerasom (NLD) Magna Naturstein (DEU) Marimar (ITA) Schulte Naturstein (DEU)
	5	3	4	4	3	4	3	3.5	-
	9	3	3	5	3	3	4	3.5	-
	14	3	3	4	4	3	4	3.5	-
	3	4	5	4	4	3	3	3.83	-
	6	4	4	3	5	3	4	3.83	-
13	3	4	3	5	3	5	3.83	-	
11	3	4	5	4	3	5	4	-	
10	4	3	5	4	4	5	4.17	-	
12	4	5	5	4	4	4	4.33	-	
7	4	5	5	4	4	4	4.33	-	

None of the researched quarries fall under grade A; which indicates that none of the researched quarries are fulfilling all requirements for decent work. Out of the 22 sample quarries only four quarries (quarry 4, 15, 18 and 22) fall under grade B. These quarries are large in size and are mainly producing for export markets. Three out of these four quarries are located in Chimakurthi in Andhra Pradesh which is known for its Black Galaxy, a popular granite variety sold worldwide. Despite the fact that grade B quarries score better on decent work aspects compared to grade C and D quarries, in these quarries health insurance, paid holidays and PPEs, as per the legal requirements, are not provided to workers. Furthermore, like grade C and D quarries, the four quarries that fall under grade B do not have a prevention and rehabilitation system for child labour in place. Additionally, quarry 15 and 18 do not pay their Provident Fund contribution for workers' benefits like other quarries that are ranking 3rd on wages and social benefit provisions. Quarries in grade C are performing worse on decent work aspects compared to grade B quarries. In quarry 19 and 21, who are supplying to importing companies in various countries, debt bondage is prevalent and incidences of child labour are found. In quarry 5, 14, 16 and 17, besides the non-payment of provident fund and paid holidays, overtime is also not paid as per the legal requirement. In most quarries that fall under grade D child labour, bonded labour and non-payment of minimum wages are prevalent. Also, health and safety management in these quarries is very poor to non-existent.



Worker in front of the cooking and dining hall for migrant workers in a quarry

CHAPTER 5

INTERVENTIONS

by companies, the Government of India, NGOs and labour unions towards improved labour conditions

This chapter describes the efforts by the granite industry, governments and civil society organisations towards improved labour conditions in granite production. The 2011 United Nations Guiding Principles on Business and Human Rights (UNGP)⁴² and OECD Guidelines for Multinational Enterprises⁴³ clarify the duty of states to protect and the responsibility of businesses to respect human rights. The responsibility of businesses includes performing human rights due diligence - a continuous process to actively identify, prevent and mitigate potential and actual adverse human rights impacts - in their supply chain. Also, companies are expected to communicate internally and externally how they address their human rights impacts. The UNGP and OECD Guidelines for Multinational Enterprises are applicable to all business enterprises, including small and medium-sized enterprises as these enterprises can have severe human rights impacts as well. Information on business and human rights initiatives and natural stone companies in this chapter derives from their websites, other publicly available sources and/ or their reaction to the request to review and contribute to a draft version of this report.

5.1 Business and human rights initiatives in the natural stone sector

This section provides an overview of the main initiatives on business and human rights in the natural stone sector with member companies in Europe: TFT-Responsible Stone Program, Ethical Trading Initiative, IGEP, Fair Stone, XertifiX and the Business Social Compliance Initiative (BSCI). Their approach, focus area and transparency on outcomes of audits, interventions and achievements are shortly described. Furthermore, this section shows if member companies of these initiatives are identified in this research and linked to researched quarries. Except for the Master thesis *Corporate Responsibility in the Natural Stone Sector: The Effectiveness of Voluntary CSR Initiatives in Achieving Sustainability*⁴⁴ written by Jennifer Franken in 2016, no other comparative research is conducted that looks specifically into the activities and achievements of business and human rights initiatives in the natural stone sector. Therefore, this Master thesis is an important source in this section.

Business Social Compliance Initiative

On its website BSCI states: 'The Business Social Compliance Initiative (BSCI) is an initiative of the Foreign Trade Association (recently renamed as Amfori) that aims to support companies to drive social compliance and improvements within the factories and farms in their supply chains.' In a reaction to a draft version of this report BSCI explains that they do not conduct audits, but provide a network of independent audit organisations and an implementation system to its members.⁴⁵ BSCI provides its participants with one single code of conduct and one implementation system that enable companies sourcing all types of products from all geographies to collectively address supply chain labour issues. BSCI provides companies with a social auditing methodology and access to a network of external, independent and accredited auditing companies. Furthermore, in their reaction, BSCI explains that the information gathered in audit reports are company data which are confidential and are owned by the audited producer; BSCI does not own these documents and therefore does not share them with third parties. Thus, BSCI does not give any insight in production sites, audit outcomes, interventions and achievements in the supply chains of its members. Participants of BSCI can be found on their website by type of company and country, but a list specifying natural stone companies is not available online.⁴⁶

None of the importing companies named in this research are found to be member of BSCI.

Ethical Trading Initiative

The Ethical Trading Initiative (ETI) is a multi-stakeholder alliance of companies, trade unions and NGOs promoting respect for the rights of workers worldwide. ETI aims to improve conditions in global supply chains by working towards the implementation of the ETI Base Code of labour practice by all corporate members.⁴⁷ Furthermore ETI implements programs focusing on particular supply chains. For natural stone ETI only has a specific programme for sandstone, not for granite. The 'Sandstone from Rajasthan, India' program, started in 2011, has four participating companies and aims to improve labour conditions for those working in the export sandstone sector of Rajasthan, India. General information on the sandstone program, for example on the cooperation with stakeholders and capacity building of businesses to address elements of the ETI Base code is described on ETI's website. However, more detailed information on the activities and achievements of individual members is not given.

In their reaction to a draft version of this report ETI explains that its programmatic work in the natural stone sector does not extend to granite and the geographical areas covered in this

research report. ETI is happy with the information provided in this report in relation to their work in Rajasthan and shared a draft version of this report with their existing company members (the four natural stone companies that are member of their 'Sandstone from Rajasthan, India' program). Furthermore, ETI states that the poor working conditions require collective and cooperative action from a variety of stakeholders.

Of all companies identified as buyers of the researched quarries, only one could be linked to ETI, the Belgian company Beltrami, but they resigned from ETI in 2016.⁴⁸

Fair Stone

Fair Stone, established in 2007, is a social standard and certification scheme for natural stone importers, focusing on labour conditions and environmental issues. Fair Stone partners are expected to implement the standard criteria in their supply chain, particularly in China, Vietnam and India, the countries where Fair Stone is focusing on.⁴⁹ Information on Fair Stone's approach and the auditor's manual⁵⁰ is published on its website. In their reaction to the request to review a draft version of this research report Fair Stone mentioned to have 16 partners and 7 associated partners (mainly German natural stone importers, as listed on their website). Fair Stone partners are directly importing stone from China, India and/ or Vietnam and associated members are buying from Fair Stone partners. Associated members pay EUR 250 membership fee per year and can use the Fair Stone label for marketing purposes. To minimise the risk of abuse of the Fair Stone label by suppliers, Fair Stone offers a traceability platform with which individual shipments are traced.

Precondition of suppliers to be able to join Fair Stone is a ban on child labour and bonded labour in their supply chain. Priority is given to human rights violations included in the 'Supplier Agreement', including the ban on child labour and bonded labour, and a 'step by step' process, mainly focusing on occupational health and safety. Fair Stone's prioritisation of human rights violations may not be in line with the UNGP wherein priority must be given based on the scale, scope and irremediability of human rights impacts.⁵¹ On its website, Fair Stone mentions not to provide information about supply chains, Fair Stone suppliers or other 'sensitive information' to third parties.⁵² No information on audit outcomes, the number of production sites under the Fair Stone program and achievements on working conditions is found.

In their reaction, Fair Stone explains that they suspended the partnership with five German partners who import granite from India, four years ago. These companies were not prepared to implement the full standard but requested an approach to only exclude child labour. According to Fair Stone, progress cannot be achieved in this manner as child labour and bonded labour are interrelated with other labour rights violations like poor health and safety at the workplace. Furthermore, in their reaction Fair Stone indicated the recruitment of migrant labour through middlemen and prevalence of bonded labour as most important research findings for them. Fair Stone is about to start working in supply chains of German importers who are sourcing from India and will adopt the research findings in their standard and 'step to step' approach to implement the Fair Stone program in Indian supply chains.

None of the importing companies mentioned in this report are member of Fair Stone.

IGEP

IGEP was established in 1988 as a trade promotion organisation, known as Indo-German Export Promotion (IGEP), but has become a private NGO in 2005 using also the original acronym.⁵³ Since 2007/2008 IGEP offers a certification program for natural stone.⁵⁴ The focus of the monitoring is the prevention and elimination of child labour, but IGEP audits other social and environmental minimum requirements as well.⁵⁵ The website of IGEP does not provide information about a code of conduct or standard. Certification is based on ISES 2020⁵⁶, a brief code developed by IGEP which includes the core convention of the ILO, and Indian legislation.⁵⁷ Information on interventions and achievements on labour conditions in the natural stone sector is not provided. Also, no list of member companies is published, nor are the targeted processing factories or quarries revealed. IGEP is the least transparent business and human rights initiative in the natural stone sector. Additionally, the website gives an overview of social projects on health and education but project locations are not always in areas where natural stone is sourced.⁵⁸

Just Naturstein, one of the German companies linked to quarry 19, is member of IGEP.⁵⁹ Just Naturstein and IGEP did not respond to the request to review a draft version of this report.

TFT-Responsible Stone Program

The TFT-Responsible Stone Program (TFT-RSP) started in 2007. In 2011 the Dutch Working Group on Sustainable Stone was brought under the TFT umbrella.⁶⁰ TFT-RSP's mission is to improve the lives of people working in stone quarries and factories and to ensure the environment is respected in the natural stone industry. The RSP program aims to tackle adverse human rights impacts in supply chains of its 14 member companies, mentioned at their website.⁶¹ To eradicate human rights violations in the natural stone industry TFT developed the 'Respect for workers – Extractives, Guidelines for sites', which includes, amongst other topics, measures for legal working hours and wages, statutory rights and benefits and health and safety management.⁶² The guidelines are divided into three levels for gradual improvement which may not necessarily be in line with the UNGP which state that priority must be given to most severe human rights impacts based on scale, scope and irremediability.⁶³ Based on outcomes of announced inspections member companies develop action plans for improving labour standards, mainly in processing factories.

Through the TFT Transparency Hub product level transparency is encouraged and information on company members' efforts and the number of sites under TFT can be found.⁶⁴ However, this information is limited to general data on the number of production sites that meet level 1 of the RSP code, lives impacted and overall focus of activities. However, detailed information on audits results and transformation plans for specific production sites and names of supplying companies that did not yet reach level 1, is not given on the Transparency Hub. Despite these limitations, TFT is one of the few member-based business and human rights initiatives that makes it possible to compare individual member companies' efforts and achievements.

According to the management of quarry 8 and 22, TFT has conducted audits in a granite quarry area included in the sample of this research. Detailed information about the audits and results were not shared by the quarry management.

In their reaction to a draft version of this report TFT states to recognise the serious labour concerns that exists within some natural stone supply chains. Over the past ten years TFT together with its members have been working to improve these conditions. TFT has seen the most change in supply

chains where companies have taken a pragmatic approach to sustainable improvement and learned that improvements need to be done in partnership with supply chain partners and that changing the situation takes time. To improve conditions in small informal sites TFT developed the 'Respect for workers – Extractives, Guidelines for sites'. The complexity and fragmentation of natural stone supply chains, especially beyond stone processing sites, make it challenging to increase transparency and drive change. TFT shares the improvement process via their Transparency Hub. It is currently working on an updated version and actively encouraging increased visibility of site specific data including findings, transformation plans and activities to date. The updated version of the Hub should be publicly available before the end of 2017.

Of the total 14 members of TFT-RSP, 3 were found connected to quarries in this research: Arte (quarry 8 and 22), Beltrami (quarry 18 and 20), Cosentino (quarry 20) and Michel Oprey & Beisterveld (quarry 19).⁶⁵

XertifiX

XertifiX is a German association that certifies natural stone imported from India, China and Vietnam, focusing on combating exploitative child labour and forced labour. Through (unannounced) visits at processing factories, but also all quarries, compliance with the XertifiX standard is checked. Besides child labour and bonded labour, other ILO core conventions are included in their standard, which is published at its website.⁶⁶ On their website 14 retailers of stone, certified by XertifiX, are listed and a description of their approach and social projects, focusing on education, is given.⁶⁷ No specific information on member companies efforts, audit outcomes, production sites and specific achievements is revealed.

None of the importers mentioned in this report are member of XertifiX. XertifiX did not respond to the request to review a draft version of this report

Ongoing negotiations for a sector-wide agreement in the Netherlands

In the Netherlands, a multi-stakeholder negotiation process to come to a sector-wide agreement that aims to address human rights violations and environmental degradation in lower tiers of natural stone supply chains, is ongoing. The UN Guiding Principles on Business and Human Rights and OECD Guidelines for Multinational Enterprises are the backbone of the negotiations. Gaining insight in supply chains and adverse human rights and environmental impacts in natural stone supply chains, collaboration between parties towards solutions of human rights violations that companies cannot solve alone and sustainable public procurement of natural stone by the Dutch government are expected to be part of the agreement. Trade associations, Bond voor Aannemers in Tegelwerken (BOVATIN) (trade association for tilers) and Vereniging DI-Stone (trade association for natural stone companies), the Dutch government, trade union FNV, the NGOs Stop Child Labour coalition (SCL) and India Committee of the Netherlands (ICN) and the natural stone company Arte are participating in the negotiation process. The association for Dutch natural stone importers, Vereniging Nederlandse Natuursteen Importeurs (VNNI), one of the initiators of the process is not taking part in the negotiations any longer. It is unclear if VNNI has the intention to sign the covenant. Also, it remains unclear whether the Algemene Nederlandse Bond van Natuursteenbedrijven (ABN Natuursteen) (trade association for natural stone companies) is willing to sign the agreement. The tripartite Social and Economic Council of the Netherlands (SER), who is advising the government including on business and human rights issues, is facilitating the process.⁶⁸

5.2 Efforts of importing companies to improve labour conditions in the granite industry

This section describes the efforts of importing companies, identified as buyers of the researched quarries, aiming at improved working conditions in their supply chain. The information derives from companies' websites, websites of business and human rights initiatives and other publicly available sources. Of the 31 importing companies mentioned in this research report, only 5 companies are member of a business and human rights initiative: Arte, Beltrami, Cosentino and Michel Oprey & Beisterveld are member of the Responsible Stone Program of TFT; Just Naturstein is a member of IGEP and Cosentino is also member of the UN Global Compact. These companies provide information about their responsible business conduct, but there is a - sometimes stark - difference in the nature, thoroughness and transparency of their interventions and achievements. At websites of other companies mentioned in this research, no information is found on interventions addressing human rights violations in lower tiers of their supply chain and any results thereof. Daltile Corporation⁶⁹, M S International⁷⁰, and Levantina⁷¹ provide some information on sustainability, focusing on the environment, including the reduction of water and energy use, waste water management, recycling and restoration. However, this report focuses only on human rights aspects of corporate social responsibility.

Arte

Arte was member of the Dutch Working Group on Sustainable Stone and has become member of the Responsible Stone Program of TFT in 2012. The Transparency Hub of TFT shows that Arte has a 100% transparency score of first tier suppliers, and 59% transparency of factories and quarries. Arte sources 59% of its products from factories that are working with TFT and 38% of its products from quarries working with TFT. So far, none of the production sites Arte is sourcing from quarries that achieved level 1 of the RSP Code.⁷² Besides, Arte is participating in the negotiation process for a covenant (see above) on the natural stone sector in the Netherlands, aiming at a sector-wide agreement on improving labour conditions and environmental issues in lower tiers of natural stone supply chains.⁷³ Arte sees the covenant as an opportunity to increase transparency and improve working conditions in the granite industry.

Arte is linked to quarry 8 in grade C (scoring 2.67 in the overall ranking on decent work) and quarry 22 in grade B (scoring 2.17). Quarry 22 performs the second highest score on most of the decent work criteria in the overall ranking on decent work in table 20. There is, nevertheless, room for improvement on all decent work aspects, especially on health and safety management. In quarry 8 provident fund and paid holidays are not paid to workers and there is no age verification system in place.

Arte reacted to the request to review a draft version of this report. In their response Arte mentions that there is a lot more to be done to ensure working conditions in Indian quarries are up to standard. On the other hand the report also shows that Arte's efforts in the course of Dutch Working Group on Sustainable Stone and Responsible Stone Program of TFT is yielding results as quarry 22 and 8 are relatively performing better compared to most other researched quarries. Furthermore, Arte is in the process of setting up an initiative to address child labour, amongst other violations, in one of their supply chains in South India linked to making the area free of child labour.

Beltrami

Since 2008 Beltrami is working towards improved social and environmental standards in their supply chain. In 2008 Beltrami became member of the Working Group on Sustainable Stone and adopted a code of conduct, including social and environmental aspects of sustainability. Since 2011 Beltrami is member of the Responsible Stone Program of TFT. At the end of 2010 Beltrami became member of ETI, but resigned in January 2016.⁷⁴ The Transparency Hub of TFT shows that Beltrami & Stoneasy (part of the Beltrami Group) is an active member of the Responsible Stone Program. The Transparency Hub indicates that Beltrami & Stoneasy has 100% transparency of their first tier suppliers, 55% transparency of factories and 22% transparency of the quarries they are buying from. 54% of their products are sourced from *factories* working with TFT and 2% of their products are sourced from *quarries* working with TFT. Three production sites are at level 1 of the RSP Code, which states that child labour and bonded labour do not occur, minimum wages are paid and the health and safety of workers is protected. In 2015 TFT worked with Beltrami & Stoneasy in seven supply chains.⁷⁵

Beltrami & Stoneasy also works beyond the scope of TFT. In 2013 Beltrami & Stoneasy started participating in a project to combat child labour with the implementation of an area based approach towards the creation of so called 'Child Labour Free Zones'. In this project, Beltrami & Stoneasy collaborates with the NGOs Manjari, ICN and the Stop Child Labour coalition, and fellow TFT-RSP member London Stone.⁷⁶

Beltrami is linked to quarry 18 in grade B (scoring 2.5 in the overall ranking on decent work) and quarry 20 in grade C (scoring 2.67). In both quarries child labour is not found and first aid, a rest area and safe drinking water is provided to workers. However, in quarry 18 and 20 the risk of debt bondage persists, the provision of PPE is poor and provident fund is not paid to workers.

In their response to a draft version of this report Beltrami states that, in spite of their campaigning and sensitisation efforts towards their Indian suppliers so far, there is still a lot to be done to be able to obtain sustainable produced natural stone from India. According to Beltrami, gaining insight in supply chains at the level of quarries is challenging, as suppliers are reluctant to provide information about quarries due to competitive advantages they are afraid to lose. However, Beltrami mentions to urge their Indian suppliers of granite to provide insight in their supply chains and take effective measures to improve conditions in granite quarries.

Cosentino S.A.

In their code of conduct and CSR report 2014-2015, the Cosentino Group states that they are aware of their responsibility, also at the level where raw materials are sourced, and that they are working with responsible companies that comply with applicable laws and regulations in the countries they operate. Cosentino Group conducts audits to check the quality of products and the working conditions at all their raw material suppliers, including whether human rights are respected and to ensure that no child labour is used.⁷⁷ Furthermore, Cosentino Group is member of the United Nations Global Compact (UNGC), a voluntary initiative based on company CEOs' commitments to implement universal sustainability principles. UN Global Compact supports responsible business by its members and takes strategic action to advance sustainable development.⁷⁸ Cosentino became a member of the UNGC in December 2015 and was due to publicly report via a Communication of Progress in December 2016. However, the status of the company on the UNGC website is: non-communicating.⁷⁹ No other specific information on Cosentino's interventions and achievements towards improved working conditions can be found either.

Cosentino is linked to quarry 20, which falls under grade C (scoring 2.67 in the overall ranking on decent work). In quarry 20 risk on bonded labour is found as the amounts of wage advances can be as high as 3 to 4 months' salary of workers. Furthermore, in quarry 20, provident fund and paid holidays are not paid, the provision of PPE is poor and only a few workers are member of a labour union.

Cosentino did not react to the request to review a draft version of this report. TFT states that Cosentino became member of the TFT-Responsible Stone Program in 2016 which will be reflected in the updated Transparency Hub that should be publicly available before the end of 2017.

Daltile Corporation

Daltile Corporation is not member of a business and human rights initiative described in section 5.1, but Daltile Corporation has an ethical code of conduct (CoC) which is published on their website. The code mentions that suppliers of Daltile Corporation are expected to respect the rights of individuals and the environment. Some of the standards included in their CoC are no use of child labour and forced or involuntary labour, no discrimination and no use of any form of violence or abuse towards employees, provision of health and safety at the workplace, and respect to workers' right to organise and collective bargaining.⁸⁰ No information is given on how Daltile Corporation monitors its suppliers' compliance with their CoC.

Daltile is linked to quarry 8 in grade C (scoring 2.67) and quarry 22 in grade B (scoring 2.17). Quarry 22 performs the second highest score on most of the decent work criteria in table 20. However, there is room for improvement on all decent work aspects, especially on health and safety management. In quarry 8 provident fund and paid holidays are not paid to workers and there is no age verification system in place. Daltile Corporation did not react to the request to review a draft version of this report.

Jetstone BV

In their reaction to the draft report Jetstone mentions to be willing to urge their suppliers to take measures to address violations or to change supplier. However, this is only possible for them to do if the names of the researched quarries are made available.

Just Naturstein GmbH

Just Naturstein is a founding member of the Interessengemeinschaft Asiatische, Afrikanische und Lateinamerikanische Natursteine e.V. (IGN) which closely collaborates with IGEP and the Rugmark Foundation and jointly developed the IGEP certification scheme and label for natural stone. Through its membership of IGN-IGEP Just Naturstein provides 0.75% of its export value for improving conditions in quarry areas.⁸¹ At its website Just Naturstein states that its products, sourced from China, India or Brazil, are free from child labour, guaranteed through research by partners, suppliers and Just Naturstein themselves. Furthermore, Just Naturstein is of the opinion that the responsibility for child labour cannot be shifted to small and medium-sized enterprises and if consumers want to avoid problems, they recommend buying stone that originates from Europe.⁸² Through IGN-IGEP Just Naturstein supports social projects on education and health; though, these are not always located in areas where natural stone is quarried or processed.⁸³

Just Naturstein is linked to quarry 19 in grade C (scoring 3.00 in the overall ranking on decent work). In quarry 19 bonded labour is prevalent and there are instances of child labour. Furthermore, workers in quarry 19 do not have access to safe drinking water. Just Naturstein did not react to the request to review a draft version of this report.

Kerasom Groothandel in Tegels BV

In their reaction to the request to review a draft version of this research report, Kerasom states to be against the use child labour and they aim to avoid this through announced and, in some cases, unannounced visits to their supplier (especially to a factory that processes granite). After receiving the draft version of this report, Kerasom urged their supplier to only obtain granite from quarries that adhere to the rules and address human rights violations. Furthermore, they mention, even though Kerasom is a very small player in the granite sector (Kerasom procured only 5 containers in 2016), they are committed to contribute to the eradication of child labour and improving labour conditions in granite quarries. In addition to their reaction, a meeting between ICN and Kerasom was held, in which Kerasom stated it wants an independent research to be conducted into the labour conditions at their Indian granite supplier and will address concerns found in this research. The company also indicated that they are willing to participate in the IMVO covenant (sector-wide agreement) for the natural stone sector in the Netherlands.

Michel Oprey & Beisterveld Natuursteen BV (MO&B)

Since 2012, through its membership of TFT-RSP, MO&B strives to source stone from India and China produced in line with the sustainability requirements of the RSP Code.⁸⁴ The Transparency Hub of TFT shows that MO&B has 0% transparency to first tier suppliers, factories and quarries. Only one factory MO&B is sourcing from, is working with TFT. MO&B does not source from quarries working with TFT. One production site meets level 1 of the RSP code.⁸⁵

MO&B is linked to quarry 19 in grade C (scoring 3.00 in the overall ranking on decent work). In quarry 19 bonded labour is prevalent and instances of child labour are found. Furthermore, in quarry 19 safe drinking water is not provided to workers and paid holidays are not provided by the employer. Workers in quarry 19 do receive minimum wages, overtime payment and provident fund.

In their response to the draft version of this report, MO&B mentions not to procure stone from quarries directly but through processing factories, their suppliers, in India. MO&B has an agent in India who controls the quality and monitors the working conditions in the processing factories. When violations are identified, the management of the respective factory is urged to address the issues. After receiving the draft version of this report, MO&B requested their agent to gain insight in the quarries that supply granite to the processing factories MO&B is buying from; TFT has requested MO&B to do this as well. MO&B states that their suppliers are aware of their zero-tolerance policy regarding child labour. MO&B is prepared to accept a certain cost increase for conducting a risk assessment and remediation. However, as MO&B imports a limited amount of granite from India, it also claims to depend on measures taken by the international granite sector as whole to improve working conditions in the industry.

Furthermore, MO&B is engaged in several initiatives that aim to address child labour and poor working conditions in the natural stone sector. As member of the Belgium trade association Febenat MO&B is engaged in the initiative 'Eerlijke Natuursteen (fair natural stone)' and in the Netherlands MO&B is involved in the process to come to a IMVO covenant (sector-wide agreement) for the natural stone sector. Since VNNI (of whom MO&B is member) is not taking part in the negotiations any longer, MO&B decided to remain at the negotiation table as individual company. MO&B is positive about participation in the IMVO covenant. To increase leverage, MO&B advocates for investigating whether the 'Eerlijke Natuursteen' initiative in Belgium and the IMVO covenant for the natural stone sector in the Netherlands can be merged into one larger initiative for the Benelux.

Royal Bank of Scotland (RBS)

In their response to a draft version of the report the Royal Bank of Scotland mentioned to fully recognise their corporate responsibility to respect and uphold human rights, which is endorsed by their Board-level Sustainability Committee and outlined in their Human Rights Statement and draft Modern Slavery Act statement. RBS states to conduct preliminary enquiries into any links with the researched quarries and additional information is expected soon.

5.3 Efforts of exporting companies, governments, NGOs and labour unions to improve labour conditions in the granite industry

This section gives an overview of efforts and interventions of exporting companies, the Government of India, NGOs and labour unions that address human rights violations in the natural stone industry in India. The section focuses on interventions of which information is found in publicly available sources, including media items.

Addressing illegal mining

The involvement of political leaders and government officials in granting and obtaining leases for mining operations resulted in an increase in illegal mining in the period 2005 - 2010 in South India. Large-scale illegal granite mining, particularly in Tamil Nadu, came into the limelight in 2010, which put the entire granite industry in South India under scrutiny. In Karnataka, Tamil Nadu and Andhra Pradesh, the government appointed special teams, consisting of members of various departments, to inquire into illegal mining activities.⁸⁶ Besides illegal mining these teams also came across social and environmental issues, such as child labour and the restoration of quarries after closing down quarry operations. Subsequently, quarry owners were urged to address these issues as well.⁸⁷

In Andhra Pradesh, 238 granite quarries in Chimakurthi, Ballikurava and Santamaguluru were investigated of which several companies were involved in illegal mining and/ or were violating safety and labour laws as well.⁸⁸ In Karnataka, a Special Investigation Team (SIT) found that as many as 106 firms engaged in granite quarrying and cutting/ polishing illegally exported blocks of high-priced stone since 2005, which caused a loss of INR 5000 million (EUR 71 million) to the Karnataka state exchequer. The SIT imposed on the 106 firms to present the documentation pertaining to the overseas sales following the alleged export without proper approval from government agencies. In Tamil Nadu, Madurai district, 94 quarries (of the 175 licensed granite quarries) violated license norms, and 51 quarries committed major violations, including encroaching of revenue land and private land. The special teams involved in the investigation in Tamil Nadu, warned quarry owners to address child labour, health and safety risks and the absence of workplace facilities as well.⁸⁹ In Andhra Pradesh and Telangana also several cases of illegal granite mining were reported since 2010. The licenses of several quarries in Karnataka, Andhra Pradesh and Tamil Nadu, found involved in illegal mining, were cancelled.⁹⁰

Addressing child labour and low wages

Child labour was a major issue of concern in the early 2000s in mining activities in Andhra Pradesh. Therefore, the ILO-IPEC in collaboration with the Andhra Pradesh government, NGOs like Assist and employers' associations (the Andhra Pradesh granite owners' association) implemented a special project for four years to address the problem of child labour in mining activities in Prakasam district: the 'Consortium of Employers' Associations for the Elimination of Child Labour (CEASE)' project.^{xii}

^{xii} When the field data was collected the granite owners' association was not functional anymore.



Quarry workers in a hospital after getting injured in an accident

The granite owners' association is also a member of this initiative.⁹¹ Some big exporting companies (including a few companies in our sample - quarry 15, 18, 20, 22, and 20) are members of the granite owners' association and took measures to address child labour. This included awareness meetings on child labour for the company staff and labour contractors and insisting on age proof documents at the time of recruiting the workers. A manager of quarry 22 in Chimakurthi said: *"We are asking all the labour contractors to produce age proof certificates for the workers they supply to us."* Furthermore some child labourers were mainstreamed into schools; others left quarries but moved to other sectors.

In 2015, the trade union CITU, in collaboration with the Andhra Pradesh labour department, identified around 30 young seasonal migrant workers from Odisha who were working in different quarries and were sent back to their native places in 2015. Also, CITU mobilised workers and organised a one week strike for hike in wages in 2015.⁹² Furthermore, the leader of a trade union in Chimakurthi said: *"We are also advising our members not to send their children for work. The involvement of children is still observed in waste stone processing which is done on piece-rate basis."*

Addressing health and safety

Safety in granite mining received attention as well, particularly after the death of 12 workers due to a landslide in a granite quarry in Chimakurthi village in Andhra Pradesh. The quarry where this incident took place was one of the leading exporters of granite in Chimakurthi area. According to a senior employee of a major exporting company, the accident resulted in some pressure from foreign companies on their suppliers to pay attention to the safety of workers involved in quarry operations. Also, he said: *"After this incident [death of 12 workers in 2010] our management took a decision to distribute safety shoes and helmets for all the workers, including temporary workers who come to work*

occasionally. We have organised trainings to workers on safety precautions. We also started providing group insurance for the workers covering accidents and death.” In Telangana and Andhra Pradesh the mining department in collaboration with the Andhra Pradesh Granite Owners Welfare Association organised several trainings for quarry workers on health and safety issues.⁹³

Corporate Social Responsibility law in India

In 2013, the Indian government brought changes in the Indian Companies Act, 1956, which made Corporate Social Responsibility (CSR) mandatory for all the companies with a market cap of more than INR 5 billion (EUR 70.95 million) or a turnover above INR 10 billion (EUR 141.90 million). The CSR policy means that they have to spend at least 2% of their net profit on social development and the environment.⁹⁴ India is the first country with a CSR law, however the interpretation of CSR in this context only includes charity as companies are not obliged to conduct human rights due diligence in their own supply chains. Also, workers in their own supply chain are not allowed to benefit from activities of companies under this law. Nevertheless, as part of the mandatory CSR Law, a few of the companies in the research sample (quarry 8, 15, 20, 21 and 22) have organised free medical camps, provide drinking water facilities or supported schools and poor students in areas where they are operating. The impact of these programs in improving the working conditions in quarries, however, is very limited as budgets are very small and most of the beneficiaries of these programs are non-quarry workers.⁹⁵

Campaigns of civil society organisations

Civil society organisations played a role in highlighting the social and environmental issues in mining activities. mines, minerals & PEOPLE (mm&P), a national network of communities, NGOs and resource organisations, was formed in 2004 to address the problems of communities and mine workers affected by mining as well as impacts of mining on the environment. mm&P has about 120 member groups in 16 states in the country.⁹⁶ Samata and HAQ conducted a research and published two important reports, one on child labour in the iron ore and granite mines in Bellary district of Karnataka in 2005 and a report on the impacts of mining on children titled *India's Childhood in the "Pits" – A Report on the Impacts of Mining on Children in India* in 2010.⁹⁷ The campaign undertaken by mm&P and Samata and HAQ helped to raise awareness on various issues, especially on the issue of child labour and environmental problems in the mining sector.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The previous chapters describe the working conditions in 22 granite quarries in three South Indian states: Andhra Pradesh, Telangana and Karnataka. These states account for more than 75% of the granite produced in India. The researched quarries are either directly or indirectly involved in exporting granite to Europe, the USA and other countries. Of the 22 quarries, 9 quarries have direct linkages with foreign importers, as quarries are operated by exporting companies themselves. 31 companies and 3 banks who are sourcing from these 9 quarries are identified with the help of export data (except for Arte). Other quarries are exporting granite through intermediaries who are solely involved in the exporting business; for these quarries buyer-supplier linkages were not found.

Wet wire saw cutting in a granite quarry (not included in the research sample)



The natural stone sector is seen by many as very conservative and transparency in this sector is lacking. For this reason, it is difficult to identify buyer-supplier relations. The identified buyers mentioned in this report are not the only companies sourcing from the researched quarries. Therefore, the responsibility to address labour rights violations described in this report does not only lie with the companies and banks named in this report, but with all companies and agencies sourcing and trading granite from quarries in South India. As India is China's main supplier of granite, it is certain that a substantial part of granite bought from Chinese exporters originates from South Indian granite quarries. Furthermore, the weak enforcement of labour law by the central and state governments in India contributes to poor working conditions in granite quarries.

The working conditions in granite quarries violate many national and internal laws. The study findings indicate that 'debt bondage', a form of modern-day slavery, is a major issue of concern in granite quarries. In most of the researched quarries a large number of workers are recruited through labour contractors who hire workers on long-term binding contracts by paying loans and advances. The wage advances and loans are primarily used as means to tie the workers to the job. Nearly 25% of the workers, most of them from quarries located in Telangana and Karnataka, are recruited by providing loans, which carry interest rates of 24% to 36% per year. In Telangana about 42% of the local workers and 58% of the migrant workers interviewed reported that they owe large sums of money varying from INR 10000 (EUR 141.90) to INR 20000 (EUR 283.80) to quarry owners or contractors and they therefore have been working with the same quarry for more than two years.

Migrants constitute 70% of the workforce in Andhra Pradesh and Telangana. Migrant workers are preferred over local workers as they are considered to be more obedient, work longer hours and do not switch employers frequently. Migrants are able to work flexible and longer hours as they often have fewer social or familial commitments. They are less likely to strike and they are often paid lower wages. Particularly migrants are vulnerable to exploitation, as they cannot easily fall back on their family and social networks when they are facing problems.

Stone quarrying is hazardous in nature and employment of children is prohibited in quarry activities under ILO conventions 182 and 138 as well as under the Indian Child Labour (Prohibition and Regulation) Amendment Act, 2016. Child labour was rampant in granite quarries in the early 2000s. However, the research findings indicate that in recent years there has been a decline in the magnitude of child labour in granite quarries in all the three states especially in Andhra Pradesh, as a result of interventions by the government, industry and civil society organisations. However, instances of child labour are still found in the researched quarries. Out of the 22 sample quarries, the employment of children below 18 years in core quarry activities is observed in 7 quarries.

Child labour in waste stone processing is still prevalent. Contrary to core quarry operations, the involvement of child labour in processing of waste stone into cobbles and blue metal chips did not receive much attention thus far. As waste stone processing is considered less hazardous compared to quarry operations, employment relations are disguised and family labour is involved, child labour in waste stone processing is not addressed. Children below 14 years account for nearly 3% of the workforce in waste stone processing and 5% of the workforce is between 15 and 18 years old. With 8% child labour engaged in this activity, the findings of this study indicate that the magnitude of child labour in the processing of waste stone did not change. Besides child labour, wages below legal minimum wage rates for unskilled labour are prevalent in waste stone processing. Most quar-

ries are avoiding their responsibility for decent working conditions in removing and processing granite waste stone.

Another major issue of concern is the absence of written contracts between workers and employers. More than 80% of the workers in the researched quarries are hired on an informal basis without any written employment contracts. Even in quarries that fall under grade B in the overall ranking of quarries on decent work criteria, written contracts only exist for a small proportion of the workforce, workers who are employed on a regular basis. Without employment contracts, workers cannot claim their legal entitlements including minimum wages, overtime compensation and compensation in case of accidents at the workplace and occupational diseases.

The wages paid to workers in granite quarries are relatively low compared to several other sectors. In five quarries minimum wages are not paid. Furthermore, when taking the number of working hours into consideration the wages in 10 researched quarries do not meet the legal requirement.

Occupational health and safety is a serious issue of concern in stone quarrying. More than 80% of the workers interviewed as well as stakeholders the researchers talked to, were of the opinion that health and safety is the most severe issue in granite quarrying and processing. Quarry workers face many occupational hazards like explosions, large moving stones, silica and other dust and back-breaking labour. Quarry workers are especially vulnerable to work-related illnesses, like the incurable disease silicosis. Furthermore, accidents at the workplace, sometimes resulting in the death of workers, occur frequently in quarries. In 2010, there was an accident in a quarry in which 12 workers lost their lives. This quarry is located in Chimakurthi.

The Mines Act of 1952 stipulates quarries to provide appropriate safety equipment to workers, including helmet, goggles, boots, respirator/ mask, gloves etc. Most of the quarries visited in Karnataka, Telangana and Andhra Pradesh are not following the work safety guidelines. In most of the visited quarries workers were seen without any PPE when cutting, shaping or drilling stone. Especially the drilling activity generates a lot of dust and is very noisy. In none of the quarries visited workers involved in drilling operations were seen wearing any respirator, ear and/ or eye protection. The situation is slightly better in some big quarries but even there the access and use of PPE is largely confined to a small section of permanent workers who are mainly involved in supervising quarry activities. The lack of investment in the personal safety of the workers contributes to many very serious occupational hazards.

The ranking of quarries in chapter four, based on their overall performance on decent work criteria deriving from the core labour standards of the ILO, shows that none of the researched quarries are fulfilling all requirements for decent work. Based on their performance quarries and their buyers are grouped into four categories: A, B, C and D. Companies that fall under grade A are performing best on decent work criteria and companies under grade D are performing worst. Out of the 22 sample quarries, none of the companies fall under grade A. Only four quarries fall under grade B. These quarries are large in size and are mainly producing for export markets. Despite the fact that grade B quarries score better on decent work aspects compared to grade C and D quarries, in these quarries health insurance, paid holidays and PPEs, as per the legal requirements, are not provided to workers. In the worst performing quarries that fall under grade C and quarries that fall under grade D, child labour, bonded labour and non-payment of minimum wages are prevalent. Also, health and safety management in these quarries is very poor to non-existent.

Furthermore, the overall ranking on decent work criteria in chapter four shows a correlation, but rather limited, between companies' performance on decent work and the CSR policies and practices of their identified buyers. Most importing companies who are sourcing from quarries that fall under grade B are relatively performing better, have CSR policies in place and two of these companies are member of the Responsible Stone Program of TFT. Nonetheless, to gain insight in the effectiveness of business and human rights initiatives in improving working conditions in South Indian granite quarries additional research is required.

Chapter 5 shows that only 5 of the 31 identified buying companies are member of a business and human rights initiative active in the natural stone sector: Arte, Beltrami, Cosentino and Michel Oprey & Beisterveld are member of the Responsible Stone Program of TFT; Just Naturstein is a member of IGEP and Cosentino is also member of the UN Global Compact, though with a formal non-reporting status. Daltile Corporation is not member of a business and human rights initiative but publishes a code of conduct on its website. For all other identified buyers, no information on policies on human rights and/ or labour rights were found on their company website. Furthermore, only 5 companies and 1 bank reacted to the request to review the draft chapters of this report and provided additional information about their company policies and measures aiming at addressing human rights violations in their supply chain.

It is clear from the above that only a few companies can be considered (relative) frontrunners in the natural stone sector. Most of the serious human rights issues in South Indian granite quarries still have hardly been tackled, even by the 'frontrunners' who have mostly focused on their first-tier suppliers. It is high time that all companies who are sourcing and trading granite, start performing human rights due diligence in their entire supply chain, increase their leverage and start addressing these issues both individually and collectively. Besides importing companies, also governments, including municipalities, and companies at the buying end of granite supply chain, like companies in the funeral, retail (kitchen and gardens) building and construction sectors, should do this. Also, the Government of India and state governments should improve policies and especially enforcement of laws to protect granite quarry workers from human- and labour rights abuses.

6.2 Recommendations

Recommendations for companies sourcing granite from India

Human rights due diligence: Companies sourcing granite and other natural stone products from Andhra Pradesh, Telangana and Karnataka or other states in India should implement a comprehensive human rights due diligence process as required by the United Nations Guiding Principles on Business and Human Rights and OECD Guidelines for Multinational Enterprises in order to identify, prevent and mitigate potential and actual human rights violations in their supply chain. Such violations include child and bonded labour and unhealthy and/or unsafe working conditions. Based on their due diligence companies should make a time-bound action plan to address actual and potential human rights violations, monitor its implementation and report publicly on this.

Create joint leverage and cooperate with stakeholders: To increase leverage, natural stone companies should not only work together with other companies but also engage with workers and their labour union and other representatives, as well as with knowledgeable NGOs to improve working conditions in line with the UNGP and the OECD Guidelines.

Transparency: Companies should increase the traceability and transparency of their supply chains up-to the level of quarries. Certification, multi-stakeholder and other initiatives aiming at improved working conditions in the natural stone industry should be transparent on their code of conduct, members, license agreements, procedures, audit manuals, control systems, results etc.

Access to remedy: Companies and/ or one of the above-mentioned initiatives of which they are a member should have a credible grievance mechanism, which is a crucial way for workers to have their problems heard and remediated.

Become member of the most credible certification and/or multi-stakeholder initiative and work towards its improvement: Existing initiatives are not yet (fully) operating in line with the UNGP and OECD Guidelines, though in substantially varying degrees. We do encourage natural stone companies to join the initiative(s) that are most in line with these international standards, identify possibilities to improve such initiative(s) 'from within' and to work together towards bringing the specific initiative up to international standards.

Dutch natural stone companies should support the process to come to a sector-wide agreement on corporate social responsibility in the natural stone sector and should sign the agreement if the negotiations result in an agreement.

Recommendations for natural stone companies and quarries in India

Indian companies should implement Indian labour laws and respect trade union rights

Written employment contracts: One of the most pressing issues is the absence of written employment contracts. The absence of such contracts makes it almost impossible for workers to claim legal entitlements like minimum wages, overtime compensation, government welfare schemes, compensation for work accidents etc. Even large quarries are subcontracting most of the operations through labour supply agencies and middlemen who hire workers. The owners of the quarries and importing companies should make sure that written contracts are provided to all workers, including workers employed by middlemen and labour supply agencies and temporary workers.

Mandatory use of PPE: Occupational health and safety is a very serious issue of concern in quarrying activities. Most of the quarries visited in Karnataka, Telangana and Andhra Pradesh are not following work safety guidelines and quarry workers were seen without any PPE when cutting, shaping or drilling stone. The lack of investment in the personal safety of the workers greatly contributes to occupational hazards. The companies should take the necessary steps to make the use of PPE mandatory for the workers. Also, quarries need to have a clear policy in place about health and safety on the worksite and the use of PPE.

Human rights due diligence: Indian exporters of granite and other natural stone companies in India, like multinational companies, also have the responsibility to conduct human rights due diligence as per the UNGP to identify, prevent and mitigate potential and actual human rights violations in their supply chain.

Transparency and traceability: Indian natural stone companies should be transparent about their full supply chain, actors involved in their supply chain and measures taken to monitor and improve the labour conditions at different levels in their supply chain and report publicly on this.

Grievance mechanism: Company level grievance mechanisms are a crucial instrument for workers to get their problems heard and remedied. Access to remedy for victims of human rights abuse is an obligation under the UNGP.

Cooperate with local government and civil society organisations to address human rights violations:

Quarries are often located closely together. The issues of poor living conditions and lack of access to health care can also be tackled at community level instead of quarry level, but only if the results for workers and communities are at least as good or better. Access to medical facilities can be facilitated by setting up health centres in stone quarry zones. Local governments are responsible for the provision of health care services that meet the health care needs of quarry workers. Quarry owners and quarry worker communities can join forces to keep the government accountable for the provision of proper health care services. Cheap housing can also be provided with the help of government rural housing schemes.

The issue of child labour can be tackled by a combination of strategies that involve all key stakeholders like (local) government agencies, parents, communities, quarry owners, buyers and importers. An area-based approach to eradicate child labour like the Child Labour Free Zone approach developed by MV Foundation, is an important example of such an approach. Companies are expected to play a pro-active role in the above strategies and contribute to its effective implementation.

Recommendations for the Central Government and State Governments of India

Enforcement of labour laws and welfare schemes: The central as well as state governments in India have enacted several laws and introduced many welfare schemes for the benefit of labourers engaged in different sectors including mining and quarrying. The weak enforcement of laws is a major reason for poor working conditions in granite quarries. Effective monitoring of the implementation of labour laws is an important means to reduce child labour, bonded labour and unhealthy and unsafe working conditions in granite quarries. In particular, the Karnataka and Telangana state governments should conduct regular labour inspections at quarry level and make sure workers have access to social security benefits. The Telangana, Andhra Pradesh and Karnataka state governments are recommended to follow the example of the Rajasthan state government, making it mandatory for quarry owners to maintain formal records of all workers in their quarries. With legal employment contracts quarry workers can access various social schemes, for instance under the Workmen Compensation Act.

Utilise District Mineral Foundation (DMF) funds for labour welfare: Under the Mines and Minerals Development and Regulation Amendment Act, 2015, a District Mineral Foundation (DMF) should be established in districts where mining and quarrying takes place.⁹⁸ This is designed to address long-term grievances of workers and communities affected by mining. There is a separate obligation to contribute to the DMF not exceeding one third of the royalty rate of the respective minerals. Nearly INR 50000 million (EUR 710 million) has been collected so far through the DMF, which should be utilised by the states for the development of places and people affected by mining-related operations.⁹⁹ So far not many state governments have taken initiatives to utilise this fund. The Chhattisgarh state government has set an example in using funds from the DMF for improving the welfare of mining communities.¹⁰⁰ The District Collector of Jashpur, Priyanka Shukla, took the initiative to provide quality education to 30 students belonging to families of mining workers of tribal communities. The Andhra Pradesh, Telangana and Karnataka state governments should take similar initiatives.

Implement the recently adopted Protocol of 2014 to the Forced Labour Convention, 1930: The Government of India recently ratified two ILO conventions on child labour: ILO convention 182 on the worst forms of child labour and convention 138 regarding admission of age to employment. This is a welcoming development. However, the Government of India should also implement the recently adopted ILO Protocol (June 2014) to the Forced Labour Convention (1930) that updates a widely ratified, but outdated, treaty. The protocol was developed in order to better address contemporary abuses, including abuses against migrants. The measures in the new Forced Labour Protocol include creating national plans of action, expanding labour laws to sectors at risk of forced labour, improving labour inspections and protecting migrant workers from exploitative recruitment practices. The new Protocol also requires governments to support human rights due diligence by businesses to prevent and respond to forced labour in their operations. The Protocol requires governments to take measures to identify, release and provide assistance to forced labour victims as well as protect them against retaliation by for example employers. The treaty and protocol also obliges governments to ensure that victims have access to justice and remedy, including compensation.

Setting up a task force: Looking at the magnitude and seriousness of the violations in granite quarries, a special task force of state governments to improve labour conditions in this sector is recommended. Such a task force should work in close cooperation with labour unions, NGOs, community-based organisations, like local (child) rights groups, village panchayats and private sector stakeholders.

Recommendations for the European Union, its member states and other Governments at the buying end of the granite supply chain

Governments at the buying end, being a substantial buyer, have an important role in driving change in the natural stone sector. Local, national and European government agencies and semi-government institutions should implement sustainable procurement policies and publicly report about its implementation.

The European Commission should oblige companies to be transparent about their supply chain and to perform a human rights due diligence procedure in line with the UNGP and the OECD Guidelines and report publicly about this.

In line with the ILO forced labour protocol, European governments should oblige companies domiciled in their countries to do a due diligence procedure, especially small and medium-sized enterprises.

European member states and the European Commission should raise the issue of child labour and forced labour with the Indian Government in order to come to joint solutions for failing implementation of labour rights legislation and UN Guiding Principles. This should include strengthening of the labour inspection, including ex-child workers in formal education and capacity building programs.

The European Union and its members should urge India to ratify the recently adopted Protocol of 2014 to the ILO Forced Labour Convention, 1930.

Annex: List of trade associations

	Trade Association	Country
1	ABN Natuursteen (Algemene Nederlandse Bond van Natuursteenbedrijven)	NLD
2	ASAA (Australian Stone Advisory Association Ltd)	AUS
3	BOVATIN (Bond voor Aannemers in Tegelwerken)	NLD
4	Bundesverband Deutscher Steinmetze - Bundesinnungsverband des Deutschen Steinmetz- und Steinbildhauerhandwerks	DEU
5	Cluster Piedra – Agrupación Empresarial Innovadora De La Piedra Natural	ESP
6	Confindustria Marmomacchine – Associazione Italiana Marmomacchine	ITA
7	DNV (Deutscher Naturwerkstein-Verband e.V.)	DEU
8	EUROROC (European & International Federation of Natural Stone Industries)	EU
9	FBMTP (Fédération Royale des Maîtres Tailleurs de Pierres de Belgique)	BEL
10	Febenat (Benelux natural stone federation)	BEL
11	Jongeren Organisatie ABN (JOA)	NLD
12	NAMM (National Association of Memorial Masons)	GBR
13	NSC (Natural Stone Council – The United Voice of The Natural Stone Industry)	USA
14	Stone Federation Great Britain	GBR
15	VNNI (Vereniging Nederlandse Natuursteen Importeurs)	NLD
16	Vereniging DI-Stone	NLD

ENDNOTES

- ¹ Where does India export Granite, crude or roughly trimmed to? (The Observatory of Economic Complexity); source: http://atlas.media.mit.edu/en/visualize/tree_map/hs92/export/ind/show/251611/2014/, accessed June 7, 2017.
- ² Studies include: (1) Budhpura 'Ground Zero' - Sandstone quarrying in India (P. Madhavan & S. Raj, Dec 2005; commissioned by India Committee of the Netherlands), source: <http://www.indianet.nl/budhpura.html>; (2) From Quarry to Graveyard - Corporate social responsibility in the natural stone sector (CREM, India Committee of Netherlands and SOMO, Sep 2006), source: <http://www.indianet.nl/fromquarrytograveland.html>; (3) Big pits and cheap lives (Centre for Education and Communication, 2006): fact-finding study on working conditions in the sandstone mines in Kota – Bundi region of Rajasthan.
- ³ In 2007, the Indian granite industry countered allegations in the European media that it is employing child labour in quarries and factories. From: 'No child labour employed in granite industry' (T.E. Raja Simha, The Hindu, Oct 2, 2007); source: <http://www.thehindubusinessline.in/2007/10/02/stories/2007100250100700.htm>.
- ⁴ People's Watch (2009) Between a rock and a hard place: The exploitation for quarry workers in Tamil Nadu (People's Watch, 2009); commissioned by the India Committee of the Netherlands (ICN), Dutch Working Group on Sustainable Stone (WGDN) and FNV (unpublished).
- ⁵ Rock Bottom – Modern Slavery and Child Labour in South Indian Granite Quarries (India Committee of Netherlands/Stop Child Labour Coalition, May 2015); source: <http://www.indianet.nl/pdf/RockBottom.pdf>.
- ⁶ With an exchange rate of EUR/INR = 0.01419 (Mar 22, 2017); source: https://www.wisselkoers.nl/india_rupees.
- ⁷ Stone Sector 2016 -Bilancio e prospettive del commercio internazionale dei prodotti lapidei (M. Gussoni, Internazionale Marmi e Macchine Carrara S.p.A.); source: <http://www.stat.immcarrara.com/uploads/files/1073uk-stone-sector-2016-1.pdf>, accessed January 19, 2017.
- ⁸ Indian Minerals Yearbook 2015 (Part-III : Mineral Reviews) – Granite (Government of India, Indian Bureau of Mines, Dec 2016); source: http://ibm.nic.in/writereaddata/files/12232016160905IMYB2015_Granite_23122016_Adv.pdf, accessed June 7, 2017.
- ⁹ Ibid.
- ¹⁰ Granite Greed (Down to Earth, Sep 30, 2011); source: <http://www.downtoearth.org.in/coverage/granite-greed-33977>.
- ¹¹ The Mines Act of 1952; source: http://www.dgms.net/ma_1952.pdf.
- ¹² The Child Labour (Prohibition and Regulation) Amendment Act, 2016; source: <http://labour.tripura.gov.in/sites/default/files/child-labour-act-2016.pdf>.
- ¹³ The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979; source: http://labour.bih.nic.in/Acts/inter-state_migrant_workmen_regulation_of_employment_and_co.pdf.
- ¹⁴ Rock Bottom – Modern Slavery and Child Labour in South Indian Granite Quarries (India Committee of Netherlands/Stop Child Labour Coalition, May 2015); source: <http://www.indianet.nl/pdf/RockBottom.pdf>.
- ¹⁵ Granite, crude or roughly trimmed trade (The Observatory of Economic Complexity); source: <http://atlas.media.mit.edu/en/profile/hs92/251611/>, accessed June 7, 2017.
- ¹⁶ Granite - Leaving no stone unturned. Really? (The Dollar Business, Dec 2015); source: <https://www.thedollarbusiness.com/magazine/granite---leaving-no-stone-unturned-really-/35234>, accessed May 31, 2017.
- ¹⁷ Indian Minerals Yearbook 2015 (Part-III : Mineral Reviews) – Granite (Government of India, Indian Bureau of Mines, Dec 2016); source: http://ibm.nic.in/writereaddata/files/12232016160905IMYB2015_Granite_23122016_Adv.pdf, accessed June 7, 2017.
- ¹⁸ With an exchange rate of EUR/USD = 0.8811 (Jul 4, 2017); source: <https://www.wisselkoers.nl/dollar>.
- ¹⁹ Measures to increase export of core industries' products (Government of India – Ministry of Commerce & Industry (Department of Commerce), Dec 23, 2015); source: http://commerce.gov.in/writereaddata/UploadedFile/MOC_635975501820232757_RS_23rd-Dec-2015.pdf.
- ²⁰ Granite - Leaving no stone unturned. Really? (The Dollar Business, Dec 2015); source: <https://www.thedollarbusiness.com/magazine/granite---leaving-no-stone-unturned-really-/35234>, accessed May 31, 2017.
- ²¹ Measures to increase export of core industries' products (Government of India – Ministry of Commerce & Industry (Department of Commerce), Dec 23, 2015); source: http://commerce.gov.in/writereaddata/UploadedFile/MOC_635975501820232757_RS_23rd-Dec-2015.pdf.
- ²² Karimnagar granite industry in doldrums (The Hindu, Jul 2015); source: <http://www.thehindu.com/news/national/telanganakarimnagar-granite-industry-in-doldrums/article7423891.ece>, accessed May 31, 2017.
- ²³ From Quarry to Graveyard - Corporate social responsibility in the natural stone sector (CREM, India Committee of Netherlands and SOMO, Sep 2006), source: <http://www.indianet.nl/fromquarrytograveland.html>,
- ²⁴ The Child Labour (Prohibition and Regulation) Amendment Act, 2016; source: <http://labour.tripura.gov.in/sites/default/files/child-labour-act-2016.pdf>.

- ²⁵ The Mines Act of 1952; source: http://www.dgms.net/ma_1952.pdf.
- ²⁶ (1) For Karnataka, see the report *Our mining children - A Report of the Fact Finding Team on the Child Labourers in the Iron Ore and Granite Mines in Bellary District of Karnataka* (MV Foundation et al., 2005); source: <http://www.indianet.nl/our-miningchildren.pdf>. (2) For Tamil Nadu, see the report *Between a rock and a hard place: The Exploitation for Quarry Workers in Tamil Nadu* (unpublished, 2009).
- ²⁷ *Rock Bottom – Modern Slavery and Child Labour in South Indian Granite Quarries* (India Committee of Netherlands/Stop Child Labour Coalition, May 2015); source: <http://www.indianet.nl/pdf/RockBottom.pdf>.
- ²⁸ Ibid.
- ²⁹ (1) The Mines Act of 1952; source: http://www.dgms.net/ma_1952.pdf. (2) Chapter 13 - Occupational Safety & Health (Directorate General Factory Advice Service & Labour Institutes – Annual report 2015); source: <http://labour.gov.in/sites/default/files/Chapter%20-%2013.pdf>.
- ³⁰ *India's Childhood in the "Pits" – A Report on the Impacts of Mining on Children in India* (Dhaatri Resource Centre for Women and Children-Samata & HAQ: Centre for Child Rights, 2010); source: <http://www.indianet.nl/pdf/ChildrenAndMiningIndia.pdf>.
- ³¹ *Work Safely with Silica* (CPWR/NIOSH/OSHA, 2017); source: <http://www.silica-safe.org/ask-a-question/faq#question11>.
- ³² *Labour & Employment on Environment: Lok Sabha 2012-13* (WWF- India ENVIS Centre, 2013); source: (<http://wwfenvis.nic.in/files/Environment%20in%20the%20Indian%20Parliament%20%20Lok%20Sabha%20-%202012-13/Labour%20&%20Employment%20on%20Environment.pdf>).
- ³³ Ibid.
- ³⁴ The Mines Act of 1952; source: http://www.dgms.net/ma_1952.pdf.
- ³⁵ ILO Indicators on Forced Labour (ILO); source: http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_203832.pdf
- ³⁶ *The Unorganised Workers' Social Security Act, 2008*; source: http://labour.tripura.gov.in/sites/default/files/The_Unorganised_Workers_Social_Security_Act_2008.pdf.
- ³⁷ *The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979*; source: http://labour.bih.nic.in/Acts/inter-state_migrant_workmen_regulation_of_employment_and_co.pdf.
- ³⁸ The Mines Act of 1952; source: http://www.dgms.net/ma_1952.pdf.
- ³⁹ *Mineral Conservation and Development (Amendment) Rules 2015*; source: [http://www.mines.nic.in/writereaddata/UploadFile/MCDR%20\(Amendment\)%20Rules,%202015.pdf](http://www.mines.nic.in/writereaddata/UploadFile/MCDR%20(Amendment)%20Rules,%202015.pdf)
- ⁴⁰ (1) *The Child Labour (Prohibition and Regulation) Amendment Act, 2016*; source: <http://labour.tripura.gov.in/sites/default/files/child-labour-act-2016.pdf>. (2) The Mines Act of 1952; source: http://www.dgms.net/ma_1952.pdf.
- ⁴¹ *The Minimum Wages Act, 1948*; *The Contract Labour Regulation and Abolition Act, 1970*; *The Industrial Establishments Acts*; *The Unorganised Workers' Social Security Act, 2008*.
- ⁴² *Guiding Principles on Business and Human Rights* (United Nations, 2011); source: http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf.
- ⁴³ *OECD Guidelines for Multinational Enterprises* (OECD, 2011); source: <https://www.oecd.org/corporate/mne/48004323.pdf>.
- ⁴⁴ *Corporate Responsibility in the Natural Stone Sector: The Effectiveness of Voluntary CSR Initiatives in Achieving Sustainability* (J.E. Franken, 2016); source: <http://www.indianet.nl/CorporateResponsibilityInTheNaturalStoneSector.html>.
- ⁴⁵ *What we do* (BSCI); source: <http://www.bsci-intl.org/content/what-we-do-0>, accessed May 8, 2017.
- ⁴⁶ *Members* (BSCI); source: <http://www.fta-intl.org/members>, accessed May 8, 2017.
- ⁴⁷ (1) *About ETI* (ETI); source: <http://www.ethicaltrade.org/about-eti>, accessed May 8, 2017. (2) *ETI Base Code* (ETI); source: <http://www.ethicaltrade.org/eti-base-code>, accessed May 8, 2017.
- ⁴⁸ (1) *Previous members* (ETI); source: <http://www.ethicaltrade.org/about-eti/our-members/previous-members>, accessed May 9, 2017. (2) *Corporate accountability: The Role and Impact of Non-Judicial Grievance Mechanisms* (K. Lukas, B. Linder, A. Kutrzeba & C. Sprenger [Edward Elgar Publishing, Cheltenham UK, Northampton MA, USA], 2016): p.246.
- ⁴⁹ *Standard* (Fair Stone); source: <http://en.fairstone.org/fair-stone/standard/>, accessed May 8, 2017.
- ⁵⁰ *Fair Stone Auditor's Manual for Factories* (Fair Stone); source: <http://en.fairstone.org/wp-content/uploads/sites/3/2013/04/Fair-Stone-Auditors-Manual.pdf>, accessed May 8, 2017.
- ⁵¹ *Approach* (Fair Stone); source: <http://en.fairstone.org/approach/>, accessed May 8, 2017.
- ⁵² *Becoming Partner* (Fair Stone); source: <http://en.fairstone.org/partner/becoming-partner/>, accessed May 10, 2017.
- ⁵³ *About us - History* (IGEP); source: <http://www.igep.org/ourhistory.html>, accessed May 8, 2017.
- ⁵⁴ *Label/Sticker/Seal - IGEP Certificate: Together against Child Labor* (IGEP); source: <http://www.igep.org/stonelabel.html>, accessed May 8, 2017.
- ⁵⁵ *Certification of Natural Stones* (IGEP); source: <http://www.igep.org/stonecertification.html>, accessed May 8, 2017.
- ⁵⁶ *ISES 2020 - International Social & Environmental Standard* (IGEP); source: <http://igep-zertifikation-natursteine.org/ises.html>, accessed May 10, 2017.

- ⁵⁷ Corporate Responsibility in the Natural Stone Sector: The Effectiveness of Voluntary CSR Initiatives in Achieving Sustainability (J.E. Franken, 2016), p.27; source: <http://www.indianet.nl/CorporateResponsibilityInTheNaturalStoneSector.html>.
- ⁵⁸ (1) Social Projects Supported by VDNV (IGEP); source: <http://www.igep.org/stonesocial.html>, accessed May 8, 2017. (2) Corporate Responsibility in the Natural Stone Sector: The Effectiveness of Voluntary CSR Initiatives in Achieving Sustainability (J.E. Franken, 2016); source: <http://www.indianet.nl/CorporateResponsibilityInTheNaturalStoneSector.html>.
- ⁵⁹ IGEP – IGN – Made By Just (Just Naturstein); source: <https://www.just-naturstein.de/index.php?id=177>, accessed May 8, 2017.
- ⁶⁰ WGDN continues as the 'TFT Responsible Stone Program' (Werkgroep Duurzame Natuursteen (WGDN)); source: http://duurzaamnatuursteen.nl/en/page/home_en, accessed May 10, 2017.
- ⁶¹ (1) TFT Responsible Stone Programme (TFT); source: <http://www.tft-earth.org/wp-content/uploads/2016/05/About-the-Responsible-Stone-Programme.pdf>, accessed May 8, 2017. (2) Stone transparency-hub (TFT); source: <http://www.tft-transparency.org/product/stone/>, accessed May 8, 2017.
- ⁶² Respect for workers – Extractives, Guidelines for sites (TFT, Jan 2016); source: <http://www.tft-earth.org/wp-content/uploads/2017/04/Respect-for-Workers-Extractives.-English.pdf>, accessed June 22, 2017.
- ⁶³ Guiding Principles on Business and Human Rights (United Nations, 2011), p.15 and p.26; source: http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf.
- ⁶⁴ Stone transparency-hub (TFT); source: <http://www.tft-transparency.org/product/stone/>, accessed May 8, 2017.
- ⁶⁵ TFT Members (TFT); source: <http://www.tft-transparency.org/product/stone/>, accessed May 8, 2017.
- ⁶⁶ XertifiX-Standard (XertifiX); source: <http://www.xertifix.de/en/siegel/kriterien/>, accessed May 8, 2017.
- ⁶⁷ (1) Retailers (XertifiX); source: <http://www.xertifix.de/en/handel/handlerliste-2/handlerliste-alphabetisch/>, accessed May 8, 2017. (2) How we work (XertifiX); source: http://www.xertifix.de/en/siegel/wie_wir_arbeiten/, accessed May 8, 2017.
- ⁶⁸ Natuursteensector werkt aan covenant Internationaal MVO (SER, May 9, 2017); source: <http://www.ser.nl/nl/actueel/nieuws/2010-2019/2017/20170509-natuursteensector.aspx>.
- ⁶⁹ Sustainability (Daltille); source: <http://www.daltille.com/greenworks/sustainability>, accessed 10 May 10, 2017.
- ⁷⁰ Environmental (M S International); source: <https://www.msistone.com/corporate/msi-environmental.aspx>, accessed May 10, 2017.
- ⁷¹ Sustainable Development (Levantina); source: <http://www.levantina.com/en/company/sustainability/>, accessed May 10, 2017.
- ⁷² Arte (TFT Transparency Hub); source <http://www.tft-transparency.org/member/arte/?product=stone>, accessed May 10, 2017.
- ⁷³ Natuursteensector werkt aan covenant Internationaal MVO (SER, May 9, 2017); source: <http://www.ser.nl/nl/actueel/nieuws/2010-2019/2017/20170509-natuursteensector.aspx>.
- ⁷⁴ (1) Duurzame Natuursteen (Beltrami); source: <http://www.beltrami-group.eu/nl/duurzame-natuursteen-28.htm>, accessed May 8, 2017. (2) Het concept 'Duurzame natuursteen' (Beltrami); source: <https://www.beltrami.be/library/BELTRAMI%20%20Duurzame%20Natuursteen%20Algemeen.pdf?1456486491>, accessed May 8, 2017. (3) Our ethical commitment (Stoneasy); source: <http://www.stoneasy.com/ethical-trade>, accessed 8 May 2017. (4) Corporate accountability: The Role and Impact of Non-Judicial Grievance Mechanisms (K. Lukas, B. Linder, A. Kutrzeba & C. Sprenger [Edward Elgar Publishing, Cheltenham UK, Northampton MA, USA], 2016): p.246.
- ⁷⁵ Beltrami (TFT Transparency Hub); source: <http://www.tft-transparency.org/member/beltrami/?product=stone>, accessed May 9, 2017.
- ⁷⁶ Sustainability (Beltrami); source: <https://www.beltrami.co.uk/en/sustainability-187.htm>, accessed May 10, 2017.
- ⁷⁷ CSR - Corporate Social Responsibility 2014/2015 (Grupo Cosentino, Jun 2016); source: <https://content.cosentino.com/alldocuments/cosentino/csr/CSR-Cosentino-2014-2015-EN.pdf>, accessed May 9, 2017.
- ⁷⁸ (1) Commitment letter Cosentino [dated Nov 10, 2015] (UN Global Compact); source: https://www.unglobalcompact.org/system/commitment_letters/73701/original/Carta_Adhesi%C3%B3n_Pacto_Mundial.pdf?1450260916, accessed May 9, 2017. (2) Our Mission (UN Global Compact); source: <https://www.unglobalcompact.org/what-is-gc/mission>, accessed May 9, 2017.
- ⁷⁹ Cosentino - Company information (UN Global Compact); source: <https://www.unglobalcompact.org/what-is-gc/participants/73701-Cosentino>, accessed June 21, 2017.
- ⁸⁰ Ethical Code of Conduct (Daltille); source: <http://www.daltille.com/code-of-conduct>, accessed May 10, 2017.
- ⁸¹ (1) IGN - The Society (IGN); source: <http://www.schools-for-children.org/english/verein-interessengemeinschaft-foerderung-kinder-natursteine.php>, accessed May 9, 2017. (2) Founding members of IGN e.V. (IGN); source: <http://www.schools-for-children.org/english/mitglieder-verein-schulen-kinder-natursteine.php>, accessed May 9, 2017.
- ⁸² IGEP – IGN – Made By Just (Just Naturstein); source: <https://www.just-naturstein.de/index.php?id=177>, accessed May 8, 2017.
- ⁸³ Projects of IGN (IGN) ; source: <http://www.schools-for-children.org/english/schulprojekte-indien-asien-afrika-lateinamerika-natursteine.php>, accessed May 9, 2017.

- ⁸⁴ Maatschappelijk Verantwoord Ondernemen (Michel Oprey & Beisterveld); source: <http://mo-b.nl/over-ons/maatschappelijk-verantwoord-ondernemen.html>, accessed May 9, 2017.
- ⁸⁵ Michel Oprey & Beisterveld (TFT Transparency Hub); source: <http://www.tft-transparency.org/member/michel-oprey-beisterveld/?product=stone>, accessed May 9, 2017.
- ⁸⁶ (1) Granite firms cause Rs 500 cr loss with illegal export of blocks (India Today, May 15, 2015); source: <http://indiatoday.intoday.in/story/granite-quarrying-karnataka-lokayukta-rs-500-crore-loss/1/438162.html>. (2) Illegal granite mining in TN has caused Rs. 1.1 lakh cr loss: Panel (The Hindu BusinessLine, Jan 4, 2016); source: <http://www.thehindubusinessline.com/news/national/illegal-granite-mining-in-tn-has-caused-rs-11-lakh-cr-loss-panel/article8064649.ece>.
- ⁸⁷ Rock Bottom – Modern Slavery and Child Labour in South Indian Granite Quarries (India Committee of Netherlands/Stop Child Labour Coalition, May 2015); source: <http://www.indianet.nl/pdf/RockBottom.pdf>.
- ⁸⁸ Government cracks whip on granite quarry owners (The New Indian Express, Jan 21, 2013); source: <http://www.newindianexpress.com/states/andhra-pradesh/2013/jan/21/government-cracks-whip-on-granite-quarry-owners-444986.html>.
- ⁸⁹ Rock Bottom – Modern Slavery and Child Labour in South Indian Granite Quarries (India Committee of Netherlands/Stop Child Labour Coalition, May 2015); source: <http://www.indianet.nl/pdf/RockBottom.pdf>.
- ⁹⁰ (1) Karnataka: Crackdown on granite mining sends owners into hiding (Deccan Chronicle, Jan 10, 2016); source: <http://www.deccanchronicle.com/150605/nation-current-affairs/article/karnataka-crackdown-granite-mining-sends-owners-hiding>. (2) Revenue Department recommends action to stop illegal quarrying (The Hindu, Mar 22, 2012); source: <http://www.thehindu.com/todays-paper/tp-national/tp-karnataka/revenue-department-recommends-action-to-stop-illegal-quarrying/article3026932.ece>. (3) PAC raps mining department (The Hans India, Jan 29, 2016); source: <http://www.thehansindia.com/posts/index/Andhra-Pradesh/2016-01-29/PAC-raps-mining-department/203487>.
- ⁹¹ Corporates, employers form consortium against child labour (The Hindu, Aug 13, 2001); source: <http://www.thehindu.com/2001/08/14/stories/0414403p.htm>.
- ⁹² Unions Strike Hard for Just Wages, Owners Unmoved (The Hans India, Jul 24, 2015); source: <http://www.thehansindia.com/posts/index/Andhra-Pradesh/2015-07-24/Unions-strike-hard-for-just-wages-owners-unmoved/165450>.
- ⁹³ Interview with the president of Granite Owners Association in Karimnagar.
- ⁹⁴ Indian law requires companies to give 2% of profits to charity. Is it working? (The Guardian, Apr 6, 2016); source: <https://www.theguardian.com/sustainable-business/2016/apr/05/india-csr-law-requires-companies-profits-to-charity-is-it-working>.
- ⁹⁵ Corporate Social Responsibility (CSR) Policy; source: <http://finance.bih.nic.in/documents/csr-policy.pdf>.
- ⁹⁶ Website mines, minerals & PEOPLE; source: http://www.mmpindia.in/general_assembly.htm.
- ⁹⁷ India's Childhood in the "Pits" – A Report on the Impacts of Mining on Children in India (Dhaatri Resource Centre for Women and Children-Samata & HAQ: Centre for Child Rights, 2010); source: <http://www.indianet.nl/pdf/ChildrenAndMiningIndia.pdf>.
- ⁹⁸ Government Promulgates the Mines and Minerals (Development and Regulation) (Amendment) Ordinance, 2015 (Press Information Bureau - Government of India - Ministry of Mines, Jan 13, 2015); source: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=114589>.
- ⁹⁹ Mining operations: Govt collects about Rs 5,000 crore through District Mineral Foundation (The Indian Express, Jan 16, 2017); source: <http://indianexpress.com/article/india/govt-collects-about-rs-5000-crore-through-district-mineral-foundation-4476949/>.
- ¹⁰⁰ This Chhatisgarh district used mineral funds to teach talented tribal kids (Business Standard, May 4, 2017); source: http://www.business-standard.com/article/economy-policy/this-chhatisgarh-district-used-mineral-funds-to-teach-talented-tribal-kids-117050400591_1.html.