



CHILD LABOUR IN MADAGASCAR'S MICA SECTOR

**Impact of the mica supply chain on children's rights
from the Malagasy mines to the international product line**

Executive summary

SOMO

Stichting Onderzoek Multinationale Ondernemingen
Centre for Research on Multinational Corporations

terre des hommes
stops child exploitation



COLOPHON

Author: Sanne van der Wal (SOMO)

Co-review committee at Terre des Hommes:

Tirza Voss en Claire van Bekkum

Contributions: Irene Schipper (SOMO)

Cover photo: Jan Joseph Stok

Photos: Jan Joseph Stok, Terre des Hommes

Layout: Newton21

This report was commissioned by Terre des Hommes Netherlands.
The content of this publication is the sole responsibility of SOMO.

The findings, interpretations and conclusions expressed in this document are those of the author and do not necessarily reflect the policies or views of Terre des Hommes. Any reference to a website other than Terre des Hommes does not imply that Terre des Hommes guarantees the accuracy of the information contained therein or that it agrees with the views expressed therein. This publication may be reproduced for use in research, advocacy and education only, provided the source is acknowledged (Terre des Hommes). This publication may not be reproduced for other purposes without the prior written permission of Terre des Hommes.

In Madagascar, SOMO collaborated with the research team from IRISS SOA Madagascar for both phases of the research. The lead researcher from IRISS SOA Madagascar was Eli Berson Badistinah Randriantovomanana, who also contributed to writing the report. The field research team also included researcher Hajalahy Andrianirina Razafimahandry. In China, SOMO collaborated directly with a local civil society research (academic) partner that wishes to remain anonymous. The research greatly benefited from the help and advice of a number of people and organisations, including Terre des Hommes Netherlands, UNICEF The Netherlands and the UNICEF Madagascar office, Luke Freeman (research support and advice), Henri Fidson (logistics and research support), Martial Ratsimamao (research support) and Barry Ferguson (research support and advice) to whom we are very grateful.

Produced by:

SOMO

Stichting Onderzoek Multinationale Ondernemingen

Centre for Research on Multinational Corporations

Sarphatistraat 30
1018 GL Amsterdam
The Netherlands
Tel: + 31 (20) 6391291
Fax: + 31 (20) 6391321
E-mail: info@somo.nl
Website: www.somo.nl

Commissioned by:

Terre des Hommes Netherlands

Zoutmanstraat 42-44
2518 GS Den Haag
The Netherlands
Tel: +31 (70) 310 5000
E-mail: info@tdh.nl
Website: www.tdh.nl

The Centre for Research on Multinational Corporations (SOMO) is an independent, not-for-profit research and network organisation working on social, ecological and economic issues related to sustainable development. Since 1973, the organisation investigates multinational corporations and the consequences of their activities for people and the environment around the world.

Terre des Hommes Netherlands prevents child exploitation, removes children from exploitative situations and ensures children can develop in a safe environment. Terre des Hommes works towards a world where all children have a decent life and can grow up to be independent adults. A world in which children are no longer exploited. Terre des Hommes will continue its work until this is accomplished.

November 2019

CHILD LABOUR IN MADAGASCAR'S MICA SECTOR

**Impact of the mica supply chain on children's rights
from the Malagasy mines to the international product line**

Executive summary

Countless products – from paints to cosmetics, from cars to laptops – contain mica, albeit it in small quantities. However, there is little awareness about this mineral with unique glimmering, heat-resistant and insulating properties and the widespread risks of child rights violations connected to the mining of this mineral. The global market for mica, estimated at US\$ 0.5 billion, is growing steadily. With 7 per cent of the global trade and an income of US\$ 6.5 million in 2017, Madagascar is the third biggest exporter of mica worldwide.

Mica exports from Madagascar are still modest compared to that of a number of other commodities and products such as vanilla (US\$ 703 million), apparel (US\$ 634 million), nickel (US\$ 341 million) and chrome (US\$ 152 million) that same year. However, the mica trade has increased dramatically since 2008 when exports were at only US\$0.6 million (1,233 tonnes). Of the 34,817 tonnes Madagascar exported in 2017, 87 per cent was shipped to China.

Despite growing Chinese demand for mica and corresponding supply from Madagascar, there is scant information about the structure of, and actors in the supply chain. The same is true for the conditions under which the mineral is mined and processed in Madagascar. This study, which was commissioned by Terre des Hommes, aims to address these questions and inform approaches to help improve the situation for the people working in this sector, including children.

The research was conducted by the Centre for Research on Multinational Corporations (SOMO) from December 2018 to September 2019 and included field research in both Madagascar and China.



Mica mines in context

Located in the Indian Ocean, east of Mozambique, Madagascar is the fifth largest island in the world with a population of 25.5 million (2017). Madagascar is also one of the least developed countries among all developing countries. On the UN's Human Development Index (HDI) the country is at the bottom, ranking in 161th place among 189 countries in total (2017).

Most of the mica deposits and mines are found in the southeastern end of this island – an area that is particularly affected by poverty, drought and insecurity. It is here, in the regions of Anosy, but also in Androy and Ihorombe, where the mining, processing and exporting of mica takes place. In 2016, the human development index (HDI) score for the country as a whole was 0.51. However, that same year the country's most important regions for mica mining – Anosy (0.47), Androy (0.49) and Ihorombe (0.36) – all had below average HDI scores. Ihorombe's score is the lowest nationally. In 2012, Androy had the highest share of the population living in poverty. Poverty levels in Anosy and Ihorombe were also high.

The climate in the southeast of the country is harsh. It is mostly an arid region where hot and dry weather is interrupted by torrential rains during the cyclone season. People in Androy report the highest losses of assets and income relating to climate and insecurity events (or shocks) in all of the country. There are few economic opportunities and most people are involved in (subsistence) agriculture. The extremely poor population faces multiple challenges including malnutrition and inadequate access to education, lack of safe drinking water and inadequate health care facilities. In terms of health indicators, the southern provinces of Androy and Anosy are among the worst performers nationally. Androy has the lowest access nationally to health services and, with the exception of one other region, lowest access to pre- and postnatal care. Roughly, half of the children in Androy and Anosy do not go to primary school whereas the national average on primary school attendance is 20 per cent. In the mica provinces, roughly a third of the children only finish primary school whereas three in four children nationally go on to finish primary education. In addition, the share of children dying young is considerable in the south of the country. Only a quarter of the population in the three main mica provinces has access to safe drinking water whereas the national average is 41 per cent.

Problems of safety add to the challenges in the daily lives of the population leading to unrest and (temporary) migration. Banditry is widespread and traditionally focuses on stealing cattle. Nowadays, however, banditry may take the form of large heavily armed groups of bandits organising to loot villages, taking all valuables

they can find. Meanwhile, the security forces that are supposed to contain banditry sometimes only aggravate the situation for rural communities.

At times, the government responds to bandit-related security threats with extremely violent military style campaigns that go after (suspected) gangs of bandits. These campaigns sometimes involve bloody shootouts and executions.

The mica supply chain

The mica sector in Madagascar encompasses all mica supply chain stages around and between the mining pit and the exporting ship. The key functional stages in this upstream part of the global mica supply chain are mining, collecting, transportation, primary processing (cleaving and sorting), exporting (sourcing and sales) and shipping (transportation, loading and shipping). Mica mining is exclusively artisanal and small scale in Madagascar. There are probably more than 73 locations where mica is mined in the south of Madagascar, scattered over the three southern regions. To be able to legally exploit natural resources in Madagascar, a permit is needed. In July 2019, however, 39 valid permits were issued for mica in the south only. Through a comparison of different records and sources, this study concluded that mica is being extracted illegally in at least nine sites. While it could not be verified, analysis of the information available suggests that more illicit mica mining is taking place in other mining sites.

It was not possible to collect detailed information on the number of people involved in mining in the 13 mining sites scoped during the field research. Neither was it possible to confidently ascertain the composition of the workforce or their productivity throughout the year. However, based on the volume of mica exported annually and field research-informed estimates of productivity per miner per year, there are at least 20,000 people involved in mica mining in the whole country. At least half of the estimated mining population is likely to consist of children.

Some 400 so-called traders are involved in buying mica at the mining sites. These are people who work on a freelance basis, or who are on the payroll of the approximately 30 exporters that are active in Madagascar. Exporters mostly arrange for transportation of mica by truck from the mine to the sorting facilities which they usually own too. It is estimated that 2,000 people are involved in sorting mica, half of which are children. These facilities are often located in the larger towns and cities such as Amboasary, Tranomaro and the regional capital and the principal national mica export port, Fort Dauphin (Tolagnaro).



Working and living conditions

Most of the people working in mica mining do not work in the quarries all year round. Mining work takes place in periods outside the rainy season when there is enough water for agriculture. In the rainy season, most respondents prefer farming or other activities such as herding, collecting firewood and stall keeping over the back-breaking work of mining. During the rainy season, mining sites, pits and tunnels become less accessible and some are even forced to close. Mica absorbs water, making it heavier to transport and more difficult for miners to sell it to the next party in the value chain. Only miners who have no alternative livelihood strategies, such as farming, usually work in mica mining every day of the year and all year round.

Mica mining in Madagascar essentially involves digging holes in areas with mica deposits to a depth that mica is found and then extracting it. To mine mica simple tools such as crowbars, chisels, headlights and wooden pulleys are used. Because of their physical strength, men and adolescent boys typically construct the mines (i.e. digging shafts and tunnels) and do the actual extraction of mica in the mining pit. Women generally do all the other work that is needed. They hoist the extracted mica from the pit with the pulley, go back and forth in mines to collect mica collected by the men and take the mica to be weighed.

Work in and around mica mines is often physically demanding and takes place under harsh conditions, exacerbated by the climate and setting. The southern region of Madagascar is mostly arid with savannah and/or desert-like landscapes with vegetation consisting of shrubs, cacti and grasses and very few trees. Temperatures are typically high and the heat is even worse in the quarries because in many sites there is little vegetation that could provide shade. The working and living environment around mica mines is also very dusty. People who live and work in the mining communities are exposed to fine particles of mica and sand.

Income in mining sites may range from Ar 1,000 (US\$ 0.27) for collecting scrap mica to Ar 11,250 (US\$ 3.01) for mining per adult a day. If one considers that the international extreme poverty line of US\$ 1.90 a day equals Ar 7,100 in purchasing power parity in Madagascar, it is clear that income levels are sometimes extremely low.

The hardship of the mica mining communities is exacerbated substantially by the constant fear and threat of bandit attacks. When attacks are feared, many people flee the mining quarries to try their luck elsewhere and return at a later date.

Mica mining is often a family affair. Families will be working as a unit. With the exception of teenagers, children will rarely be seen working alone. The involvement of children in mining work changes overtime as they grow up. Toddlers will just stay close to their mothers at the mines whereas teenagers are already full-fledged workers. As already noted, children are generally involved in the same type of work as the adult female workers. As they grow older, boys will gradually do more of the work that adult men are involved in – including digging mining shafts and extracting mica from the mines. Children complain of back pain because they must bend to pick up mica from the ground or when they extract mica from the mines. They complain of headaches because of the heat and the lack of water or oxygen. Children report having muscle pain due to the repetitive and hard work carrying heavy loads, using crowbars and lifting hammers. The fate of children working in the mica sorting companies is much like their peers in the mines. At four of the five sorting locations visited during the research, many children could be observed working.

Child labour in mining is generally considered as one of the Worst Forms of Child Labour (WFCL) by International Labour Organization (ILO) convention definitions.

The role of the government

The government is not able to provide adequate access to health and educational facilities or drinking water in many of the mining communities visited. Madagascar has laws in place as well as a number of institutes and policies to address child labour but these are insufficient to curb the rampant child labour in the country. At times, the government responds to bandit-related insecurity with extreme violence in military style campaigns that go after (suspected) gangs of bandits. These campaigns sometimes involve bloody shootouts and executions.

The Ministry of Mines and Strategic Resources is responsible for governing the mining sector. While the exact scale of unregulated mica mining is unclear, it is likely to be considerable. This shows that the Ministry of Mines and Strategic Resources is not addressing illicit mica mining effectively. During the official closure of the responsible mining office the issuing and renewal of mining permits was severely slowed down and unable to meet demands for permit renewal and issuing. However, recently the pace seems to have picked up. The mica sector is taxed in various ways at various levels – from mining licences to exports. However, tax levels on exports are relatively low and do not always benefit the intended mining communities. Moreover, illegal taxes are levied by local authorities and security forces along the transport route of mica.

Both at the national and the regional level of government administration there is awareness of the problems affecting the mica sector including its informality, the low level of organisation of miners and unsafe working conditions. The Ministry of Mines and Strategic Resources has developed plans to help improve conditions in the mica mining sector. However, there is uncertainty as to the level of required political support and capacity to implement these plans. The ministry generally has limited capacity, resources and personnel to enforce applicable laws and regulations. The ministry's branch for the country's resource-rich south-eastern Anosy and Androy regions, for example, has only one vehicle at its disposal to do the work in an area of 45,000 km (roughly the size of Denmark or Estonia) with very bad roads.



Mica from Madagascar in global supply chains

Most mica (66 per cent) exported from Madagascar is in the form of sheet mica, of which most (95 per cent worth almost US \$4 million) was exported to China in 2017. Of the total mica export from Madagascar, 87 per cent in volume was exported to China in 2017. In the period January 2017 to March 2018, 24 different Chinese companies importing mica from Madagascar could be identified. Four of these companies are responsible for more than two thirds of the total mica import.

The largest group of Chinese mica importers are manufacturing companies that produce various mica-based products such as mica paper and tape used extensively to insulate electrical wires and cables, among other products. Some of these companies will also import mica from Madagascar for other Chinese manufacturing companies.

Yueyang (Hunan) is the main port for the import of Malagasy mica in China. Pingjiang county is the country's main production location of mica products such as mica paper. The mica product producers in this region in turn supply mainly companies in the Yangtze River Delta region with cities such as Shanghai. End-product manufacturers in this region are involved in many fields such as electric wires and cables, electric motors and appliances. Hubei is another important mica-importing province. Its capital Wuhan hosts some of the largest mica product manufacturers in the country.

The research in China for this study identified a number of relationships between companies supplying and sourcing mica from Madagascar along the supply chain from port to end product. Sometimes it was even possible to identify linkages from specific exporters in Madagascar such as the leading exporter Tri-H to brand manufacturers such as Fujitsu or Panasonic.

However, uncertainties remain as to how exactly the products with mica from Madagascar find their way in consumer products of different international brand companies. Except for the observations that sheet mica tends to be used in higher end products, little other information was available for this research to describe the processing of the mica products into the final products. By contrast, all this clearly means that downstream clients of the Chinese importers of mica from Madagascar are exposing themselves to the risk of being linked to human rights abuses, including child labour, in their supply chain.

Concluding discussion

In the impoverished south of Madagascar, mica is one of very few options for people to earn a low but relatively steady source of income. Mica mining is attractive, above all during periods when farming – the most important activity for most people in this part of the country – is not possible due to weather patterns and/or is not providing enough food. Mica mining is also attractive because becoming active in the sector does not require high investments for tools, land leases, education or housing. In addition, families find it attractive that even young children can contribute to the family's income.

From another perspective, the fact that people and children in mining communities are exploited to produce a mineral that is used extensively in electronics, cars and cables, is yet relatively unknown. These workers suffer from harsh, unhealthy and unsafe working conditions and may earn just enough to afford one meal a day. The rights of many children in the mining communities are at stake. They go to work from a young age on an empty stomach and do not have the chance to go to school, play or rest.

There is an urgent need for international companies sourcing mica and mica-based products, as well as the Malagasy government, to take responsibility for addressing the problematic conditions of mica mining and for contributing to improving the fulfilment of children's rights. The situation for the majority of people working in the mica mining sector in Madagascar is clearly unacceptable. However, a number of characteristics of the global mica (product) sector may be conducive to addressing the problematic conditions and contributing to improving the fulfilment of children's rights in Madagascar.

First, in contrast to sapphire mining, the other important form of artisanal mining in the south of Madagascar, mica is a bulk commodity. Mica is priced per kilo instead of per carat. The flow of mica through the supply chain is much more visible, traceable and taxable than that of sapphires. This means that there is a better possibility for monitoring, administering, formalising and regulating the mica sector than the sapphire sector. In turn, this has the benefit that public and private policies and interventions – such as taxation or possible multi-stakeholder improvement schemes – in principle, can be applied more equitably, structurally and readily. In addition, the relatively low price per volume diminishes the risk that effective interventions contribute further to instability and insecurity in the mica regions.

Second, compared to other artisanal mining sectors in Madagascar, mica mining is contained geographically. While roads are in very bad condition, most of the mining sites can be reached by truck or four-wheel drive. Most of the important exporters and sorting facilities are also concentrated in a few towns. All these geographical factors make the sector relatively accessible for interventions that aim to improve conditions in mining and sorting.

Third, the government of Madagascar is currently amending the Mining Code and has shown interest in collaborating with local and international organisations to build capacity and use resources to improve the natural resource management base and its opportunities for the people of Madagascar.

Fourth, the structure of the mica supply chain in Madagascar is not overtly complex in nature. The number of functional layers that affect most of the workforce are essentially limited to mining and sorting. This simplicity also suggests that (on a functional level) the number of appropriate and tailored strategies and interventions to be developed can also be limited.

Finally, the research was able to identify a number of international brand manufacturers that are clients of Chinese mica importers and mica product manufacturers that make use of mica from Madagascar. These international mica clients are at high risk of being linked to human rights violations, including the worst forms of child labour, through their supply chains. They should not tolerate, profit from, contribute to, assist with or facilitate human rights violations in the course of doing business. Moreover, they should commit to eradicating the worst forms of child labour from their supply chains.



Recommendations

This study concludes by proposing a number of approaches for improvement-oriented interventions to address the problematic conditions in the mica sector.

Addressing multidimensional problems

Concerted, informed and coherent efforts involving different important stakeholders and duty bearers are required to address the many and complex problems plaguing mica mining and sorting communities in Madagascar. One of the key suggested targets of interventions for addressing problematic conditions in the mica sector would be activities helping miners and sorters to gain more income from their work. This would help them raise their standard of living and may allow them to send their children to school instead of work. Such interventions could include elements such as organising miners to have more bargaining power with traders and exporters and creating private or public mechanisms to increase the prices for crude mica and wages in sorting. Approaches could also include a focus on improving the export price of mica, as prices per volume of the mineral from Madagascar are relatively low compared to the international competition. All-important stakeholder groups – the national government, international brand manufacturers and national and international CSOs – can play a role here.

At the same time, the problems that the mica sector is creating as an income strategy need to be addressed. This includes perpetuating poverty because children are being kept away from school. Tackling these underlying issues means addressing unsafe and unhealthy working conditions, child labour and environmental degradation. Merely preventing children to work without alternatives and without adequate access to basic education, if pursued at all, is likely to only exacerbate conditions in the mining communities. The same may be true in relation to stopping unlicensed mining.

There is a clear need to improve access to health care, sanitation, drinking water and education in mica mining and sorting communities in Madagascar. To this end, investments in staff and infrastructure are required but also flanking policies such as awareness raising and making school more attractive by providing meals. It is the state's duty to protect human rights. In the underlying case this means providing access to basic needs. However, other important stakeholder groups – importing country governments, international brand manufacturers and national and international CSOs – can and are advised to take action and more responsibility in this respect.

Finally, possibilities should also be considered for mining sector communities to diversify their income. To this end, private and/or public programmes for reforestation and restoration of unproductive mines and quarries could, for example, be developed. That way, the mining sector communities can potentially contribute to improving the local climate instead of furthering environmental degradation.

In all of these approaches, the government in Madagascar is the principal duty bearer. However, in line with the OECD guidelines for Guidelines for Multinational Enterprises, companies sourcing mica from Madagascar directly or indirectly through the mica based products they source have a responsibility to address the problematic situation in mica mining as well as sorting. (International) CSOs can play a role in raising awareness of the problems with the government and private sectors.

To increase the chances of more effective and rapid approaches, it is recommended that CSOs become active in advocating, designing and implementing remedial approaches as a matter of urgency.



Stichting Onderzoek Multinationale Ondernemingen
Centre for Research on Multinational Corporations

