



“OUR LIVES MEAN NOTHING”

THE HUMAN COST OF CHINESE MINING IN NAGONHA, MOZAMBIQUE

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Cover photo: Haiyu Mozambique Mining Co. Lda heavy sands mining operation in Nagonha area, Angoche district, Nampula province, Mozambique
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GLOSSARY

ACRONYM	DESCRIPTION
ACHPR	African Charter of Human and People's Rights
AENA	<i>Associação Nacional de Extensão Rural</i> National Association of Rural Extension
ICESCR	International Covenant on Economic, Social and Cultural Rights
CIP	<i>Centro de Integridade Pública</i> Public Integrity Centre
CPI	<i>Centro de Promoção de Investimentos</i> Investment Promotion Centre
CSR	Corporate Social Responsibility
CCCMC	China Chamber of Commerce on Metal, Minerals and Chemical Importers and Exporters
DPREME	<i>Direcção Provincial de Recursos Minerais e Energia</i> Provincial Directorate of Mineral Resources and Energy
DPCA	<i>Direcção Provincial e Coordenacao Ambiental</i> Provincial Directorate for Environmental Action Coordination
DPTADER	<i>Direcção Provincial de Terra, Ambiente e Desenvolvimento Rural</i> Provincial Directorate of Land, Environment and Rural Development
DUAT	<i>Direito de Uso e Aproveitamento da Terra</i> Right of Land Use and Development
IESE	<i>Instituto de Estudos Socias e Económicos</i> Institute of Social and Economic Studies
EIA	Environmental Impact Assessment
FDI	Foreign Direct Investment
FRELIMO	<i>Frente de Libertação de Moçambique</i>

ACRONYM	DESCRIPTION
	Mozambique Liberation Front
LDA	<i>Limitada</i> <i>Limited (Ltd.)</i>
MDM	<i>Movimento Democrático de Moçambique</i> Mozambique Democratic Movement
MIREME	<i>Ministério de Recursos Minerais e Energia</i> Ministry of Mineral Resources and Energy
MITADER	<i>Ministério da Terra, Ambiente e Desenvolvimento Rural</i> Ministry of Land, Environment and Rural Development
MOU	Memorandum of Understanding
MZN	<i>Meticais</i> , Mozambican Currency
NOAA	The National Oceanic and Atmospheric Administration is an American scientific agency within the United States Department of Commerce that focuses on the conditions of the oceans and the atmosphere.
OECD	Organisation for Economic Co-operation and Development
RENAMO	<i>Resistência Nacional de Moçambique</i> Mozambique National Resistance
UNGPS	United Nations Guiding Principles on Business and Human Rights

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EXECUTIVE SUMMARY

INTRODUCTION

In the morning of 7 February 2015, a flash flood partially destroyed Nagonha, a coastal village in Angoche district, Nampula province in northern Mozambique. Forty-eight houses were immediately washed to the sea as the flood water opened a new channel to the sea through the middle of the village, cutting the dune on which the village stands in two parts. The flood left about 290 people homeless. The local government recorded 173 additional houses as partially destroyed. Local authorities and elders who had lived in the area for more than 70 years had no record or memory of such floods occurring in Nagonha.

Because the flood happened with little warning, residents had no time to remove valuables from their homes. For those directly in the path of the flood, this meant not only did they lose their homes but also almost all of their furniture and other belongings. Amnesty International interviewed 35 residents affected by the flood. One resident Roma told Amnesty International:

My house was exactly where that river is; right there where you see the river. The house had two bedrooms, kitchen, living room and yard. Four of us lived in the house – me, my wife, my son and my younger brother. There were so many things in the house – Four chickens, a bed, a solar panel that I used for light at night and cell phone charging, a 30v battery, closet with clothes and shoes, plates, pots, and basins. We lost all of that. We felt the house collapsing and we ran for our lives. We watched the house being dragged by the water. I cried. I took my wife and my son to live with my in-laws over that white dune. I came back here to see if I could make some living arrangements. We lived apart like that for 30 days while I tried to build a new house.

In addition to the loss of their homes, many of the affected villagers also lost their means of livelihood. Tola, a local fisherman, told Amnesty International how he lost his property and means of livelihood:

I lost all my fishing tools: four nets, each worth MZN 6,800 (US\$89), four coils of rope worth MZN 2,000 (US\$26) each, the boat buoys, two bags of rice, cooking utensils, the clothes of my five kids, my wife and myself. My house was new. We should be compensated for our losses by the Chinese; their machines blocked the water in the wetlands.

Nagonha is a rural fishing village with 1,329 residents living in 236 huts built on a sand dune facing the Mozambique Channel about 180km east of Nampula City. Though the community has been around for four decades, it lacks essential public services – there is no school, health post, qualified midwife, electricity, running water, and sanitation facilities. Hand-dug wells provide drinking water all year round. The huts are roofed with reeds while the walls combine poles, grass, and reeds. The only permanent structure is a Mosque, made of cinder blocks. The sand dune on which the community stands lies between the Indian Ocean in the east and, in the west, a freshwater wetland with lagoons (including Nagonha lagoon) and channels stretching from south to north where it links up to the sea. Directly behind (or west of) the community lies the Nagonha lagoon after which the village is named.

This rural village is located inside a mining concession awarded to a Chinese mining company, Haiyu Mozambique Mining Co. Lda, a subsidiary of Hainan Haiyu Mining Co. Ltd based in China on 19 December 2011. The company has been mining heavy sand minerals, namely ilmenite, titanium and zircon in this concession since 2011. Haiyu began mining about 3km north of the village and continued southwards toward the village, bulldozing sand dunes, clearing vegetation and dumping mining waste over the wetland, burying two major lagoons and the waterways that connected them and the wetland to the sea.

Amnesty International visited Nagonha in September 2015, May 2016, and in April and September 2017, and conducted interviews with 55 people including residents and traditional authorities; local government officials in Angoche; provincial government officials in Nampula; and central government officials in Maputo.

This report examines Haiyu's conduct including what the company did or failed to do in acquiring the right to land for use of mining activity in Nagonha, what it did or failed to do in its operations in Nagonha, and what it did or failed to do in response to the villagers' demand for compensation and resettlement following the flood.

The report looks specifically at the breach of the right to adequate housing and decent living standards ensuing from Haiyu's destruction of the wetland, and the related destruction of one-fifth of the village by the freak flood. The report also examines the Mozambican Government's failure to protect, promote and fulfil the right to adequate housing and living standards in the village of Nagonha.

A MAN-MADE DISASTER?

Haiyu has denied any responsibility for the flooding of Nagonha village and put the blame squarely on forces of nature. However, all of the available evidence strongly suggests that Haiyu's mining activities and in particular the way it deposited sand across the landscape placed the coastal village at heightened risk of flooding and very likely contributed significantly to the flood of 7 February 2015.

Amnesty International used Google Earth and satellite images from February 2010 to September 2015 to examine changes in the landscape around the village related to mining activity. Comparison and analysis of the December 2010 satellite images of the area with that of October 2014 shows the build-up of sand in the Nagonha area and

gradual change in the natural flow of water as the mining operations continued. By October 14, 2014, approximately 280,000 square meters of wetland north of the village was replaced by mining-related sand deposits. The satellite images from October 2014 clearly show how the channel connecting the Nagohna lagoon west of the village and *Nantheke* lagoon north of the village is covered in sand, thereby blocking the flow of water. This analysis of satellite images corresponds with independent testimony gathered from Nagohna village residents.

Independent environmental experts consulted by Amnesty International also confirmed that Haiyu's mining operations significantly increased the risk of flooding, citing visibly increasing topographical transformation in Nagohna as the result of mining since 2011. On the basis of all evidence, Amnesty International established that this topographical transformation interfered with the natural patterns of water flows in rainy seasons, and interfered with the ecosystem's ability to offer ecological services to the people of Nagohna and surrounding settlements.

Following the flood, Nagohna residents approached Haiyu to ask for compensation for the damages they believed the company had caused through its mining operations. Haiyu denied any responsibility. The residents approached provincial and district governments and asked for intervention. The government at both levels did not intervene to the satisfaction of the residents. The residents approached Haiyu for the second time to ask for resettlement for fear that the flood might recur given that the company's mining methods remained the same. Haiyu responded with a resettlement proposal which the residents found insulting and therefore declined it. Officials at the Ministry of Land and Rural Development (MITADER) in Maputo found Haiyu's proposal to be "illegal and unfair" while the local government in Angoche was advising the residents to accept it and move.

HAIYU'S FAILURE TO COMPLY WITH THE LAW

Haiyu has the responsibility to ensure that its mining operations do not undermine the rights of people living in its mining concessions or near its mining operations. These rights include the right to adequate housing and living standards. The responsibility to respect human rights is laid out in the UN Guiding Principles on Business and Human Rights (UNGPs), which although not legally binding, form an authoritative standard for addressing the risk related to impacts of corporate activity. To live up to the responsibility to respect human rights, corporates are required to design and implement a human rights due diligence process to identify, prevent, mitigate and remedy (where necessary) negative human rights impacts connected to their operations. This responsibility and the UNGPs are also endorsed by the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCCME) through its Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains and Guidelines for Social Responsibility in Outbound Mining Investments, both of which set clear expectations for Chinese companies' behaviour in terms of demonstrating respect for human rights.

Beyond denying responsibility for the flooding that caused much destruction in Nagohna on 7 February 2015, Haiyu has refused to speak to anyone about what they knew or should have known, what they did or should have done, before setting up their mining operations in a mining concession that contains a wetland and a village whose

economic, social and cultural fabric is interwoven with the local ecosystem. Amnesty International found that Haiyu failed to comply with domestic law in three aspects: a) failure to fulfil legal requirements for acquisition of *the right to land use and development* (DUAT); b) failure to conduct environmental impact assessment (EIA) according to domestic law requirements; and c) failure to fulfil legal requirements of regular monitoring of environmental impact of mining operations.

In terms of Mozambique's Constitution, land belongs exclusively to the government. No person or corporation can buy, sell or mortgage land. Entities other than the state can only own DUAT, issued by the government on application by an interested party. However, if people have lived on the land for at least 10 years, particularly in rural areas, they automatically have the DUAT and they need not submit any application for such recognition. DUAT can be transferred from one person to another through mutual agreement. If a company desires to set up business operations on a piece of occupied land, the company must negotiate with the occupier for DUAT transfer. If a company seeks DUAT for land occupied by a community for at least 10 years, the company must undertake consultations with the community following specific procedures stipulated in the law.

Amnesty International research found that, in Nagonha, Haiyu did not hold community consultations with DUAT holders. This consultation would have informed them about the nature, purpose and implications of the project, and seek their informed consent. Haiyu should have undertaken at least two public consultations in Nagonha with the residents. But all residents of Nagonha interviewed by Amnesty International confirmed that they were never consulted. As Tuli, a local resident, decried during a community meeting in April 2017:

This is a miraculous company. It fell from the sky. First, we saw them prospecting. They did not speak with us, not even good morning. Then we suddenly saw them moving in with machines digging and building. They still do not talk to us.

Mozambican mining and environmental laws require mining companies to conduct Environmental Impact Assessments (EIA) before setting up operations. A report of the EIA must be submitted to the government and must also be made available to the affected communities, interested parties and the public at large. Amnesty International research found that Haiyu did not conduct such EIA with respect to its Nagonha mining concession registered under license No. 4776C. In April 2017, Amnesty International visited Haiyu's office in Morrua and asked for a copy of the EIA for this concession. Haiyu refused to disclose or to answer any questions. When Amnesty International's partner, Public Integrity Centre (CIP) asked for the EIA report through the national Freedom of Information Act, the government furnished Haiyu's EIA report for a Sangage mining concession registered under license No. 3791C. Sangage is 14km away from Nagonha on the coastline and 32km away by the normal road. This EIA report does not mention the community of Nagonha or the neighboring community of Kirikwige, both of which currently fall within the mining operation areas of the company.

Consultation and EIA are two key legal requirements in Mozambique to determine whether there is need to resettle people affected by a project and how it's going to be conducted. If resettlement is deemed necessary following these processes, a resettlement plan is required to be designed in consultation with the affected communities and submitted to the relevant authority, MITADER, for evaluation and

approval. But since neither consultation nor EIA was carried out, there were no resettlement considerations for Nagonha community. Had there been proper consultation with the affected community members and if the necessary EIA been carried out, both of which are required by law, Haiyu should have recognised the need to resettle the community of Nagonha which stood to be adversely affected by the mining operations in the area.

Haiyu only proposed a resettlement plan in July 2015, four years after the company started operations and six months after the community had been affected by flooding and other impacts of the mining operation. The resettlement plan proposed by Haiyu was grossly inadequate, which Nagonha residents found insulting and declined the offer. Haiyu proposed to pay a mere MZN4,000 (about US\$90) to each household to rebuild their own homes and an additional MZN20,000 (about US\$400) for the reconstruction of the local Mosque. A senior government official at MITADER also acknowledges to Amnesty International that this proposal was grossly inadequate, describing it as “illegal and unfair.” Beyond violating legal requirements of conducting proper EIA, ensuring public participation and providing adequate compensation, Haiyu’s proposed resettlement plan grossly neglects the company’s legal obligation to meet its social responsibility of providing critical social infrastructure to affected communities, including building infrastructure that supports learning, leisure, sport, health, culture and other projects of the community’s interest.

In terms of the 2012 *Regulamento de Reassentamento* (Resettlement Regulation), Haiyu’s proposed resettlement plan violated at least two legal requirements, namely: the mandatory provision of ensuring public participation, which requires all those affected by the activity to be heard in the resettlement process, and the provision of social responsibility, which obliges the investor to build social infrastructure that will support learning, leisure, sport, health, culture and other projects of the community’s interest. Amnesty International found that Haiyu failed to fulfil any of these legal requirements on resettlement.

Finally, in terms of the 2004 *Regulamento Ambiental para Actividade Mineira* (Environmental Regulation for Mining Activities) and the 2011 *Regulamento de Auditoria Ambiental* (Regulation on the Environmental Auditing Process), mining companies must conduct independent environmental audits at least once a year to determine the environmental impact of their mining operations. These environmental audits must be done by an independent environmental impact assessment entity at the cost of the company. The environmental audit reports must be submitted to MITADER for evaluation and approval, and be made available to the affected communities, interested parties and the public at large. However, since Haiyu began mining in Nagonha in 2011, the company has not conducted any environmental impact auditing and has not submitted reports for verification to the government. Nagonha residents and interested parties have no access to records on how the company’s mining operations are changing the environment in the area. As a result, the government and affected communities are not aware of possible impacts including potential contamination of drinking water sources and other health hazards.

ENABLING ABUSE: GOVERNMENT FAILURE

Over the past decade, mining has increasingly become the focus of the Mozambican government to speed up economic growth, job creation, and poverty reduction. To attract foreign direct investment, the government introduced tax-based incentives – tax breaks, tax holidays, and tax exemptions. As a result, land acquisition for mining by foreign companies increased rapidly. The mining concessions are highly concentrated in rural areas, where poverty is most concentrated, most notably in the economically, politically and socially peripheral provinces in central and northern parts of the country.

There are two most common characteristic features of land acquisition for mining in Mozambique. The first has been the conflict between mining companies and rural communities who depend on the land's *ecological services* – that is, basic economic, social and cultural benefits that accrue to people through land ecosystems, including food, water, firewood, housing, energy, etc. Wetland ecological services are internationally recognised and protected. Nagonha is a community whose economic, social and cultural life is interwoven with the ecological function of an adjacent wetland. In addition to sea fishing, Nagonha residents also fish in the wetland but increasingly less and less as two major lagoons disappeared due to mining activities. The wetland also provided food and drinking water for the residents and livestock; building material including poles, grass and reeds; firewood for cooking; medicinal plants; bathing and recreation; flood control; soil, sediment and nutrient retention; coastal shoreline stabilization; and local climate regulation. These factors ought to have been taken into consideration in Haiyu's due diligence and environmental impact assessment (EIA). The second feature has been the government's inability to broker mutually beneficial relations between companies and rural communities; and monitor mining operations to ensure that companies comply with fiscal, legal, environmental and human rights standards.

MITADER and the Ministry of Mineral Resources and Energy (MIREME) are responsible for regulating and monitoring mining activities to verify and enforce compliance with the law. They are also responsible for issuing mining and environmental licenses. The serious failures documented in this report could not have happened if MITADER and MIREME enforced the legal provisions put in place to protect the rights of communities from the adverse impact of economic activities.

Amnesty International research found that MITADER knew that Haiyu had not held consultation hearings with Nagonha residents to transfer their DUAT. Both MITADER and MIREME failed to produce evidence to the existence of DUAT for the mining concession No. 4776C situated in Nagonha. MITADER failed to produce evidence to the existence of the EIA for this mining concession. Yet, both MITADER and MIREME allowed Haiyu to mine in Nagonha anyway.

Amnesty International research also found that MITADER knew that Haiyu had not conducted the required environmental impact audits since the beginning of its operations in 2011. According to the 2004 Environmental Regulation for Mining Activities and the 2011 Regulation on the Environmental Auditing Process, following each audit, the auditor must produce a report and submit copies to the company and to the government. These laws also provide a duty on businesses and the government to keep these copies for at least 10 years. Like Haiyu, MITADER did not have copies of

Haiyu's environmental impact audit reports. Despite this, MITADER allowed Haiyu to continue with business, as usual, all these years.

MITADER is also required by law to conduct public environmental impact inspections on mining companies once a year or when deemed necessary. Amnesty International's research found that MITADER had not conducted any environmental impact inspections on Haiyu citing lack of capacity and resources.

In 2011, MIREME and Haiyu signed a memorandum of understanding (MoU) for community development projects to benefit surrounding communities. According to the MoU, the government was to receive US\$3 million from Haiyu to implement such projects. Among the projects identified by the government as priorities were in health and education. Amnesty International research found that none of these projects had benefitted the Nagonha residents, the people living inside the mining concession, directly affected by Haiyu mining operations. The projects had been implemented in Angoche town, 28km away, and Nipwene, 10km away, from Nagonha.

RECOMMENDATIONS

TO THE GOVERNMENT OF MOZAMBIQUE

- Immediately ratify the International Covenant on Economic, Social and Cultural Rights and the related Optional Protocol to commit to international ESCRs standards and report on implementation progress to the UN High Commissioner for Human Rights.
- Ensure provision of basic services – health, education, electricity, clean water and sanitation – to people in Nagonha as provided under Mozambican constitution and human rights obligations.
- Conduct, as a matter of urgency, the legally required environmental, social and human rights inspections on all mining operations carried out by Haiyu Mozambique Mining Co., Lda and make reports of its findings available to the public.
- Investigate all the potential human rights abuses, criminal offences and other breaches of Mozambique law set out in this report, including:
 - Haiyu's failure to conduct all the necessary and legally required consultations with affected communities; its failure to carry out proper EIA and its failure to ensure human rights due diligence throughout all its mining operations;
 - The impact of Haiyu's mining operations on the environment and rights of people, including the impact of the ongoing sand mine dumping over the wetland and waterways, specifically the cause of changing topography and the flooding of Nagonha in 2015.
- Pending such investigations and until all environmental and human rights concerns are addressed, immediately suspend Haiyu's mining activity under mining concession 4776C around Nagonha, and ensure that the community is genuinely consulted and informed at all stages of the process.

Following the results of those investigations, take all necessary administrative, legal and enforcement actions against Haiyu, including measures to restore all damage and loss of property and livelihood caused as result of its mining operations and guarantee non-recurrence by ensuring full compliance with domestic law and all human rights due diligence requirements in line with the UN Guiding Principles on Business and Human Rights.

- Ensure that the residents of Nagonha have access to effective remedies and reparation. Reparation must include, among other things, adequate compensation for the damage caused by the loss of their livelihoods and housing, and restitution of the ecological services of the wetland including drinking water, grazing land, medicinal plants, lagoons for fishing and recreational swimming.
- Take urgent steps to strengthen legal and policy safeguards as well as regulatory bodies to ensure that people are protected against human rights abuses and environmental impacts of mining operations. Increase the technical capacity of MITADER and MIREME, seeking international cooperation and assistance as necessary, to independently assess and monitor environmental impacts.
- Take urgent steps to ratify the International Covenant on Economic, Social and Cultural Rights and its Optional Protocol.

TO THE MOZAMBICAN PARLIAMENT

- Ensure international best practices and guidelines for sand mining in coastal areas, particularly in coastal wetlands, are incorporated into domestic law and enforced effectively.
- Ensure the executive takes steps to initiate reform of domestic law and policy to ensure companies domiciled or headquartered in the country carry out adequate human rights due diligence throughout their operations in line with the UN Guiding Principles on Business and Human Rights and report publicly on their due diligence policies and practices. This reform should include strengthening legal requirements on assessment of potential impacts of company operations on rights to health, adequate housing, access to clean water and livelihoods; on genuine consultations with affected communities, and on transparency and access to information.
- Ensure regular visits to mining operations by the Parliamentary Commission on the Extractives Industry to assess social, economic and human rights impacts of mining operations on local communities.

TO HAIYU MOZAMBIQUE MINING CO., LDA

- Ensure that Nagonha residents receive adequate reparation for the loss of or damage to their livelihood and housing resulting from its operations, including full compensation for all losses, and restitution of the wetlands wherever possible.
- Carry out effective clean-up and restitution operations of the wetland in consultation with the local communities, as a matter of urgency, and immediately publish the clean-up and restitution reports and certificates.

- Undertake human rights due diligence throughout its all mining operations in line with the UN Guiding Principles on Business and Human Rights, and report fully and publicly on the steps taken.
- Design and implement, as a matter of urgency, a resettlement plan in consultation with Nagonha residents and civil society. The resettlement plan and process must comply with the provisions of *Regulamento de Reassentamento* and international human rights standards, including on the right to adequate housing, and ensure that the community has all the necessary infrastructure for social services, including access to clean water, health, sanitation, education and recreation.
- Prepare the legally required independent environmental impact audits every year and submit the respective reports to MITADER as well as make the reports available to the public.

TO HAINAN HAIYU MINING CO., LTD, AND ITS DIRECT AND INDIRECT SHAREHOLDERS

- Ensure that Haiyu Mozambique Mining Co., Lda, acts to implement a resettlement plan for the villagers of Nagonha and provide adequate reparation for any losses resulting from company actions.
- Put in place adequate human rights due diligence systems in line with the UN Guiding Principles on Business and Human Rights to ensure companies do not commit or contribute to human rights abuses wherever they operate and publicly disclose steps taken to prevent or mitigate human rights risks in their business operations.

TO THE GOVERNMENT OF THE PEOPLE’S REPUBLIC OF CHINA

- Immediately engage with Hainan Haiyu Mining Co., Ltd, and call on it to ensure any remedies and reparation for human rights abuses related to its subsidiary, Haiyu Mozambique Mining Co., Lda.
- Institute legal and policy reforms to require companies domiciled or headquartered in China to carry out adequate human rights due diligence throughout their global operations in line with the UN Guiding Principles on Business and Human Rights.

TO THE CHINESE CHAMBER OF COMMERCE OF METALS, MINERALS AND CHEMICALS IMPORTERS AND EXPORTERS (CCCMC)

- Call on Hainan Haiyu Mining Co., Ltd, to put in place processes for conducting supply chain due diligence following the five-step process set out in the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains and to report publicly on the steps it has taken to manage and mitigate human rights risks in its business operations.

METHODOLOGY

This report is based on desk and field research carried out by Amnesty International from 2015 to 2017. Amnesty International researchers made four on-site visits to Angoche district, Nampula province in September 2015, May 2016, April and September 2017. They carried out interviews with 55 people including village residents, traditional chiefs of Sangage region (*régulos*) and Nagonha village leadership (*secretário do bairro*), Haiyu officials, civil society representatives, journalists as well as central, provincial and district government officials. These interviews included 35 men and women in Nagonha village who were affected by the flood that occurred in February 2015. The researchers visited Haiyu's office in Morrúa and heavy sands mining operation sites in Nagonha and Sangage/Thoba, where they observed how the operations function. Most of the interviews were conducted in person in Portuguese, but whenever necessary, a translator was used to do the interviews in the local language, *Macua*. Staff from a local NGO, *Associação Nacional de Extensão Rural* (AENA), accompanied the Amnesty International research team to Nagonha during the first and second study visits, to assist in arranging meetings.

The team also interviewed relevant staff of local non-governmental organisations, including extractives industry researchers from *Centro de Integridade Pública* (CIP)¹ and *Instituto de Estudos Sociais e Económicos*, lawyers, academics, environmental experts, biologists, and journalists. In Maputo, Amnesty International partnered with CIP to request documents from the Ministry of Land, Environment and Rural Development (MITADER) and the Ministry of Mineral Resources and Energy (MIREME) through Mozambique's Access to Information Law.² Both ministries complied with this request and supplied Amnesty International with Haiyu's Environmental Impact Assessment (EIA) report, Haiyu's mining license, an a Memorandum of Understanding (MoU) signed by MIREME and Haiyu (in which the parties agree on a US\$3 million social development fund), a letter from MIREME about the social development fund³, and a letter from MITADER with information about consultation, resettlement and Haiyu's DUAT (*direito de uso e aproveitamento de terra*, or right of land use development).⁴

¹ www.cip.org.mz.

² *Lei de Acesso à Informação Lei nº 34/2014, Regulamento, Decreto nº35/2015*. (Mozambican Law of Access to Information, approved on 31 December 2014. Regulations approved 13 October 2015.

³ The government through MIREME and Haiyu signed an MoU in which Haiyu committed to pay US\$ 3 million for social development projects in the mining area. More on this later.

⁴ When documents such as the mandatory annual environmental reports or the records of community consultations were not available, MITADER acknowledged in a letter that their absence contravened Mozambican laws. It is this letter to which reference is made.

In Nampula, Amnesty International partnered with AENA to coordinate fieldwork with provincial and district government officials, Sangage traditional authorities, and Nagonha community residents.

Amnesty International met with various government representatives in Angoche, Nampula City, and Maputo. In May 2016, Amnesty International met with officials at MITADER, MIREME and the Ministry of Justice, as well as with provincial and local government officials. In a follow-up research mission in April 2017, Amnesty International interviewed officials at Angoche District Government, Provincial Directorate of Land, Environment and Rural Development (*Direcção Provincial de Terra, Ambiente e Desenvolvimento Rural*, DPTADER) and the Provincial Directorate of Mineral Resources and Energy (*Direcção Provincial de Recursos Minerais e Energia*, DPREME), and MITADER. Despite repeated efforts, Amnesty International was unable to obtain any information from MITADER during the visit in April 2017. After the visit, Amnesty International sent a letter to MITADER asking for clarification on certain issues raised by the Nagonha community during Amnesty International's visit in April 2017. MITADER's letter of response is annexed to this report. Amnesty International issued a similar letter to MIREME, however, at the time of the report release MIREME had not responded. Finally, Amnesty International visited Nagonha in September 2017 to collect additional information and to meet with collaborating partners.

Amnesty International researchers made efforts to meet with or secure a response from Haiyu (Mozambique) Mining Co. Lda.⁵ In May 2016, Amnesty International visited Haiyu's premises in Morrúa where company officials said the directors were in China. Due to a lack of courier services to Angoche, Amnesty International made subsequent efforts to contact the business office in Angoche by phone⁶ and email⁷ with no substantive response. In April 2017, Amnesty International met two company representatives in Angoche who refused to disclose their job titles or to respond to queries. Relevant information on Haiyu profile was gathered from trade publications, news outlets, and the company's website.

To determine the impact of Haiyu's mining operations and the causes and extent of damage resulting from the flooding, Amnesty International commissioned and analysed satellite images of the landscape around Nagonha village from February 2010 to September 2015 in collaboration with Digital Globe, a provider of high-resolution earth imagery, data, and analytics.⁸ Amnesty International also enlisted independent environmental scientists to analyse the satellite images and provide expert views on the environmental impacts of Haiyu's operations based on the available evidence. Additionally, the villagers' own map of Nagonha before the flood was analysed side by side with Google Earth images of Nagonha before and after the flood.

In this report, the participants are cited by their pseudonyms, not by their real names.

⁵ <http://hnhyky.com/index.php?c=content&a=list&catid=2>.

⁶ Phone call attempts made via partner organisation CIP in June 2016.

⁷ Emails dated 30 May, 1 June, 19 August and 7 September 2016.

⁸ Digital Globe analysed images of the landscape around Nagonha village from February 2010 to September 2015: <https://www.digitalglobe.com>.

CHAPTER 1: ECONOMIC AND SOCIAL BACKGROUND

INTRODUCTION

Mozambique is located in southeast Africa and is part of the Southern African Development Community (SADC), a regional economic and political block of 12 countries. In Mozambique's history, there are 500 years of Portuguese and Catholic colonialism, which renders the country economically, politically and socially distinctive from its Anglophone and predominantly Protestant immediate neighbours. With a coastline of 2,300 kilometres along the Indian Ocean, this Lusophone strip is English-locked, hemmed by South Africa and Swaziland in the south, Malawi and Tanzania in the north, and Zambia and Zimbabwe in the west. To merely cross the border to and from any of the neighbours reveals stark contrasts. In the arts, culture, economy, politics, habits and practices, Mozambique bears the "imprints of Portuguese colonial memory and melancholia."⁹

Following independence in 1975, Mozambique descended into a civil war that, over 16 years, claimed a million lives, and destroyed schools, hospitals, farms, roads and communication systems. The war ended in 1992 following the peace agreement between Frelimo (Frente de Libertação de Moçambique/Mozambique Liberation Front) and Renamo (Resistência Nacional de Moçambique/Mozambique National Resistance).

From 1992, Mozambique embarked on reconstruction, acceleration of market capitalism and adoption of political pluralism. With generous donor support, Mozambique experienced some significant achievements in the first decade after the civil war – infrastructure was rebuilt, services were expanded, social indicators improved, progressive laws were passed, and civil society was strengthened.¹⁰ Poverty rates

⁹ David Matsinhe (2015) "Individualization, Masculinities and Young Men in Mozambique", in P. Ugor and L. Mawuko-Yevugah *African Youth Cultures in a Globalized World: Challenges, Agency and Resistance*. Farnham, Surrey: Ashgate, p. 59.

¹⁰ Viriato Tamele (2007) The Civil Society Organisation's role in Global Budget Support in Mozambique. OECD. Available at: <https://www.oecd.org/site/oecdgfd/39370336.pdf>; Paolo de Renzio and Joseph

dropped from 69% in 1997 to 54% in 2003 but have since become stagnant.¹¹ In this period, Mozambique enjoyed praise among donors and was used as a shining example of post-conflict success and prosperity.¹²

EXTRACTIVE INDUSTRY, ECONOMIC GROWTH AND DEVELOPMENT

Mozambique has abundant reserves of coal, off-shore gas, mineral sands, gold, rubies, and other minerals. For the past 15 years, these resources have attracted foreign direct investment (FDI) to Mozambique, a key factor in an average 7% GDP growth rate per year between 2010 and 2015.¹³

POVERTY AND ECONOMIC INEQUALITY

However, due to generous tax exemptions for foreign companies¹⁴ and reliance on the export of raw natural resources without value-adding processing, this economic growth produced limited tax revenues and created few jobs.¹⁵ In 2015, economic growth plateaued and then declined sharply: commodity prices, export earnings and tax revenues dropped; debt payments increased; the local currency, the Metical, depreciated faster; food prices exploded. Meanwhile, prolonged drought in the south and renewed armed conflict in the centre sowed strife and death

The economic growth seen between 2010 and 2015 failed to reduce widespread poverty in Mozambique and led to increasing economic inequality.¹⁶ As the 2014-2015 Family Budget Survey shows, there has been widespread poverty and little progress since 2008, and by 2015 about half of the population lived on less than US\$1/day. Just over half of families own a cell phone, just 52% own a bed, less than 40% own a radio, only 24% own a TV, and only 6% own a computer.¹⁷

Economic inequality increased so that in 2015 the most affluent top fifth of Mozambicans spent 14 times as much as the poorest fifth – that is double the ratio of 7

Hanlon (2007) Contested Sovereignty in Mozambique: The Dilemmas of Aid Dependency. Available at: http://www.geg.ox.ac.uk/sites/geg/files/De%20Renzo%20Hanlon_GEG%20WP%202007_25.pdf

¹¹ <https://www.imf.org/external/pubs/ft/scr/2016/cr1610.pdf>

¹² IMF (2014) Mozambique Rising: Building a New Tomorrow. Available at:

<http://www.imf.org/external/pubs/ft/dp/2014/afr1404.pdf>.

¹³ UNCTAD (2013) World Investment Report 2013. Available at:

http://unctad.org/sections/dite_dir/docs/wir2013/wir13_fs_mz_en.pdf.

¹⁴ African Development Bank (2012), African Economic Outlook, Mozambique 2012. Available at:

<http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Mozambique%20Full%20PDF%20Country%20Note.pdf>.

¹⁵ Let's Work and World Bank (2016). *Mozambique: Jobs for Development*. Available at:

<https://letswork.org/wp-content/uploads/2016/11/Mozambique-Jobs-for-development.pdf>.

¹⁶ African Economic Outlook, Mozambique 2012

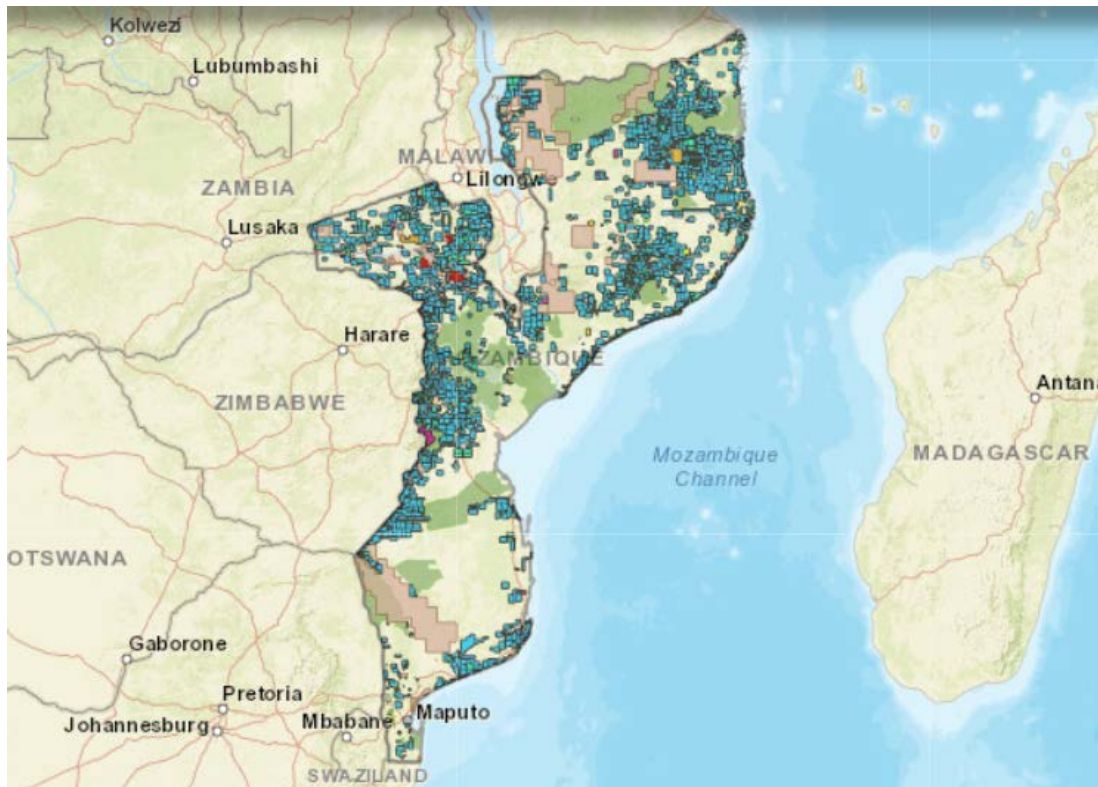
<http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Mozambique%20Full%20PDF%20Country%20Note.pdf>.

¹⁷ INE (2015) Relatório Final do Inquérito ao Orçamento Familiar 2014-15. Available at:

www.ine.gov.mz/operacoes-estatisticas/inqueritos/inquerito-sobre-orcamento-familiar/relatorio-final-do-inquerito-ao-orcamento-familiar-iof-2014-15/at_download/file

to 1 just 6 years ago.¹⁸ From 1996 to 2014, the national *Gini coefficient*, which is a measure of inequality between the rich and the poor,¹⁹ increased by 17%.²⁰

One of the characteristic features of the economic growth in Mozambique has been the southern and urban bias.²¹ Although much of the mineral resources behind this economic growth are extracted from the central, northern and rural regions of Mozambique (see image below), the majority of the people in these areas have not benefited from them.



As this picture, taken from MIREME' Mozambique Mining Cadastre Portal website, central and northern Mozambique are more densely dotted with mining concessions and operations.

¹⁸ INE (2015) Relatório Final do Inquérito ao Orçamento Familiar 2014-15. Available at: www.ine.gov.mz/operacoes-estatisticas/inqueritos/inquerito-sobre-orcamento-familiar/relatorio-final-do-inquerito-ao-orcamento-familiar-iof-2014-15/at_download/file

¹⁹ The Gini Coefficient is a measure of socio-economic inequality in a given population. The higher the coefficient, the higher the inequality. The Gini scores range from 0 to 1, so that the higher the coefficient the higher the inequality. A score of 1.00 represents perfect inequality while a score of 0.00 represents perfect equality.

²⁰ Joseph Hanlon (31 October 2016) Mozambique News Reports & Clippings 344: Poverty Survey Supplement. Available at: [https://www.open.ac.uk/technology/mozambique/sites/www.open.ac.uk.technology.mozambique/files/files/Poverty_survey_supplement_to_Mozambique_344-31Oct2016\(1\).pdf](https://www.open.ac.uk/technology/mozambique/sites/www.open.ac.uk.technology.mozambique/files/files/Poverty_survey_supplement_to_Mozambique_344-31Oct2016(1).pdf)

²¹ This phenomenon is referred to in development literature as urban bias, the unequal distribution of resources and services in favour of cities to the detriment of rural areas. Often, in the asymmetric power balances between urban and rural areas, resources are transferred from rural to urban areas. That is, the rural subsidizes the urban. Urban bias is a preponderant feature of Mozambique's economic growth, wherein the resources are transferred from the rural provinces of the central and northern regions to the urban centres in the southern region.

Thus, from 1996 to 2014, whereas in the south of the country poverty declined by 50%, in the central and northern regions it only dropped by 23% and 18% respectively. In the same period, urban and rural poverty decreased by 40% and 30% respectively.²² The average urban monthly household expenditure nearly tripled the rural average. In Maputo, the capital, the average monthly household expenditure was US\$333 while in Nampula it was US\$55.²³

CHINESE INVESTMENT IN MOZAMBIQUE

Mozambique's economic cooperation with China stretches back five decades, but until the 1990s, the cooperation was relatively limited.²⁴ From the 1990s, however, Chinese FDI grew and by 2008, China was the largest source of FDI in Mozambique.²⁵ This growth in investment reflects Beijing's Going Out strategy, endorsed in 2000, of increased economic ties with Africa. Blurring the distinction between aid, trade and investment, the Chinese government actively supports both state and private investment in Africa, in particular on the extraction of natural resources.²⁶

While China is Mozambique's fourth top trading partner after South Africa, Netherlands and Portugal, it is Mozambique's largest bilateral creditor with US\$1,352 million loaned to the country. Grants, zero-interest and concessional loans made by China to Mozambique have paid for a broad range of infrastructure projects. These included roads, schools, government buildings, etc. After the 2014 elections in which the ruling party Frelimo won 57% of the vote, the main opposition party, Renamo, claimed fraud, intensified armed attacks, and made the following demands: governing the six provinces where it claims it won elections;²⁷ de-politicization of public administration; integration in the military; and extractive sector benefits.²⁸ The army and police responded with violent counter-insurgency, especially against rural populations in central Mozambique, because they were perceived to support Renamo.²⁹ In this context, it is worth noting that

²² Joseph Hanlon (31 October 2016) Mozambique News Reports & Clippings 344: Poverty Survey Supplement. Available at: [https://www.open.ac.uk/technology/mozambique/sites/www.open.ac.uk.technology.mozambique/files/files/Poverty_survey_supplement_to_Mozambique_344-31Oct2016\(1\).pdf](https://www.open.ac.uk/technology/mozambique/sites/www.open.ac.uk.technology.mozambique/files/files/Poverty_survey_supplement_to_Mozambique_344-31Oct2016(1).pdf)

²³ INE (2015) Relatório Final do Inquérito ao Orçamento Familiar 2014-15. Available at: www.ine.gov.mz/operacoes-estatisticas/inqueritos/inquerito-sobre-orcamento-familiar/relatorio-final-do-inquerito-ao-orcamento-familiar-iof-2014-15/at_download/file.

²⁴ Fernanda Ilhéu (2010) The Role of China in the Portuguese Speaking African Countries: The Case of Mozambique. Available: https://pascal.iseg.utl.pt/~cesa/files/Doc_trabalho/84.pdf.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Renamo won the presidential vote in five out of 11 provinces, the national parliamentary poll in two, and three provincial assemblies. Joseph Hanlon, bit.ly/MozElec14, Mozambique News reports & clippings, No. 333 24 July 2016.

²⁸ <https://www.issafrica.org/iss-today/mozambique-devolution-or-revolution>

²⁹ <https://www.hrw.org/news/2016/02/22/mozambique-mass-flight-over-reported-army-abuses>. On 16 March 2016, the United Nations High Commission for Refugees (UNHCR) reported that nearly 10,000 Mozambicans had fled to Malawi for fear of violence back home (See <http://www.unhcr.org/news/latest/2016/3/56e91b486/growing-number-mozambicans-flee-malawi.html>). In April 2016, the United Nations High Commissioner for Human Rights (UNHCR) reported that both warring sides had killed civilians, destroyed property and violated human rights (See <http://www.un.org/apps/news/story.asp?NewsID=53821#.V9ZWOK2gREU>). Amnesty International has reported arbitrary arrests, extrajudicial executions, torture by police, and a pattern of impunity for these abuses.

Africa Confidential reported that the Government had used \$US900 million in borrowed money to buy guns, ammunitions and armored vehicles to protect the country's mineral assets and escalate the war against Renamo.³⁰

Peace negotiations between Frelimo and Renamo began in July 2016³¹. However, they did not get far, and by the end of the year, they had reached a gridlock. In fact, on 8 October 2016, Jeremias Pondeca, a senior Renamo member who was part of the negotiation team, was shot dead by four unidentified men at Costa do Sol beach in Maputo.³² The stalemate led the international mediators to abandon the talks in November 2016.

In December 2016, the leader of Renamo, Afonso Dlakama, declared a two-week truce as a Christmas gift, which President Filipe Nyusi and Government troops seemed to abide by. In February 2017, the two leaders extended the ceasefire for two months. On 3 February, they seemed to agree that peace must be restored. Both subsequently announced they had agreed to reset the negotiations, having appointed from within their parties negotiators who will be assisted by non-partisan decentralisation experts.³³

THE COST OF CORRUPTION

Corruption is pervasive in Mozambique, in both government and business,³⁴ and cost the country \$US4.8 to \$US4.9 billion between 2002 and 2014, losses equivalent to 30% of GDP.³⁵ One of the most notorious corruption scandals was the \$US2.2 billion which the Mozambican government secretly borrowed from Credit Swiss Bank in Switzerland and VTB Bank in Russia. As a result, Mozambique slipped 32 positions from 112th to 144th in the Transparency International *Corruption Perceptions Index*.³⁶ The rating agency Standard & Poor projected that the public debt for 2017 would be over 153% of GDP, and the government publicly admitted its inability to repay and has indeed defaulted.³⁷

The secret loans precipitated the free fall of the local currency to the extent that, from January to August 2016, the Metical depreciated by 70% against the South African

³⁰ Rhula (2016) Macro-Economy: More guns, more secret debts. Available at: <http://www.rhula.net/pdf/Mozambique%20Weekly%2030%20SEPTEMBER%20TO%207%20OCTOBER%202016.pdf>.

³² Verdade (09 October 2016), Jeremias Pondeca, membro sénior do partido Renamo, assassinado a tiro na capital de Moçambique. Available at: <http://www.verdade.co.mz/destaques/democracia/59729-jeremias-pondeca-membro-senior-do-partido-renamo-assassinado-na-capital-de-mocambique>.

³² Verdade (09 October 2016), Jeremias Pondeca, membro sénior do partido Renamo, assassinado a tiro na capital de Moçambique. Available at: <http://www.verdade.co.mz/destaques/democracia/59729-jeremias-pondeca-membro-senior-do-partido-renamo-assassinado-na-capital-de-mocambique>.

³³ *Mediafax* (06 February 2017), Dhlakama e Nyusi em maré de consensus.

³⁴ <https://freedomhouse.org/report/freedom-world/2015/mozambique>

³⁵ CIP (2016), Os Custos da Corrupção para a Economia Moçambicana Por quê é que é importante combater a corrupção num clima de fragilidade fiscal. Available at: http://cipmoz.org/images/Documentos/Anti-Corrupcao/CIP-Custos_da_Corrupcao.pdf

³⁶ Transparency International (2015 and 2016), *Corruption Perceptions Index*. Available at: http://www.transparency.org/news/feature/corruption_perceptions_index_2016#table and <https://www.transparency.org/cpi2015>.

³⁷ Deutsche Welle (19 January 2017), Dívida Pública Moçambicana Acima de 135% do PIB. Available at: <http://www.dw.com/pt-002/d%C3%ADvida-p%C3%BAblica-mo%C3%A7ambicana-acima-de-135-do-pib/a-37193643>.

Rand and by 50% against the US Dollar.³⁸ Since Mozambique is highly dependent on food imports from South Africa, food prices skyrocketed putting the right to food of millions of people at risk.

Consequently, since 2015, tensions rose because, on the one hand, the bakeries advocated for bread price hikes to compensate for the rising wheat price, whereas the people, opposed this, arguing the cost of living was already too high. Fearing a popular uprising, the government introduced subsidies to keep the price of bread stable. Nevertheless, tensions remained as people alleged that although the price remained the same, the loaf of bread was losing size and weight.³⁹

THE COMMUNITY OF NAGONHA

Nagonha is a rural community in Angoche district, Nampula province in northern Mozambique. Nampula province has a population of 5.1 million and a population density of 50 people per square kilometer. The province is the country's most populous and the second poorest after Niassa, also located in the north.⁴⁰ In Nampula, people lived on US\$0.88/day in 2015.⁴¹ The provincial capital, also known as the capital of the north, carries the province's name, Nampula, and is the third largest city in the country. Just under 40% of the population of Nampula province is Muslim, and 87% speak *Macua* as their native language. In rural areas, less than one-third of people can speak Portuguese.⁴²



NAMPULA PROVINCE

The northern province of Nampula is rich in minerals, forests, fisheries, touristy beaches and mountains, good agricultural land, long coastline and an excellent port, Nacala. With a population of 640,000, its capital, also called Nampula, is a bustling commercial hub for the trade of goods into the hinterland. Its streets teem with shops and immigrants from many countries. One hears Lingala, French, English, Kiswahili, Hausa, and Urdu along Portuguese and the local Macua (Mozambique's most spoken language).

Yet a recent survey by the National Institute of Statistics documents a severe lack of basic education and basic goods. Among people aged 15 or more, seven out of ten women and four out of ten men cannot read or write in any language. Fewer than four percent have completed high school.

Seven out of ten homes in the province have a thatch or palm leaved roof. Just one in ten homes is made of a permanent material; the remainder uses adobe or reeds. Two in ten homes have electricity. Nearly half do not have a latrine, and nearly

³⁸ *Deutsche Welle* (04 August 2016), Queda do Metical Agrava Situação Económica de Moçambique. Available at: <http://www.dw.com/pt-002/queda-do-metical-agrava-situa%C3%A7%C3%A3o-econ%C3%B3mica-de-mo%C3%A7ambique/a-19449469>.

³⁹ *Deutsche Welle* (28 July 2016), Pão em Moçambique não Ficou Mais Caro mas Ficou Mais Leve. Available at: <http://www.dw.com/pt-002/p%C3%A3o-em-mo%C3%A7ambique-n%C3%A3o-ficou-mais-caro-mas-ficou-mais-leve/a-19433050>.

⁴⁰ Census 2007, *Instituto Nacional de Estatística* (INE), National Institute of Statistics, Mozambique. <http://www.ine.gov.mz/operacoes-estatisticas/censos/censo-2007/rgph-2007/indicadores-socio-demograficos-provincia-de-nampula-2007.pdf/view>.

⁴¹ INE (2015) Relatório Final do Inquérito ao Orçamento Familiar 2014-15. Available at: www.ine.gov.mz/operacoes-estatisticas/inqueritos/inquerito-sobre-orcamento-familiar/relatorio-final-do-inquerito-ao-orcamento-familiar-iof-2014-15/at_download/file.

⁴² Census 2007, *Instituto Nacional de Estatística* (INE), National Institute of Statistics, Mozambique. <http://www.ine.gov.mz/operacoes-estatisticas/censos/censo-2007/rgph-2007/indicadores-socio-demograficos-provincia-de-nampula-2007.pdf/view>.

two-thirds use water from unsafe sources. One-third of the population must walk more than 30 minutes to get to a clinic; more than half walk at least one hour to reach a market or public transport.

Politically, the province and the city are strongholds of the opposition. While the province leans toward Renamo, the city leans toward *Movimento Democrático de Moçambique* (MDM). In the 2014 presidential elections, Frelimo's candidate, now President Filipe Nyusi, lost the provincial vote to Renamo's Afonso Dlakama (the former took 44.27% of the vote compared to the 49.80% taken by Dlakama; 5.93% of the ballot went to Daviz Simango of MDM).⁴³ In the municipal elections of 2013, Frelimo lost the city to MDM by 40% to 54%.⁴⁴ This province is one of the five that went to Renamo in the 2014 presidential elections and in which Renamo claims the right to govern.



⁴³ STAE (2014) Apuramento Geral/Presidente da Republica. Available: [file:///zajb0-vs-dc1ro/users\\$/david.matsinhe/Downloads/Gerais%202014%20-%20Edital%20PR.PDF](file:///zajb0-vs-dc1ro/users$/david.matsinhe/Downloads/Gerais%202014%20-%20Edital%20PR.PDF)

⁴⁴ News Clippings (2013) 2013 Local Elections. Available at: http://www.open.ac.uk/technology/mozambique/sites/www.open.ac.uk.technology.mozambique/files/files/Local_Elections_Bulletin_58-59-2Dec2013.pdf



Well for drinking water in Nagonha, September 2015. ©Amnesty International



Nagonha's primary school is these two cashew trees. Classes are irregular because the teacher is frequently absent. There are no classes in rainy seasons. ©Amnesty International

HAIYU'S SAND MINING CONCESSIONS IN NAMPULA

According to Mozambique's Mining Cadastre Portal, Haiyu has two licenses to mine mineral sand in Angoche district.⁴⁵ The first is license No. 3791C, granted on 11 July 2011. This is the Sangage mining concession. Sangage is some 13km away from Nagonha by the coastline and 32km away by road. Based on the cadastre maps Nagonha is not within the Sangage concession. Haiyu's second sand mining license is the Nagonha/Morrúa concession, No. 4776C, granted on 19 December 2011. Nagonha is inside the 4776C concession. The 3791C Sangage concession covers 904.28 hectares while the Nagonha/Morrúa concession is five times larger at 5051.76 hectares. Haiyu began mining in both concessions in 2011.



Haiyu mining operation in Nagonha, May 2016. © Amnesty International

Haiyu is engaged in heavy mineral sands mining. This means the company is mining the sand to extract certain minerals, namely ilmenite, titanium, and zircon. Dr. Knight's description of sand mining is congruent to the sand mining process in Nagonha as seen in this image on the left. Sand mining, he explains, involves "excavation into the sand dunes, followed by processing to remove heavy minerals. Remaining sand is largely dumped on site and/or spread to form a flat working surface by excavators. As such, the area affected by mining can be much greater than the area from which sediment is extracted. The presence of loose surface sand can dramatically affect the existing land surface by burial of vegetation or blocking or diversion of existing drainage routes."⁴⁶

⁴⁵ Mozambique Mining Cadastre Portal. Available at: <http://portals.flexicadastre.com/mozambique/pt>.

⁴⁶ Dr. Jasper Knight, email to Amnesty International, June 2017.



HAIYU MOZAMBIQUE MINING CO. LDA⁴⁷

Haiyu (Mozambique) Mining Co. Lda was incorporated in Maputo in April 2011. The company is a joint venture between two companies: Africa Great Wall Mining Development Co. Lda registered in Maputo, and Hainan Haiyu Mining Co., Ltd, based in Haikou, the capital of the southern Chinese island province of Hainan. Hainan Haiyu Mining Co. Ltd is a joint-stock company with two primary corporate shareholders: Hainan Non-Ferrous Metals, and Jinan Yuxiao Group. Hainan Non-Ferrous Metals is linked to Hainan Bureau of Geological Exploration, a provincial Government agency, and to China Natural Resources Inc., a NASDAQ traded Chinese minerals' exploration group with offices in Hong Kong. Jinan Yuxiao Group has its own mining operations in several Mozambican provinces, through Africa Great Wall Mining Lda and Africa Yuxiao Mining Lda, both registered in Mozambique in 2008. Further, Jinan Yuxiao Group operates a joint-stock company, the Africa Great Wall Cement Manufacturer Lda, with investment from two Chinese state entities: Sinohydro, and China-Africa Development Fund.⁴⁸

In 2011, Haiyu (Mozambique) Mining Co. Lda invested US\$30 million in Angoche district.⁴⁹ Here, Haiyu Mozambique, "winner of second major extractive exporter prize at the 51st trade show edition in 2015",⁵⁰ can process 20 tons of mineral sands per day and employs 505 people.⁵¹ On 2 September 2013, its first shipment of unprocessed zircon-titanium sands extracted in Mozambique arrived at the port of Haikou. In 2014, the company set up a factory to process zircon-titanium ore in Morrua, on the outskirts of Angoche town. In the neighbouring province of Zambezia, another Chinese company, Africa Great Wall Mining Development, has mineral sands mining operations worth US\$130 million in three districts: Nicoadala, Inhassunge, and Chinde.⁵²

Heavy sand mining activity is classified by the Provincial Directorate for Environmental Action Coordination (DPCA) of Nampula as an "A" category activity.⁵³ This means that it could have significant environmental impacts due to the nature of the proposed activities or the sensitivity of the area, and requires a full Environmental Impact Assessment (EIA).⁵⁴ Haiyu's EIA and environmental impact is one of the issues considered in this report.

⁴⁷ <http://hnhyky.com/index.php?c=content&a=list&catid=2>. Note that the information used in the first paragraph in this box comes from this website, all of which is in Chinese.

⁴⁸ Ibid.

⁴⁹ *McauHub* (09 July 2013) China's Africa Great Wall Mining Development Company to exploit heavy sands in Mozambique. Available at: <http://www.mcauhub.com.mo/en/2013/07/09/china%e2%80%99s-africa-great-wall-mining-development-company-to-exploit-heavy-sands-in-mozambique/>.

⁵⁰ This is written on the glass trophy in Haiyu's office in Morrua, Angoche district. Seen on 22 April 2017.

⁵¹ *McauHub* (15 July 2014) Heavy sands operations re-launched in Angoche, Mozambique. Available at: <http://www.mcauhub.com.mo/en/2014/07/15/heavy-sands-operations-re-launched-in-angoche-mozambique>.

⁵² *McauHub* (09 July 2013) China's Africa Great Wall Mining Development Company to exploit heavy sands in Mozambique. Available at: <http://www.mcauhub.com.mo/en/2013/07/09/china%e2%80%99s-africa-great-wall-mining-development-company-to-exploit-heavy-sands-in-mozambique/>. Interestingly, in 2011, McauHub, the online daily digest of Chinese investment in Portuguese speaking countries, reported that the Sangage mining concession belonged to Africa Great Wall Mining Development Company, and not to Haiyu Mozambique Mining Company (See <http://www.mcauhub.com.mo/en/2011/10/04/china%e2%80%99s-africa-great-wall-to-mine-heavy-sands-in-mozambique>).

⁵³ RMS-Consultores Limitada (2011) *Projecto de Exploracao e Processamento de Arreias Pesadas no Posto Administrativo de Sangage, Distrito de Angoche, Provincia de Nampula: Relatório Final do Estudo do Impacto Ambiental*: Africa Great Wall Mining Development Company Limitada.

⁵⁴ *Regulamento sobre o Processo the Avaliação do Imacto Ambiental, Decreto 45/2004* (Regulation on the Process of Environmental Impact Assessment, Decree 45/2004). http://siteresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/Resources/282822-1165441058719/3236380-1168629660241/Environmental_and_Social_Management_Framework.pdf

CHAPTER 2: FLOODING AND DESTRUCTION IN NAGONHA

“Failing to avoid, minimize, or if residual impacts remain, offset the environmental impact and ecological footprint throughout the mining life-cycle by conducting thorough environmental impact assessments, minimizing waste and emissions, ensuring mine closure and site rehabilitation, conserving resources and recycling, implementing environmental risk management, contributing to the conservation of biodiversity, and seeking continual improvement of their environmental performance.

Adverse impacts and gross violation of international and national laws and regulations regarding ambient soil, air, and water conditions...”

China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (2015), Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains.⁵⁵

⁵⁵ The China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (2015), *Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains*. Available at: <http://www.cccmc.org.cn/docs/2016-05/20160503161408153738.pdf>.

Nagonha village is a fishing community on a sand dune facing the Mozambique Channel. Part of Sangage Peninsula in Angoche district, Nagonha is 45 minutes away from Angoche town by car and 180km from Nampula city.⁵⁶ A key geographical feature of Sangage is the network of white sand dunes and beaches stretching for more than 40km.

Nagonha is home to 1,329 people living in 236 houses, spread across the sand dunes.⁵⁷ This small rural community has no school, health post, midwife, electricity, piped water or sanitation facilities. Hand-dug wells provide drinking water all year round. The houses have reed-roofs, and the walls are made of reeds, grass, and poles. The only permanent structure in the village is the Mosque, made of cinder blocks.⁵⁸ The local division of labour is gendered with women pursuing cassava and beans production, wild plant harvesting, water procurement, food preparation and family care, while men occupy themselves with fishing, mats, ropes, artisanal chairs and boats, and cattle.⁵⁹

The sand dune on which the village is located stands between the Indian Ocean, to the east, and a chain of freshwater wetlands, lagoons and channels, to the west (see image on p. 34 and Figure 1 on p. 42). Before Haiyu mining operations, the channels allowed water to move through various lagoons and out to the sea during rainy seasons when the wetlands and lagoons filled up.⁶⁰

One of the lagoons is the Nagonha lagoon, which lines behind (west of) the village, and after which the community is named. In Macua, the local language, *Nagonha* means crocodile and the lagoon, according to oral tradition, was so named because generations ago a large crocodile lived in it.

THE 2015 FLOOD EVENT

On Saturday, 7 February 2015, just after sunrise, a large volume of water coming from the wetlands behind Nagonha surged through the village, effectively slicing it in two. The flood waters washed away houses and crops. It was a terrifying, and completely unprecedented, experience for the people of Nagonha.⁶¹ Some 290 people were left homeless as a result.

The flood occurred during the rainy season. Mozambique's rainy season extends from November to April, peaking in January and February. The 2014/2015 rainy season was the wettest recorded since 1983,⁶² with torrential rains and floods in Zambezia, Nampula and Cabo Delgado provinces.

⁵⁶ Nampula province has 23 districts each of which has its own capital.

⁵⁷ Amnesty International interviews with Nagonha community leaders in Nagonha, May 2016.

⁵⁸ Amnesty International interviews with Nagonha residents in Nagonha, May 2016. Amnesty International visited Nagonha in September 2015, May 2016, April and September 2017, and confirmed this information.

⁵⁹ Amnesty International interviews with Nagonha community leaders in Nagonha, May 2016.

⁶⁰ Amnesty International interviews with Nagonha community leaders in Nagonha, May 2016.

⁶¹ Amnesty International interviews with Nagonha residents in Nagonha, May 2016, April and September 2017.

⁶² According to the Africa Rainfall Climatology dataset, for a large portion of central/northern Mozambique and southern Malawi, it was the wettest Dec 15/Feb 10 on record dating back to 1983. Rains from the middle of December to the end January were 125-400% above-average (...). During the

In early February 2015, before the flood, the residents of Nagonha started noticing the wetland behind (that is, west of) their village filling up and turning into a lake. In the weeks and days before disaster hit their community, they also observed how the water seeped from the north, from the areas mined by Haiyu, progressively covering the road towards their village, eventually rising towards the village perched on the dune (see Satellite Image 1 above). The elders of the village had never seen the wetland so flooded.⁶³ According to Jorge Abdala, aged 82, who was Nagonha's *Secretário do Bairro*⁶⁴ (community secretary or leader, appointed by Nagonha residents) from 1977 to 2016:

This had never happened before, not even in the big rains of 1983 and 1968. Rainwater didn't stay on the land, it drained.⁶⁵

On the morning of Friday, 6 February, the water covered the mosque which was closer to the foot of the dune, about halfway up. By mid-afternoon, it started reaching the huts on the top of the dune. Around 5.00pm, the villagers started building sand and branch barricades against the rising water. They continued with this the next day, reinforcing the barrier they made the previous day and making the second one. But all this to no avail. Just after sunrise on 7 February, a surge of water burst from the north, carving a deep canal that divided the village in two. The affected area of the dune and everything on it – including houses, casuarinas, and palm trees – collapsed and were washed away into the sea.⁶⁶

Nissano, a 20-year old resident, told Amnesty International about the disaster:

Around 15:30 of Friday the waters reached the village. I was very worried. We hung our goods – bags of maize and cassava, clothes – [on] the roof to keep them dry from rising waters. I never imagined the house and the ground would collapse. I didn't sleep that night. The sun was up when I noticed the rope coils were wiggling and the bed [I was sleeping on] was sinking in the sand. "Danger!" I screamed. My wife and I grabbed our two children and fled. I took them to a high dune and swam to [a neighbour's] house. We got on the boat and rescued my family and others. All day long we rescued people.⁶⁷

Another resident, Fatamu described how the community was effectively trapped between the sea and the flooded wetlands:

I heard the neighbours shouting: 'It's falling! Get out!' I saw a mass of water surging with a whoosh sound, and we ran for our lives. Everything is gone: the house, capulanas, clothes, and two solar panels. We had seen the water rise the day before but where could we go? The sea was high, the lagoon behind

first week of February (Feb 3-9) 8-10 inches of rain (200-250mm) was recorded in the city of Nampula in northern Mozambique thanks to thunderstorms associated with a developing tropical storm in the Mozambique Channel. Available at: <https://www.climate.gov/news-features/event-tracker/southeastern-africa%E2%80%99s-monsoon-goes-dry-deluge> (accessed 12 August 2016).

⁶³ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

⁶⁴ Amnesty International interviews with Nagonha community leaders, May 2016.

⁶⁵ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

⁶⁶ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

⁶⁷ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

the village was overflowing. We were trapped. We are lucky the disaster struck at daylight; otherwise many would have been killed.⁶⁸

Lucamo told researchers how she and her husband fled the flood with their children:

We have two children, the oldest is seven years old. Our house was surrounded by shrubs, so we thought we were protected against the rising water. We didn't think the ground could cave in. We only had time to run out of the house. We turned around and we watched our home fall and be washed away.



Drone image showing the new channel opening in the middle of the village and the flooded area, September 2017. ©Amnesty International.

According to the residents' accounts, moments before the surge of the water forced its way through the village, a ground tremor shook their huts. Many people panicked and fled for safety with nothing but the clothes on their backs. As the water surged through the village, some men swam to Roma's house, 50m away from the path of destruction. Villagers described to Amnesty International how they used a boat to rescue stranded women and children first, then men, and take them to safety. Roma, one of the residents who led the rescue operation told Amnesty International:

On Friday, the water reached the village. On this side, there was nowhere to sit except at my house [which is] on top of the dune. The water was so high that I swam from my house to the mosque. I brought my boat from the shore and tied it in my yard. On Saturday around 6 am, a huge mass of water

⁶⁸ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

*rushed, from where the mining machines are, engulfing the village. One area collapsed, and the rest was flooded. With 17 men we organised the rescue. We did five trips on my boat, taking on average of 45 people each time.*⁶⁹

In the last rescue trip, before dusk, they brought salvaged food: sacks of dry fish, cassava, and maize. It took more than 24 hours for the flood waters in the northern part of the village to drain through the channel created by the flood.⁷⁰

THE IMPACT OF THE FLOOD: LOSS OF HOMES

According to the Nagonha community, 48 structures were destroyed due to the flood, leaving approximately 290 people homeless.⁷¹ Amnesty International interviewed 35 people affected by the flood who described the impact on their lives.

Adilia, like many of the affected individuals, had to sleep outdoors with her family following the loss of her home. She described to researchers how she struggled to build a new home:

*During one week we slept outdoors, without any cover, until my husband built a shed. Over many months we worked and saved: fished, sold, made food for sale, spent 30 meticaïs, and saved 60 meticaïs (US\$1) until we could build a home.*⁷²

Fisherman, Ademola, recounted how he and his wife and six children escaped the floodwaters with just some clothes.

We slept under a cashew tree – all of us and everything we had – for 3 days. Then we stayed at my friend’s house for 2 weeks while I built a temporary shelter. We lived in the shelter for two months. During these months I built a new house in the same place where the old one was. The old house had been submerged and there was no point in keeping it. I salvaged some poles from it to build the new house, but the rest of the material had no use anymore.⁷³

Cicilia’s family who lived where the channel was opened, also had to live outdoors and they too struggled to build a new home:

My husband is a fisherman and we have seven children. Our house was just where the channel is now. We lost everything; for months we slept outdoors. We built a new house but the wind and the sand are a

⁶⁹ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

⁷⁰ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

⁷¹ The Nagonha community has reported that 48 structures were destroyed in the flood of 2015. The community compiled a list of the households affected immediately after the flood and submitted it to the local government in Sangage. Amnesty International has seen this list. In the satellite images obtained for before and after the flood, dated October 2014 and April 2015 respectively, analysts counted “21 structures are no longer present in the area where the canal has formed.” They also noted that more structures had been added to other locations in the village, “suggesting those displaced by the flood moved.” It is not clear why there is a difference between the figures and a number of factors could account for the figures obtained through satellite image analysis including some people constructing temporary structures after the flood.

⁷² Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

⁷³ Amnesty International interviews with Nagonha residents in Nagonha, September 2017.

big problem. The sand piles up against the walls; I must shovel it out at least once a week. The wind carves a ditch along the walls, making them unstable; the poles and reeds wear out sooner. This didn't happen in our old home because it was protected from the wind by the sand dunes and shrubs.⁷⁴

Cicilia was not the only villager who reported a problem with sand blowing and building up around her home. Several other villagers interviewed by Amnesty International over more than two years also reported this phenomenon.⁷⁵ They attribute the problem to another impact of sand mining – the removal of the dunes and vegetation which, they say, leads to greater sand erosions. This issue will be discussed further in Chapter 4.

Because the flood happened with little warning the affected residents had no time to remove valuables from their homes. For those directly in the path of the flood, this meant not only did they lose their homes but also almost all of their furniture and other belongings. Nitario, a single woman who lived near the mosque with two nephews, recounted her losses:

My house was near the mosque; it had a living room, kitchen, two bedrooms, bathroom, and a yard. I lived there with my two nephews. In the house, we had 2 beds, a 25kg bag of cassava flour, a 25kg of wheat flour, two 25kg bags of rice, 6 new pots, and 15 china plates. We had 5 mats – 2 for daily use and 3 reserved for visits. I had a small business cooking and selling food. It's all gone. I woke up early for my morning prayers. When I came back from the mosque, the water had filled the house. I had no chance to salvage anything. I fled to my brother's house and it was the same thing. We fled to that dune over there. We lived on that dune for 3 months under some shelter my brother made. I still don't have a house because it is expensive to build one. Now I live in my brother's house, the one who lived here but has since left... the same house that was flooded. It's rotting but what can I do?⁷⁶

Romano also lost everything inside his home:

My house was exactly where that river is; right there where you see the river. The house had 2 bedrooms, kitchen, living room and yard. Four of us lived in the house – me, my wife, my son and my younger brother. There were so many things in the house – 4 chickens, a bed, a solar panel that I used for light at night and cell phone charging, a 30v battery, closet with clothes and shoes, plates, pots, and basins. We lost all of that. We felt the house collapsing and we ran for our lives. We watched the house being dragged by the water. I cried. I took my wife and my son to live with my in-laws over that white dune. I came back here to see if I could make some living arrangements. We lived apart like that for 30 days while I tried to build a new house.⁷⁷

Otilia, a mother of eight, described what she lost:

When the bed started shaking, we fled, terrified. I lost ten chickens and their straw cage, a suitcase, five bags of dried fish, radio, fridge, solar panels, bed, mattress, clothes. I'm 42 years old. My husband is a fisherman and we have eight children, of whom two live with us.⁷⁸

⁷⁴ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

⁷⁵ Amnesty International interviews with Nagonha residents in Nagonha, May 2016, April and September 2017.

⁷⁶ Amnesty International interviews with Nagonha residents in Nagonha, September 2017.

⁷⁷ Amnesty International interviews with Nagonha residents in Nagonha, September 2017.

⁷⁸ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

Casimiro, a fisherman and a father of five who lost his home and livestock, told Amnesty International:

Eight people lived in my house: me, my wife, my brother and five children, the youngest aged four. We lost everything: solar panel, beds, mattresses, eight plastic chairs and a table, three cell phones, radio, watch, 16 pots and pans, seven bags of rice and one bag of dried fish, nets, hoe, machetes, ducks and chickens, and all our documents. I only have my electoral card because it was in my wallet. I am a fisherman. It took me 11 months to save money for another palhota (hut). During that time, we slept under a reed shed I built. Look around: We have so little. All we had the water took away.⁷⁹

Although the rescue boat tried to salvage food items, many of those who lost their homes also lost food that they had stored up in their homes. For example, Tocova whose home was destroyed told researchers:

We lived near the road with my two wives and five children, in two huts. At around 3 am our homes flooded. By 7 am, the water was up to chest level and we fled to a higher area. Eighteen bags of cassava were ruined by the water.

Although Tocova's home did not get washed away in the flood, it became uninhabitable:

The huts survived but with wet straw and wet wood poles got rotten quickly. I had to build new huts for my two wives and five children.⁸⁰

Nagonha community leaders told Amnesty International that most homes survived the flood but were badly damaged and rotted.⁸¹ Amnesty International visited the office of the local government in Sangage where the list of flood-related damages is kept. In addition to the 48 houses immediately destroyed by the flood, the list refers to 173 houses partially destroyed.⁸²

In addition to the loss of their homes, some/many of the affected villagers also lost their means of livelihood. Tomas, another fisherman, told Amnesty International how he lost his property and means of livelihood:

I lost all my fishing tools: four nets, each worth MZN 6,800 (US\$89), four coils of rope worth MZN 2,000 (US\$26) each, the boat buoys, two bags of rice, cooking utensils, the clothes of my five kids, my wife and myself. My house was new. We should be compensated for our losses by the Chinese; their machines blocked the water in the wetlands.⁸³

In 24 hours local community leaders compiled a list of houses destroyed and damaged and sent to the Government of Sangage Locality. Amnesty International had access to the list and it shows 48 houses destroyed and 173 partially destroyed. Following the flood, the community did not receive any assistance from the local government. This

⁷⁹ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

⁸⁰ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

⁸¹ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

⁸² Government of Sangage Locality. Statistics of houses destroyed and affected during the flood of February 2015. The document is dated April 2015.

⁸³ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

issue is taken up in Chapter 5.



OTHER IMPACTS OF SAND MINING

While this report does not consider the livelihood impacts in detail, both the people of Nagonha and an environmental expert who has looked at their situation, have raised serious concerns about the impact of sand mining on the ability of people to meet their basic needs and maintain sustainable livelihoods.

As noted in Chapter 4, several of the villagers interviewed by Amnesty International spoke about the way in which sand erosion appears to have increased, as mining has removed vegetation that previously prevented the sand from being easily moved by the wind. Amongst the impacts are large amounts of sand in the houses; more sand in the food and water; dirtier water in the wells; more cold winds in the village notably at night. In addition, the wetlands provide the people of Nagonha with a range of services which are negatively affected by the way sand has been dumped across the area. Dr. Knight explains:

The mining activity adjacent to the village of Nagonha appears to be having significant negative impacts, and based on the evidence for expansion of mining activities over the last 2 years, this is likely to increase in future. The main issue here is that the sand mining appears to make the community (1) more vulnerable to the effects of flooding, and (2) more likely to be affected by the decrease in environmental resources and ecosystem services provided by the surrounding wetland and vegetation dune environment. Both these things have major implications for the sustainability of livelihoods.⁸⁴

According to Jasmina, after the destruction of the natural topography firewood became scarce:

We used to collect wood in the area where they did their excavations but there is nowhere left to collect wood. At the moment, there simply is no wood. Now we must travel a long distance just find firewood. What kind of life is that? How are we supposed to live?

Marcos, a 22-year old resident pointed out to the scarcity of building material:

This is our way of life. We always had coconut palms, like those over there. We would cut the leaves, sew them together and use them to make a roof for our homes. But now, there are no leaves, no coconut palms. They've all gone.⁸⁵

So did community leader Roma:

Right here where we are used to be Nanthekethe, a large lagoon with abundant reeds. Nanthekethe used to supply reeds for house building to the communities around this area including Nagonha, Kirikwige, Morrua, Mulapane, and Nipwene. Even Nantapa people used to come here for reeds. Now we have to buy them from vendors far away from here.⁸⁶

Roma summed up the consequences of mining this way:

The forests are gone. The cashew nut trees are gone. The forests had trees for fruits, for traditional medicines, for firewood, that we used. When our children went swimming, they ate masalas. Now all the wild fruits that our children used to eat are gone. Our children would leave in the morning and get lost in the forest eating wild fruit and swimming in the lagoons and return home after 12.00pm happy. Now it's all gone and cannot do that

⁸⁴ Dr Jasper Knight, email communication with Amnesty International, June 2017.

⁸⁵ Amnesty International interviews with Nagonha residents in Nagonha, April 2017.

⁸⁶ Amnesty International interviews with Nagonha residents in Nagonha, September 2017.

anymore. The lagoons are gone. Nowadays our women have to walk about three kilometres in search of firewood. We can see how the environment is being destroyed because everything is gone. Back then, women left at 6.00am and came back at 8.00am with firewood. Now they leave at 4.00am and come back 10.00am. The water we drink is no longer clean. The colour has changed. Now it is pale. But what else shall we drink? You saw those cows grazing next to Haiyu's mining pool. Frankly, I don't know what those cows were eating in that place because, as you saw, it was sand everywhere.

A MAN-MADE DISASTER?

Although Mozambique experienced very heavy rainfall and widespread flooding in early 2015, the residents of Nagonha believe the flood that destroyed their homes was the result of the way in which Haiyu dumped sand around the wetland and blocked normal flows of water out to sea. Amnesty International investigated the claims made by the community and found significant evidence to support their assertions.

This Image shows sand dune levelled on to the wetland by Haiyu. These mine waste dumps stretch north to M'phutuwa and south up to 200m off the village of Nagonha, September 2017. ©Amnesty International

The villagers consistently said Haiyu started mining some 3kms from their village in 2011. Sand mining involves using heavy machinery to excavate large quantities of sand. They described how the process used by Haiyu has involved considerable amounts of sand being excavated and then dumped on the surrounding landscape. Amnesty International researchers saw the sand dumps during several visits to the site (see images on p. 40).⁸⁷

⁸⁷ The large quantities of sand move dumped in areas of the Sangage peninsula where there was previously no sand is confirmed by satellite images, which are presented and discussed later in this report. In addition, villagers repeatedly described the process of sand mining and waste dumping to Amnesty International and researchers saw for themselves large area of the sand dune north of the village removed and levelled out on an extensive area of the wetland during visits to the area.



Villagers' drawing of Nagonha before Haiyu came to the area, showing three lagoons lining up from south to north – namely Nagonha, Nanthekethe and M'phutuwa – and connected to each other through a natural channel.

As part of the investigation, researchers asked the village residents to draw on the sand the location of their village in relation to the area covered by Haiyu sand mines. As seen in above image, the villagers drew three lagoons lining up behind (west of) the village. These three lagoons, as shown in the drawing, were connected through natural channels.

- The first lagoon is *Nagonha*, after which the village is named, and it is located just behind (west of) the village.
- The second lagoon, said the residents, was *Nanthekethe*, so named because it produced reeds abundantly. *Nathekethe* means reeds in Macua. *Nanthekethe*, the largest of the three lagoons, was located about 1km north of *Nagonha*.⁸⁸

⁸⁸ Based on Google Earth images obtained by Amnesty International.

- The third lagoon was *M'phutuwa*, which in Macua means “to burst out and flow”. The lagoon was so named because it joined the wetland to the sea and in rainy seasons enabling the wetland waters to discharge to the sea. This lagoon was located about 3km north of *Nagonha* the lagoon and *Nagonha* village.⁸⁹



The small dark patch of water just before the sea is what is left of M'phutuwa lagoon. Haiyu buried the rest of the lagoon with mine waste. Before Haiyu's operations, this lagoon received rainwater from two other lagoons (Nanthekeke and Nagonha) in the south (right) side. Through M'phutuwa the rainwater discharged to the sea, September 2017. ©Amnesty International

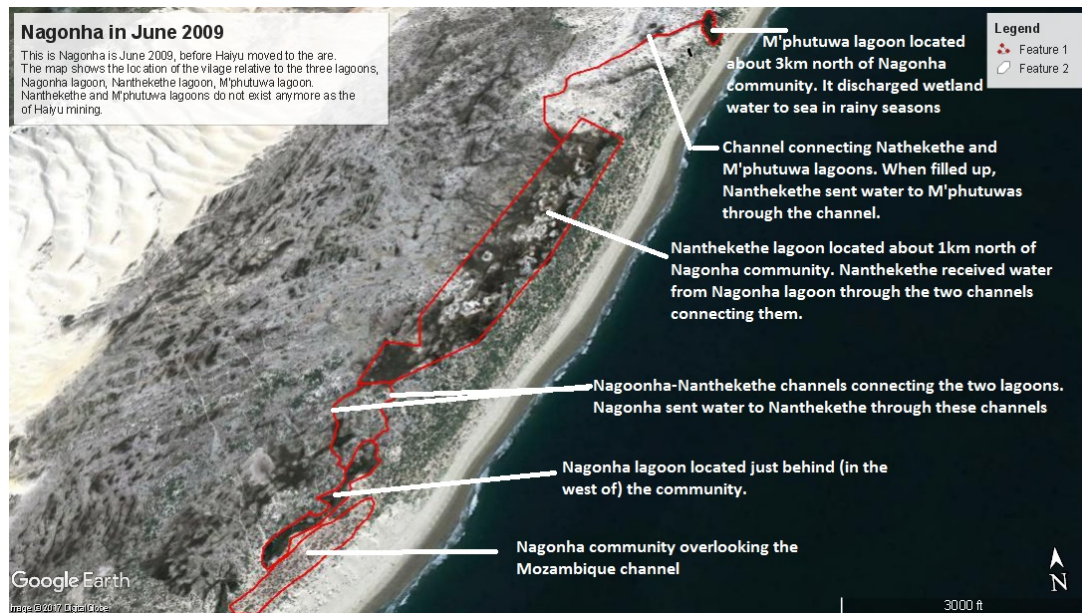
The villagers explained that, in rainy seasons, when *Nagonha* lagoon filled up, water flowed from *Nagonha* to *Nanthekeke* lagoon through the natural channel connecting them. Similarly, when *Nanthekeke* filled up, it discharged water to *M'phutuwa* through the channel that connected these two lagoons. When *M'phutuwa* filled up, it directly discharged water to the sea.

According to the villagers, in 2011, when Haiyu began its mining operation around *M'phutuwa* lagoon, some 3km north of their village, the company began to dump mine sands over the wetlands and the *Nanthekeke-M'phutuwa* channel. As Haiyu continued

⁸⁹ According to the locals, the term *M'putuwa* is applicable only to that which can burst through a barrier and flow out or in – a for example, liquids, fluids, sand, gains, etc. A spear can pierce through a barrier but it cannot flow through the hole. The term *M'phutuwa* cannot be used to describe the movement of the spear piercing through a barrier.

mining, its operations moved southwards and the company also dumped mine-waste sands over *Nantheke* lagoon.⁹⁰

Amnesty International used Google Earth and satellite images to identify these lagoons and examined how this independent data corresponded to the information provided by the villagers. Four satellite images from February 2010 to September 2015 were analysed by experts at DigitalGlobe to examine changes in the landscape around the village related to mining activity. The imagery taken on 6 April 2015 was also analysed to understand how the February 2015 floods affected the village and to determine possible causes of the flooding.



Google Earth Image: Nagonha in June 2009, before Haiyu mining with the village's location relative to the three lagoons: Nagonha, Nantheke, and M'phutuwa. Nantheke and most of M'phutuwa disappeared as a direct result of Haiyu mining.

In the Google Earth Image above, taken before Haiyu began its mining operations, at least three lagoons are visible in the wetland to the west/north-west of the village (see also Satellite Figure 1 from 28 February 2010, p. 37). These three lagoons are connected by channels, and the most northerly lagoon opens out to the sea. This Google Earth image corresponds with the accounts of the Nagonha residents and the map drawn by them to explain the wetlands and lagoon system and how the water flows between the lagoons and to the sea.

The Nagonha residents interviewed by Amnesty International consistently described how Haiyu began mining north of the village in 2011 and how the mining activity moved southwards towards the village. They also described how the company deposited sands all over the wetlands area as the mining activity progressed. It was these large deposits of sand which the local people say blocked normal water flow.

The satellite image from 14 December 2010 (Figure 2, p. 38), shows the first signs of mining activity in the Nagonha area but no sand deposits. DigitalGlobe then compared

⁹⁰ Amnesty International Interviews with Nagonha residents in Nagonha, September 2015, May 2016, April and September 2017.

the December 2010 images with an image of the same area in October 2014 (Figure 5, p. 39; Figure 3, p. 40). This analysis shows how the sand has built up around the area. According to DigitalGlobe:

Since December 2010, mining activity has been apparent in the Nagonha area... As mining continued, the natural flow of water appeared to change. By October 14, 2014, approximately 280,000 square meters of wetlands area north of the village was replaced by mining-related sand deposits.⁹¹

The satellite images from October 2014 (Figure 5, p. 39; Figure 3, p. 40) clearly show how the channel connecting the lagoon directly west of the village (which is *Nagonha* lagoon) and a lagoon north of Nagonha (which is *Nantheke* lagoon) is covered in sand, and therefore the flow of water is blocked. The 2014 images also show a large part of the *Nantheke* lagoon is covered with sand.⁹²

Again, the satellite images correspond to the independent testimony of the Nagonha villagers.

To better understand the impact that the sand waste dumping observed on the satellite images could have on the wetlands and coastal environment and the possible link to the flood event of 2015, Amnesty International consulted two environmental experts – Dr Alan Tingay, an independent environmental scientist, and Dr Jasper Knight, an environmental and physical geography scientist at the University of the Witwatersrand, South Africa - and shared these satellite images with them.

⁹¹ DigitalGlobe, Flood Damage in Nagonha, Mozambique, analysis provide to Amnesty International dated 5 November 2015.

⁹² DigitalGlobe, Flood Damage in Nagonha, Mozambique, analysis provide to Amnesty International dated 5 November 2015.



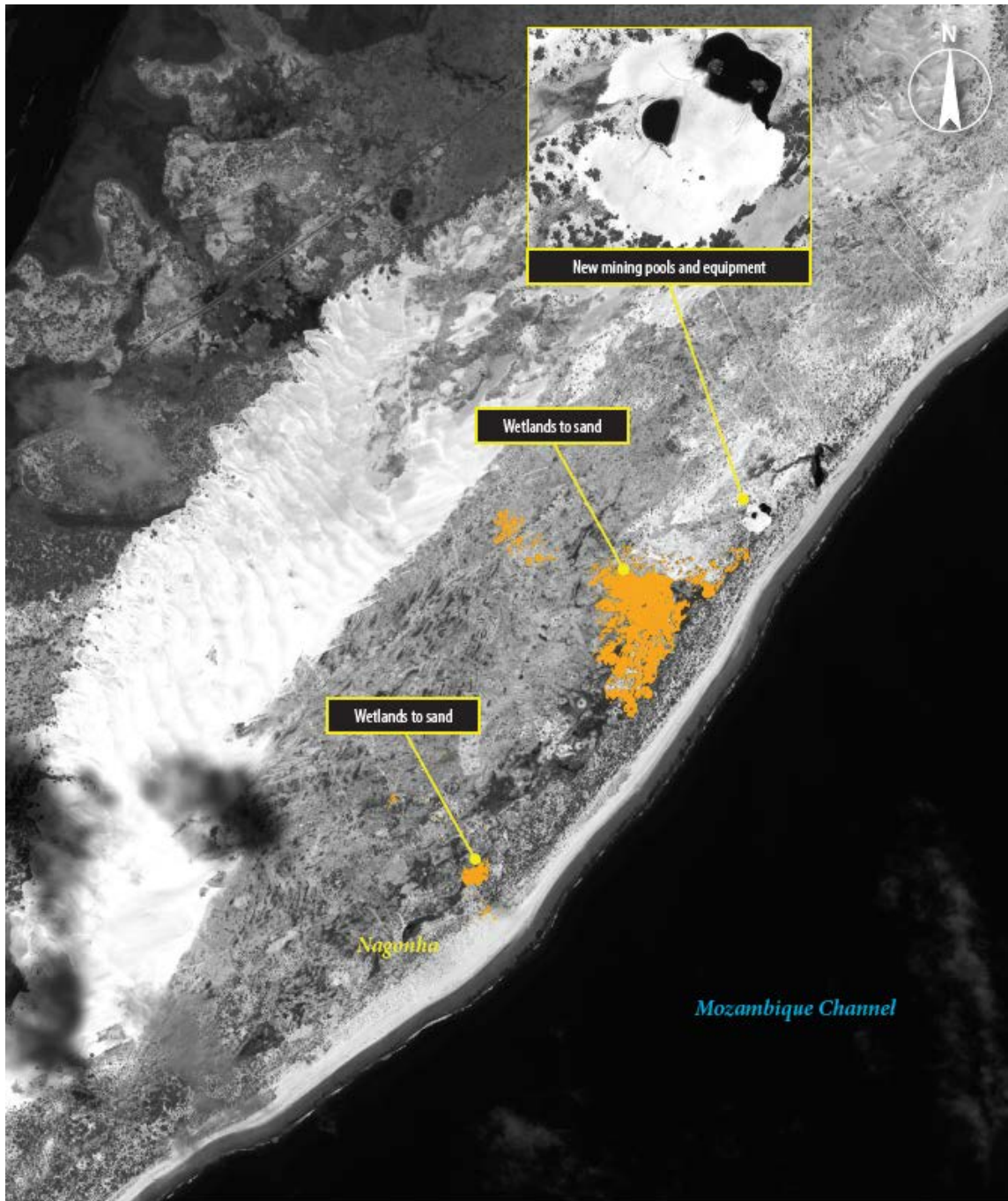
SATELLITE IMAGES OF NAGONHA BEFORE AND AFTER THE FLOOD

Figure 1 from 28 February 2010 shows the landscape before major mining activities began. No water canal is visible through the dunes between the wetlands and the Mozambique Channel.



DigitalGlobe Natural Color Imagery, February 28, 2010, -16.1021°, 40.0779°

Figure 2 from 14 December 2010 shows the first evidence of mining visible on imagery. The orange polygons demarcate where wetlands have been displaced by mining sand deposits by 13 December 2014 when approximately 280,000 square meters of new sand deposits were identified using thematic change detection.



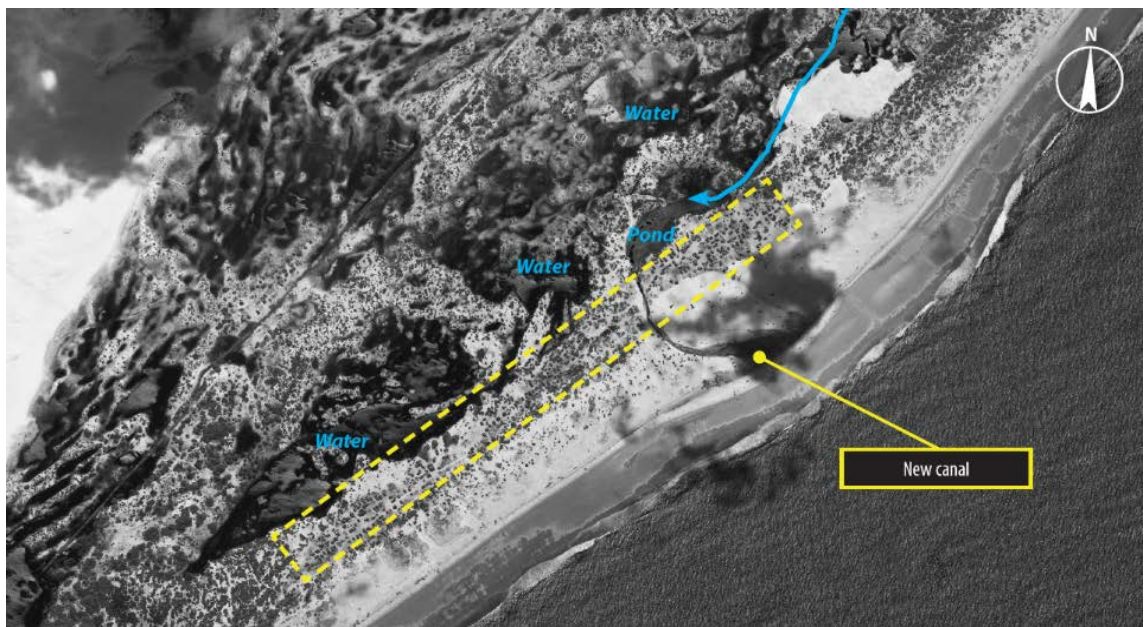
DigitalGlobe Panchromatic Imagery, December 4, 2010, -16.1021°, 40.0779°

Figure 5 from 13 October 2014 shows Nagonha village before the floods. Mining sand deposits are blocking stream flow connecting the wetlands to the pond north of the village.



DigitalGlobe Natural Colour Imagery, October 13, 2014, -16.1116°, 40.0713°

Figure 6 from 6 April 2015 shows the village area after the floods. A new canal going through the village from the pond to the Mozambique Channel.



DigitalGlobe Panchromatic Imagery, April 6, 2015, -16.1116°, 40.0713°

Figure 3 from 13 October 2014 shows mining equipment and sand deposits north of the village. The deposits are blocking the natural stream and flow of water



Figure 4 from 6 April 2015 shows the mining area after the floods. Water is pooling north of the sand deposits. Evidence is visible of the water forcing through the deposits to the pond north of Nagonha.

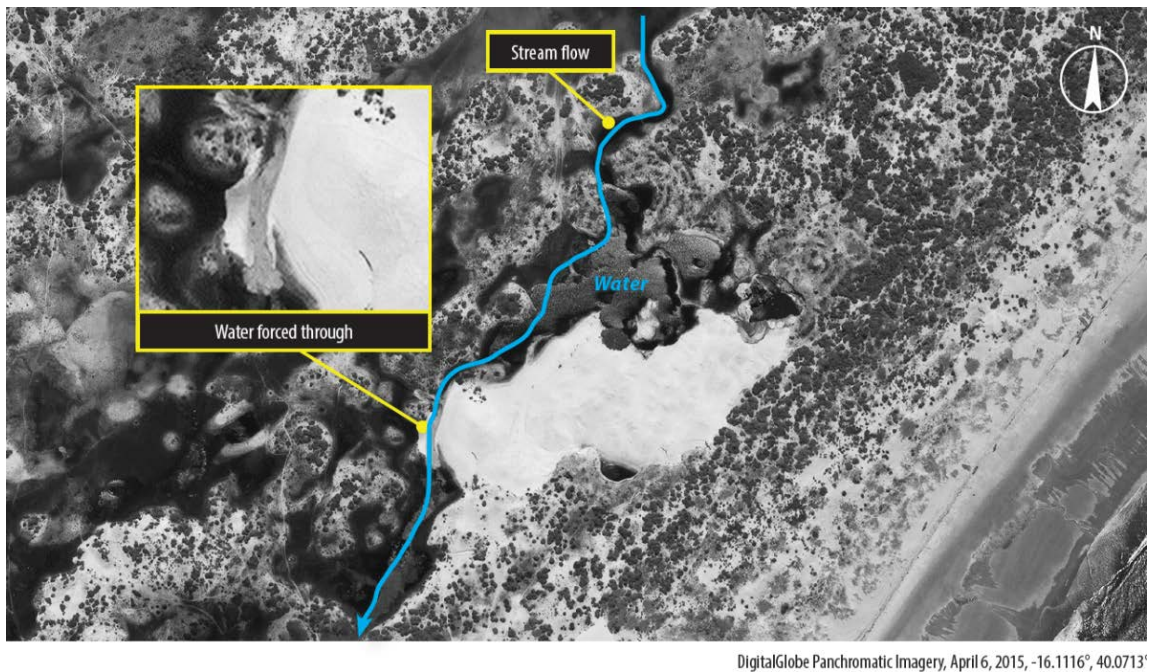
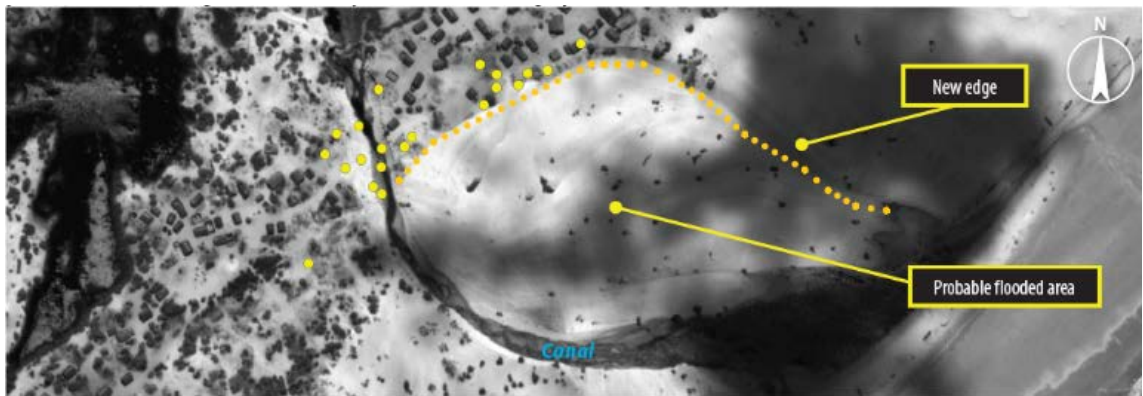


Figure 7 from 6 April 2015 shows the area where a new canal formed. A surge of water created the canal. A new edge is visible in the sand on the beach probably caused by flooding. The yellow dots represent structures no longer present since 13 October 2015.

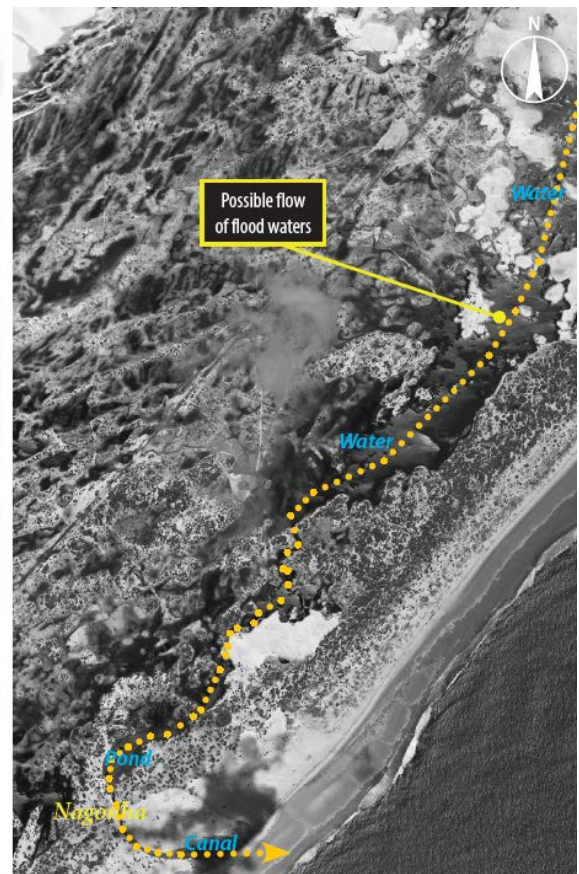


DigitalGlobe Panchromatic Imagery, April 6, 2015, -16.1139°, 40.0699°

On the left **Figure 8 from 13 October 2014**, shows the area between the large mining sand deposits and the village before the flooding. On the right, **Figure 9 from 6 April 2015**, shows the area after the floods. Large pools of water are visible, including in areas previously covered in mining sand deposits.



DigitalGlobe Natural Color Imagery, October 13, 2014, -16.1116°, 40.0713°



DigitalGlobe Panchromatic Imagery, April 6, 2015, -16.1116°, 40.0713°

Figure 10 from 27 September 2015 shows large sand deposits of the north of the village where mining activities have increased. Much wetlands area has been filled in with sand deposits.



DigitalGlobe Natural Color Imagery, September 27, 2015, -16.1021°, 40.0779°

Figure 11 from 12 June 2017 show the wetlands area north of Nagonha has been almost completely filled in with mining sand deposits. Almost all of the pools of water in and along the edges of the sand deposits are related to mining. Approximately 30 more structures are no longer in their original location between 27 September 2015 and 6 January 2017 likely because of increased erosion in the newly created canal area.



Both scientists pointed to the significant changes in the physical areas around Nagonha that are visible on the satellite images as a result of mining activity. This was primarily, in both reviews, due to the way the sand had been disposed of across the land around Nagonha. According to Dr. Knight: “over time, the images show the continuous

encroachment of extensive mining-related sand deposits on a large part of the wetlands, blocking streams that connected ponds.” In his analysis, Dr. Tingay stated that the “images clearly show that extensive areas of wetlands have been filled with sand in the northern and southern sector of the operations.”

These sand waste deposits had two impacts which are relevant to the flood event that occurred in February 2015. Firstly, according to Dr. Tingay, the sand that had been deposited over the wetland “would have significantly reduced their [water] storage capacity.” In other words, the sand dumped across the wetland area meant the wetland could not hold as much water. Wetlands are low-lying areas of land in which surface water can accumulate; filling such areas with sand will correspondingly reduce their capacity to hold water.

Secondly, the sand waste blocked some of the natural channels that allow water to move between the lagoons and out to the sea. Dr. Knight notes that “the October 2014 image shows that migrating patches of loose sand from mining activities are blocking the natural drainage paths connecting a large wetland to a pond north of Nagonha (this corresponds to Nanthekethe lagoon and Nagonha lagoon).”⁹³

As noted above, before Haiyu began operating in the area, *M’phutuwa* lagoon was the wetland’s natural water outlet to the sea. Water moved from *Nagonha* lagoon to *Nanthেকে* lagoon, on to *M’phutuwa* lagoon and from there to the sea. If the channel between *Nagonha* lagoon to *Nanthেকে* lagoon was blocked then as *Nagonha* lagoon filled up during the rainy season, the water would have been unable to drain out through the normal route. The drainage pattern of the wetlands had been altered because of the sand deposits.

The evidence from the satellite images, the analysis of the experts and the additional elements visible on the Google Earth images corresponds with the villagers’ accounts of sand mining waste being deposited across the wetland from 2011 onwards and blocking channels and lagoons.

This transformed geography – a blocked discharge channel to the sea, a vast area of the wetland filled with mine sand deposits – changed the normal patterns of water movements in the wetland during the rainy season of 2015. The water was trapped in a smaller wetland area. With nowhere to go, the water quickly filled up the Nagonha lagoon behind the village. Water pressure built up in the lake. The water eventually forced its way through the middle of the village, carved a new channel to the sea, and destroyed structures in its path.

In the words of one community leader:

Nagonha ... has always existed naturally... it rained torrentially in the past, but the waters never got to the levels of the heavy rains of 2015. What has happened, even though it is denied, is that the wetland bed which led the water to the sea was blocked by the mining company, and as there was much heavy rain, there was no way for the water to go naturally to the sea like before, so that new exit to the sea opened.⁹⁴

⁹³ Dr. Jasper Knight, email communication with Amnesty International, June 2017.

⁹⁴ Amnesty International interview with a traditional leader in Morrua, April 2017.

Both Dr. Tingay and Dr. Knight considered the potential links to the flood event. According to Dr. Tingay, while we “cannot categorically conclude that the volume of water would not have caused a similar overflow event if there had been no sand mining in the area”, the waste dumping which filled in the wetlands “certainly would have increased the probability and intensity of an overflow event”. He also stated that “inappropriate management of sand wastes resulting from the mining project very probably caused or at least increased the impact of flooding at the village...”⁹⁵

Dr. Knight concurred and noted also that “high seasonal rainfall in 2014 resulted in some overland flow, and erosion and deposition of loose sand now available on the dune surface due to sand mining. This sediment reorganisation resulted in the formation of small washover fans and blockage of some natural water pathways. The sediment influx, as well as high rainfall, resulted in filling and spillage from some permanent ponds, causing erosional incision from pond outflows.”⁹⁶ Dr. Knight’s description is consistent with the resident’s description of what occurred in February 2015.

Finally Amnesty International obtained a satellite image from after the flood event. This is dated 6 April 2015, some two months later. Again, this was the closest time period post-flood when a satellite image was available. In the 6 April image, evidence of flooding is visible. Large pools of water are present and a new channel has formed, carving through the middle of the village. According to DigitalGlobe: “Disturbances in the mining sand deposits are visible, showing the path of water traveling from the larger wetlands to the pond north the village.”

Amnesty International shared this analysis and the satellite images with Dr. Charles Andrew Cole, an environmental scientist at Pennsylvania State University in the United States. In his response, Dr. Cole stated that the analysis was in his view correct and that “it is clear that wetland areas have been filled in and simple common sense would indicate that displaced water would move elsewhere given that its natural pathway had been blocked.”⁹⁷

In conclusion, it is clear that sand mining waste has resulted in a transformed geography – a blocked discharge channel to the sea, a vast area of the wetland filled with mine sand deposits. Environmental scientists confirm that this would change the normal patterns of water movements in the wetland. In the heavy rains of 2014/5, the Nagonha lagoon behind the village is likely to have filled up with water because its outflows have been partially or fully blocked by sand waste deposits. The water eventually overflowed its banks and forced its way through the middle of the village, carving a new channel to the sea, and destroying structures in its path.

All of the available evidence strongly suggests that Haiyu’s mining activities and in particular the way it deposited sand across the landscape placed the community at heightened risk of flooding and very likely contributed significantly to the flood of February 2015. Chapter 4 takes up the question of whether, in light of international standards for mining and the human rights impacts of business, Haiyu’s actions and inaction at Nagonha amount to breaches of national law or international standards.

⁹⁵ Dr. Alan Tingay, email communication with Amnesty International, February 2016.

⁹⁶ Dr. Jasper Knight, email communication with Amnesty International, June 2017.

⁹⁷ Dr. Charles Andrew Cole, email communication with Amnesty International, July 20017.

HAIYU'S RESPONSE

Haiyu has repeatedly denied that its mine operations had any bearing on the flooding in Nagonha in February 2015. When community leaders approached Haiyu in April 2015, to discuss the disaster, the company rejected the view that they had any responsibility, claiming it was an act of nature. When Amnesty International researchers visited the company premises in Morrua in May 2016 and again April 2017, company officials refused to speak, saying that the company had been unfairly criticised by the media and NGOs. Amnesty International's partner organization, CIP, issued a letter to Haiyu in June 2016 but Haiyu has not responded to the letter more than a year later. In November 2017, Amnesty International contacted Hainan Haiyu Mining Co. Ltd, the mother company of Haiyu Mozambique Mining Co. Ltd. In December 2017, Haiyu Mozambique responded denying any responsibility:

First, the rains were intense, very violent and on a scale not seen for 100 years. This constitutes force majeure. It was a natural disaster and not caused by human activity. Second, the extraction of heavy sands involves separation by gravity and the residues (in the form of white sand in this case) is returned to its point of origin immediately after separation. 99% of the sand remains at its point of origin and is not extracted. This contradicts the idea that there was a change in the channel for underground waters, which is not true.⁹⁸

Despite its denial, as detailed above, environmental experts consider that the manner in which sand was distributed across the wetlands would have impacted the way water drained, including how water would reach the sea. According to Dr. Alan Tingay:

The fact that Haiyu intended to fill wetlands and the extent of these operations should have been documented in their environmental impact assessment, and the hydrological consequences of this should have been modelled taking into account 100-year rainfall peaks and detailed local topography and wetland mapping.

As will be discussed further in Chapter 4, Haiyu did not carry out an EIA for the Nagonha mining operation, which should have included a rainfall modelling covering 100 years. There is no evidence that the company made any effort to consider the impact of its sand dumping on the environment, the local draining system or the local people. The claim that rains in February 2015 “were on a scale not seen for 100 years” is false. The National Oceanic and Atmospheric Administration (NOAA) – the scientific agency within the United States Government Department of Commerce that focuses on the conditions of the oceans and the atmosphere – shows that for a large portion of central/northern Mozambique and southern Malawi, the period between December 2014 and February 2015 was the wettest on record dating back to 1983.⁹⁹

⁹⁸ Haiyu Mozambique Mining Co. Ltd, letter to Amnesty International, December 2017 (See Annex).

⁹⁹ Africa Rainfall Climatology Dataset by the National Oceanic and Atmospheric Administration (NOAA). Available at: <https://www.climate.gov/news-features/event-tracker/southeastern-africa%E2%80%99s-monsoon-goes-dry-deluge>. Retrieved on 12 August 2016.

CHAPTER 3: DOMESTIC AND INTERNATIONAL STANDARDS

INTRODUCTION

To ensure the protection of and respect for people's human rights in the context of business operations, the Mozambican and Chinese governments, as well as international and regional human rights bodies, have put in place legal and advisory instruments that stipulate procedures that non-state actors such as companies must comply with. These procedures are layers of protection without which people's rights remain bare for abuse. Therefore, they must not be viewed as monads standing in and of themselves. Rather, they must be read as interrelated and interdependent elements whose ultimate goal is to protect and preserve human rights and dignified life.

THE RIGHT TO ADEQUATE HOUSING

The African Charter on Human and Peoples' Rights (the African Charter) does not explicitly refer to the right to adequate housing; however, in the jurisprudence, the right to adequate housing has been derived from other human rights protected under the Charter. For example, in the case of *Social and Economic Rights Action Center and the Center for Economic and Social Rights v. Nigeria* (communication No. 155/96), the African Commission on Human and Peoples' Rights (ACHPR), the body charged with overseeing implementation of the African Charter, found that, while the right to adequate housing was not explicitly recognized in the Charter, it could be inferred from other rights:

...the right to property and the protection accorded to the family forbids the wanton destruction of shelter because when the housing is destroyed, property, health, and family life are adversely affected. It is thus noted that the combined effect of articles 14, 16 and 18 (1) reads into the Charter a right to shelter or housing...¹⁰⁰

This statement is reinforced in the *Principles and Guidelines on the Implementation of*

¹⁰⁰ UN-HABITAT (2006) *Compilation of Selected Adjudication on Housing Rights*, 3rd Edition, p. 100.

Economic, Social and Cultural Rights in the African Charter on Human and Peoples' Rights, wherein the African Commission makes clear that although the African Charter does not explicitly deliberate on the right to adequate housing, a holistic reading of Articles 14, 16 and 18(1) obliges States to guarantee adequate housing. The African Commission further explains that:

The human right to adequate housing is the right of every person to gain and sustain a safe and secure home and community in which to live in peace and dignity. It includes access to natural and common resources, safe drinking water, energy for cooking, heating, cooling and lighting, sanitation and washing facilities, means of food storage, refuse disposal, site drainage, and emergency services.¹⁰¹

One of the key aspects of the right to housing is the concept of security of tenure. Security of tenure can take many forms, including traditional land rights. The vital element of security of tenure is that it guarantees legal protection against forced eviction, harassment, and other threats.

In 2007, the UN Special Rapporteur on adequate housing, an independent expert mandated to report, advise and provide technical assistance to governments on the right to adequate housing, developed the Basic Principles and Guidelines on Development-based Evictions and Displacement.¹⁰² The Basic Principles focus in particular on evictions and displacement arising from large-scale development projects. The guidelines, which reflect existing standards and jurisprudence, describe in detail the steps that should be taken before, during and after evictions in order to ensure compliance with international human rights law. This includes requirements for meaningful consultation, legal protection for affected people, adequate relocation plans that provide acceptable living conditions and do not undermine other human rights such as the rights to livelihood or education, and adequate compensation and other remedies for people who are evicted.

THE RIGHT TO A HEALTHY ENVIRONMENT

The links between human rights and pollution of the environment have long been recognized. The 1972 United Nations (UN) Conference on the Human Environment declared that "man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights – even the right to life itself."¹⁰³ Human rights monitoring bodies, and international, regional and national courts, are increasingly recognizing poor environmental quality as a causal factor in violations of human rights. The most common examples include pollution of water, soil and air, resulting in violations variously of rights to an adequate standard of living, to adequate food, to water, to adequate housing, to health and to life. Judge Weeramantry of the International Court of Justice, the principal judicial organ of the UN, stated in an opinion, "The protection of the environment is ... a vital part of contemporary human rights

¹⁰¹ African Commission, *Principles and Guidelines on the Implementation of Economic, Social and Cultural Rights in the African Charter on Human and Peoples' Rights*, Articles 77 and 78. Available at: http://www.achpr.org/files/instruments/economic-social-cultural/achpr_instr_guide_draft_esc_rights_eng.pdf.

¹⁰² See: <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G07/106/28/PDF/G0710628.pdf?OpenElement>

¹⁰³ Declaration of the United Nations Conference on the Human Environment, para 1, available at: <http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=97&ArticleID=1503>

doctrine, for it is a sine qua non for numerous human rights such as the right to health and the right to life itself. It is scarcely necessary to elaborate this, as damage to the environment can impair all the human rights spoken of in the Universal Declaration and other human rights instruments.”¹⁰⁴

The African Charter on Human and Peoples’ Rights (African Charter), to which Mozambique is a party, also recognizes, in Article 24, the right of all peoples to a “general satisfactory environment favorable to their development”.¹⁰⁵ This right is more widely known as the right to a healthy environment. The African Commission on Human and Peoples’ Rights (African Commission) stated that Article 24 of the African Charter imposes clear obligations upon a government: “It requires the State to take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources.”¹⁰⁶

A government’s failure to take necessary measures to prevent third parties from damaging the environment, including by the failure to enact or enforce laws, can constitute violations of the rights to a healthy environment.

THE RIGHT TO REMEDY

All victims of human rights violations have a right to an effective remedy. This right lies at the very core of international human rights law. It also stems from a general principle of international law that every breach gives rise to an obligation to provide a remedy. The right to an effective remedy has been recognized under various international and regional human rights treaties and instruments and also as a rule of customary international law.¹⁰⁷

The right to an effective remedy encompasses the victim’s right to:

- equal and effective access to justice;
- adequate, effective and prompt reparation for harm suffered; and

¹⁰⁴ Case Concerning the Gabčíkovo-Nagymaros Project (Hungary v Slovakia), 1997 ICJ Rep 7 (separate opinion of Justice Weeramantry), p. 4.

¹⁰⁵ See African Commission on Human and Peoples’ Rights, Decision on Communication of The Social and Economic Rights Action Center (SERAC) and the Center for Economic and Social Rights (CESR) v Nigeria (155/96), para 54. The decision was adopted at the 30th ordinary session of the African Commission of Human and Peoples’ Rights, Banjul, 13-27 October 2001 (SERAC and CESR v Nigeria), available at <http://www1.umn.edu/humanrts/africa/comcases/155-96b.html>

¹⁰⁶ African Commission on Human and Peoples’ Rights, Decision on Communication of The Social and Economic Rights Action Center (SERAC) and the Center for Economic and Social Rights (CESR) v Nigeria (155/96), para 54. The decision was adopted at the 30th ordinary session of the African Commission of Human and Peoples’ Rights, Banjul, 13-27 October 2001 (SERAC and CESR v Nigeria). Available at <http://www1.umn.edu/humanrts/africa/comcases/155-96b.html>.

¹⁰⁷ Prosecutor v. André Rwamakuba, Case No. ICTR-98- 44C, Decision on Appropriate Remedy, para 40 (31 January 2007); Prosecutor v. André Rwamakuba, Case No. ICTR-98-44C-A, Decision on Appeal against Decision on Appropriate Remedy, paras 23-5 (13 September 2007); and Cantoral-Benavides v. Perú, 2001 Inter-Am. Ct. H.R. (ser.C) No. 88, at para 40.

- access to relevant information concerning violations and reparation mechanisms¹⁰⁸

Reparations – or measures to repair the harm caused to victims of human rights violations – can take many forms. The actual reparation that should be provided in each case will depend on the nature of the right violated, the harm suffered and the wishes of those affected. The touchstone of reparation, however, is that it must seek to remove the consequences of the violation and, as far as possible, restore the right to remedy the vehicle that has taken the victims through inhuman situations.

BUSINESS AND HUMAN RIGHTS

In addition to treaty law which protects specific human rights, the UN has developed authoritative guidance on the specific issue of business and its impacts on human rights. The UN “Protect, Respect and Remedy” Framework and associated UN Guiding Principles on Business and Human Rights (UNGPs), which were endorsed by the UN Human Rights Council, elaborate both the State duty to protect rights in the context of corporate operations and the responsibility of companies to respect rights.¹⁰⁹

In the context of corporate activity, the State duty to protect requires that the State takes appropriate steps to prevent, investigate, punish and redress such abuse through effective policies, legislation, regulations, and adjudication (Article 1). States are also expected to set out clearly the expectation that all business enterprises domiciled in their territory and/or jurisdiction must respect human rights throughout their operations (Article 2). It also the duty of States to ensure that, where human rights are abused, the victims have access to adequate remedies.

The UNGPs also have operational principles according to which States must monitor business operations to ensure that companies comply with laws and policies designed to prevent adverse human rights impact. In the UNGPs, it is therefore not enough for States to put in place legislation and policies that will prevent human rights violations by third parties including businesses. States must also enforce such legislation and policies to ensure compliance by companies.

CORPORATE RESPONSIBILITY TO RESPECT HUMAN RIGHTS¹¹⁰

The UN Guiding Principles on Business and Human Rights (UNGPs) make clear that all companies have a responsibility to respect human rights. The UNGPs clarify the scope and meaning of this responsibility as follows:

¹⁰⁸ Principal 11, UN Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law” UN Doc A/RES/60/147 (21 March 2006).

¹⁰⁹ UN Human Rights Commission (2011), UN Guiding Principles on Business and Human Rights (UNGPs).

¹¹⁰ The Human Rights Commission endorsed the UNGPs in 2011, the same year Haiyu began its operations in Nagonha.

The responsibility to respect human rights is a global standard of expected conduct for all business enterprises wherever they operate. It exists independently of States' abilities and/or willingness to fulfil their own human rights obligations and does not diminish those obligations. And it exists over and above compliance with national laws and regulations protecting human rights.¹¹¹

The responsibility to respect human rights requires that companies should avoid infringing on the human rights of others and should address adverse human rights impacts with which they are involved.¹¹² A key element of the UNGPs is the requirement that companies put in place a system that enables them to exercise due diligence in relation to the potential human rights impacts of their operations. The UNGPs state that companies should have in place:

(a) A policy commitment to meet their responsibility to respect human rights; (b) A human rights due diligence process to identify, prevent, mitigate and account for how they have addressed their impacts on human rights; (c) Processes to enable the remediation of any adverse human rights impacts they cause or to which they contribute.¹¹³

Human rights due diligence requires that corporates acquire a clear understating of the potential impact of their operations, including the “specific impacts on specific people” considering the “specific context of operations.”¹¹⁴ The UNGPs note that:

Typically, this includes assessing the human rights context prior to a proposed business activity, where possible; identifying who may be affected; cataloguing the relevant human rights standards and issues; projecting how the proposed activity and associated business relationships could have adverse human rights impacts on those identified.¹¹⁵

The UNGPs make clear that business enterprises need to “know and show” that they respect human rights. This requires not only good internal processes but a willingness to communicate effectively with all stakeholders. The UNGPs provide specific guidance on the issues of transparency and communication:

In all instances, communications should: (a) Be of a form and frequency that reflect an enterprise's human rights impacts and that are accessible to its intended audiences; (b) Provide information that is sufficient to evaluate the adequacy of an enterprise's response to the particular human rights impact involved; (c) In turn not pose risks to affected stakeholders, personnel or to legitimate requirements of commercial confidentiality.¹¹⁶

The corporate responsibility to respect all human rights includes respecting the right to remedy.

¹¹¹ UNGPs, Article 11, commentary.

¹¹² UNGPs, Article 11.

¹¹³ UNGPs, Article 15.

¹¹⁴ UNGPs, Article 18, commentary.

¹¹⁵ UNGPs, Article 18.

¹¹⁶ UNGPs, Article 21.



CHINESE DUE DILIGENCE GUIDELINES¹¹⁷

In addition to the human rights guidance provided by the UNGPs, the China Chamber of Commerce on Metal, Minerals and Chemical Importers and Exporters (CCC MC) issued The Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains in May 2016. Drawing on the UN Guiding Principles on Business and Human Rights and on the OECD Due Diligence Guidance on Responsible Supply Chains of Mineral from Conflict-Affected and High-Risk Areas, the Chinese Guidelines' objective is to "operationalise and provide details to Clause 2.4.6 of the CCC MC Guidelines for Social Responsibility in Outbound Mining Investments" launched on 24 October 2014.

Clause 2.4.6. of the Guidelines declares that Chinese mining companies must "observe the UN Guiding Principles on Business and Human Rights during the entire life-cycle of the mining project" and "conduct risk-based supply chain due diligence in order to prevent engagement with materials that may have funded or fuelled conflict."¹¹⁸

In operationalising this clause, the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains declares:

[All] Chinese companies which are extracting and/or are using mineral resources and their related products and are engaged at any point in the supply chain of minerals to identify, prevent and mitigate their risks of contributing to conflict, serious human rights abuses and risks of serious misconduct, as well as to observe the UN Guiding Principles on Business and Human Rights during the entire life-cycle of the mining project.¹¹⁹

The Chinese Guidelines note that all Chinese companies must "comply with all applicable laws and regulations."¹²⁰ The scope of the Guidelines includes companies involved in "extracting, trading, processing, transporting, and/or otherwise using mineral resources and their related products and are engaged at any point in the supply chain of mineral resources and their related products."¹²¹ For these purposes, "Chinese Company" is defined as "legal (for-profit) entities which are registered in China or overseas companies (including subsidiaries) which are wholly- or majority-owned or controlled by a Chinese entity or individual."¹²² Haiyu Mozambique Mining Co. Lda is a wholly owned subsidiary of Hainan Haiyu Mining Co. Ltd.

MOZAMBIQUE NATIONAL LEGAL FRAMEWORK

All mining companies operating in Mozambique are required to comply with a number of laws and policies relevant to their industry. This section sets out the domestic framework relevant to the issues considered in this report.

¹¹⁷ The Chinese Guidelines were not in place in 2011 when Haiyu Mozambique Mining Co. began its operations in Nagonha. However, they would apply today as the conflict between the company and the community is ongoing.

¹¹⁸ Chinese Due Diligence Guidelines. Available at: <http://www.cccmc.org.cn/docs/2016-05/20160503161408153738.pdf>.

¹¹⁹ Chinese Due Diligence Guidelines. Available at: <http://www.cccmc.org.cn/docs/2016-05/20160503161408153738.pdf>. p. 8.

¹²⁰ Ibid., p. 3.

¹²¹ Ibid., p. 10.

¹²² Ibid.

THE RIGHT OF LAND USE AND DEVELOPMENT

Mozambique's Constitution attributes land ownership to the State. Article 109 asserts that Land belongs to the State; it cannot be sold, traded or mortgaged. Land use, not the land itself, is granted as a concession through *Direito de Uso e Aproveitamento da Terra* (DUAT), that is, right of land use and development.¹²³ By living on the land for at least 10 years, people in rural areas acquire the rights to the land without formal registration on paper. The Land Law of 1997, Article 10, also has the same provisions.¹²⁴ DUAT can be transferred from one holder to another under certain conditions.

ENVIRONMENTAL IMPACT ASSESSMENT

The primary tool used by mining companies to predict and mitigate potential negative impacts of mining is Environmental Impact Assessments (EIAs). EIAs are widely used around the world, and in Mozambique, they are legally required for most activities in the mining sector.¹²⁵ [ADD NAME OF LAW] These tools are intended to enable identification of potential negative impacts before a proposed project goes ahead, and to ensure these can be adequately mitigated. EIAs are usually carried out by consultants hired by the mining companies. In Mozambique, in addition to assessing potential impacts of mining activity, the EIA is the process that determines whether affected people must be resettled. As *Regulamento de Reassentamento* declares: "The Resettlement Plan is an integral part of the Environmental Impact Assessment Process, according to the Annex 1 of the Decree 45/2004, of 29 September, on Environmental Impact Assessment Process."¹²⁶

RESETTLEMENT: THE 2012 RESETTLEMENT REGULATION

The 2012 *Regulamento de Reassentamento* (Regulation on the Resettlement Process as a Result of Economic Activities), Decree No. 31/2012, of August 8 provides for the resettlement of people who live in an area affected by a particular economic activity that would displace, disrupt their means of subsistence or productive activities.¹²⁷ The Resettlement Regulation contains a number of important provisions in relation to how resettlement should take place. These include:

- ensuring social integration and restoring the standard of living of the affected people to a superior level;
- restoration or creation of living conditions equal or greater than the previous standard of living;

¹²³ *Constituição da República de Moçambique* (Constitution of Mozambique), Article 109.

¹²⁴ *Lei de Terras* n° 19/97, de 1 de Outubro, Land Law No 19/97, Article 10.

¹²⁵ *Regulamento sobre o Processo de Avaliação do Impacto Ambiental, Decreto n° 45/2004 de 29 de Setembro* (Regulation on the Process of Environmental Impact Assessment, Decree No. 45/2004).

¹²⁶ *Regulamento sobre o Processo de Reassentamento Resultante das Actividades Económicas, Decreto no 31/2012* (Regulation on the Resettlement Process as a Result of Economic Activities, Decree No. 31/2012), Article 15:3.

¹²⁷ *Regulamento sobre o Processo de Reassentamento Resultante das Actividades Económicas, Decreto no 31/2012* (Regulation on the Resettlement Process as a Result of Economic Activities, Decree No. 31/2012), Article 1, clauses G and H.

- public participation which requires all those affected by the activity to be heard in the resettlement process;
- the principle of environmental accountability according to which whosoever pollutes or in any other shape or form degrades the environment, has always the obligation to repair, or compensate for, the damage thereof.¹²⁸

ENVIRONMENTAL AUDITING

Business operations and their environmental impact are governed by several regulations. In addition to the EIA law, there is the 2004 *Regulamento Ambiental para Actividade Mineira*,¹²⁹ which requires companies to produce and submit annual Environmental Management Reports to MITADER and the 2011 *Regulamento de Auditoria Ambiental*.¹³⁰ This regulation requires companies to conduct environmental auditing and monitoring to ensure the protection and respect of the environment.

The 2004 *Regulamento de Avaliação do Imacto Ambiental*¹³¹ requires MITADER to regularly inspect and supervise the environmental management monitoring activities carried out by the proponent to ensure environmental quality.

¹²⁸ *Regulamento sobre o Processo de Reassentamento Resultante das Actividades Económicas, Decreto no 31/2012* (Regulation on the Resettlement Process as a Result of Economic Activities, Decree No. 31/2012), Article 4.

¹²⁹ *Regulamento Ambiental para Actividade Mineira, Decreto no 26/2004* (Environmental Regulation for Mining Activities, Decree No. 26/2004).

¹³⁰ *Regulamento sobre o Processo de Auditoria Ambiental, Decreto no 25/2011* (Regulation on the Environmental Auditing Process, Decree No. 25/2011).

¹³¹ *Regulamento sobre o Processo the Avaliação do Imacto Ambiental, Decreto 45/2004* (Regulation on the Process of Environmental Impact Assessment, Decree 45/2004).

CHAPTER 4: HAIYU BREACHED NATIONAL LAW AND INTERNATIONAL STANDARDS

“This is a miraculous company. It fell from the sky. First, we saw them prospecting. They did not speak with us, not even good morning. Then we suddenly saw them moving in with machines digging and building. They still do not talk to us.”

Resident of Nagonha, April 2017¹³²

In light of the allegations of the community that Haiyu’s impact on the environment had negatively impacted their living conditions, including, for some, their housing, Amnesty International examined the extent to which Haiyu’s operations around Nagonha complied with national legal requirements. Researchers also assessed Haiyu’s operations against international standards relevant for business and human rights. This assessment revealed a number of serious deficiencies, which are discussed below.

BREACH OF NATIONAL LAW

ENVIRONMENTAL AUDITING

Haiyu has two mining licenses in the area near Nagonha. In 2011, when these

¹³² Testimony of one resident during community meeting with Amnesty International in Nagonha, 21 April 2017.

licenses/concessions were granted, Nagonha residents had been settled in the location for 35 years.¹³³ Hence they had the land use rights, or DUAT, for the area. As noted in the previous chapter, under Mozambique law Haiyu, therefore, had the legal obligation to consult the community in order to obtain the right to operate on the land.

The necessary consultation procedures are set out in the 2004 *Regulamento Ambiental de Actividade Mineira*, Article 27 of which states:

(1) Local communities must be consulted regarding the attribution of the rights to land use and development for mining activities, in terms stipulated in the land and mining legislation; (2) The proponent of a mining project must facilitate the participation of local communities of the site of the project in the making of decisions that might directly affect their rights; (3) The public must have access to the summaries of the project, environmental reports and any other documents relevant to the environmental and social management of the project; (4) The public must be informed ahead of time of any presentations or public hearings related to the project, being the responsibility of the project proponent to facilitate the public's presence in the meetings; (5) The public presentations and hearings at the site of the project must be conducted in Portuguese and the local language.¹³⁴

Further, the *Diploma Ministerial n.º. 158/2011* provides specific guidelines for community consultations.¹³⁵ It states that consultation with the local community has two phases. The first consists of “a public meeting to present information to the local community about the application for the land use and development rights and identification of the limits of the required area.”¹³⁶ The second must be “held within thirty days after the first meeting, with the objective to hear the views of the local community about the availability of the proposed area for the implementation of the enterprise or the exploration plan.” The *Diploma Ministerial* recognises that these two consultation meetings may not be sufficient to settle the land rights transfer process, and notes that additional “meetings may be held whenever there is complementary information to be presented to the local community.”¹³⁷

Article 2 of the same *Diploma Ministerial* further elaborates on who should participate in the consultations. In the two meetings, the following persons must participate: the District Administrator or his/her representative; the Registry Services representative; members of the Settlement and Location Advisory Councils; the members of the local community and the title holders or occupants of the adjoining landholdings; the applicant or his/her representative. Also, the minutes of the consultation meeting must be signed by the members of the Settlement and Location Advisory Councils. After the signature of the District Administrator, the minutes of the consultation meeting must be given to the local community.

¹³³ Amnesty International interviews with Nagonha community leaders in Nagonha, September 2015. This was confirmed by local government officials.

¹³⁴ *Regulamento Ambiental para Actividade Mineira, Decreto no 26/2004* (Environmental Regulation for Mining Activities, Decree No. 26/2004).

¹³⁵ *Diploma Ministerial no 158/2011* (Ministerial Diploma No. 158/2011). This instrument was passed on 15 June 2011 to give specific procedures on how community consultations should be conducted. However, the requirement for community consultation is enshrined in the Land Law Regulation of 1998 through Article 27.

¹³⁶ *Ibid.*, Article 1.

¹³⁷ *Ibid.*, Article 1.

Haiyu did not consult with Nagonha residents before beginning operations close to their land. As far as the community is aware, the company held two meetings in Nampula province, but these were not in, or with, the Nagonha community. Nagonha community leaders told Amnesty International that a community consultation meeting was held in Nantapa, about 10km away from Nagonha, on 27 August 2011.¹³⁸ The Nagonha community was not invited.¹³⁹ It is not clear why Haiyu organized a consultation in Nantapa, as its operations are linked to Nagonha and its processing plant in Morrua. On 17 October 2011, Haiyu held another meeting, at Hotel Lúrio in Nampula City – about 180km away from Nagonha. This meeting was apparently to discuss and validate an Environmental Impact Assessment (EIA) conducted on behalf of Haiyu by RMS-Consultores, Limitada. According to the minutes of this meeting, which are annexed to the EIA report, only government officials, Haiyu staff, translators and the environmental impact assessment consultants attended the meeting and signed the attendance list.¹⁴⁰

Both Amnesty International and a local partner organization wrote to Haiyu about the lack of community consultation in line with DUAT but received no response. When Amnesty International raised the failure of Haiyu to follow the process for DUAT central government (MITADER) officials confirmed this was the case.¹⁴¹ The failure of the government to ensure Haiyu complied with national laws is addressed in the next chapter.

FAILURE TO CONDUCT AN APPROPRIATE ENVIRONMENTAL IMPACT ASSESSMENT

As noted in Chapter 3, Mozambique law requires companies to carry out an Environmental Impact Assessment (EIA) for all category “A” activities, and sand mining is a category A activity. As far as Amnesty International could discover Haiyu only carried out one EIA in relation to its operations in Angoche, and this was for mining concession 3791L in the locality of Sangage. This is not the mining concession that covers Nagonha and the village of Nagonha is not mentioned in the 151 page EIA. On 28 June 2016, Amnesty International’s partner, CIP, asked Haiyu about this issue but received no response.¹⁴²

The failure to carry out an EIA that examined the specific situation of Nagonha is not only a breach of Mozambique’s law but a failure of the most basic standards for mining operations globally. EIAs are widely used by the mining industry in almost every country in the world and are vital for a company and the government to understand the impact of

¹³⁸ Amnesty International interviews with Nagonha leadership in Nagonha, May 2016. MITADER also confirms this in a letter to CIP, Amnesty International partner, dated 22 July 2016.

¹³⁹ Interviews with Regulo of Morrua, Lopes Cocotela Vasco, and Nacir Omar, 14-15 May 2016. Newspaper Noticias: <http://www.jornalnoticias.co.mz/index.php/primeiro-plano/44047-responsabilidade-social-na-mineracao-incumprimento-inquieta-populacao-em-nampula.html>

¹⁴⁰ RMS-Consultores Limitada (2011) *Projecto de Exploracao e Processamento de Arreias Pesadas no Posto Administrativo de Sangage, Distrito de Angoche, Provincia de Nampula: Relatorio Final do Estudo do Impacto Ambiental*: Africa Great Wall Mining Development Company Limitada.

¹⁴¹ MITADER (22 July 2016) Letter: *Solicitacao de Informacao sobre o Projecto de Extraccao de Arreias Pesadas em Angoche pela Haiyu Mining Co. Ltda.*

¹⁴² Centro de Integridade Pública (28 June 2017), Letter to Haiyu Mocambique Mining Co. Ltda.

mining on the environment and local people. EIAs also enable the government to require actions by the company that would mitigate the negative impacts.

Amnesty International consulted independent environmental scientists and asked what issues an EIA should have looked at in relation to Nagonha. Based on these expert views, the EIA should, at a minimum, have documented the drainage patterns in the area, which would have captured the way in which the wetlands and lagoons store water and the way water travels between them, including during periods of heavy rainfall. Dr. Tingay also stated:

The fact that Haiyu intended to fill wetlands and the extent of these operations should have been documented in their environmental impact assessment, and the hydrological consequences of this should have been modelled taking into account 100-year rainfall peaks and detailed local topography and wetland mapping.¹⁴³

Had the drainage system been documented and the potential impacts of filling in the wetlands, it is likely that the risk of flooding would have been made clear, and this, in turn, could, and should, have led to other options for management of the sand being considered.

In addition to identifying and managing risks of flooding, the EIA should, according to environmental scientists consulted by Amnesty International, have paid careful attention to the value of the wetland's ecological services to the local community. The importance of wetlands, including their value to local communities, is internationally recognised and endorsed by the UN Millennium Ecosystem Assessment and the Ramsar Convention.¹⁴⁴ In Nagonha the specific wetland ecological services include drinking water for people and animals, food for people and animals, groundwater replenishment, building material, medicinal plants, firewood for cooking, and flood control.¹⁴⁵

As no EIA was done for the Nagonha concession, and as Nagonha is not covered in the one EIA that was carried out, no such analysis appears to have been done. Community members interviewed by Amnesty International confirmed that they had never been consulted by any representative of the company about their dependence on the wetlands for their livelihoods, food, and water. As one Nagonha resident said:

This is a miraculous company. It fell from the sky. First, we saw them prospecting. They did not speak with us, not even good morning. Then we suddenly saw them moving in with machines digging and building. They still do not speak with us.¹⁴⁶

In addition to the services provided by the wetlands to the people of Nagonha, an EIA should also have captured other potential impacts of sand mining, including the impact of the removal of vegetation and erosion of sand dunes. In his analysis, Dr. Knight says:

The coast of northeast Mozambique is low-lying and sand dominated... sensitive to environmental disturbance... Local communities, however, depend almost entirely upon these environmental

¹⁴³ Dr Alan Tingay, email communication with Amnesty International, February 2016.

¹⁴⁴ The Ramsar Convention's mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world." <http://www.ramsar.org/about/the-ramsar-convention-and-its-mission>.

¹⁴⁵ Amnesty International interviews with the residents of Nagonha in Nagonha, residents of Morrúa in Morrúa and AENA officials in Nampula, September 2015, May 2016, April and September 2017.

¹⁴⁶ Amnesty International interviews with Nagonha residents in Nagonha, April 2017.

resources, and any landscape degradation will significantly negatively impact upon the sustainability and success of these communities.¹⁴⁷

Again, as no EIA was done for the Nagonha area, no such assessment has been carried out. However, many members of the community of Nagonha told Amnesty International researchers that following the flood, increasing amounts of sand could now blow into their houses. Matilda, a Nagonha resident, said:

I moved out of that house five months ago because there was too much sand in my house. I mean, any time of the day or night we lived with so much sand in the house. I swept many times a week but it did not make any difference.¹⁴⁸

Assalia, a mother of six, reported that her house was sinking in the sand due to the lack of defence from the vegetation:

After our house was destroyed, we built a new one which is now sinking in the sand due to the wind. I planted shrubs in the surroundings to protect the house. More than once a week I sweep the house to take out the sand. The first house did not have any problems with the sand. Before, there was a dune and shrubs in front of the house protecting it from the wind, but the flood destroyed all that.¹⁴⁹

Virtually all the village residents that Amnesty International interviewed cited the problem of sand invasion as the reason for asking for resettlement.¹⁵⁰

FAILURES WITH REGARD TO COMMUNITY RESETTLEMENT

The community of Nagonha meets the definition of people affected by economic activities as set out in the 2012 *Regulamento de Reassentamento*, in that they live in the area affected by a private activity which has resulted in lost property including houses, means of subsistence and other types of infrastructures, and they are suffering interruption of their productive activities.¹⁵¹

The *Regulamento de Reassentamento* was put in place in 2012 after Haiyu got its mining licence/concession covering Nagonha. However, once the regulation was in place the obvious impact of the mining operations on Nagonha should have led to consideration of relocation of the Nagonha community, as noted earlier, in 2014, Haiyu's mining operations reached within 200m from the village, and clearly, this proximity would impact the local environment.

Despite this, neither the company nor the government approached the Nagonha community about resettlement until 2015. Nagonha residents wrote two letters, one to

¹⁴⁷ Dr Jasper Knight, email communication with Amnesty International, June 2017.

¹⁴⁸ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

¹⁴⁹ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

¹⁵⁰ Amnesty International interviews with Nagonha residents in Nagonha, May 2016.

¹⁵¹ *Regulamento sobre o Processo de Reassentamento Resultante das Actividades Económicas, Decreto no 31/2012* (Regulation on the Resettlement Process as a Result of Economic Activities, Decree No. 31/2012), Article 1, clauses G and H.

Haiyu,¹⁵² and the other to Angoche District Government,¹⁵³ asking to be resettled. Both letters are dated 11 September 2015 and received by Haiyu on 14 September 2015.¹⁵⁴ After several meetings, Nagonha residents, Angoche government officials and Haiyu agreed on a resettlement site about 800m inland.¹⁵⁵

However, within days, Haiyu presented the government and the community a resettlement proposal,¹⁵⁶ whose conditions were described by a senior settlement official at MITADER as “illegal and unfair.”¹⁵⁷ Haiyu proposed to pay MZN4,000 (about US\$90) to each family to buy the reeds, rope, door, etc., to build their own homes. The company offered an additional MZN20,000 (about US\$400) to the community for reconstruction of the local Mosque.¹⁵⁸ The proposal did clearly violate the *Regulamento de Reassentamento* (Resettlement Regulation).

Nagonha residents rejected this proposal and publicly presented their demands through a local NGO, AENA in the form of a press release. The community’s demands include: (a) Direct negotiation with Haiyu, not through the local Government; (b) Haiyu must provide a solution because their mining has removed the vegetation, and the reeds for roofing are scarce; (c) The promised infrastructure (see Box) must be built before moving; (d) The resettlement must be done outside the rainy season.¹⁵⁹ At the time of printing this report, the company and the community had not reached any agreement on the way forward, and Nagonha residents continue to live in the same location.

VIOLATION OF ENVIRONMENTAL REGULATIONS

To prevent and mitigate the adverse impact on the right to a healthy environment, the domestic law requires companies to conduct yearly environmental auditing. In this spirit, *Regulamento de Auditoria Ambiental*, which came into force on 15 June 2011, declares:

Private environmental auditing on category A and B activities is done at least once a year to align the work and functional processes of the enterprise with the legal, environmental impositions in force. Private environmental auditing is done by a singular or collective person that must not have participated as an environmental consultant in the Environmental Impact Assessment process of the respective activity and is contracted by the owner of the activity.¹⁶⁰

Further, “copies of the environmental auditing report must be submitted to the Ministry

¹⁵² Letter to Haiyu: *Carta da Comunidade de Nagonha para Empresa Haiyu*, 11 September 2015.

¹⁵³ Letter to Angoche Government: *Governo do Distrito de Angoche, Localidade Administrativa de Sangage, Comunidade do Bairro de Nagonha*, 11 September.

¹⁵⁴ When one delivers a letter to an organization one brings two copies, one for the organization and the other for one’s own records with the organization’s stamp and date confirming it has been delivered and received.

¹⁵⁵ Letter to Haiyu: *Carta da Comunidade de Nagonha para Empresa Haiyu*, 11 September 2015.

¹⁵⁶ Interviews with Angoche government officials, AENA representatives, Nagonha community leaders, May 2016.

¹⁵⁷ Amnesty International interview at MITADER in Maputo, May 2016.

¹⁵⁸ Haiyu Mozambique Mining Co. (23 July 2015) Exigencias apresentadas pelos líderes comunitarios de Nagonha face ao plano de reassentamento das casas que se encontram dentro da zona de exploração mineira 4776C.

¹⁵⁹ Amnesty International interviews with AENA representatives in Nampula, May 2016.

¹⁶⁰ *Regulamento sobre o Processo de Auditoria Ambiental, Decreto nº 25/2011* (Regulation on the Environmental Auditing Process, Decree No. 25/2011), Article 7:1-2.

that oversees the Environment sector... and to the audited entity.”¹⁶¹ Both public and private entities have to preserve the reports for a minimum period of 10 years.¹⁶²

Regulamento de Avaliação do Impacto Ambiental requires MITADER to regularly inspect and supervise the environmental management and monitoring activities carried out by the company to ensure environmental quality. This law gives the government the power to order environmental impact auditing or environmental inspections “when the environmental control questions are deemed complex.”¹⁶³

To Amnesty International’s knowledge, since Haiyu began its operations in 2011, the company has not produced a single annual environmental report as required by the law. Haiyu never responded to Amnesty International’s request for copies of any environmental impact assessment report carried out since it began its operations. In fact, the government admits that Haiyu has failed to honour these legal obligations. In response to a letter sent by CIP, MITADER confirmed on 22 June 2016 not having the environmental audit reports:

MITADER does not have in its possession the environmental reports that should have been submitted in light of the Regulation on the Environmental Auditing Process, approved by the Decree No. 25/2011, of June 15, according to which the environmental auditing is public and private. Furthermore, the regulation considers mandatory the private environmental auditing at least once a year for Category A activities, a fact which has not happened for the above referred period...¹⁶⁴

On 21 April 2017, Amnesty International visited Haiyu’s office in Morrúa and asked for copies of the company’s environmental audit reports, but the officials refused to provide this information.

¹⁶¹ Ibid., Article 8:2.

¹⁶² *Regulamento Ambiental para Actividade Mineira, Decreto nº 26/2004* (Environmental Regulation for Mining Activities, Decree No. 26/2004), Article 14:1.

¹⁶³ *Regulamento sobre o Processo the Avaliação do Impacto Ambiental, Decreto 45/2004* (Regulation on the Process of Environmental Impact Assessment, Decree 45/2004), Article 24.

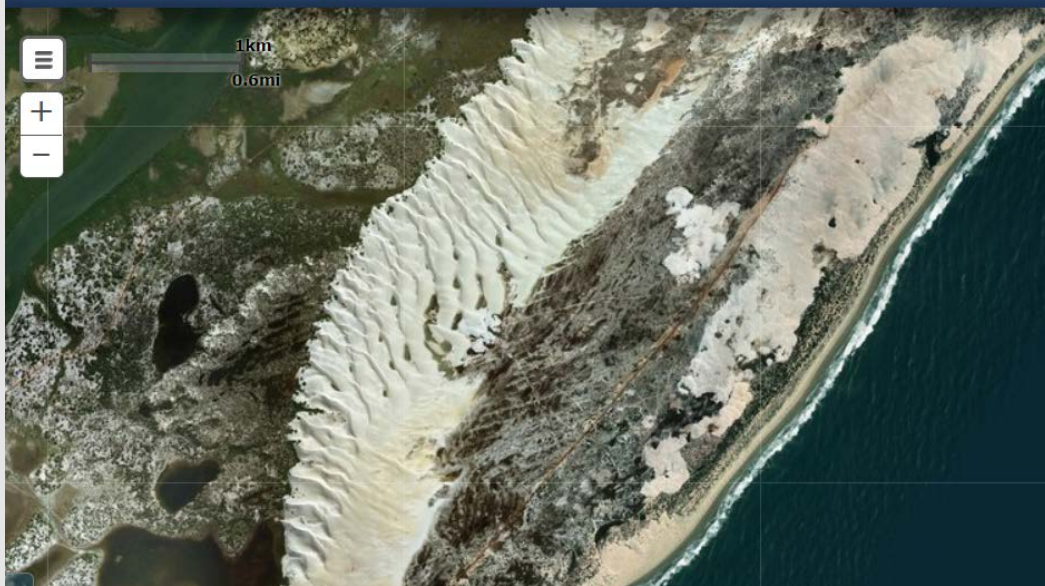
¹⁶⁴ MITADER (22 July 2016) Letter: *Solicitacao de Informacao sobre o Projecto de Extraccao de Arreias Pesadas em Angoche pela Haiyu Mining Co. Lda.*



ONGOING SAND DUMPING

Despite the flood and the serious concerns of the local community about the sand dumping, Haiyu has continued to deposit sand over the wetlands. Satellite images available on Mozambique's mining cadastre portal show how the sand has expanded to cover. In its December 2017 letter to Amnesty International, Haiyu wrote that it planned to continue mining toward Kirikwige community located south of Nagonha. This means the dune and the wetland south of Nagonha will be destroyed. Without appropriate environmental management plan and practice, the topography south of Nagonha will resemble the post-mining topography.

Mozambique Mining Cadastre Portal



This satellite image in this box was taken in December 2017 from Mozambique Mining Cadastre Portal, the online register of existing mining licenses operated by the Mozambican Ministry of Mineral Resources and Energy. The image shows that Haiyu has not changed its sand mining and mine waste disposing methods. The company's modus operandi remained consistent. As it is shown in the image, the mine waste deposits continued to expand very significantly since the flood.

BREACHES OF INTERNATIONAL HUMAN RIGHTS STANDARDS

As noted in Chapter 3, the UNGPs require companies to respect all human rights. Respect for human rights requires that, at a minimum, companies ensure their operations do not directly abuse rights and that they do not contribute to any violation or abuse. A core element of the UNGPs is human rights due diligence, which is the expectation that companies actively identify risks to human rights that are linked to their operations and take effective measures to address these risks.

As the evidence in this report shows, Haiyu took not even the most minimal action to identify how its operations would impact the human rights of the people of Nagonha community. This is despite the fact that the village is within one of their concession areas, and despite the fact that national law actually required some actions, specifically an EIA and a DUAT process, that would contribute to human rights due diligence, even if Haiyu was prepared to ignore the internally-recognized standards for business and human rights.

In the context of mining operations, one of the most well-established risk factors for human rights is the impact of the mining operations on the environment in which people live and on which they depend for a livelihood, food, water and other services. One of the most widely recognized tools to identify and mitigate risks to the environment is the EIA. When done effectively EIAs can contribute to the protection of human rights, although as the UNGPs note:

While the processes for assessing human rights impacts can be incorporated within other processes such as risk assessments or environmental and social impact assessments, they should include all internationally recognized human rights as a reference point, since enterprises may potentially impact virtually any of these rights.¹⁶⁵

The one EIA Haiyu carried out did not cover Nagonha, nor did it provide any detailed assessment of the wetlands areas and drainage system and the impact that depositing sand on the wetlands would have on drainage, or on the lives of the local villagers. As the evidence in this report makes clear, the way in which Haiyu dumped sand was, and remains, a risk factor for flooding. The company's responsibility for the flood event is heightened because it took no action to establish the nature of what was, and remains, an obvious risk factor.

In addition, the DUAT process specifically refers to "*the participation of local communities of the site of the project in the making of decisions that might directly affect their rights*", Haiyu's failure to do this process robbed the people of Nagonha of a vital protection and meant Haiyu did not have critical information about the wetlands and the community's dependence on them.

In addition, Haiyu has repeatedly failed to disclose even minimal information about its processes and operations.

The rights of the people of Nagonha, in particular, their right to housing and a safe and healthy environment, have been abused by Haiyu, through a complete failure of due diligence. The responsibility to respect the right to housing means that Haiyu should not – directly or indirectly – interfere with the enjoyment of the right. Haiyu's operations clearly have interfered with the enjoyment of the right in several ways. Sand erosion has meant people find the conditions in their homes difficult, with structures becoming buried by sand in some cases. The flood of 2015 resulted in the direct loss of homes. While it is not possible to say with 100 percent certainty that the flood was caused by the way Haiyu dumped sand on the wetlands, the evidence for this allegation is strong. Both the flood and the sand erosion have led to many Nagonha residents not having an adequate, safe home. In addition to these impacts, Haiyu has also failed to respect the right to adequate housing by the way in which it has failed to offer a proper relocation process to the people of the village.

¹⁶⁵ UNGPs, Principle 18, commentary.

The living conditions in Nagonha are in breach of the right to a “general satisfactory environment favorable to their development.”¹⁶⁶ The area has been massively transformed by the way sand mining has been done, and local people report they have lost ecological services including food for people and livestock, drinking water for livestock, medicinal plants, building material, firewood, vegetation for protection from winds and flying sands and flood control.

Moreover, the company has also abused the right to remedy by failing to engage in any discussion on remediation. Where business enterprises identify that they have caused or contributed to adverse impacts, they should provide for or cooperate in their remediation through legitimate processes. All of the available evidence points to Haiyu’s operations having negatively impacted the people of Nagonha. The mine operations are within meters of their village and the wetlands are – unarguable – massively changed. Yet Haiyu has refused to engage with the residents on a remedy. The company has denied all responsibility for the flood event, despite the evidence. The only actions the company has taken so far are a proposed relocation that failed to meet national legal requirements and did not assess responsibility for damages to homes or environment.

¹⁶⁶ See African Commission on Human and Peoples’ Rights, Decision on Communication of The Social and Economic Rights Action Center (SERAC) and the Center for Economic and Social Rights (CESR) v Nigeria (155/96), para 54. The decision was adopted at the 30th ordinary session of the African Commission of Human and Peoples’ Rights, Banjul, 13-27 October 2001 (SERAC and CESR v Nigeria), available at <http://www1.umn.edu/humanrts/africa/comcases/155-96b.html>

CHAPTER 5: ENABLING ABUSE: GOVERNMENT FAILURE TO ENFORCE THE LAWS

FAILURE TO PROTECT: ABSENTEE GOVERNMENT

During the visits of September 2015, May 2016, April and September 2017, Amnesty International found a sense of abandonment and betrayal in Nagonha, with residents expressing their feeling that the government had retreated. As one resident expressed:

We are orphans; we have no mother nor father. The Government never comes here. Whenever the Government intervenes, it always sides with the company. The Government blames the community for what is happening. In fact, there is a police station inside the company. The police station often represses worker gatherings, prohibits workers from speaking with strangers [such as researchers, reporters].¹⁶⁷

Amnesty International visited the company's premises in Morrúa in April 2017 and confirmed that there is a government police station inside the premises.

Amnesty International approached Angoche government officials for their views on the impact of Haiyu's operations on Nagonha. The officials lamented the state of affairs saying they were new in office. Although they were aware of the problem, they said: "the decision to grant the mining permit to Haiyu had come from Maputo and there was little the District Government could do."¹⁶⁸

The situation in Angoche is not unusual. The Mozambican government is highly centralised in Maputo. In many cases, provincial and district governments have little decision-making power. This highly centralised system can undermine the State's fulfilment of its human rights obligations at the local level.

¹⁶⁷ Amnesty International meeting with Nagonha residents in Nagonha, April 2017.

¹⁶⁸ Amnesty International interviews with Nagonha with government official in Angoche, May 2016.

FAILURE ON COMMUNITY CONSULTATION

The domestic law requires companies to conduct community consultation before they can be granted land use rights. Haiyu failed to respect this requirement, in full knowledge of the government. As outlined in the previous chapter, a consultation meeting was conducted in Nantapa, unbeknown to Nagonha residents. Yet the responsible government agencies, including MITADER and MIREME, still granted the mining licence. MITADER admits this failure:

[T]he consultation process did not observe the expectations set out in the Ministerial Diploma No. 158/2011, of June 25, which adopts specific procedures for consultation with local communities in the granting of land use and development rights, in terms of the Regulation of the Land Law approved by Decree No. 66/98, of December 8, seeing that given the dimension of the project, the consultation should have been carried out in two phases, observing the specific procedures for community consultation determined by this diploma.¹⁶⁹

Although the government has admitted in a letter to Amnesty International's partner, CIP, that Haiyu did not follow the consultation procedure, this admission refers to the 3791C mining concession located in Sangage, not to the 4776C mining concession located in Nagonha and Morrua. For the 4776C mining concession, there was no consultation. However, the government granted Haiyu the mining licences for both concessions. The licence for 4776C was granted on 19 December 2011. Although Amnesty International raised this with the government in 2016, the government's response did not indicate what, if any, remedial action would be taken given the company does not have DUAT for land on which it has been mining for six years.

FAILURE ON RESETTLEMENT

As noted in Chapter 4, since the flood of 2015 the residents of Nagonha have asked to be resettled. However, to date, no resettlement has taken place. Based on the testimony of Nagonha residents, resettlement was discussed with them from May to July and in September 2015 Haiyu unilaterally presented them with a resettlement proposal.

In September 2015, Angoche Government officials advised Nagonha residents to accept Haiyu's proposal and leave the area.¹⁷⁰ This is the same proposal the Deputy Chief for Resettlement at MITADER considered "unfair and illegal."¹⁷¹ Yet Angoche Government officials were advising Nagonha residents to accept. When asked for an explanation, Angoche Government officials said Haiyu had argued that it could not meet all the requirements of the regulations because of financial difficulties due to low commodity prices in the international market. The government official also stated that "the resettlement is stalled" and said this was because the company was stronger than the local government, implying the local government could not ensure the company fulfilled its obligations.¹⁷²

As discussed in Chapter 3, international human rights standards on the prohibition of

¹⁶⁹ MITADER (22 July 2016) Letter: *Solicitacao de Informacao sobre o Projecto de Extraccao de Arreias Pesadas em Angoche pela Haiyu Mining Co. Lda.*

¹⁷⁰ Amnesty International interviews with Nagonha community leaders in Nagonha, May 2016.

¹⁷¹ Amnesty International interviews with MITADER officials in Maputo, May 2016.

¹⁷² Amnesty International interviews with district government officials in Angoche, May 2016.

forced evictions make clear that resettlement should include meaningful consultation with the affected people and their rights should be safeguarded throughout the process. People cannot be resettled to a location which would not ensure they have access to adequate shelter, food, water, and services. Moreover, compensation for loss of property must be fairly calculated.

Although one local government official confirmed to Amnesty International in 2016 that the resettlement of the Nagonha population had stalled, it has proved difficult to get clear details about the Nagonha community from governmental authorities. For example, in July 2016, in response to a letter from CIP, MITADER stated: “During the DUAT application with file No. 3362 on behalf of Haiyu Mozambique Mining Co. Lda, some families were affected by the implementation of the heavy sands exploitation project.”¹⁷³ It is not clear which families MITADER is referring to. MITADER goes on to say:

In 2012, following the evaluation of the existing buildings, the families affected by the project, received the amounts corresponding to the owed compensations, according to line b) of No. 1 of article 18 of the Land Law, in conjunction with No. 3 of article 19 of the Land Law, as well as No. 2 of article 12 of the Law No. 14/2002 of June 26, and the Mine Law applicable at the time.¹⁷⁴

The families mentioned in the letter are not Nagonha families. Nagonha families remain where they have always been. They were not resettled or compensated. There has been no remedy for the adverse impact on their right to adequate housing and healthy living conditions. In May 2017, Amnesty International issued a letter to MITADER directly asking for clarification on the issues raised in this report. MITADER responded with a letter saying: Nagonha was not consulted, however, consultation would be held in July 2017; Nagonha was not settled because when Haiyu began mining, the community was still far from the company’s operations; Haiyu has submitted the resettlement plan to DPTADER as the company intended to continue mining in Nagonha.¹⁷⁵ This contradicts Haiyu’s letter to Amnesty International, sent in December 2017, which says: “In accordance with our programme, we have already completed mining in the northern part of the concession and so there will be no need to resettle the Nagonha community.”¹⁷⁶ Haiyu is now moving south toward Kirikwige community area.

While MITADER recognises the need to resettle Nagonha residents, it says this responsibility was delegated to the local government because the resettlement law did not exist at the time. The resettlement law came into effect in August 2012, just months after Haiyu began its operations in Nagonha area. The government’s response, made in July 2016, raises a number of questions about why no action has been taken in a six-year period since the regulation came into effect. In addition, if the responsibility to resettle Nagonha was delegated to the local level before August 2012, it is not clear why no government body considered the DUAT process and the inadequacies of that process, and why nothing has been done in the last six years to address Haiyu’s lack of

¹⁷³ MITADER (22 July 2016) Letter: *Solicitacao de Informacao sobre o Projecto de Extracao de Arreias Pesadas em Angoche pela Haiyu Mining Co. Lda*. p. 2.

¹⁷⁴ Ibid., p. 3.

¹⁷⁵ MITADER (06 June 2017) Letter: *Parecer sobre o Conflito entre a Empresa Chinesa Haiyu Mozambique Mining Company e a Comunidade de Nagonha em Angoche, Província de Nampula*.

¹⁷⁶ Haiyu Mozambique Mining Co. Lda (1 December 2017) Letter: *Clarification of Issues Raised by Amnesty International about the Heavy Sands Project in Angoche and Its Environmental Impact*.

DUAT for the area of the Nagonha village.

MITADER claimed that “efforts are being made to Haiyu and local authorities to safeguard the rights of the community which may not have been properly considered at the time, taking into account the constitutional and legal principles and norms, particularly those about the resettlement process.”¹⁷⁷ However, despite this statement made by MITADER in 2016, by the end of 2017, no adequate resettlement plan has been agreed and the people of Nagonha remain living within a degraded environment that poses risks to their right to housing and a healthy environment.

FAILURE TO ENFORCE ENVIRONMENTAL REGULATIONS

MITADER and MIREME are responsible for regulating mining activities, for monitoring environmental impacts of mining operations, and for enforcing compliance with the law. They are also responsible for issuing the mining and environmental licenses.

By its own admission, MITADER knew that Haiyu had not conducted the required consultation hearings in the DUAT acquisition process. However, MITADER allowed Haiyu to continue with its operations all these years, even though it can – at least in theory – penalize the company.¹⁷⁸

By law, MITADER is required to conduct public environmental impact inspections on mining companies once a year or when deemed necessary. Amnesty International research found that MITADER had not conducted any environmental impact inspections on Haiyu.¹⁷⁹ Following each audit, the auditor must produce a report and submit copies to the company and the government. The company and the government must keep these copies for at least 10 years. MITADER admitted in a letter to CIP, Amnesty International’s partner, that it did not have copies of Haiyu’s environmental impact audit reports.

MITADER pleaded lack of capacity and resources for failure to conduct environmental inspections and enforce the laws, and said it often has to rely on companies to fund its inspection missions to the companies.¹⁸⁰

¹⁷⁷ MITADER (6 June 2017) Letter: *Parecer sobre o Conflicto entre a Empresa Chinesa Haiyu Mozambique Mining Company e a Comunidade de Nagonha em Angoche, Província de Nampula*.

¹⁷⁸ *Regulamento sobre o Processo the Avaliação do Imacto Ambiental, Decreto 45/2004* (Regulation on the Process of Environmental Impact Assessment, Decree 45/2004), Article 26.

¹⁷⁹ Amnesty International’s partner NGO, CIP, asked MITADER for the reports on environmental inspections on Haiyu, but no re.

¹⁸⁰ Amnesty International interviews with MITADER officials in Maputo, September 2016.



UNFULFILLED COMMITMENTS TO PROVIDE SOCIAL SERVICES

On 1 December 2011, the Mozambican Government, through MIREME, and Haiyu signed a memorandum of understanding (MoU) for the implementation of social service projects. The projects aimed to improve “the conditions of life of the population of the District of Angoche in the Province of Nampula, particularly the communities around the enterprise area.”¹⁸¹ According to this MoU, Haiyu was to pay the government US\$3 million to finance development and various social service projects for the benefit of the communities. This included the following:

- Projects for the Health Sector:
 - ✓ Building/or renovation of the Health Centre or Rural Hospital of Angoche;
 - ✓ Installation of furniture and equipment of the Health Centre;
 - ✓ Training of the Angoche Hospital and Health Centre workers;
 - ✓ Support for the Angoche mobile units;
- Projects for the Education Sector:
 - ✓ Building and equipping a centre for training in classification and grading of heavy sands, gems and other mineral products in Angoche;
 - ✓ Support for the education program, for example, training teachers in mine geology;
 - ✓ Building a cultural and recreational centre for the local community;

The MoU further provided that “[t]he defined social development programs in the present memorandum must be implemented within 36 months, counting the date of the mining license bestowal.”¹⁸² This means the deadline for completion of the projects was 30 June 2014.

In 2016, Amnesty International’s partner organization, CIP, contacted MITADER to ask what had been done with the US\$3 million fund. MITADER replied saying DPTADER in Nampula had the responsibility to oversee the implementation of the social development projects. Amnesty International approached a senior DPTADER official in Nampula in April 2017 and received the following response:

I am surprised and embarrassed to learn about this from Amnesty International... I did not know about this until now. I am new in this post, and I am still familiarising myself with the issues of the province.¹⁸³

As far as Amnesty International could discover, as of April 2017, the government had spent the funds on the renovation of Angoche Rural Hospital that has since stalled, 28km away from Nagonha; the purchase of an ambulance for the Angoche Rural Hospital; and construction of a new school in Nipwene, 10km away from Nagonha. The nearest health post to Nagonha is in Mulapane, about 13km away from Nagonha. When Amnesty International wrote to MITADER asking for clarification on several issues, including what had been accomplished with the funds, the Ministry replied saying of the US\$3 million pledged, Haiyu is still to pay US\$950,000 to complete the projects.¹⁸⁴

¹⁸¹ *Memorando de Entendimento para a Implementacao dos Projectos Sociais entre o Governo da Republica de Mocambique e Haiyu (Mozambique) Mining Co. Lda* (01 December 2011), Clause 3, Article 1, the MoU.

¹⁸² *Ibid.*, Article 10.

¹⁸³ Amnesty International interview at DPTADER in Nampula, 24 April 2017.

¹⁸⁴ Minister’s Office, MITADER (06 June 2017) *Parecer sobre o Conflito entre a Empresa Chinesa Haiyu Mozambique Mining Company e a Comunidade de Nagonha em Angoche, Provincia de Nampula*.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The housing and living conditions of Nagonha residents took a negative turn since Haiyu Mozambique Mining Co. Lda began mining heavy sands in the wetland and sand dune ecosystem around their village in 2011. Haiyu's practices have transformed the topography of the area and affected the wetlands drainage system, and these changes have negative impacts on the environment and the local population.

This report documents how Haiyu violated national mining and environmental laws. Prior to setting up operations, the company failed to consult with Nagonha residents; failed to conduct an adequate EIA to identify the risks of mining and dumping sand in the wetland; and failed to monitor and report its own environmental impact to the government for verification and approval.

The report also documents how Haiyu failed to observe international standards on business and human rights which require companies to respect human rights. Haiyu has failed to carry out adequate human rights due diligence to identify, prevent, mitigate and – where necessary – remedy the adverse impacts of its operations on local people.

For the people of Nagonha, the impact of Haiyu's mining operations has been six years of increasingly precarious existence. They have experienced violations and abuse of: their right to housing; to a healthy and safe environment; and their right to an effective remedy.

The environment in which they live has been made less habitable due to the proximity of heavy mining operations very close to their homes, sand erosion and the damage to the wetlands they have long used for drinking water for people and livestock, food for people and livestock, medicinal plants, building material, bathing, and washing. All of this has undermined their right to a healthy environment.

The right to housing has been affected in several ways. First, the failure of the company to consult the people of Nagonha and obtain DUAT, and the failure of the government to protect their DUAT, has undermined their security of tenure on the land to which they have a legal right. Second, the environmental impacts have made living in Nagonha untenable for many people, and residents have requested resettlement. Although they have a right to be resettled, and in fact should have been offered this option from the start of the mining process, no viable resettlement plan that safeguards their human rights has been put forward. Third, the most dramatic impact on the people of Nagonha was the 2015 flood, which destroyed 48 structures and a significant amount of property in the village. Although Haiyu has attempted to blame the flood solely on nature, the evidence presented in this report exposes how the company's dumping of sand increases the risk of flooding. Based on expert analysis, Haiyu is not in a position to deny responsibility; on the contrary, all of the evidence points to Haiyu's sand dumping as a cause of the flood event.

Several legal provisions requiring meaningful consultation with the community, over DUAT, environmental impacts, and resettlement have been flouted by Haiyu and this has, in turn, undermined the ability of the people of Nagonha to protect their rights. The serious corporate failures documented in this report could not have occurred if the Government of Mozambique enforced the legal provisions put in place to protect people's rights and environmental integrity. Haiyu's corporate conduct occurred due to the failure of the government to monitor the company's operations and enforce compliance with the law. The report documents how MITADER and MIREME permitted Haiyu to mine in Nagonha without consulting with the residents for their DUAT; without conducting a credible environmental impact assessment; without resettling Nagonha residents; and without monitoring and reporting the environmental impact of its own operations.

Moreover, despite the evidence negative impacts of the mining operations on the people of Nagonha, the government has permitted harmful mining practices to continue, unchecked. As noted at the end of the previous section, Haiyu continues to dump sand on the wetlands to this day. The government failures to enforce existing laws and regulations amount to a clear failure of its duty to protect human rights from interference by non-state actors.

RECOMMENDATIONS

TO THE GOVERNMENT OF MOZAMBIQUE

- Immediately ratify the International Covenant on Economic, Social and Cultural Rights and the related Optional Protocol to commit to international ESCRs standards and report on implementation progress to the UN High Commissioner for Human Rights.
- Ensure provision of basic services – health, education, electricity, clean water and sanitation – to people in Nagonha as provided under Mozambican constitution and human rights obligations.

- Conduct, as a matter of urgency, the legally required environmental, social and human rights inspections on all mining operations carried out by Haiyu Mozambique Mining Co., Lda and make reports of its findings available to the public.
- Investigate all the potential human rights abuses, criminal offences and other breaches of Mozambique law set out in this report, including:
 - Haiyu's failure to conduct all the necessary and legally required consultations with affected communities; its failure to carry out proper EIA and its failure to ensure human rights due diligence throughout all its mining operations;
 - The impact of Haiyu's mining operations on the environment and rights of people, including the impact of the ongoing sand mine dumping over the wetland and waterways, specifically the cause of changing topography and the flooding of Nagonha in 2015.
- Pending such investigations and until all environmental and human rights concerns are addressed, immediately suspend Haiyu's mining activity under mining concession 4776C around Nagonha, and ensure that the community is genuinely consulted and informed at all stages of the process.

Following the results of those investigations, take all necessary administrative, legal and enforcement actions against Haiyu, including measures to restore all damage and loss of property and livelihood caused as result of its mining operations and guarantee non-recurrence by ensuring full compliance with domestic law and all human rights due diligence requirements in line with the UN Guiding Principles on Business and Human Rights.

- Ensure that the residents of Nagonha have access to effective remedies and reparation. Reparation must include, among other things, adequate compensation for the damage caused by the loss of their livelihoods and housing, and restitution of the ecological services of the wetland including drinking water, grazing land, medicinal plants, lagoons for fishing and recreational swimming.
- Take urgent steps to strengthen legal and policy safeguards as well as regulatory bodies to ensure that people are protected against human rights abuses and environmental impacts of mining operations. Increase the technical capacity of MITADER and MIREME, seeking international cooperation and assistance as necessary, to independently assess and monitor environmental impacts.
- Take urgent steps to ratify the International Covenant on Economic, Social and Cultural Rights and its Optional Protocol.

TO THE MOZAMBICAN PARLIAMENT

- Ensure international best practices and guidelines for sand mining in coastal areas, particularly in coastal wetlands, are incorporated into domestic law and enforced effectively.
- Ensure the executive takes steps to initiate reform of domestic law and policy to ensure companies domiciled or headquartered in the country carry out adequate human rights due diligence throughout their operations in line with the UN Guiding Principles on

Business and Human Rights and report publicly on their due diligence policies and practices. This reform should include strengthening legal requirements on assessment of potential impacts of company operations on rights to health, adequate housing, access to clean water and livelihoods; on genuine consultations with affected communities, and on transparency and access to information.

- Ensure regular visits to mining operations by the Parliamentary Commission on the Extractives Industry to assess social, economic and human rights impacts of mining operations on local communities.

TO HAIYU MOZAMBIQUE MINING CO., LDA

- Ensure that Nagonha residents receive adequate reparation for the loss of or damage to their livelihood and housing resulting from its operations, including full compensation for all losses, and restitution of the wetlands wherever possible.
- Carry out effective clean-up and restitution operations of the wetland in consultation with the local communities, as a matter of urgency, and immediately publish the clean-up and restitution reports and certificates.
- Undertake human rights due diligence throughout its all mining operations in line with the UN Guiding Principles on Business and Human Rights, and report fully and publicly on the steps taken.
- Design and implement, as a matter of urgency, a resettlement plan in consultation with Nagonha residents and civil society. The resettlement plan and process must comply with the provisions of *Regulamento de Reassentamento* and international human rights standards, including on the right to adequate housing, and ensure that the community has all the necessary infrastructure for social services, including access to clean water, health, sanitation, education and recreation.
- Prepare the legally required independent environmental impact audits every year and submit the respective reports to MITADER as well as make the reports available to the public.

TO HAINAN HAIYU MINING CO., LTD, AND ITS DIRECT AND INDIRECT SHAREHOLDERS

- Ensure that Haiyu Mozambique Mining Co., Lda, acts to implement a resettlement plan for the villagers of Nagonha and provide adequate reparation for any losses resulting from company actions.
- Put in place adequate human rights due diligence systems in line with the UN Guiding Principles on Business and Human Rights to ensure companies do not commit or contribute to human rights abuses wherever they operate and publicly disclose steps taken to prevent or mitigate human rights risks in their business operations.

TO THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA

- Immediately engage with Hainan Haiyu Mining Co., Ltd, and call on it to ensure any remedies and reparation for human rights abuses related to its subsidiary, Haiyu Mozambique Mining Co., Lda.

- Institute legal and policy reforms to require companies domiciled or headquartered in China to carry out adequate human rights due diligence throughout their global operations in line with the UN Guiding Principles on Business and Human Rights.

TO THE CHINESE CHAMBER OF COMMERCE OF METALS, MINERALS AND CHEMICALS IMPORTERS AND EXPORTERS (CCCCMC)

- Call on Hainan Haiyu Mining Co., Ltd, to put in place processes for conducting supply chain due diligence following the five-step process set out in the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains and to report publicly on the steps it has taken to manage and mitigate human rights risks in its business operations.

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“OUR LIVES MEAN NOTHING”

THE HUMAN COST OF CHINESE MINING IN NAGONHA, MOZAMBIQUE

This report examines adverse human rights impact related to the corporate conduct of Haiyu Mozambique Mining Co., Lda in Nagonha, Nampula province, northern Mozambique. The report focuses on what the company did or failed to do in acquiring the right to land for mining activity in Nagonha, what it did or failed to do in its operations in Nagonha, and what it did or failed to do in response to the villagers’ demand for compensation and resettlement following a mining-related flood.

The report looks specifically at the breach of the right to adequate housing and decent living standards ensuing from Haiyu’s destruction of the wetland, and the related destruction of one-fifth of the village by the freak flood. The report also examines the Mozambican Government’s failure to protect, promote and fulfil the right to adequate housing and living standards in the village of Nagonha.