

# Sand Mining in Uganda: Strengthening the Legal Framework to Combat Corruption and Environmental Destruction and Attract Better Foreign Investment.

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## Abstract

*Investment is vital in stirring the country's economy and sustaining development, especially in Africa and Uganda. It also serves as a tool for technology transfer, innovation, employment, and generating revenue for individuals and the government. This article focuses on sand mining in Uganda, the level of corruption involved, the lack of a proper legal framework to govern its exploitation, and the investors' interest in the sector. Uganda is rich in copper, gold, iron, and ore minerals. Others include sand, hardcore, gravels, aggregates, and local granite. Article 244 of the Uganda Constitution 1995 provides that 'building substances such as clay, murram, sand or any stone commonly used for building' are not regarded as minerals. However, the parliament hardly enacted legislation to govern these excluded minerals. Currently, this is an area that is attracting foreign investment. At the same time, it is unregulated. The paper will discuss, among others, the importance of having a proper legal framework to regulate building materials such as sand, why it is important, and how the lack of a proper legal framework to govern the sector might cost the government of Uganda sums of money.*

## 1. Introduction

Sand mining is the removal of the virgin natural top sand from the earth's surface<sup>1</sup>. The removal happens from the wetlands, beaches, and rivers, forming open pits and eventually causing environmental destruction<sup>2</sup>. 'Sand takes millions of years to form but can be mined out in less than a year, causing irreversible damage to the rivers and surrounding lands left behind'<sup>3</sup>. Apart from water, sand is another natural resource that is quickly

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1 Envirotech <https://www.envirotech-online.com/news/water-wastewater/9/breaking-news/what-is-sand-mining/42070> accessed on the 6th of August 2024.

2 Monitor, epaper, <https://www.monitor.co.ug/uganda/news/national/unregulated-sand-mining-murram-excavation-a-race-against-nature-4478368> accessed on 24th July 2024.

3 World Wide Fund for Nature (WWF) organization, <https://www.worldwildlife.org/pages/tnrc-blog-s-and-mafias-environmental-harm-corruption-and-economic-impacts> accessed on 3rd July 2024.

consumed,<sup>4</sup> making sand mining exhaustive. As a result, rivers are left bare in case of continuous extraction. The growing need for sand resulted from the growing development and the need for infrastructure development, facilitated by the availability of this natural resource, which has also attracted foreign investment. In Uganda, most sand is found along the beaches of Lake Victoria, wetlands, and rivers. The most commonly mined area in Uganda with the best sand quality is Lwera. Ultimately, the investigation seeks to shed light on the complex interplay between sand mining, foreign investment, corruption and environmental degradation. This paper aims to provide valuable insights for policymakers and stakeholders managing this mining sector.

## **2. Background**

Sand mining is an activity that started many years ago. However, with the current development in the construction industry, the need for sand has drastically increased. The impact of local and foreign investment on building materials such as sand in Uganda has resulted in sand mining becoming a topic of growing significance, as the extraction of sand plays an important role in the country's construction and infrastructure development. This background will provide an overview of the growing need for sand mining and a discussion on the increasing trend of foreign investment. By examining these two key aspects, the discussion will set the stage for an analysis of the impact of foreign investment on this sector in Uganda, where there is no proper legal framework to regulate it.

Globally, sand is estimated to comprise several of the most frequently harvested building materials. However, the data available concerning the harvest is limited<sup>5</sup>. Shitima resonates with this data and adds that the quantity of sand harvested is unknown in most of the world<sup>6</sup>. However, random harvests without any record are common in Third World Countries<sup>7</sup>. According to Madyise, sand has many uses: It is needed for various activities such as habitat for people and the construction of many other infrastructures, glass-making, land reclamation, beach replenishment, coastal defences and many others. However, it also works as a source of income for many people. This has led to the engagement of many companies in this activity; some engage legally while others illegally. Jouffray agrees that the demand for sand has drastically increased due to the demand for industrialisation, rapid urbanisation, and infrastructure development. The scholar further reiterates that 'sand is a fundamental feature of modern society – without sand, there would be no concrete, no

4 *The independent*, magazine, <https://www.independent.co.ug/appetite-for-sand-is-fuels-a-crisis/> accessed on 4<sup>th</sup> July 2024.

5 Gitonga, Erastus K, Factors affecting sand harvesting in Machakos County, *Kenya* (Doctoral dissertation, University of Nairobi) at page 2017, at page 1.

6 Shitima, Christina, and Syukens, Bert., Formalization of sand mining in Dar es Salaam, Tanzania, *Resources Policy*, 82, 2023. At page 1.

7 Gitonga, at page 1.

glass, and no electronics’<sup>8</sup>. Overall, the background of sand mining in Uganda highlights the complex interplay between economic development, environmental sustainability, and foreign investment. This poorly regulated sector in Uganda is causing substantial ecological degradation,<sup>9</sup> leading to severe environmental and social consequences, including the degradation of rivers, ecological destruction, and displacement of local communities.

Sand mining in Uganda has been at the Centre of the country’s construction industry for many years. Exploiting this resource requires the extraction of sand from riverbeds, lakes and swamps. The demand for sand in recent years has contributed to the coming in of foreign investment in sand mining activity, further intensifying the exploitation of this natural resource. In Uganda, several foreign companies have partnered with local businesses to exploit this natural resource. This has led to increased mechanisation and commercialisation of sand mining because foreign investors come with giant machines that make the harvest easier. This has, therefore, increased the negative impacts on the environment and communities around it. Moreover, the lack of effective government regulations and enforcement mechanisms has enabled foreign investors to operate with little regard for the sustainability of sand mining practices.

### 3. Overview of Foreign Investment in sand mining sector in Uganda

Foreign investment in the sand mining sector in Uganda has significantly impacted the industry. There are ongoing debates and discussions on balancing economic development and environmental conservation. When the government invites foreign investment, it has to consider environmental sustainability as opposed to the exploitation of natural resources.

Foreign investment in sand mining has brought both benefits and challenges to Uganda. On one hand, it has created job opportunities and some income for the few individuals involved. However, it has sparked concerns about environmental degradation and sustainability. Foreign companies have been accused of exploiting natural resources with little regard for environmental conservation<sup>10</sup>. This has prompted the government to reevaluate its policies and regulations governing foreign investment in the mining sector, including sand mining although with little success.

The influx of foreign investment in Uganda has significantly impacted various sectors, including the sand mining industry. The Ugandan government has actively sought foreign investment to boost economic growth and development. Foreign investors have been partic-

8 Jouffray, J.B., Barbour, F.P., Blasiak, R., Feine, J., Gallagher, L., Johansson, D., Kuiper, J.J., Pereira, K., Rawat, A., Schmitt, R.J. and Tokunaga, K, Ocean sand: Putting sand on the ocean sustainability agenda 2023 at page 3.

9 Rangel-Buitrago Nelson and Neal William, The unsustainable harvest of coastal sands *Science*, 382 2023, At page 1

10 *WTON*, News channel, <https://www.bing.com/videos/riverview/relatedvideo?q=foreign+investment+on+sand+mining+in+Uganda&mid=E2AF2AD0CB5A0836E3B0E2AF2AD0CB5A0836E3B0&FORM=VIRE> Accessed on the 9<sup>th</sup> July 2024.

ularly interested in the mining industry due to the abundant natural resources, including sand. The government has implemented policies and regulations to attract and facilitate foreign investment, such as tax holidays to encourage and boost economic growth and as an investment incentive. This has increased foreign investment, and sand mining is not spared.

It is sad to note that it may be possible for the Chinese people to come into the country with heavy machines directly to the sand mining site without the government officials or people in charge noticing them. Hence, this paper proposes an organisation in place in charge of sand mining only so as to be able to notice all the activities of foreigners in this sector. On the 9<sup>th</sup> of July 2024, police reported apprehending 7 Chinese Nationals doing sand mining in Lwera without clearance from relevant authorities<sup>11</sup>. The so-called Double Q Company had set up machines that had operated for some time. Hence, the questions left in the minds of Ugandans were whether the existence of this sand mining company had just been spotted for the first time or whether there had been a disagreement between the company and the authorities, and then the authorities decided to expose them. It is difficult for one to believe that the machines the Chinese people were using were brought to the country, transported to Lwera and started harvesting sand without the government and National Environment Management Authority (NEMA) being aware.

Another report further provides that two Chinese-owned companies in Lwera, known as Hesahduo and Lukaya, dealers in sand mining, started mining sand illegally in 2014 until they received operational licenses in 2015<sup>12</sup>. However, the report did not show whether the Chinese company was fined for this illegal sand mining activity. It isn't easy to find such happening in other jurisdictions where there are proper laws and people monitoring such activities. Thus, Uganda needs a functional and effective committee/organisation to deal with this sector properly.

#### **4. Sand mining and corruption in Uganda**

In Uganda, the whole chain of the sand mining trade, excluding the people who buy the actual sand, is controlled by violent and intimidating groups and despite their violent actions, they are protected by the state machinery<sup>13</sup>. They are set in groups of around eight gangs operating their business in one site, and they keep struggling to acquire each other's territory<sup>14</sup>. United Nations Environment Programme (UNEP) reiterated that the sand mining sector is majorly comprised of illegal, violent, and criminal characters because of its

11 *Monitor* epaper, <https://www.monitor.co.ug/uganda/news/national/seven-chinese-nationals-arrested-over-illegal-sand-mining-in-lwera-4685144> accessed on the 10<sup>th</sup> July 2024.

12 *Monitor* epaper <https://www.monitor.co.ug/uganda/lifestyle/reviews-profiles/sand-mining-in-lwera-the-dark-side-and-bad-deals-1669156> accessed on the 29th June 2024.

13 *World Wide Fund for Nature (WWF)* organization, <https://www.worldwildlife.org/pages/tnrc-blog-sand-mafias-environmental-harm-corruption-and-economic-impacts> accessed on 3rd July 2024.

14 *World Wide Fund for Nature (WWF)* organization, <https://www.worldwildlife.org/pages/tnrc-blog-sand-mafias-environmental-harm-corruption-and-economic-impacts> accessed on 3rd July 2024.

informal nature<sup>15</sup>. According to a report by Kotsadam on Mining and Corruption in Africa. The findings show that mining causes corruption to increase<sup>16</sup>. In Uganda, in the mining places, track drivers pay many bribes, and this leads to an increase in corruption<sup>17</sup>.

In Kenya, the situation is similar; corruption in the sand mining sector is a soaring problem. In the sand mining sector, politicians and the police's image is always tainted with corruption and corrupt tendencies and allegations of them being involved in illegal sand mining<sup>18</sup>. Hence, there is further confirmation that as the local population struggles to eliminate illegal sand miners, they also engage in running battles with the police because they tend to engage in illegal sand mining and corrupt tendencies<sup>19</sup>.

## 5. Dangers of sand mining

The dangers of sand mining are enormous. A report from the Lwera sand mining site in Uganda titled 'The dark side and bad deals' provides that the dangers of sand mining range from severe effects on the environment due to heavy extraction putting the fragile ecosystem in danger, including water pollution, destruction of natural vegetation, floods due to destruction of the rivers and leaving behind excavated pits and ditches that are destroying the beauty of the surface earth<sup>20</sup>. All this happens due to unregulated sand mining activities. NEMA is the government agency in charge of monitoring, supervising and coordinating all activities related to environmental management in Uganda. However, the organisation is undergoing various challenges, such as insufficient funds for operations, poor strategic planning, inadequate resources, and inadequate equipment for environmental monitoring, there is also a problem of communication not coming on time and lack/poor coordination between the departments<sup>21</sup>. Further challenges are such as people with licenses dig beyond the authorised depth because of a lack of monitoring mechanisms in place, the increasing population which has put pressure on the available resource, the so-called powerful politicians who occupy wetlands and they cannot be questioned. There is a concern that NEMA is not doing its work as it should regarding monitoring and regulating these activities possibly, this could be due to the above-stipulated reasons. On the other hand, NEMA manages enormous activities. Hence, it is difficult to pay keen attention

15 *Shitima, and Suykens*, at page 5.

16 *Kotsadam, A., Olsen, E.H., Knutsen, C.H. and Wig, T*, Mining and local corruption in Africa, *American Journal of Political, Science* No. 9/2015, 2015 at page 3.

17 *Aduda, L. and Bolf L*, The conflict potential of sand: Illegal sand mining on the African continent. *Environment and Security*, 1-20 2024 at page 14.

18 *Aduda, L. and Bolf L*, at page 12.

19 *Aduda, L. and Bolf L*, at page 12.

20 *Monitor* epaper <https://www.monitor.co.ug/uganda/lifestyle/reviews-profiles/sand-mining-in-lwera-the-dark-side-and-bad-deals-1669156> accessed on the 29th June 2024.

21 *George Lubega Matovu* Greenwatch organization available on <https://greenwatch.or.ug/technical-presentations/challenges-monitoring-and-enforcement-environment>, accessed on 27 July 2024.

to sand mining in particular. This is the reason this paper suggests that the government should come up with an organization/committee that will only be in charge of sand mining monitoring, issuing and cancelling licenses to make this sector effective.



*One of the extraction sites after sand mining is completed. There are several unprotected sites of this nature that prove dangerous to animals and people / Credit: Alex Tumuhibise*

A report by Plat further provides that ‘Beaches around the world are disappearing. No, the cause isn’t sea-level rise, at least not this time. It’s a little-known but enormous industry called sand mining, which every year sucks up billions of tons of sand from beaches, ocean floors, and rivers to make everything from concrete ...’<sup>22</sup>. This exhibits the alarming situation of sand mining, which nobody talks about. The majority of people talk about poor disposal of plastic and wetland encroachment. However, there is another danger and that is sand mining. The discussion in this paper is hardly to prohibit sand mining but rather to advocate for regulated sand mining to save the environment for current and future generations.

From Kakumiro District in Western Uganda, ‘sand mining puts human, aquatic lives at risk’<sup>23</sup>. The report provided that there is a high demand for the commodity, which goes hand in hand with the lack of legal enforcement hence, this has made it possible for small-scale miners to continue harvesting the sand without observing the rules on

22 *Coastal Care*, group of people who care about the Coast <https://coastalcare.org/2018/03/sand-mining-in-uganda-poses-a-serious-threat-to-the-environment/> accessed on 29<sup>th</sup> June 2024.

23 *Tumuhimbise Alex* Journalist <https://earthjournalism.net/stories/illegal-sand-mining-in-uganda-puts-human-aquatic-lives-at-risk> was accessed on 29th June 2024.



environmental protection<sup>24</sup>. The report further states that sand mining degrades wetlands, which work as water sources and destroy human habitat and marine animals<sup>25</sup>. Further discussion indicates that ‘since 2014, more than 16 wetlands have been degraded in the district as a result of sand mining’ in Mabengere, Kaitanjojo, Kabale, Mpongo, and Masaigi are the most affected wetlands in the Mpasana, Kisiita, and Kitikara sub-counties<sup>26</sup>.

The extract below is an image of one of the sand mining sites in Lwera, showing how sand mining created dangerous water trenches.



In 2016 the Ugandan Parliament Committee on Natural Resources went into an unplanned investigation of the sand mining activity in Lwera on the Masaka–Mbarara Highway. The committee established that there were over 40 sand exporters, and this sand was taken to countries such as Tanzania and Dubai.<sup>27</sup> Another report shows that most sand is transported to Kampala to the urban areas to support the booming construction industry<sup>28</sup>. If there were a proper law regulating this kind of export, the same law would guide the extract and the extent to which sand can be harvested in a particular area and this would be

24 *Tumuhimbise Alex* Journalist <https://earthjournalism.net/stories/illegal-sand-mining-in-uganda-puts-human-aquatic-lives-at-risk> was accessed on 29th June 2024.

25 *Tumuhimbise Alex* Journalist <https://earthjournalism.net/stories/illegal-sand-mining-in-uganda-puts-human-aquatic-lives-at-risk> was accessed on 29th June 2024.

26 *Tumuhimbise Alex* Journalist that was compiled in March 2021. <https://earthjournalism.net/stories/illegal-sand-mining-in-uganda-puts-human-aquatic-lives-at-risk> was accessed on 29th June 2024.

27 *The independent News* <https://www.independent.co.ug/government-drafts-bill-to-regulate-sand-mining/> accessed on 1<sup>st</sup> July 2024.

28 *Monitor* epaper <https://www.monitor.co.ug/uganda/news/national/seven-chinese-nationals-arrested-over-illegal-sand-mining-in-lwera-4685144> accessed on 10th July 2024.

followed by strict monitoring. It could categorically state how many tons can be exported in a year. It would also be possible for the government to enter into a memorandum of understanding with the countries interested in buying the sand and generate income to fund government activities. Individuals benefit from this natural resource, which causes losses on the government's side. According to Aduda, Kenya is experiencing water scarcity because of illegal sand mining<sup>29</sup>.

Consequently, all these reports on the dangers of sand mining should work as a wake-up call for the government of Uganda and other governments so that a proper legal framework is put in place to regulate sand mining to save the environment from further degradation. Sand should be harvested because it is needed for various economic development activities. However, the extraction should be carefully monitored to prevent more unbearable environmental dangers in this era of severe climate change.

## **6. The importance of a Legal framework to protect the sand mining sector**

The complex dynamics between the demand for sand, environmental conservation, and regulatory frameworks present a complex challenge for Uganda. Balancing the need for sustainable development and the protection of natural resources requires a comprehensive and integrated approach that addresses the country's socio-economic, environmental, and legal dimensions. Sand mining in Uganda has become an issue of contention because of its effects on the environment. The Country is growing tremendously, and cities and towns are quickly expanding, putting pressure on the growing demand for sand. This consequently affects the environment and results in long-term effects on the quality of water and soil erosion<sup>30</sup>.

Sand mining is a fast-growing demand due to urbanisation and crucial demand in the construction industry. It is important and urgent that the Ugandan parliament enact proper laws to govern sand mining extraction, sale and exportation to other outside countries. The Ugandan Constitution of 1995 under Article 244<sup>31</sup> did not include sand in its definition of Minerals or any other building materials. Under the same Article, the Ugandan parliament is mandated to enact laws to govern these minerals. In 2022 the Parliament enacted a law governing Mining and minerals, one would expect sand to be covered under this law. To the contrary the Act deals with other minerals. According to Tajudeen, while looking at the general definition of minerals, sand also enjoys the status of minerals<sup>32</sup>. The law under

29 Aduda, L. and Bolf L, at page 12.

30 *Africa News* news <https://www.africanews.com/2023/04/25/uganda-sand-mining-sparks-fear-and-ebate/> accessed on 2<sup>nd</sup> of July 2024.

31 The Uganda Constitution of 1995 Art. 244 (3) provides that For the purpose of this article, "mineral" does not include clay, murram, sand or any stone commonly used for building or similar purposes.

32 Sanni, Tajudeen. "The Legal Framework for Sand Mining in Uganda." *Legal Instruments for Sustainable Soil Management in Africa* (2020): at page 2



the interpretation section mentions the following as “precious minerals.” These include: ‘precious stones, namely agate, amber, amethyst, cat’s eye, chrysolite, diamond, emerald, garnet, opal, ruby, sapphire, and turquoise. As well as precious metals, namely gold, silver, platinum, iridium, osmium, palladium, ruthenium, rhodium, or any other substances similar to any of them<sup>33</sup>. Sand was not given priority in this law.

Uganda has laws governing its various resources. Sand mining needs a proper legal framework to govern this sector. Hence, this paper proposes that since this is a big sector and its activity has a big impact on the environment, the parliament should enact its law. Sand is included in the National Environment Management Authority (NEMA) Act<sup>34</sup> under the interpretation section as one of the natural landforms that form the beach, among others, such as Gravel and rock. The NEMA Act is the law governing the actions and operations of the organisation to protect all these areas that are subject to mining and other activities that affect the environment. Sand mining is mentioned under section 53, which provides that riverbanks and lakeshores shall be protected against human activities that might negatively affect them and the living organisms. The same law under Schedule 4 provides for the amount of sand that can be extracted daily between 2m<sup>3</sup> and 5m<sup>3</sup><sup>35</sup>. Under Schedule 6, the law further provides for sand mining as one of the regulated activities on the wetlands. This paper argues that the provision and regulation of sand mining in the NEMA Act is very demeaning compared to the dangers that sand mining activities impose on the environment. Hence, this paper advocates for proper legal regulation, governance and monitoring organisation for proper implementation of sand mining activities. The law provides for extraction of 2m<sup>3</sup> and 5m<sup>3</sup>. However, with NEMA weaknesses as highlighted above, it is glaringly clear that the organisation cannot monitor this activity to ensure that the extraction of sand is within the required limit. In 2023 United Nations Environment Programme (UNEP) raised the same concern that ‘sand is a foundation of human construction and fundamental ingredient in concrete, tarmac, glass, and other building materials’. However, sand harvest remains unregulated.

The government of Uganda has put some efforts in terms of regulation of sand mining management such as issuing licenses and permits to control the extraction of sand and enforcing environmental standards to minimise the negative effects of sand mining operations. However, there are still some loopholes, as shown in this paper, that some Chinese could access the sand mining grounds and mine for quite some time before it could come to the management's attention. Further, these efforts have often been undermined due to a lack of legal framework and unregulated sand mining activities, leading to ongoing environmental concerns. All this is due to a lack of stringent measures and a law that would impose fines on the violators.

33 The Mining and Minerals Act, 2022 section 8 which is the interpretation section.

34 The National Environment Management Authority Act CAP 153 of 1995 Section 2.

35 The National Environment Management Authority Act CAP 153 of schedule 6.

Investments as a source of external finance for developing countries should be enhanced and protected to achieve the purpose. Uganda is gifted with natural resources, including valuable minerals. However, the industry continues encountering challenges such as a lack of legal framework, small-scale mining, low funding, and institutional capacity to manage the resources. The study argues that legal frameworks and policies should be implemented to safeguard investments and keep corruption and corrupt officials out of the way so that investors and the state benefit from these sectors.

## **7. Sand mining in other jurisdictions**

In Kenya, sand mining in the Indian Ocean has been cited as a growing problem<sup>36</sup>. A major fight over sand and the environment in Kenya erupted in 2016 when a Chinese construction company, the China Road and Bridge Corporation, mined sand from the ocean to construct the standard gauge railway and the Mombasa Port terminal with the support of the Japanese International Cooperation Agency<sup>37</sup>. In Cambodia, people who talk about environmental degradation due to sand mining have been killed and others jailed<sup>38</sup>. In Cambodia, miners take three times the sand reported to the Cambodian government to finance their other economic activities<sup>39</sup>.

In Southwest China, highly automated sand mines offer little local employment. In the last two decades, ships have harvested massive sand in the eastern Chinese province and the harvest altered the ability of the ecosystem to function properly<sup>40</sup>. The drastically growing construction industry and glass-making fuelled this kind of sand mining<sup>41</sup>. In Nepal, labour-intensive sand mining employs hundreds of people<sup>42</sup>. Likewise, in Myanmar, households living along rivers engage in informal river sand collection<sup>43</sup>. In Nepal, a report

36 BAG, PO Private An assessment of the contribution of natural resources use conflict to poverty alleviation with special reference to sand harvesting in makueni county-kenya, International Journal of Education and Research, Vol 3, no. 8, 2015 at pg 135.

37 BAG, PO Private at page 142.

38 *Yale environment the school of the environment* <https://e360.yale.edu/features/2023-film-contest-second-place-cambodia-sand> accessed on 10th July 2024.

39 *Yale environment the school of the environment* <https://e360.yale.edu/features/2023-film-contest-second-place-cambodia-sand> accessed on 10th July 2024.

40 *Reuters International news and Information Company* <https://www.reuters.com/business/environment/reuters-graphic-devoured-how-sand-mining-devastated-chinas-largest-freshwater-2021-07-19/> accessed on the 10<sup>th</sup> July 2024.

41 *Reuters International news and Information Company* <https://www.reuters.com/business/environment/reuters-graphic-devoured-how-sand-mining-devastated-chinas-largest-freshwater-2021-07-19/> accessed on the 10<sup>th</sup> July 2024.

42 *Hatlebakk, M*, 2023. River sand mining as a livelihood activity: The case of Nepal. *The Extractive Industries and Society*, 14, 2023 at page 5.

43 *Rajesh Sada and Anushiya Shrestha*, Report on state of sand mining at peri-urban kathmandu: case of JHAUKHEL VDC 2013 at page 3.

has also shown that sand mining has many benefits but the disregard for the environment brings along a series of socio-economic and environmental problems<sup>44</sup>.

In India, the problem of unregulated sand mining is not different from Uganda. According to Chauhan, some goons/mafias are involved in sand mining and they threaten the whistleblowers<sup>45</sup>. The scholar further reports that sand is a limited resource that is being exploited in large quantities shortly there is no guarantee that it will be available. Hence, its extraction required to be regulated<sup>46</sup>. In India, sand mining is regulated by the India Penal Code Act of 1860<sup>47</sup> the law provides for several persons committing an act with common intent and criminal conspiracy<sup>48</sup>. In addition to that, illegal sand mining is equal to stealing public property<sup>49</sup>. The law further states that the license for the motor vehicle found transporting illegally harvested sand shall be suspended<sup>50</sup>.

Indonesia has laws on sand mining. However, its implementation is still lacking. This is associated to the lack of awareness of the existing legal framework, problems related to finance, and other factors associated with obtaining a permit/license for sand extraction<sup>51</sup>. Hence, the problems related to sand mining are almost the same everywhere. There is an agreement that this kind of economic activity, if it is not regulated is a hazard to the environment and the ecosystem.

## 8. Conditions of miners in sand mining activities

People involved in sand mining are of different age and economic status. Children are also involved in sand mining. The researchers are also concerned about the working conditions for sand miners. Sand mining can be dangerous, especially for young children and teenagers wanting to earn some money. Some miners sometimes drown as a result of harvesting sand using their hands underwater, and hundreds of children who mine sand have died due to harsh working conditions, while the rest drop out of school for sand mining activities because they want to make money for themselves and their survival<sup>52</sup>.

44 Rajesh Sada and Anushiya Shrestha at page 3.

45 Chauhan V, Illegal Sand Mining: an Unsustainable Approach Encroaching Environment. *GLS Law Journal*, 5(2), 2023 at page 98.

46 Chauhan, V, page 98.

47 The Indian Penal Code, 1860 ACT NO. 45 of 1860 Section 120B and Section 34.

48 The Indian Penal Code, 1860 ACT NO. 45 of 1860 section 120B provide for criminal conspiracy and the act is punishable.

49 Chauhan, V, at page 98.

50 Chauhan, at page 98.

51 Adiningsih, H.I., 2022. Enforcement Of Environmental Laws Against Illegal Sand Mining In Sirkandi Village, Purwareja-Klampok District Based On The Mineral And Coal Mining Law. *UMPurwokerto Law Review*, 3(2), 2022 at page 164.

52 Nahule, V.R. and Ayebare, R.T, 2023. Uganda: Mineral Policy. In *Encyclopedia of Mineral and Energy Policy* (pp. 795-798). Berlin, Heidelberg: Springer Berlin Heidelberg.

Most sand mining sites consist of people with violent characters, secrets, and spies, who cannot be trusted<sup>53</sup>. A report from India shows that mafias in sand mining in India have killed many people in the sand mining sector, and journalists fear to report because of fear for their lives<sup>54</sup>. However, all these remain unknown unless one is engaged in these activities. All these behaviours are harmful to the young growing and school-going children. This style of sand mining that children and bandits do is not monitored. As a result, the income that emanates from it is unknown to the Ugandan government.



*Boys mine sand at Nabuganyi Landing Site in Kayunga District on Saturday. PHOTO BY FRED MUZAALE*

The above photo by the Monitor shows children from the Kayunga district engaging in sand mining activities<sup>55</sup>. These children are supposed to be in school but, instead, are participating in sand mining activities. Most of them participate in these economic activities because they need money for fees and sometimes to support their families. Although Uganda's primary education is free, these children take part in sand mining activities to be able to get money to pay for the extra money that is required by the schools<sup>56</sup>. This money accounts for school meals, firewood, the construction of toilets, and other small repairs that are done at school, for which the government does not provide financial support.

53 Alfvén, G, The killers of sand: a case study on how a shortage of sand is breaking down India from within 2019 at page 39.

54 Alfvén, G, at page 39.

55 Monitor epaper <https://www.monitor.co.ug/uganda/news/national/kayunga-children-abandon-school-for-sand-mining-1772096> accessed on the 3rd of July 2024.

56 Aljazeera news television Channel <https://www.aljazeera.com/news/2012/1/8/uganda-children-mining-sand-to-pay-for-school> accessed on the 3rd July 2024.

According to Busingye, when a child is engaged in child labour, it damages the brain of the child, and as a result, the child experiences physical and mental health challenges, hence deprivation of the child's right to education freedom and development<sup>57</sup>. Child labour, in most cases, comes from parents' unemployment. Urbanisation moves hand in hand with unemployment and laws that are in place to protect the children are not strictly enforced to put to an end this vice<sup>58</sup>. Parents and guardians should come up with a strategy for how to eradicate child labour in the mining sector and other sectors by creating solutions such as capital for children in such communities, child support grants, and offering programs that empower these children to be able to pick up activities that are child friendly<sup>59</sup>.

Therefore, it is the duty of all the stakeholders to protect children's rights to see that they are allowed to go to school and study. Uganda has a law on children, The Children Act<sup>60</sup>. Section 8 provides for children's protection from harmful labour. A person shall not employ or engage a child in any activity that may be harmful or hazardous to his or her health or physical, mental, spiritual, moral or social development<sup>61</sup>. It is high time for the state to see that this law is effectively implemented to protect the children.

## 9. Conclusion

Corruption in sand mining exists. The legal framework requirement is an important aspect of this sector for effective performance for the investors and the country's benefit. Investors are picking interest in this sector. Hence, the parliament must ensure that relevant laws are enacted to protect this resource from unscrupulous individuals who do not have licenses and do sand mining without following environmental management recommendations. The parliament should take the initiative to develop laws regulating the industry. This law should be able to restrict areas that should not be mined and provide areas that can be mined and the extent to which they can be mined. Further, a composition of a special body/committee that shall enforce these laws and be able to put penalties on the violators

57 *Busingye, J*, Impact of child labor on academic performance of pupils in selected primary schools in Mpigi town council, Mpigi district, central region-Uganda 2017 at page 13.

58 *Busingye, J*, at page 14.

59 *Maraka, A*, An investigation of the impact of child labor on academic performance of pupils in selected schools in Nadunget Sub-County, Moroto District, Karamoja Sub Region, North East Uganda 2017 at page 5.

60 The Children Act chapter 59 of 2016.

61 The Children Act chapter 59 of 2016 section 8. The law further provides for the harmful areas such as one that imposes to the child physical or psychological torture, sexual abuse, work underground, work at dangerous heights or in confined spaces, work with dangerous machinery, equipment and tools, or manual handling or transportation of heavy loads, work with chemicals and dangerous substances, work under extreme temperatures, high levels of noise, or working for longer hours; or any other form of child labour which includes slavery, trafficking in persons, debt bondage and other forms of forced labour, forced recruitment for use in armed conflict, prostitution, pornography and illicit activities.

should be put in place. The committee shall ensure that anyone operating mining activity has a valid license. There is a need to launch mass education to educate the public on the dangers of random sand mining. In most cases, the people conducting these activities do it out of ignorance. They do not understand the effects of leaving large pits behind. Hence mass sensitisation is an important aspect. Finally, it would be prudent for the government to create an alternative source of income for the children and the youth involved in sand mining because this is not a safe place for them.