



■ Heavy excavation machinies at Mpape mines area

## Quarry activities, borehole drilling pose risks to Abuja residents, others

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for two weeks showed that vehicles meant for that purpose are a common sight. They move from the city centre to the outskirts to drill boreholes for interested house owners. Over 20 vehicles were seen along the Abuja-Nasarawa expressway on a daily basis. Did we make any efforts to speak to them.

Mr Henry Akpen, a geologist who heads a drilling company in Abuja said companies were requested to do a survey to locate the exact point for easy water extraction. He, however, confessed that due to government's failure to provide tap water for residents, earthquake may not be ruled out in Abuja in the next 10 to 20 years.

"I said this in 2016, and by 2018 we experienced earth tremor in parts of Abuja. This is because of the alarming rate at which people sink boreholes because government failed to provide potable water in the entire city," Akpen explained.

Mr Joel Nuhu, another borehole driller, confirmed that beside the preliminary survey to determine water sound, there's no other approval.

"We are registered and guided by code of practice because we have a formal association. It is not illegal to drill boreholes within a specific mass," he said.

The Association of Water Well Drilling Rig Owners and Practitioners (Borehole Drillers Association) (AWDROP) said its members were working within the extant Federal Government's regulation, which is the Water Act of 2008.

A drilling guide document obtained from the AWDROP did not show any provision for permit for borehole drilling. According to the guide, under the Water Act 2008, any borehole or well yielding less than 20 cubic metres per day (4,400 gallons daily) does not require consent to drill.

However, industrial water plants, which are not common sight in the capital city, require

the permission of the authorities concerned, the AWDROP stated.

For drilling above 20 cubic metres, it stated, "At this stage, it is worth noting that you may also require planning permission from your local council. Please make sure that you ask questions from the relevant council. This should not incur any cost."

Quarry and artisanal mining activities are spreading across Abuja and its environs due to massive demand for building materials and solid mineral deposits. A survey across Mpape in Abuja, Auta Balefi and Uke in Nasarawa State and parts of Suleja in Niger State shows continuous mining activities.

Driving through Mpape road, one could clearly see new residential buildings springing up in a valley once known as a quarry site. The densely populated suburb is a sight to behold as heavy duty vehicles (tippers) which convey quarry materials, as well as motorcycles, nearly take over the narrow road.

Few meters from the main town lies a sprawling untarred dusty road to a rocky terrain that houses over four quarry sites. Mr Abubakar Musa, who guided our reporter through the town, said a traffic gridlock caused by the trucks was a normal sight.

"Some days, you can count up to 50 trucks ferrying stones and quarry materials from the sites here in just about 30 minutes. They have to pass this narrow market road. They only stopped after an initial three-week ban of such activities when the tremors occurred," he noted.

Gabriel Magaji, a quarry worker who lives in Mpape Durumi village, said there were three more sites in neighbouring Jikoko village. He said he had not seen government officials after the minister of the FCT, Malam Muhammad Bello visited.

Despite the hazards, he was happy that the quarries were reopened. "I was happy when they lifted the ban and loading of

gravels and stones started again. This is because the livelihood of our people depends on this," he said.

Josiah Bello, a driver in one of the construction firms and resident of the place, said quarry operators paid taxes to the ministry in charge of mining and the FCT, and blamed government for the bad road. "If the government knows that we are here, this road should have been tarred," he pointed to the dusty road as a tipper loaded with gravel crawled past.

He said that on a daily basis, about 100 trucks load from the five quarries in the area.

Speaking of the dangers of uncontrolled quarry activities, he said, "That is one of the risks involved in it. There could be tremor or even earthquake when such open pits and lakes become too many."

Our reporter observed that estates are already springing up at the entrance of the suburb, in valleys where excavations were done before.

"They have even christened those areas as Maitama Extension, because of its closeness to Maitama and Aso Rock Villa. Unless

measures are taken, they could pose a risk if tremors occurring in that valley," Haruna noted.

A geologist and member of the presidential committee that investigated the tremor in Mpape, Dr Adepelumi Adekunle Abraham of the Department of Geology, Obafemi Awolowo University (OAU), Ile-Ife said, "The unregulated and indiscriminate borehole drilling needs to be curtailed immediately. Mining should be decentralised and the issuance of licenses regulated without any preferential treatment."

In his submission, an expert on medical geo-hazards and lecturer in the Department of Geology and Mining, Nasarawa State University, Keffi, Dr. Nghargbu K'tso, advised government to set up a regulatory body backed by an act of the National Assembly.

"The body should, amongst other responsibilities, specify a maximum number of boreholes and square areas with spacing requirements. An embargo should be placed on indiscriminate drilling of boreholes and mining. The ministries of water resources and that of mines should strengthen inspection to this effect.

"We have said that the clustering of boreholes and quarries in the Mpape, Bwari and Dutse Alhaji axes is unhealthy. They are constituting hazards to the environment. Imminent cracks have developed on some of the buildings in those areas. Also, whenever, quarry activities were taking place, the buildings in the area usually vibrate excessively," Dr K'tso noted.

The director, Artisanal and Small Scale Mining Department of the Ministry of Mines and Steel Development, Mr Ojeka O. Patrick, confirmed the effects of rock blasting, which he blamed on small scale miners and quarry operators. He, however, exonerated artisanal miners who use their hands to crack stones.

"Earth tremor is not a result of the work of artisanal miners who

crack stones with their hands. It may be as a result of rock blasting that was going on there before these people got there," he said.

Ojeka further confirmed the suspension of new quarry permit for the Mpape axis since 2018. He said: "They are being monitored daily, that is why you don't see those major players. In conjunction with the minister of the FCT, no permit is granted by anybody to operate quarry in Abuja for now and it is still binding.

But our investigation shows that existing quarry operators are still blasting rocks at Mpape.

### Survey agency procures monitoring tools

In response to our enquiry, the director-general of the Nigerian Hydrological Survey Agency (NGSA), Dr Abdulrasaq Bello, said a natural phenomenon like earthquake was beyond his agency. He explained that an investigation by Julius Berger, a construction firm, and NGSA records show that where the tremor frequencies were recorded in Mpape and Maitama is the shear zone. "A shear zone is where there have been previous mining activities. What we are sensing now is that it is the re-activation of what has happened before," Dr Bello clarified.

He said the Federal Government had acquired and installed seismometers around Abuja to capture information overtime. "With that we can now confidently start predicting and advise appropriately. It has been installed and it is recording now. Even the last one that happened, which people said was tremor, was actually blasting," he said. He said there were efforts to have enough seismometers that would cover the density of the country. "With that, we can now key into the Worldwide Network of Seismometer, which countries like South Africa belong to," Bello said.

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