

## FOCUS: Rock Quarries

The lack of job opportunities in villages and the decreasing land space is leading to an ever increasing movement of poor families to towns. Mega cities are emerging and urban slums are expanding.

Such rapid and unplanned expansion of cities has resulted in degradation of the urban environment. It has widened the gap between demand and supply of infrastructural services such as energy, housing, transport, education, communication, supply and sewage recreational treatment and services, thus depleting the precious environmental resource base of the cities.

The result is the growing threat to air and water quality, as well as a tremendous increase in garbage, the spread of slums and less land for growing crops -- all of which contribute to urban poverty.

With the growing income of many people there has also been an increase in infrastructure development. This development has brought with the need for building materials such as sand, rock and gravel – leading to more open pit mines – or rock quarries.

## The Weekly

#### Information Resource Bulletin

The goals of the Weekly Bulletin are:

- Bring listeners in the project area the latest information on natural resources, the environment and agriculture
- Focus on solutions, what works and what people can do
- Encourage listeners to share both their questions and solutions (African solutions for African problems)
- Raise awareness of issues that need to be discussed to affect public policy.
- Bring the latest solutions and practices that have relevance to this region from around the world
- Identify and link other NGOs working in the region share the project interests and goals
- Give the participating journalists guidance and tips on their reporting on these issues

# Effects of quarrying on the environment

Rock quarries cause significant impact on the environment. In particular, it is often necessary to blast rocks with explosives in order to extract material for processing, but this method of extraction gives rise to noise pollution, air pollution, damage to biodiversity and habitat destruction.

Air pollution, generally, and especially dust from quarry sites are known to be responsible for damaging vegetation and triggering crop yield losses — so these open-pit mines create a threat to the survival of plants in industrial areas.

Quarrying carries the potential of destroying habitats and the species they support. Even if the habitats are not directly removed by excavation, they can be indirectly affected and damaged by environmental impacts —

such as changes to ground water or surface water that causes some habitats to dry out or others to become flooded. Even noise pollution can have a significant impact on some species and affect their successful reproduction.

Quarries in level areas with shallow groundwater or located close to surface water often create drainage problems. And when a quarry site has been abandoned most of these sites become lakes.

These quarry lakes or dambos affect the nearby communities. Most of the communities may want to draw water from these sites, but this water is not safe to drink.

Lusaka has many quarry sites that have been abandoned – creating a dangerous for children, the water supply and health. The stagnant water can be a breeding ground for mosquitoes – and thus malaria.

### Activities for Journalists

Unfortunately, quarrying involves several activities that generate significant amounts of noise. The excavation of the mineral itself involves considerable noise, particularly if blasting methods are used.

Following this, the use of processing equipment to crush the stone and heavy equipment the materials. to transport contribute even noise to the more environment. The mining, drilling and harvesting are the result of large-scale development projects, but have a considerable impact on the natural environment.

Some types of quarrying have brought with it diseases especially in areas where it is done illegally.

Many communities, especially in Lusaka, have resorted to illegal quarrying. It is often done by hand – with workers using hammers to break up the stones.

This has made many people sick since most can't afford to buy protective clothing for their activities. The dust particles from the crushed stone can cause blindness if a chip lands in a workers' eye and trigger upper respiratory illnesses – by breathing the dust day in and day out.

The illegal mining in the urban communities has led to the creation of water pits that people draw water from even though the water is not safe to drink.

Though the Lusaka City Council is given a mandate to stop these illegal activities happening around the city of Lusaka, they are not able to do that either due to limited funds or human resource.

While quarries can cause significant impact to the environment, with the right planning and management, many of the negative effects can be minimized or controlled and in many cases, there is great opportunity to protect and enhance the environment, such as with the relocation of existing habitats or the creation of new ones.

Unfortunately, many of the quarry sites in Zambia are illegal and are in rural areas were regulations are relaxed.

Though there cannot be an immediate solution to quarrying there is need to regulate areas where quarrying should be done and also to look at technologies that promote the use of recycled waste for building materials.

What, if anything, is your local council doing to stop the illegal quarrying that is taking place in the urban communities?

If nothing is being done, ask the local council why.

#### **Useful Link**

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