
Burma: Behind the glitter of rubies, sapphires and jade

Burma is famous for its rich deposits of gemstones which include rubies, sapphires, and jade. The town of Mogok, which is located in the eastern corner of Mandalay Division along the Shan State border, has been the centre for ruby and sapphire mining for eight-hundred years.

The mining enterprises operating in Mogok were first taken over by British interests in 1888. They were later nationalized in 1962 following the military coup headed by General Ne Win. Until comparatively recently, however, these enterprises were relatively small-scale and caused limited damage to the surrounding environment. Since 1989, there has been a major shift towards large-scale mining operations which has transformed the industry.

The rapid rise of non-local actors, capital, and equipment have also accelerated the ecological devastation of the region. Between 1989-1992, modern mining equipment caused extensive damage, especially around Mogok and Mineshu. In the process, local businessmen have been displaced by increased competition and corruption. They now find themselves working as poorly paid laborers for outside business interests. Another effect has been the gradual migration of workers and small businessmen from Mogok to mining areas in Shwe Gin, Pegu Division. In the process, many local Karen miners and farmers have experienced the same social, economic, and environmental problems that prompted these entrepreneurs to leave Mogok in the first place.

The expansion of intensive forms of resource extraction is, in most cases, unsustainable. Mining activities are occurring in a context where there is no regulatory oversight. People working in mines during the rainy season regularly risk drowning from flash floods or the collapse of retaining walls. Workers who sort gems after they are removed from the ground must do so under the hot sun since much of the surrounding area has been clear-cut and is devoid of shade. Workers have also reported that breaks are rarely allowed and that they regularly face verbal and physical abuse from the soldiers who provide on-site security for the companies.

More recently gravity-fed, multi-level sluices with screens have been used. But with the arrival of the outside business interests, miners have begun using hydraulic gold mining. This highly destructive method uses diesel-powered pumps to force jets of pressurized water through a hose which is then aimed at a river bank or the side of a rocky outcropping. Under such pressure, large amounts of rock and earth are simply washed away. The gold-bearing sediments are then channeled through a large sluice which is typically lined with liquid mercury (quicksilver). The mercury captures the finer particles of gold through a chemical process known as amalgamation and they are later separated. The remaining mix of debris and polluted muds are washed downstream. Since mercury is highly poisonous to people and animals, the practice has been banned in many places around the world. Currently, it is unknown whether these chemicals are being used in these two locations, although it is widely used elsewhere in Burma for gold mining, having caused severe environmental damage.

Local sources report that mining activities, especially the use of hydraulic mining, around Mogok and Shwe Gin Township have led to a common pattern of problems, including:

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- * The collapse of river beds due to the removal of silt and soils from banks of the river, the base of trees and walls
 - * Increased levels of soil erosion
 - * Increased levels of sediment
 - * Reduced fish stocks due to changes in water temperature
 - * Increased water pollution from mining tailings (i.e. the finely ground up materials left after the desired ore or mineral is removed)
 - * Increased water pollution from “slurry” or acid mine drainage (i.e. the mixture of tailings, water, and chemicals, usually cyanide or mercury)
 - * Increased water pollution due to diesel fuels and oils leaking from the pumps and other mining equipment
 - * The loss of ponds and other freshwater sources, such as small creeks, from over-pumping
 - * The destruction of arable fields due to “deep trenching” and indiscriminate use of heavy equipment (e.g. bulldozers and heavy equipment)
 - * Increased use of timber to construct sluices and reinforce underground tunnels
 - * Increased used of non-timber forest products (e.g. bamboo and rattan).

Given Burma’s political and economic reality, most people have little possibilities of opposing these mining activities. Simply, people in these parts of Burma are caught between powerful military and business interests. With few alternatives left, many communities are forced to participate in the unsustainable exploitation of their own local natural resources, even though they know they are destroying the very ecosystems they need for their own survival.

Excerpts from: “Capitalizing on Conflict. How Logging and Mining Contribute to Environmental Destruction in Burma”, by Earth Rights International with Karen Environmental & Social Action Network, October 2003. The full report can be downloaded from <http://m1e.net/c?11841838-pSMLVzXzp5IzM%40347152-DvtuggLI338vc>