



# Don't underestimate the impact

It is widely understood today that the viability of a new mining operation – specifically in remote regions – is to a large extent dependent on supporting infrastructure, primarily access roads to site. Despite this, few companies take cognisance of the associated environmental impacts or take into account that such access corridors leave a lasting legacy well beyond a mine's active lifespan, **Knight Piésold** environmental section manager **AMELIA BRIEL** tells **LAURA CORNISH**.

**"Mining is a temporary land use.** Inevitably natural resources run out or the economic viability is depleted, leading to mine closure. If managed properly, a mine's environmental footprint is actually negligible in relation to the larger impacts associated with its development, especially because it has become common

practice to rehabilitate the mining area post closure. Unlike the mining activity itself, logistics transport infrastructure established to support that mine is often permanent and outlives the mine," Briel starts. Subsequently, its immediate and long-term impact on the environment and its inhabitants should be evaluated and properly managed.

But transport corridors are also easy

targets for geopolitical risks which tend to override the softer issues of environmental and social sustainability. Nonetheless, these concerns are significant in their own right, Briel highlights.

"Besides general environmental degradation caused by linear infrastructure (including power lines), it also results in an influx of local people looking for work or to benefit from new economic development opportunities." This habitation causes major long-term devastation, often permanent, to the environment and ultimately requires substantial cash injections to reverse the effects. Overfishing, deforestation, artisanal mining and slash-and-burn agriculture are just a few examples of the impacts influx habitation can cause.

The solution, Briel explains, is to conduct pre-mining environmental and social impact assessments to best understand how to reduce and manage potential environmental threats which will emanate from the establishment of new access corridors. "Opening up a new area should be seen as making the first incision necessary to establish a delicate operation or cutting into a prized wedding cake. Considering the long-term effects of access corridors, making this first cut should be done very carefully."

Bringing on board an environmental



Economic development is an advantage associated with new mining developments in remote locations



Artisinal mining can be devastating to regions and difficult to rehabilitate



# of infrastructure development



Slash and burn is another common problem associated with population increases

specialist early into a mining project's development to advise on such pre-mining developments will alleviate the challenges that arise down the line – because the initial access and first contact with communities is so crucial in determining the best way forward.

Briel adds that while regional influx cannot be entirely controlled, mines should also take an active role in educating inhabitants on how to live more sustainably in their surroundings and live from the land without destroying it. How a tree is cut down for example influences if and how it will grow back.

### The upside

There is a positive side to these scenarios. "Your introductory footsteps into a new area can make the difference between a positive investment in community infrastructure or uncontrolled environmental degradation and social dysfunction. But – by considering various modes of transport, routes and designs

– an access corridor can have significant secondary benefits through economic upliftment, while simultaneously better mitigating the environmental impacts."

In today's environment, mining companies find it difficult to invest in

and focus on elements which fall outside of their core focus – production – but they need to embrace this aspect of development in Africa as part of their operating strategy. And while Briel agrees that government has a role to play in this, it should be done in joint venture if possible to ensure a long lasting legacy for everyone involved.

Knight Piésold specialises in environmental impact assessments for large infrastructure developments and has completed various evaluations for numerous projects in Africa, specifically the Democratic Republic of Congo, Zambia and Ghana. "Our influence is however minimal if the assessment is completed only after project implementation. This is why I must reiterate the importance of doing this work at an early stage in a project's lifespan," Briel concludes. **MRA**



Development of an unplanned village along an access road in the DRC



Overfishing is a common problem associated with increasing habitation along new infrastructure routes