



Cleaning Up

'It is the worst of times, but it is also the best of times because we still have a chance.' – Sylvia Earl



We have all heard of the term 'pollution', but what does it really mean? How do we impact it and how does it impact us? And how do we solve a problem that we aren't even fully aware of? We are seeing the environmental threat, yet we continue to contribute to the mess?

There are many types of pollution, each with numerous contributing factors. Air pollution results from the burning of fossil fuels and carbon; ecosystems are destroyed by deforestation and overfishing; our lands and waters are being polluted as we continue to dump our everyday waste onto

landfills or into rivers and oceans; and then there is the industrial impact of factories and mining. Mining is a material contributor to environmental degradation and indeed the communities that live off them. The video 'Zimbabwe's Gold Rush' on YouTube is an example of what I see all over the African continent.

On the other hand, there are several success stories that demonstrate there is hope on the horizon.

Chile, for example, has had unbearable smog conditions from the burning of wood for warmth during the winter months. The government started replacing firewood heaters with gas heaters, paraffin, or wood pellets, which are not only cheaper but far more energy-efficient than wood. This has resulted in cleaner air during winter and an improved quality of life for citizens.

Deforestation requires drastic action, and Norway, for example, has banned deforestation entirely. As a consequence, Norwegian entities may not deal with international organizations that contribute to deforestation as part of their production process. This type of strict intervention is necessary if we are to make an impact on greenhouse gas emissions, or want to enjoy a flourishing biodiversity in our forests.

When it comes to water pollution, Sweden has implemented industrial wastewater management systems that remove waste and chemicals from water for re-use as fertilizer or biogas. The cleaned water is then returned to rivers and lakes.

Then there is the impact of mining on the environment. The South African government has introduced suitable legislation and our mining industry has responded well. We are seeing more and more evidence of rehabilitation work being performed by companies prior to the mining operation actually being terminated.

A material contribution has come from a company that re-treats residue dumps all around Johannesburg and the Central Rand. The treated material is managed in a far more environmentally friendly way, which significantly reduces toxic seepage into our groundwater. Land is rehabilitated and can be used again for other purposes.

These are only a few examples of the good things that people are doing in respect of caring for and rehabilitating our environment, but while we continue to find new and innovative ways to improve on these efforts, there remains much to be done, including reducing our reliance on coal as a primary energy generator for the southern African region.

V.G. Duke
President, SAIMM