

Copper

CRITICAL COPPER

Colin Bennett of the International Copper Association discusses the role of copper in a sustainable society

A growing urgency to transition to clean energy is driving green initiatives, demand for innovative technologies and a shift to renewable energy. Consequently, many countries are considering what a critical mineral is. Copper, due to its natural conductivity and energy efficiency, plays a significant role in delivering this sustainable future, and demand for copper is expected to increase. Green applications with the potential to abate up to two thirds of global greenhouse gas emissions, such as electric vehicles (EVs) and smart buildings, all heavily rely on copper. According to analysis by Wood Mackenzie, demand for the metal is expected to grow by 11.5 million tons (Mt) in the EV sector and by 1.1Mt in the renewable energy sector by 2050.

However, copper's role in the modern world goes beyond supplying and supporting the green energy transition. It also provides social and economic benefits to the communities and countries where copper mines are located. These social and economic impacts have been key focus areas for the copper industry. An ICA-commissioned study by Wood Mackenzie examined the impact of copper mining and the ways that stakeholders, such as the mine operator, industry, national regulators and the local community, come together to enforce the mine's social license to operate.

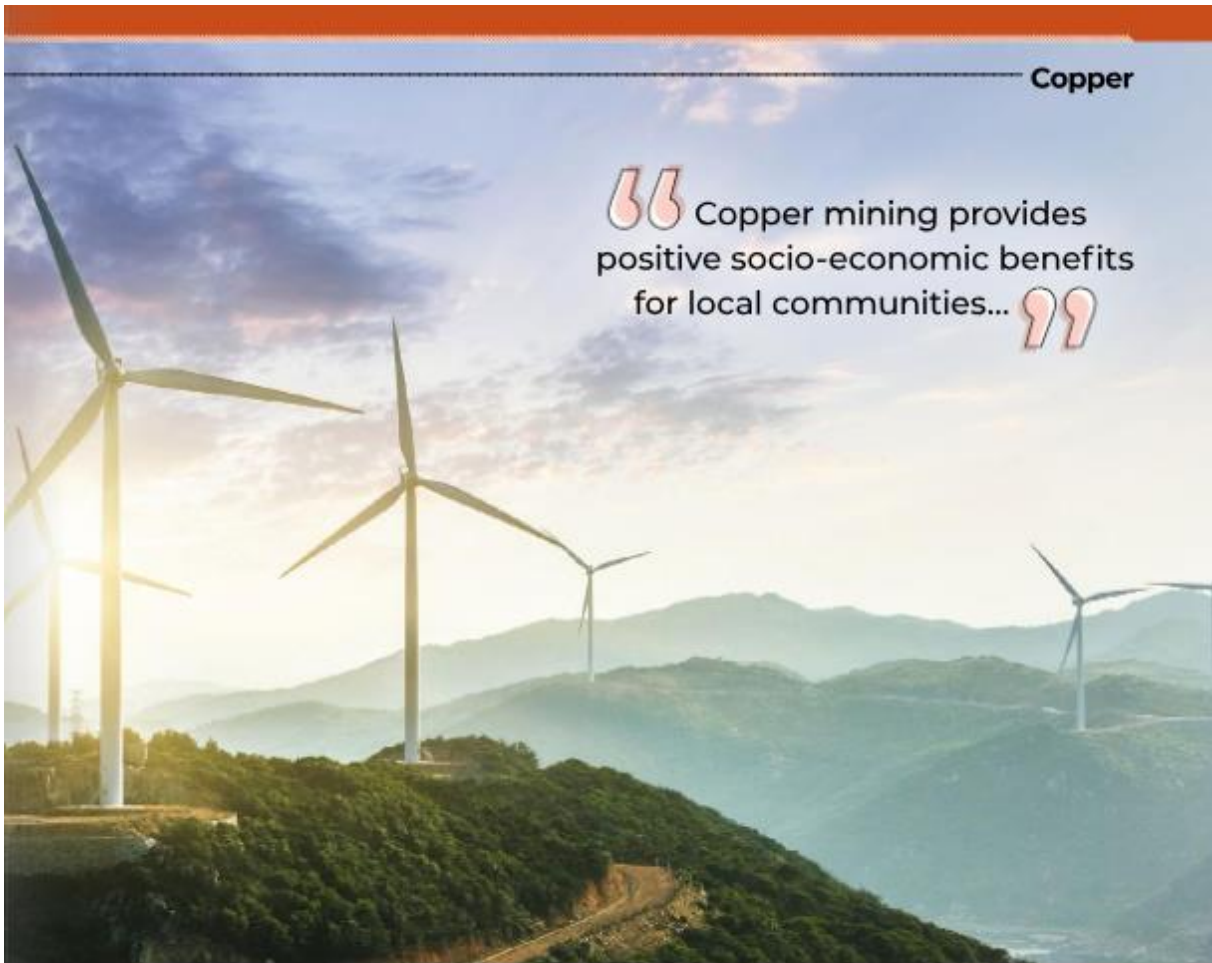
Copper mining provides positive socio-economic benefits for local communities, including the elevation of livelihoods through the development of both direct and indirect employment opportunities, and the distribution of economic value by increasing household income, and funding infrastructure and community development. Funding provided to local communities can help develop core infrastructure including schools, hospitals and roads. Analysis from Wood Mackenzie estimates that the global copper mining sector distributes an average of \$73 billion per year in socio-economic value, with an estimated \$20 billion that is not distributed due to poor governance practices in certain jurisdictions.

Copper miners work closely with local authorities, governments and communities to ensure that, as mining operations generate value in an economically and environmentally conscious manner, the local region also improves and grows. This can be achieved through various methods, such as community funds set up by the companies operating the mines. These funds donate equipment to key local organizations or work alongside the community on essential projects.



In this working relationship, copper miners utilize their technical expertise to open a new value stream to the jurisdiction, while regulators influence the socio-economic returns and socio-political stability of the area and the local community. In addition, miners play an important role in protecting indigenous communities and the environmental ecosystem. Each part of the working relationship ensures value is co-generated to create mutually beneficial growth.

The copper mining industry is not only important to the local communities surrounding an operation, but it also provides significant economic benefits to countries as a whole. The copper mining sector can contribute as much as 9.5 percent of a country's GDP through the payment of taxes, the injection of capital into the economy and



“Copper mining provides positive socio-economic benefits for local communities...”

attraction of other investors to the country. This is often a larger contribution than more traditional key sectors, such as agriculture.

Additionally, copper mining can play a key part in lifting emerging economies. The identification of a significant copper deposit in an emerging economy can develop an industry, bring international investment and companies into the region, and provide training and skilled employment opportunities to local areas.

While the world is focused on the clean transition, copper's role in the modern world will continue to grow beyond the green energy transition and reaching global net zero targets. It can also bring economic and social value, on both a macro and micro scale, where all stakeholders share a mutual benefit. ■

For a list of the sources used in this article, please contact the editor.

Colin Bennett
www.copperalliance.org



Colin Bennett is Market Intelligence Director of the International Copper Association (ICA). ICA is the leading advocate of the copper industry, bringing together the sector and its partners to advance the UN Sustainable Development Goals and position copper as the material of choice. Headquartered in Washington, D.C., ICA has offices in three primary regions: Asia, Europe and North America. ICA and its Copper Alliance® partners are active in more than 60 countries worldwide.