



# FIG Working Week 2024

## 19-24 May Accra, Ghana

Your World, Our World: Resilient Environment and Sustainable Resource Management for All

### To Mine or not to Mine – The Economic Controversy and its Resolution

**Abstract:** Mining and its concomitant adverse socio-environmental impacts constitute a dichotomous economic controversy, which has, in recent times, become a matter of public concern and consequently generated a lot of debates on whether to mine or not mine mineral deposits. On the one hand, it is generally accepted that mining has many benefits; it is the engine of industrialisation, the backbone of science and technology, and the catalyst for economic development. For these reasons, any country endowed with mineral resources is considered to have good economic potential. It is not surprising therefore that tens of millions of dollars per year are spent by countries all over the world to explore for minerals that can be mined profitably. On the other hand, mining, by its very nature, is associated with adverse environmental and social impacts. The environmental impacts include destruction of vegetation and hence carbon emission, land degradation, pollution of water bodies, ground vibration, noise and air pollution. The social impacts range from safety, diseases and other health hazards to promiscuity and crime. The cost of mitigating environmental and social impacts could be prohibitive. The economic controversy posed by mining and its concomitant socio-environmental damage is indeed a catch-22, which requires a solution that would enable the mining of any mineral to be profitable with minimum or no socio-environmental degradation. At this plenary session, using the situation in Ghana as example, I will highlight the minerals potential of Ghana and the methods of mining them; I will enumerate the socio-economic benefits and the socio-environmental degradation resulting from the mining of the minerals. I will highlight the laws and regulations relating to mining and acknowledge the efforts of the law enforcing authorities to ensure that the laws are applied to mine the minerals in a sustainable manner. I will posit that the logical approach to resolving the dichotomous economic controversy of mining and the environment is by leveraging geospatial data on the geo-environmental setting and value of any mineral, captured through exploration and socio-environmental baseline studies, to employ the most technically and economically feasible mining and processing methods, put in place measures to mitigate socio-environmental degradation, ensure health, safety and risk management and also support mining communities. By this approach, we can maximise the socio-economic benefits of mining with little or no socio-environmental damage and consequently make a contribution towards the achievement the SDG 12, which is ensuring sustainable consumption and production patterns, the key to sustaining the livelihood of current and future generations.