



Unlocking the value of Voluntary Carbon Markets for the Mining Industry with Dr. John Kilani

XMS had an opportunity to sit down with [Dr John Kilani](#), current Director of Sustainable Development at the [Abdullah Bin Hamad Al-Attiyah International Foundation for Energy and Sustainable Development](#), and former Director for the Sustainable Development Mechanisms (SDM) Programme at the United Nations Framework Convention on Climate Change (UNFCCC), and engage around climate change and the carbon markets.

XMS:

We can all agree that trying to make sense of the carbon markets involves navigating a labyrinth of processes, regulations, standards, and methodologies, could you briefly explain the structure of the carbon markets and list the various players, and their roles, including the various governing structures and regulatory bodies?

Dr. Kilani:

Indeed, there is general uncertainty on the framework around carbon markets. Primarily this arises from the failure to distinguish between the two types of carbon markets, namely the compliance and voluntary markets. The compliance markets are mandatory systems regulated at the governmental level to cap emissions for specific sectors, whereas voluntary markets represent businesses that are offsetting towards their own pledges. Compliance markets are the most straight-forward, however they are not structured to function on the individual or company scale. Conversely, the voluntary markets have a broader range of market participants ranging from asset owners to project generators, communities, brokers, corporate buyers and of course standards bodies. There are currently over 500 different voluntary sustainability standards which further contributes to the complexity in voluntary carbon markets. That being said.

All of the carbon standards have similar shared technical principles which are modelled on the requirements set by the CDM that carbon credits must be; real, measurable, permanent, additional, transparent, conservative and independently verified.



XMS:

Having been involved in negotiations of both the Kyoto Protocol and the Paris Agreement, what are the shortcomings of the Kyoto Protocol that you anticipate can be resolved by the Paris Agreement? What makes the Paris Agreement vastly different from the various iterations within the Kyoto Protocol?

Dr. Kilani:

The Clean Development Mechanisms (CDMs), as defined in article 12 of the Kyoto protocol, had perceivable weaknesses related to its atomistic or non-holistic approach and insufficient inclusivity. These weaknesses manifested themselves in a perpetual market oversupply.

Notwithstanding these weaknesses it is important to recognise that these Kyoto mechanisms have produced CER's amounting to more than 2.2 billion tonnes of CO2 equivalent. Additionally, the key strength of the CDMs has always been its flexibility and ability to evolve or reform. The Carbon Credit Generating Mechanism, Under Article 6.4 of the Paris Agreement, builds on the experience gained from the CDMs and therefore still retains many similarities to the CDMs.

Key improvements of Article 6.4 Emission Reductions (A6.4ERs) are;

- an increased focus on additionality and inclusivity
- an increased focus on technical-based solutions such as carbon capture and storage
- clarification on the space where voluntary markets should operate
- allowance of fungibility of carbon credits between voluntary and compliance markets
- improved view of heavy industry as an integral part of the potential solution as opposed to the sector being viewed as “the culprit”

XMS:

You have worked in both the mining and petroleum industry, could you provide any insights on the contribution that these industries can make to climate change?

Dr. Kilani:

These two sectors have enormous potential to contribute substantially to the achievement of the goal of the Paris Agreement. The potential presented by carbon market mechanisms is still relatively untapped. Opportunities available within the mining and oil & gas sectors for engaging in Article 6.4 activities, could help promote mitigation activities that provide greater assurance of additionality that are not usually embodied in NDCs. Activities that do not constitute low-hanging fruits and require revenues from carbon market to incentivize their implementation. Ensuring a fair and robust carbon price could help address the greatest challenge of cost competitiveness that mitigation projects from the mining and oil & gas sectors face.

In addition; the financing of climate change mitigation requires innovation and technological knowhow, both of which are embodied in the mining and oil & gas industries. The two sectors can apply these to greater effect in the advancement of clean energy technologies, such as renewables. We are witnessing a growing rise in demand for renewables, not only among domestic users but also among industrial energy users. Corporate demand for renewable energy is growing rapidly not just to meet sustainability goals, but because companies are looking for the low, stable energy prices that renewable energy provides. However, notwithstanding the evidence that the competitiveness of renewable energy is improving, some questions still linger about practical limitations and hurdles to be overcome if the world is going to reach a total fuel mix, comprising of 50% (or greater) share from renewables.

There is a compelling business case for mining and energy companies to pursue significantly bolder and sophisticated measures that can attract large-scale flows of private finance in support of further development of renewable energy technologies. In my view, energy industries, occupy a unique place in the constellation of organisations that can shape the development and growth of renewables.

XMS:

Having also worked in Academia, would you recommend a revision of Tertiary Curriculum, particularly Engineering and the Sciences, to better focus on challenges related to climate change and sustainability as a whole?

Dr. Kilani:

Absolutely. The challenges that are presented by climate change require innovation and “out of the box” thinking. These challenges should be introduced not just as a stand-alone course but embedded into multiple disciplines. Tertiary institutions are already restructuring themselves around the 4IR and therefore have ample opportunity to incorporate sustainability thinking. This will allow us to raise a new generation that approach sustainability issues from a collective multidisciplinary view point whilst leveraging the full potential of technology.

XMS:

You ended your last presentation to the ESG Division of the GSSA with a succinct explanation of what net zero means as well as how the targets of 2°C and 1.5°C were arrived at, could you summarise this again for the record?

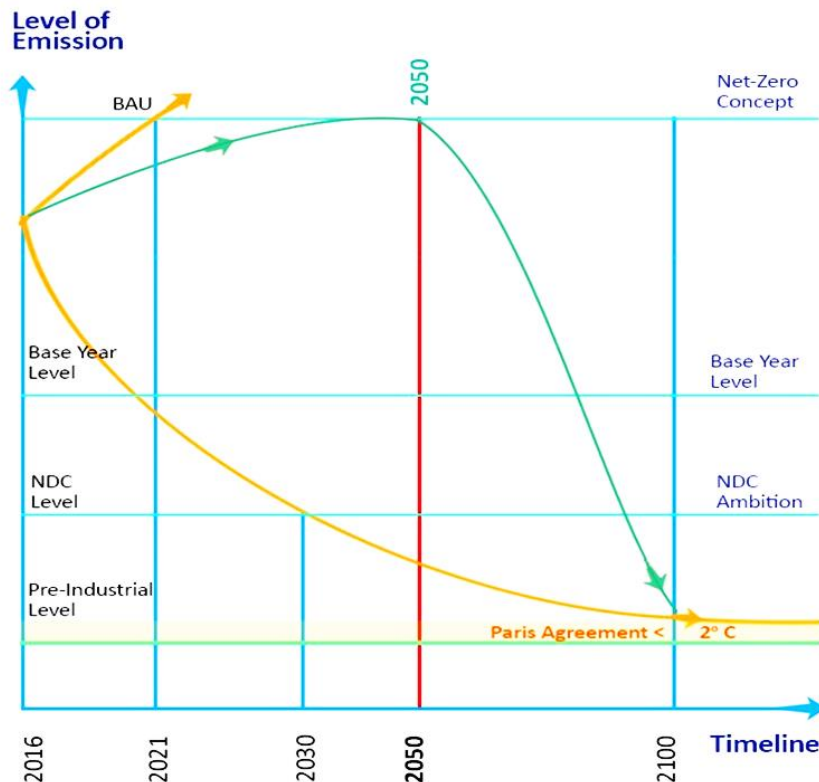
Dr. Kilani:

In my explanation of net-zero, I try to clarify two common misconceptions:

- The misconception that net-zero means zero emissions; and
- The danger of seeing net-zero as an end target rather than a milestone towards achieving the ultimate goal of the Paris Agreement.

While countries have adopted the Paris Agreement and agreed to the blueprint on how to keep increase in global temperature to not more than 2 degrees Celsius, and possibly 1.5 degrees; GHG emissions in many countries continue to be on the increase. In addition, the current levels of emissions reduction targets in NDCs submitted by most countries show that the commitments will result in global temperature rise far over the goal of the Paris Agreement.

MORE CLIMATE ACTION NEEDED



Al-Attayah foundation

The projections by the Inter-governmental Panel on Climate Change (IPCC) show that there is an urgent need to change the GHG emissions trajectory. The current global GHG emissions curve needs to be bent downwards to reach 50% by 2030 and net-zero by 2050. And after 2050, global GHG emissions need to drop drastically to a level consistent with the goal of the Paris Agreement.

[Dr Kilani](#) joined the Abdullah Bin Hamad Al-Attiyah International Foundation for Energy and Sustainable Development as Director of Sustainable Development, in November 2016. He holds a PhD in Civil Engineering from the University of Birmingham, United Kingdom and was previously the Director for the Sustainable Development Mechanisms (SDM) Programme at the United Nations Framework Convention on Climate Change (UNFCCC), where he was responsible for leading the UNFCCC work on carbon markets. Prior to joining the United Nations, Dr Kilani worked in the oil & gas and mining industries as a Senior Executive as well as in Academia.