



CLIMATE INDUSTRY SPOTLIGHT

Indigenous Peoples, Media, and Myths: Their role in Climate Change Action

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Indigenous peoples, who Etchart (2017) refers to as “uncolonized”, typically practice cultural traditions of awe and respect for their environments, e.g., feed themselves without harming the environment, or pour libation as part of an indigenous religion ceremony of the Akan in Ghana paying homage to the great female spirit of the earth second only to God the Creator. It is precisely this reverence and knowledge of nature that has protected and sustained the spaces of indigenous peoples. When indigenous communities are successful in maintaining control of their territories and can preserve their customs, their traditions, and their way of life, they may be able to resist invasive development and the deleterious consequences of modernity (Etchart, 2017).

There are 370 million indigenous peoples, whose territories cover 24% of land worldwide, and contain 80% of the world’s biodiversity (Sobrevila, 2008; IPS, 2017). Surely, their example of care for our environment ought to impact many and should be encouraged. Most of the rural and peri-urban indigenous peoples of Ghana (Africa), The Philippines (Asia), Ecuador, Canada and New Zealand live traditional cultures stress a strong relationship with the environment. Etchart (2017) describes them as agents of environmental conservation.

Paradoxically, they are the most negatively affected by climate change. Although Africa is the most vulnerable to climate change challenges and the reality for many on the continent includes excessive droughts and floods, it remains a highly neglected topic in most African societies (Sawahel, 2022). Consequently, most on the continent understand very little of climate change. Ironically, there is so much we can learn and adopt from indigenous peoples, policies we can adapt based on the patterns of nature they have observed, and encouragement and support we can offer them for their culturally acceptable environmental management, which helps to curb climate change.

There are several ways, including media, policy, preaching, etc., which may be used to increase awareness and build climate action knowledge, among the peoples. Media, especially radio, would be a popular source of knowledge sharing. A study was conducted to gauge public understanding of climate change among Ghanaian leaders in government, religious institutions, the private sector, the media, and civil society.

The alternative would have to be a medium that reaches, at a minimum, as many people as radio. It should have expertise in easy-to-understand vocabulary to explain climate change or meanings which cause the people to increase or maintain their traditions of being at one with nature. Myths and taboos, which are used culturally, to maintain the environment, could be befitting alternatives, to the unsuccessful attempts of media.

For example, Ghana's coastal shores situated in the Gulf of Guinea, experiences the rare phenomenon of upwelling, characterized by cold water and nutrients from the deep part of the ocean being displaced to the surface of the coastlines. During upwelling, there is an increase in the biological activities of phytoplankton and zooplankton, which are nutrient-rich, and serve as food for fish. Fish along Ghana's coast feed on the easy-to-access food which has high nutritional value during the upwelling. When upwelling occurs from June to September, the fish grow immensely and there are increased numbers of fish along the coast to catch.

Traditionally, it is a taboo in Ghana for fishermen to go to sea during these months.

The myth is that around that time the sea Gods are fishing themselves and we should afford them the courtesy of space and appreciate the generosity to us during the remaining 8 months of each year. The truth is our elders had noticed the benefits of "upwelling" during those months, and they used the fear of the gods to deter fishermen from fishing during those periods. The elders intended, through their myth, to restore fish stocks "in the shortest time feasible, at least to levels that can produce maximum sustainable yield" (SDG 14.4).

With a long history, tribal experience, traditional ecological knowledge, and a deep connection to the Earth's resources, indigenous peoples have an intimate understanding and ability to observe and potentially contribute to develop future scientific solutions for adaptation to the impacts of climate change (Maldonado, Colombi, & Pandya, 2014). Most national and international discussions have not seriously recognized the role religio-cultural practices of indigenous Africans can play in mitigating the effects of climate change (Awuah-Nyamekye, 2019).

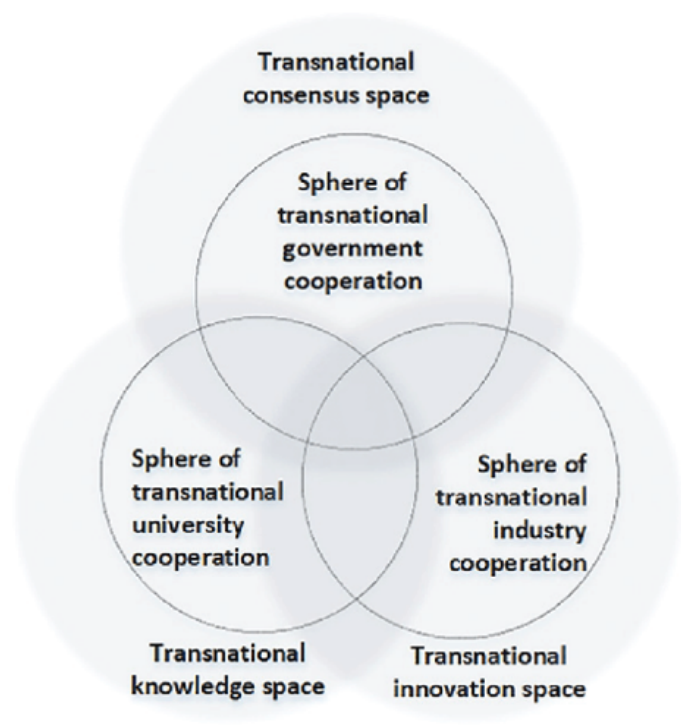
The apparent lack of requisite storage and harvesting technologies for farmers in Africa leads to crop and produce losses (AUDA-NEPAD, 2021) with organizations like the African Union Panel on Innovation and Emerging Technologies (APET) advocating for food wastage reduction through innovative technologies. Kenyan and Burundi farmers have been cited as examples of sustainable innovators with their evaporative charcoal cooler developed to work suitably for post-harvest preservation of tomatoes, kales and other highly perishable vegetables (Toivonen, 2014). This innovation provides low-cost temporary storage technology options for smallholder vegetable farmers as an alternative to expensive cold rooms. Technologies like these can be scaled and replicated in other parts of the continent to improve food systems and reduce the negative effects of food waste.

Paritosh et al., (2017) highlights anaerobic digestion as an alluring option to reduce food waste through biogas generation while addressing nutrient recycling and strengthening the world's energy security concerns.

This technical process involves the generation of methane via anaerobic processes as an appropriate and economically viable solution for food

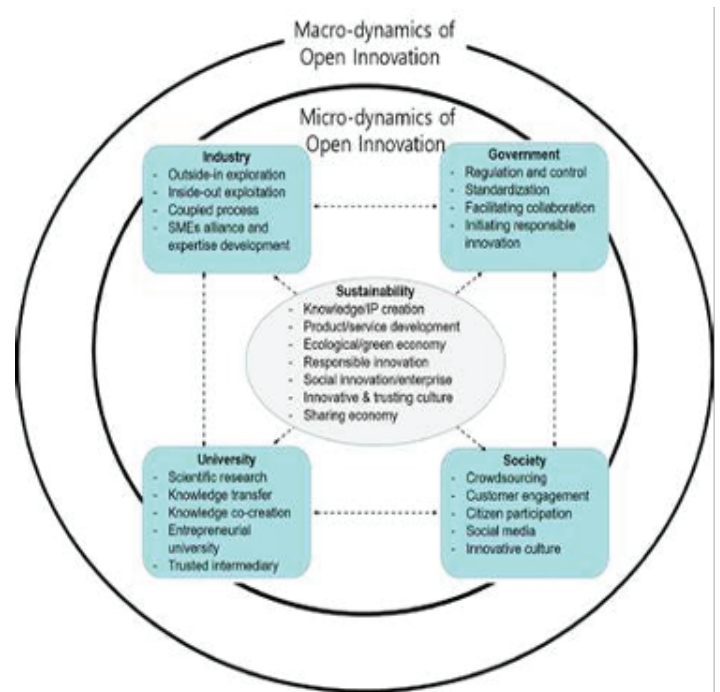
In fact, most indigenous Africans have not recognized their role in climate action either and they may never fully understand climate change and its impact; but they appreciate and live by myths and taboos, which protect the Earth. Ghanaian journalists should find it easy to explicate myths and taboos. A modern-day extrapolation of myths and taboos and a more global perspective could be an aspect of the Quintuple helix. A decade ago, Carayannis and Campbell (2012) expanded the Triple Helix model of Etzkowitz and Leydesdorff (1990) to include environmental knowledge.

The Triple Helix innovation model focuses on the value of consistent relations among three constituents, namely universities, industries, and government. In the triad, universities produce innovative knowledge through research; industries fund and thrive on innovative knowledge and development; and governments develop and implement policy to sustain needed innovative economies in countries.

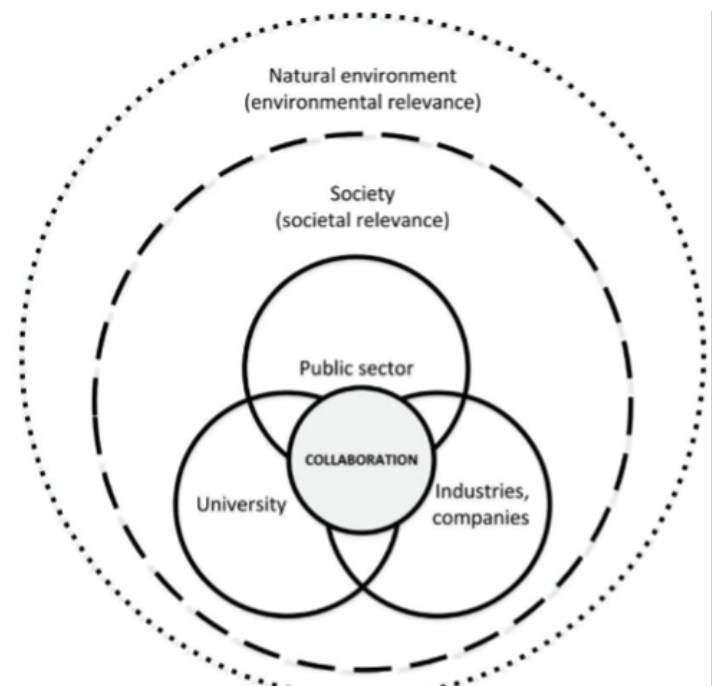


Triple Helix Model

The Quadruple and Quintuple helix models, contribute to the helical relationship by introducing civil society inclusive of media and culture and the natural environments of society respectively. In other words, the outcome of universities' innovative knowledge is mass produced for profit by industry. People in the community and societies use these products, which then grows the economy for governments and its people. Innovations inevitably disrupt the environment, but the people determine the level of environmental disruption and protection.



Triple Helix Model



Quintuple Helix Model

In summary, communicating the urgency of climate change action to all people, but specifically to indigenous peoples is critical.

Unfortunately, climate change jargon is difficult for media to master and consequently difficult for them to share using layman's language to the various peoples. Yet, unless indigenous people—major stakeholders of land use—are duly involved in climate mitigating activities, it will be difficult to address the effects of climate change in Ghana, and other countries like the Philippines and Ecuador, to name a few. Africa's response to climate change will be dictated by how well it is understood by its people, and if myths and taboos and the quintuple helix are what the peoples understand, we should communicate as such for the desired climate action and results.



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