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CLOSING THE EVIDENCE–IMPLEMENTATION GAP: COLLABORATIVE PATHWAYS BETWEEN RESEARCH, PUBLIC, POLICY, HEALTH, AND MEDIA IN AFRICA THROUGH INNOVATIVE TECHNIQUES.

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Geoscience is the core of development, as it investigates the nitty gritty of Earth's Ecosystem, i.e., water, rocks, climate, vegetation and their interplay in sustaining human life and the economy of a country. However, most people, i.e., non-science personnels especially, do not have a full grasp of the critical role geochemists/geoscientists play in the development of the country; from field research, laboratory work, data analyses, publication and dissemination of findings. Bridging the gap between scientific knowledge, public understanding and stakeholders (including health personnels and media) is therefore very essential. This study therefore explores key approaches and experiences in science communication and advocacy with a focus on policy engagement, effective communication strategies, and inclusive practices. Methods used include; writing scientific novels, establishing a website for publishing scientific research at the levels where policy-makers would understand, and having research-related podcast sessions, through an institution known as African Institute of Excellent Research (AIER). It emphasizes the importance of inclusion in science, recognizing diverse knowledge systems, cultural contexts, and underrepresented voices to ensure equitable participation in science-policy dialogues. Studies highlighted include, application of geochemistry and nuclear techniques to groundwater and mineralogy research in different parts in different parts of Africa [1]. The study underscores challenges such as misinformation from inappropriate use of Artificial Intelligence (AI) and power imbalance, while identifying opportunities for collaboration between scientists, communicators, communities, and policymakers. Ultimately, it argues that inclusive, transparent, and strategic science communication, strengthens advocacy efforts, supports evidence-informed policy, and contributes to sustainable societal outcomes, especially in the health sector.

Reference:

1. Lartsey, P.E.S., Ganyaglo, S.Y., Adomako, D. *et al.* Tracing Nitrate Contamination Sources and Apportionment in North-Western Volta River Basin of Ghana Using a Multi-Isotopic Approach. *Water Air Soil Pollut* **235**, 633 (2024). https://doi.org/10.1007/s11270-024-07418-5