APPLICATION ESSAY

Next Generation Resource Governance Leaders Program
(Cohort 7)

Please Note:

- Answer **only one (1)** question.
- Your answer should not exceed 500 words (excluding bibliography)
- Use of ChatGPT or other AI assistance is strongly discouraged.
- Copying content from other sources without proper attribution is unacceptable.
- Include your full name and email address at the top of your essay response.
- Save file with your full name and the question number in pdf. Example: John_Doe_Question1
- Saved files should be uploaded alongside other required documents on the **NextGen application portal** on the ACEP website.

Question 1

Nuclear energy has been a topic of debate for decades, especially in terms of its potential to provide a stable and sustainable energy source for the future. Countries like France and Japan have heavily invested in nuclear energy, achieving significant portions of their energy needs from nuclear power. However, incidents like the Chernobyl disaster in 1986 and the Fukushima disaster in 2011 have raised concerns about the safety and environmental impact of nuclear energy. Despite these concerns, advancements in nuclear technology, such as small modular reactors (SMRs) and improved safety measures, offer promising solutions to mitigate risks. Africa, with its growing energy demands and need for sustainable development, faces a critical decision in considering nuclear energy as part of its energy mix.

Examine the readiness of African nations to adopt and manage nuclear energy technology, including associated risks, availability of skilled personnel, and technological infrastructure. Additionally, propose strategies for establishing a robust policy and regulatory framework to govern the safe and effective use of nuclear energy in Africa. Support your discussion with examples from African countries or regions that have successfully integrated nuclear energy into their energy mix. ***(500 words max)***

Question 2

The global push for a transition to renewable energy sources has increased the demand for green minerals, such as lithium, cobalt, and rare earth elements, which are essential to produce batteries, electric vehicles, and various renewable energy technologies. Africa is rich in these critical minerals, positioning the continent as a key player in the global energy transition. However, the exploitation of these resources brings both opportunities and challenges.

Nelson Mandela once said, “It is in your hands to create a better world for all who live in it.” This message resonates as African nations navigate the complexities of harnessing their mineral wealth to benefit their populations while contributing to global sustainability goals. Kwame Nkrumah also emphasized the importance of resource-based economic independence: “We shall accumulate machinery and establish steel works, iron foundries and factories; we shall link the various states of our continent with communications.”

Evaluate the role of green minerals in Africa’s contribution to the global energy transition agenda. Discuss the opportunities and challenges associated with the extraction and processing of these minerals, considering the continent’s historical experiences with resource exploitation and paradox of plenty. Propose strategies for African nations to manage their green mineral resources sustainably, ensuring that the benefits support local development and contribute to global sustainability efforts. Use examples and data from African countries or other regions that have successfully managed similar resources. ***(500 words max)***