Shores of resilience: Application of Nuclear and Isotopic Techniques in Ghana's Marine Environment

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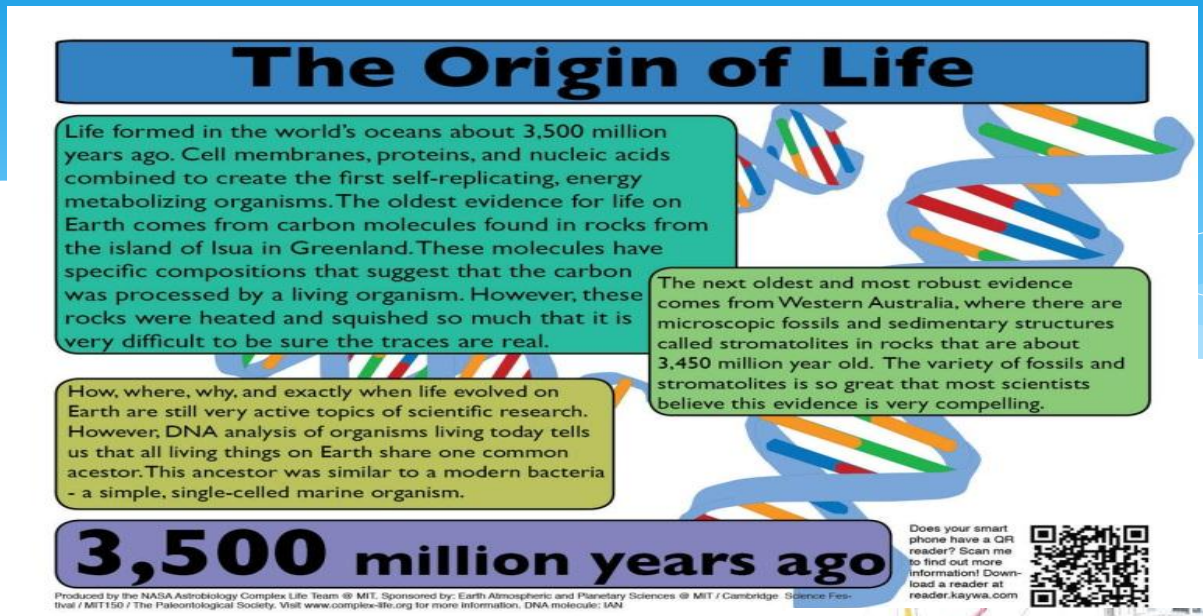
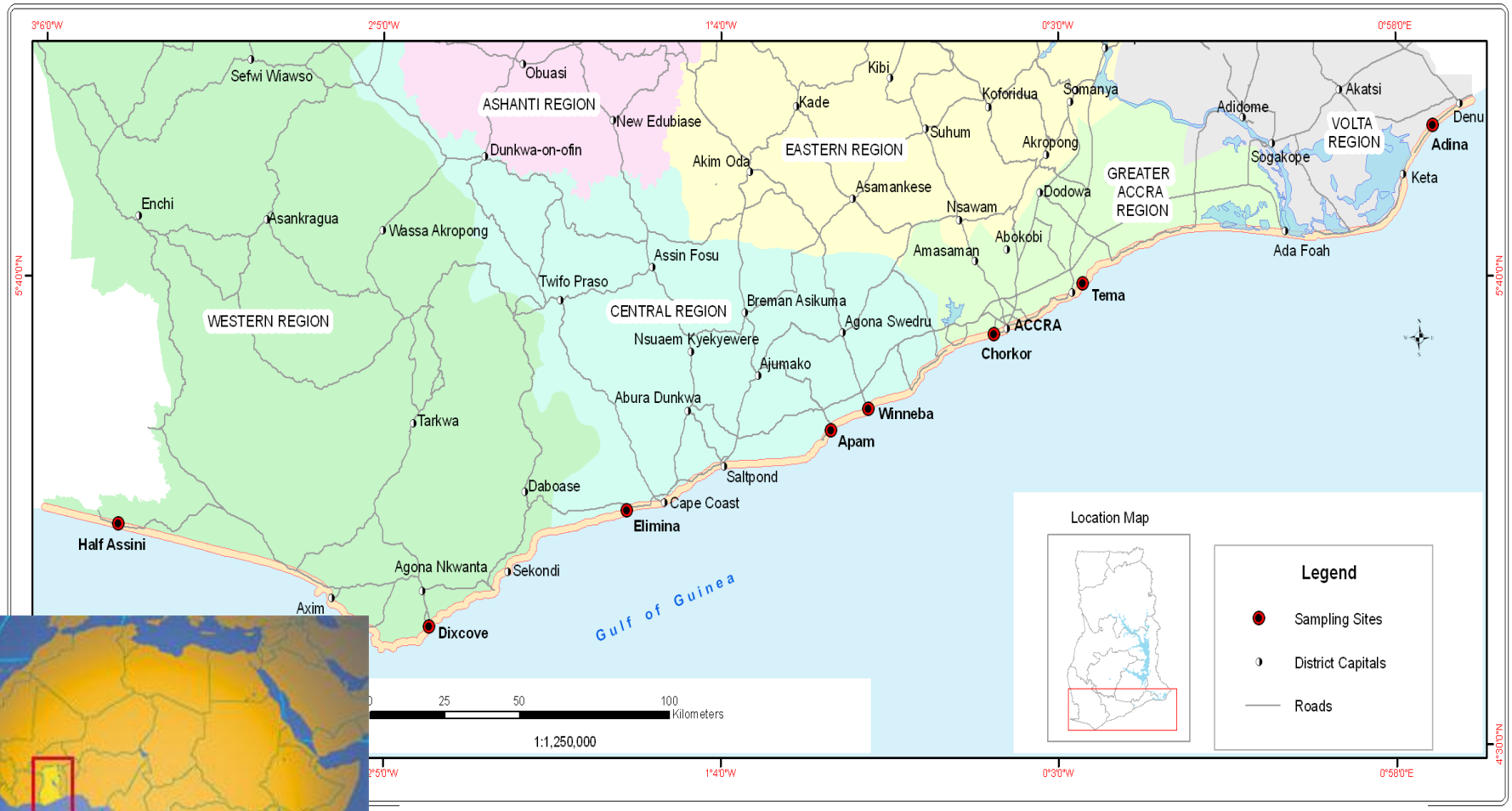
Introduction



Resources & Transportation

Ghana's Coast

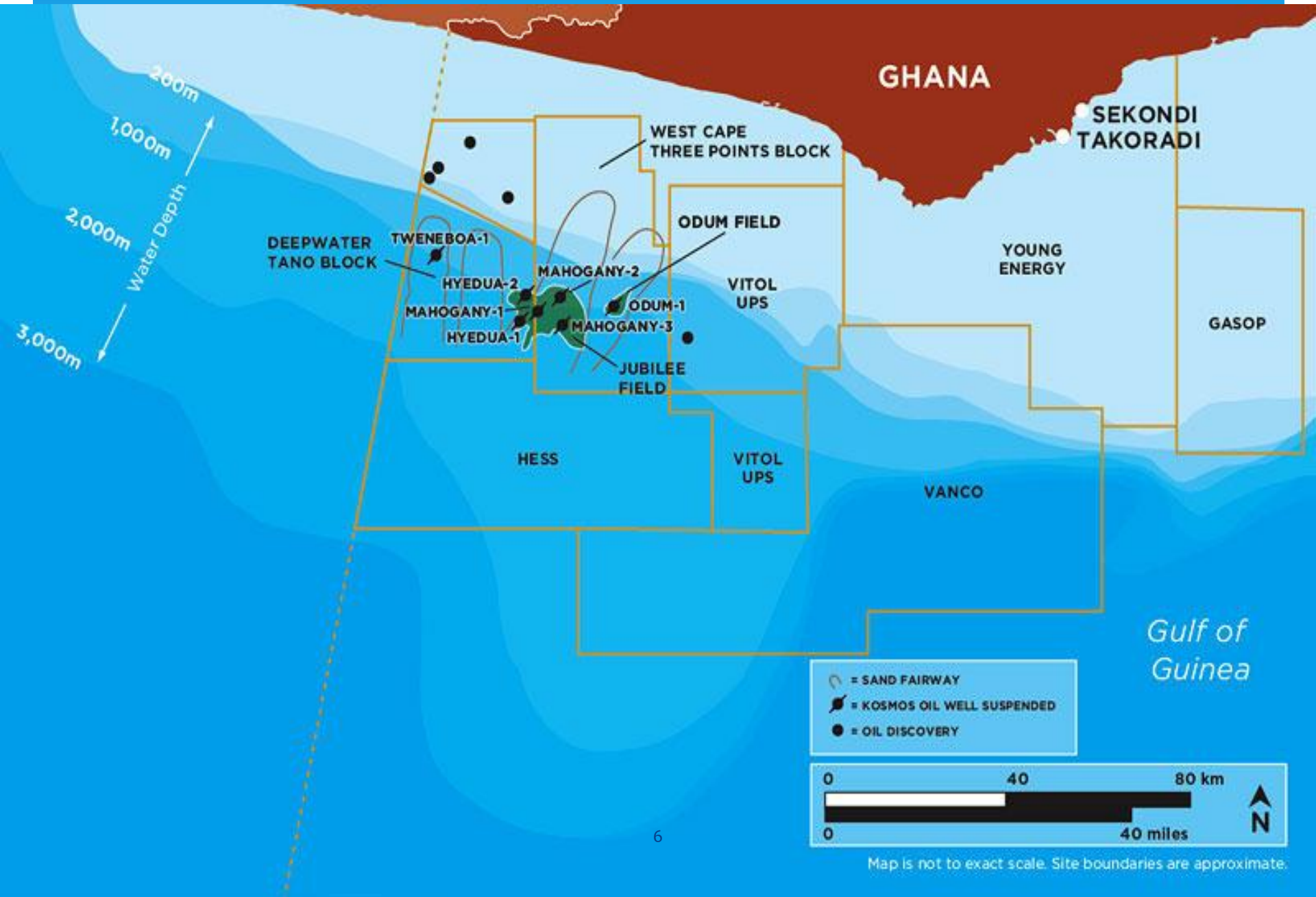


Coast line stretch of 550 Km

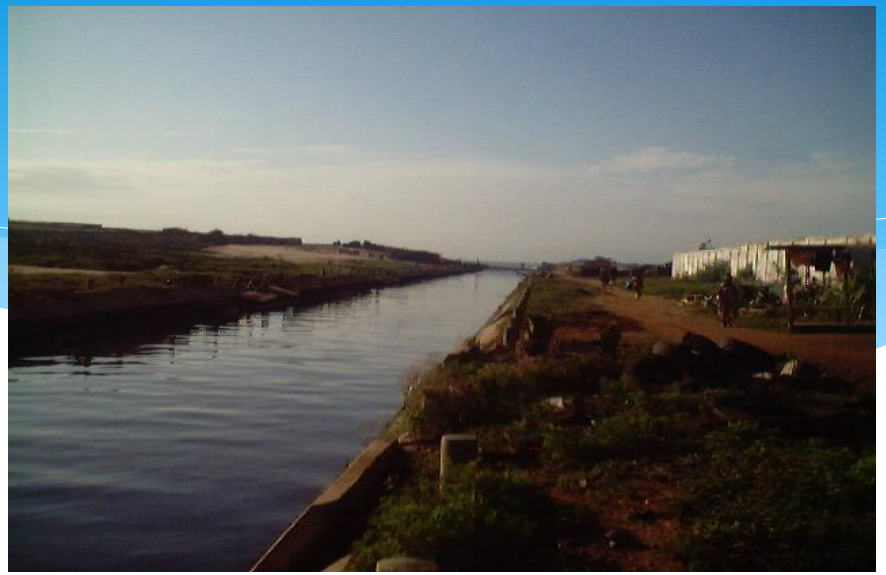
Ghana's Fisheries Resources

Salt Production

OIL AND GAS EXTRACTION



Pollution Issues



Oil Pollution tracking using carbon isotopes

Algal bloom on Ghana's coast: possible use of Nitrogen isotopes (N14 & N15) to track source of nutrient pollution

Use of Nuclear Analytical Techniques for Scientific Research in Ghana

Collaborations

Ghana Atomic Energy Commission (GAEC)

University of Ghana

Nuclear and Isotopic Technique: Studies Undertaken

* Toxic metal concentrations in deep-sea sediment from the Jubilee Oil Field and surrounding areas off the western coast of Ghana
* Determination of radionuclides (^{210}Pb, ^{226}Ra and ^{137}Cs) in beach sands along the coastline of Ghana
* Investigation of trace metals and organic contaminants in sea-foods along the coast of Ghana
* Sediment core analysis of trace metal profiles and dating for determination of contamination history
* Proposed studies of oil pollution and trans-boundary nutrient pollution with radioisotopes

Capacity Building
IAEA Technical Co-operation Africa Projects

* **RAF /7/008 (2008-2012)**

- Enhancing regional capability for the assessment of contamination in the marine environment

Countries: **Egypt, Tunisia, Morocco, Ghana, Nigeria, Cote d'Ivoire, Tanzania and Kenya.**

RAF /7/009 (2012-2016)-

-Supporting an integrated approach for marine pollution monitoring using nuclear analytical techniques. Includes all 8 countries mentioned with the addition of **Benin, Cameroun, Senegal and Namibia**

Capacity Building
IAEA Technical Co-operation Africa Projects
(RAF/7/008 & RAF/7/009)

e.g. Workshop on AQUARISK

- **Provides regional platform for marine pollution monitoring**

Sediment corer

Alpha Spectrometer

THANK YOU