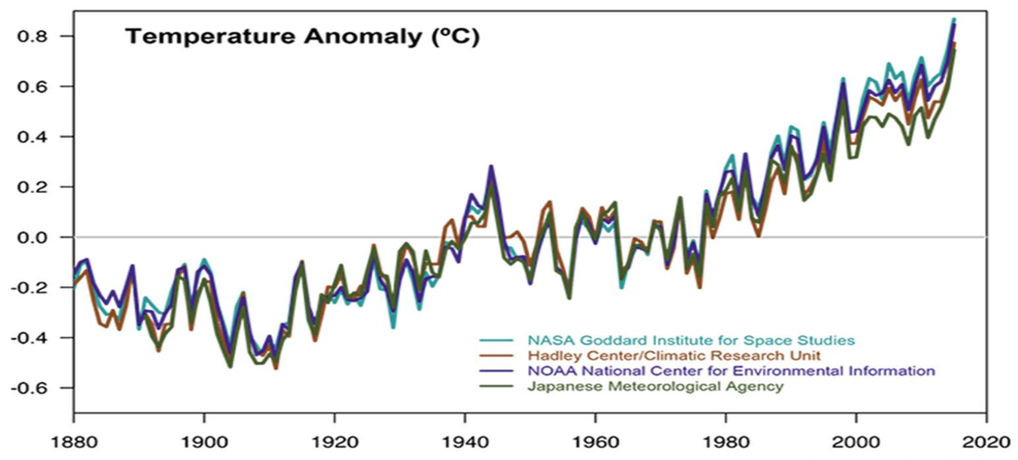
CLIMATE CHANGE AND COASTAL VULNERABILITY IN NIGERIA

Mary Oloyede*, Nsikak Benson, Akan Williams

Analytical & Environmental Chemistry Unit, Department of Chemistry,
College of Science & Technology, Covenant University, Km 10 Idiroko Road, Ota, Ogun State, Nigeria.
*Email: mary.oloyede@covenantuniversity.edu.ng

ABSTRACT

Nigeria, a developing country with a population of about 180 million is considered highly vulnerable to climate change due to limited environmental awareness, poverty, illiteracy, insufficient resources, and low adaptive capacity. Sea level rise, coastal erosion, and inundation of low-lying areas are climate-induced changes that put coastal communities, livelihoods, natural resources, and investments at risk. Adaptation to climate change and concomitant adverse effects are hindered by weak institutional and technical capabilities, lack of infrastructure, inadequate public awareness, weak legal regulatory framework, and non-implementation of environmental policies. The impacts of climate change highlighted in this review create the need for more support in research and educational awareness on the impacts of climate change in Nigeria while proffering recommendations to decision makers for adaptation and mitigation measures to alleviate the associated challenges.



Source: NASA, 2016

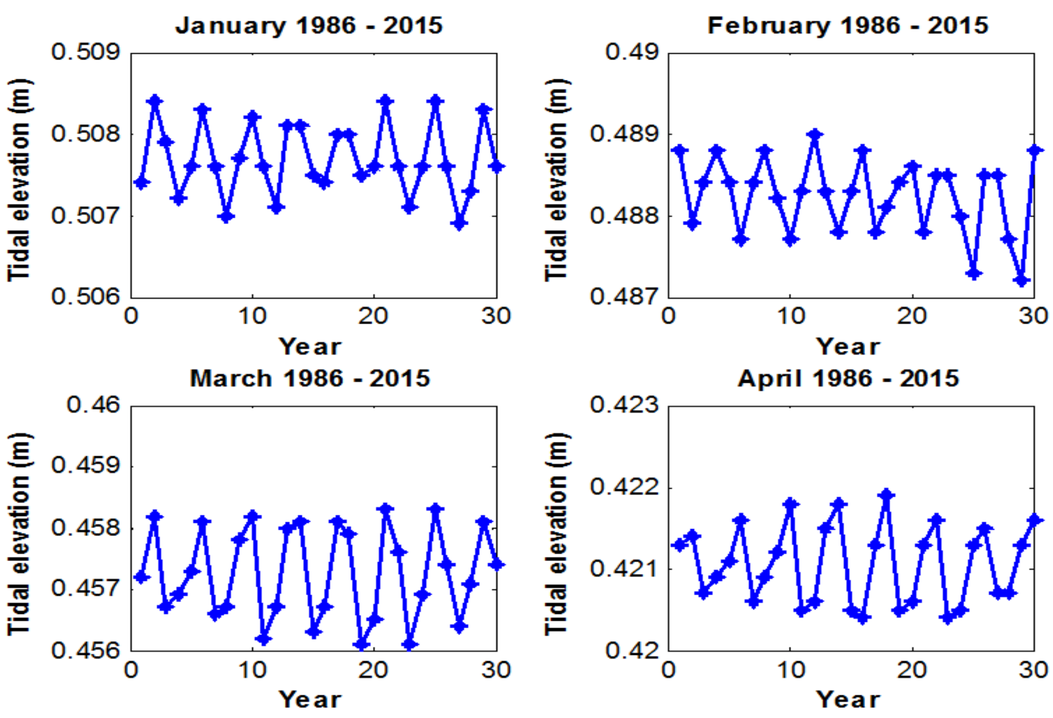
BACKGROUND

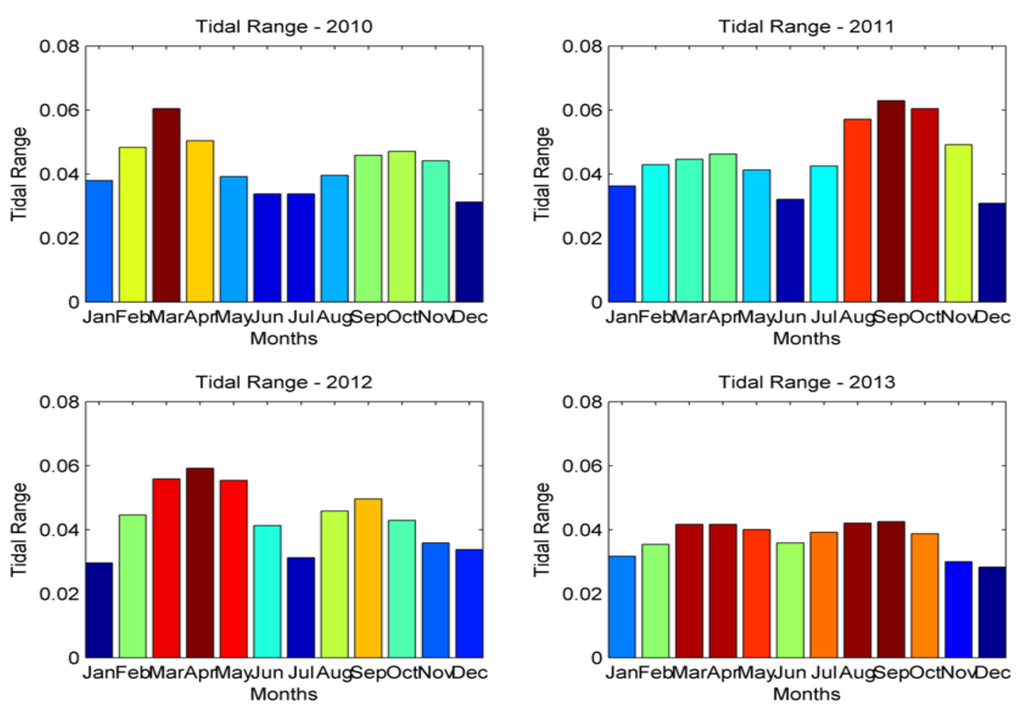
- Climate change is a contemporary environmental issue threatening the development of coastal cities all over the world. According to IPCC Assessment report, climate change has been predicted to have a global effect, and Africa will be worst hit.
- Nigeria due to their low adaptive abilities.
- Nigeria, a country located along the Gulf of Guinea, is characterised with a coastline of about 853 km. A large number of Nigeria's population live along the coast and a number of economic activities take place in the coastal region. This include the oil producing region of the Niger Delta and Lagos.
- Nigeria's coast is low lying and dynamic, making it vulnerable to the effects of climate change.
- Reports have predicted that a 0.2 m rise in sea level will inundate 3,400 km of Nigerian coast-land and a one-metre rise in sea level will inundate 18,000 km.

METHOD

The data used in this analysis was obtained from the Nigerian Institute of Oceanography and Marine Research, Lagos, Nigeria. The Temporal Scale: 1986 to 2015 (January to December). Location: 3°24.00'E, 6°24.00'N, Lagos, Nigeria, Type of Data: Daily Tidal Heights. Resolution: One Hour periodic 0.0NM at 0° from station. Meridian:+1:00hrs

RESULTS





CONCLUSION

- Since climate change is a global problem, everyone must be involved in the solution.
- Nigeria's coast is prone to multiple hazards like erosion, flooding, tsunamis, storm surges and sea level rise and the extents to which these hazards occur are likely to increase under scenarios of climate change.
- As more people inhabit the coasts, their vulnerability to these hazards will also increase.

SELECTED REFERENCES

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