



# **COPING WITH CLIMATE CHANGE AS A CAUSE OF CONFLICT IN COASTAL COMMUNITIES OF WEST AFRICA**

*(Climate Change, Insecurity,  
and Conflict in the Niger Delta)*

Abridged Research Report

A Research Report by Health of Mother Earth Foundation



Funded by the European Union

**Coping with Climate Change as a Cause of Conflict in Coastal Areas  
of West Africa Project**  
IcSP/2021/430-393

Published by:  
Mindex Publishing Co. Ltd.  
#22, Benin Technical College Road,  
Ugbowo, P. O. Box 5089, Benin City, Nigeria.  
Email: mindexpc@yahoo.com  
Tel: +234 802.345.3848, 803.740.4398, 805.475.5695

for

Health of Mother Earth Foundation (HOMEF)  
#30, 19th Street, off Ugbowo-Lagos Road, P.O. Box 10577,  
Ugbowo, Benin City, Nigeria.

Fondazione Istituto Tecnico Superiore  
Mobilita Sostenibile nei Settori Trasporti Marittimi e della Pesca-Accademia Italiana della Marina  
Mercantile (FAIMM)  
Via N. Oderico 10, 1645 Genova (Italy)

Academic Associates Peace Works (AAPW)  
Block B35, Trans Amadi Facilities Ltd., 129-132 Trans Amadi Industrial Layout, Oginigba Town  
(Former Michelin Compound),  
Port Harcourt, Rivers State, Nigeria.

West Africa Network for Peacebuilding (WANEP) Trinity Avenue,  
Off Mile 7 Road, Achimota, Accra  
P.O. Box CT4434, Cantonments, Accra Ghana.

All rights reserved. No part of this publication may be reproduced, transmitted, or stored in a retrieval system, in any form or means, now known or hereafter invented, without written permission from the copyright owner.

ISBN 979-978-8557-10-4



**Disclaimer!**

The content of this report represents the views of the implementing organization and cannot be in any way taken to reflect the views of the European Union.

Printed in Nigeria by: Mindex Press Ltd., Benin City. Tel: 08037404398

### **Research lead/Writer**

Prof Fidelis Allen

### **Researchers**

Nenibarini Zabbey  
Ogechi Cookey  
Ken Henshaw  
Godson Jim-Dorgu  
Mfoniso Antia  
Umo Isuaiko  
Stephen Oduware  
Tega Edeki  
Cadmus Enade  
Peter Honesty  
Ken Omas  
Kwami Kpondzo  
Fatima Diallo

### **Contributions**

Nnimmo Bassey  
Manrico Benelli



# *Abbreviations*

AAPW:	Academic Associates Peace Works
AfDB:	African Development Bank
CEJ-Togo:	Centre for Environmental Justice-Togo
CRADESC:	Centre de Recherche et d'Action sur les Droits Economiques Sociaux et Culturels
FAIMM:	Fondazione Accademia Italiana della Marina Mercantile
HOMEF:	Health of Mother Earth Foundation
ASIPTO:	Association des Sinistres de Phosphates du Togo
INDC:	Intended Nationally Determined Contributions
IPCC:	Intergovernmental Panel on Climate Change
RGPH:	National Census of Population and Habitat
WACA:	West Africa Coastal Areas Management Program (WACA)
WANEP:	West Africa Network for Peacebuilding



# Acknowledgements

Health of Mother Earth Foundation is grateful to the European Union for supporting this research through the consortium of partners FAIMM, AAPW and WANEP) as part of implementing the *Coping with Climate Change as a Cause of Conflict in Coastal Areas of West Africa* project -- IcSP/2021/430-393. Similarly, we extend our profound gratitude to all participants in this study, including the Lead Consultant Professor Fidelis Allen, and the field researchers in communities in Nigeria, Togo, and Senegal.

---



A black and white photograph of four wooden boats on a sandy beach. The boats are arranged in a row, with the first one on the left and the last one on the right. The boats are made of dark wood and have a simple, traditional design. The beach is sandy and the background is a clear sky.

# Contents

Introduction

Key Findings

*Social, economic and environmental effects of climate change*

*Coping Strategies*

*Insecurity and Conflict*

*Nature of Conflict*

*Policy Recommendations*

Research Findings and Project Implementation

*Akwa Ibom State*

*Bayelsa State*

*Cross River State*

*Delta State*

*Rivers State*

General Recommendations

Togo

Senegal

Conclusion

# Climate Change, Insecurity, and Conflict in the Niger Delta

Climate change has social, economic and environmental impacts that increase the vulnerability of coastal communities to insecurity and conflict. This happens through the decisions people make in adapting to conditions such as the decline in opportunities for productive agricultural and fishing activities. In the same vein, piracy, kidnapping, illegal oil refining, gangsterism and armed robbery are part of the maladaptive choices many young people make. In contrast, petty-trading, farming, fisheries, and skilled vocations remain desirable areas of choices when it comes to legitimate sources of livelihood across the communities of study. The situation calls for conflict-sensitive interventions. Building the resilience and capacity of communities to adapt or cope with the problem of climate change is crucial. Typical of all participatory research, communities were part of the study, and analysis of the solutions. They should be the focus in terms of the knowledge uptake. The initial task, therefore, for the C-7 West Africa project team should include an immediate needs assessment and hands-on action plan. Advocacy, capacity building, resilience, livelihoods, and human security are some of the concepts the team must look at as they articulate the priorities for intervention in terms of the threats posed by climate change and oil extraction to the security of people in coastal areas of West Africa.

## Introduction

As the debate on climate change continues to rage among stakeholders, the accompanying notion that it (climate change) is a cause of insecurity, and conflict remains poorly explored in coastal communities in West Africa. This is an abridged version of a research report that examined this link. The study was undertaken in five states in the Niger Delta,<sup>1</sup> two communities in Togo,<sup>2</sup> and two in Senegal, as part of the *Coping with Climate Change as a Cause of Conflict in Coastal Areas of West Africa* (C-7 West Africa) project, being implemented by four organisations<sup>3</sup> with funding from the European Union.

Coastal communities in the Niger Delta, Togo and Senegal are faced with cross-cutting climate change issues, including floods, erosion, unpredictable rainfall patterns and excessive heat. Experts, with the help of satellite radar and other tools, have argued with data, for example, that sea-level rise due to increased water temperatures in the Niger Delta, has been steady since the 20th century.<sup>4</sup> In the Bonny and Okrika axis of Rivers State, the sea rose by 7.5 cm (3.0 in) between 1993 and 2017. Likewise, it rose by 16–21 cm (6.3–8.3 in) between 1900 and 2016.<sup>5</sup> Frequent floods are part of the results. These problems continue to affect humans in diverse ways. The impact on livelihoods, poverty, environmental degradation, displacement of people, desecration of cultural heritage, and outright loss of traditional communities has been established and reiterated. In the Niger Delta alone, an estimated 1m rise in sea level by the 2100 can engulf 18,000 square kilometres of Nigeria's coastline (about 26% of the Niger Delta).

The study notes the significance of local knowledge of climate change, its adaptation and coping

---

<sup>1</sup> Akwa Ibom, Bayelsa, Delta, Cross River, and Rivers.

<sup>2</sup> Doeivi Kope and Kpeme,

<sup>3</sup> Health of Mother Earth Foundation, Fondazione Istituto Tecnico Superiore Sostenibile nei Settori Trasporti Marittimi e della Pesca-Accademia Italiana della Marina Mercantile (FAIMM), Academic Associates PeaceWorks, and West Africa Network for Peacebuilding.

<sup>4</sup> Agu, C.C. and Ibrahim, A. (n/d) An Assessment and Mapping of Coastal Flooding in Niger-Delta; a case study of Bonny, Okrika and Ogu/Bolo of Rivers State, Research and Development Agency. DOI: <https://doi.org/10.21203/rs.3.rs-88119/v1> (accessed 22 June 2022).

<sup>5</sup> Ibid.

mechanisms, and also highlights that this has been discounted in much of the existing empirical knowledge and methods for knowing. Kono is a good case, where people have created an area protected from fishing activities. The idea is based on local knowledge of adaptation and mitigation, something that can be replicated in other communities.

The study applied participatory research principles and combined extensive desk review, focus group discussions, observation and interviews, with the help of ATLAS.ti for the content analysis of vast qualitative data collected from the field. Participants included fisherfolks, farmers, community leaders, youths, civil servants, representatives of state ministries of environment and their Climate Change units, and local government. Overall, the methodology was based on the goal of the *Coping with climate change as a cause of conflict in the coastal areas* project. Under this project, the consortium has 'response to the coping needs of people in coastal areas with relevant tools' as a critical element. This requires solution-oriented approaches and the combining of data from secondary sources, and a field work that permits exploring participants' practical experiences with climate change.

Climate change creates social, economic and environmental conditions that indirectly lead to conflict, mostly at family and community levels. The elements of these conditions include growing food insecurity, displacement of people, declining fish catch, poor agricultural yield and poverty. Adapting livelihoods to the effects of climate change is a key point to note in terms of struggle for scarce resources, search for alternative means of livelihood, and criminal violence.

Notably, the oil and gas industry represents a severe and incomparable challenge. The burden on the environment and its environmental insecurity component has far-reaching impacts, which sometimes make distinctions between climate-driven and oil and gas-driven socio-economic and environmental issues difficult to conceptualize among participants. The industry is scientifically and globally acknowledged to be a major contributor of greenhouse gases into the atmosphere. These gases are responsible for the changing climate. Conceptually, many participants did not see this link beyond the fact that the industry has continued to pollute rivers, creeks, soil and air, with devastating impacts on people, ecosystem services and livelihoods. This explains the violent oil conflicts that featured in the Niger Delta, including the hanging of Ken Saro Wiwa and nine others in the leadership of the Movement for the Survival of Ogoni People (MOSOP). The group's intense struggle for environmental justice under the leadership of Saro Wiwa was met with state aggression and violence under the late General Sani Abacha administration. His hanging was followed by violent campaigns by militants who demanded the development of their communities with oil money derived from the region, and asked for protection of their environment from oil spills and gas flaring.

To halt violent attacks on oil facilities, government security and hostage-taking of oil workers, and restore daily volume of oil produced in the country, the Federal Government of Nigeria came up with an amnesty programme. The violence caused a drastic reduction in oil production, from two to about one million barrels per day. Through the amnesty programme, militants, referred to as ex-militants today, receive monthly stipends, scholarships and vocational training, after surrendering their guns to the government. Meanwhile, as militants, they did not include climate change as part of their grievances, nor in the framing of development of the region.

Climate change, experientially understood by participants, and measured as coastal erosion, floods, sea-level rise, increased temperatures (simply defined as excess heat or hot weather conditions), thunderstorms, and unpredictable rainfall patterns, has implications for the wellbeing of people. Fishers and farmers are increasingly unable to earn legitimate and sufficient income to care for family. They also fail to produce enough food for households, with floods frequently overrunning farmlands, and leaving farmers with the option of harvesting crops before maturity. The fact that fisheries



resources are shrinking in these communities means fishers would be making decisions about alternative sources of income. Participants blamed the situation on overfishing, destruction of mangroves, and oil pollution.

The increasing loss of vast agricultural land due to coastal erosion and sea encroachment are serious concerns within the broader issues of livelihoods. Participants highlighted poverty, unemployment, massive oil pollution, and criminality as critical elements of the discourse. For them, climate change is even more than a threat to their economic well-being. This is because the communities historically and culturally relied on fishing and farming for survival, and would see the distortions in these occupations resulting from climate change as touching the heart of their existence. Still, within the existential threat of depleting land resources, some move inland to settle on land provided by family or community. While many have stayed back in difficult conditions, others have migrated to urban areas in search of jobs and business opportunities as part of coping strategy.

For most participants, the search for alternative sources of income in response to social, economic and environmental conditions created by climate events is a rational behaviour. But some decisions people make are illegitimate and criminal, with outcomes including further environmental problems and threats to community peace. For example, young people who previously formed the majority of the fishing population, having faced the problem of the increasing failure of the occupation to provide sufficient income and food for their families, are at the forefront of criminal and illegal economic activities. Piracy and illegal oil refining top the list of these crimes. They are also involved in kidnapping and armed robbery.

Illegal mangrove harvesting and culturally insensitive and conflict-prone commercial gathering of periwinkles in Nembe, Bayelsa State, are emerging as adaptive measures. Here, many of the rest of the population choose various alternative legal and non-criminal means of earning a living. Some of these means include small-scale trading, poultry business, and use of ocean-going or sea-going boats with outboard engines for fishing. This is in stark contrast to canoes, which can only be used in nearby and shallow streams.

Some coping mechanisms, such as piracy, kidnapping, illegal oil bunkering, massive cutting of mangrove trees for sale, and armed commercial picking of periwinkles in culturally prohibited places, pose a threat to peace. They contribute to insecurity, inter-community feuds and conflict. For example, piracy, which involves the theft of fishing boats and nets from fisherfolks at sea, has long become a source of worry and fear among sea users. They attack passengers and boat drivers, steal personal belongings, and sometimes kill them where there is resistance. Participants gave several instances of passengers and drivers left stranded and sometimes forced to jump into the water because they had no money to hand over to pirates. On several occasions, fisherfolks had to abandon boats whose engines had been stolen. There was the case of two sons of a fisher woman (widow of a fisher man), who were probably killed by pirates as they never returned from their fishing adventure.

## ■ Key Findings

### *Social, economic and environmental effects of climate change*

- The indicators of climate change, such as coastal erosion, sea-level rise, unpredictable rainfall patterns, excess heat, sea encroachment on land, rainstorms and flooding, are common with different degrees of impact on the people. The indicators were experientially and qualitatively measured, and found to be common or cross-cutting across the study locations. There is,

however, the peculiar case of thunderstorms in Finima, Rivers State, which is greatly feared because of their antecedent dangerous impact on life. When asked to talk about how these issues affect them, participants mentioned fishing and farming as the most affected, being the key traditional occupations of the people. The impact on the local economy of families and communities is severe and indicative of economic insecurity conditions that pose an existential threat to human security. The broader implications for physical security and social conflict relate to criminal conflict, not only to the entrenched economic-driven rival cult activities in politics, kidnapping, piracy, armed robbery, but also to community, family and inter-communal concerns for the economic wellbeing of people. The result is increasing conflictive relationships. Disagreement between husband and wife over declining income from fishing is common. Those who rent fishing boats from owners (mostly women) regularly have replacements when the engines of the fishing boats are stolen. Finally, farmers and fishers dispute among themselves, in addition to growing resentment against pirates.

- The majority of participants pointed to depleting fisheries resources and limited land as contributing factors to the growing inability of people to provide for their families. This affects the subsistent and smallholder fishing and farming traditions of the people, as sources of income and food have waned. Participants highlighted food insecurity as a key element of this change. The land is a key factor in production in the peasant rural economy, but it is increasingly becoming scarce due to endless sea encroachment. Roads and houses have been lost to coastal erosion. Even those forced to move inland face a challenge of lack of resources to build houses for themselves.

There is a tacit problem of struggle for land and other resources, especially among displaced persons and those whose livelihoods have been severely affected by climate change. This struggle alone is a recipe for potential and actual conditions of social conflict within family and community. These issues continue to affect communities in an atmosphere of lack of basic social amenities, such as hospitals, potable water, schools, electricity, etc.

### *Coping Strategies*

- Fishers using local canoes and experiencing low catch in shallow waterways are switching to fishing boats with outboard engines. As expensive as these boats are, women appear to have better means of owning the majority. They have played a key role in the fishing business chain as retailers for a long time. Consequently, they may have had a better chance of earning more money in savings than men. Participants said most of the boats were purchased by women with loans.
- Participants expressed determination to forge ahead with life, in the midst of the severe effects of climate change, by exploring alternative economic activities. Petty-trading, poultry, moving inland to settle or engage in farming, skill retooling, fisheries and migration to urban areas are some legitimate coping decisions people make.
- Some have taken to crime. Kidnapping, piracy, unhealthy struggle for land, massive cutting of mangroves, illegal picking of periwinkles (in Bayelsa State), oil bunkering and rival cult activities are some activities that locals are linked to, which participants blamed on climate change. Notably, many young people involved in piracy and kidnapping were said to be fishers previously.

- Current massive cutting of mangroves is due to its market value and utility. People are resorting to it for the production of woods needed for the construction of living houses.
- Other coping strategies include planting of special species of grasses capable of holding soil against erosion. The *Indian Bamboo* is commonly planted in some communities to provide shoreline protection. Though it can itself be uprooted by erosion, it was said to be useful in many instances by slowing damage to land and houses.

#### *Insecurity and Conflict*

- Climate change creates social, economic and environmental conditions that are conducive to struggles for scarce resources among locals in coastal communities of the Niger Delta. Participants linked many climate change issues, such as coastal erosion, floods, unpredictable rainfall, sea-level rise and hot weather, with economic and food insecurity at family and community levels. Participants said there are increasing frictions within families over the inability of husbands to provide for their households due to poor yields in fishing and farming. These conditions cause conflict. Conflicts among fishers take different forms, including the struggle to fish in certain waters, while preventing others from using unacceptable fishing methods. For example, fishers who use chemicals to fish attract condemnation by many communities. Participants emphasized this unethical and unhealthy practice as a source of existential and potential conflict among fishing communities, which sometimes assume ethnic dimensions. In the same vein, farmers frequently have issues with other farmers whenever floods occur, as victims attempt to channel floodwater through others' farms to a river. Thus, channelling floodwater to a river is not trouble-free. Female fishing boat owners often have problems with male renters. This manifests mostly when pirates steal the boats. The disagreement usually revolves around who has the responsibility to replace the stolen boat.
- The loss of agricultural land, homes and community infrastructure, such as cemeteries and roads, makes people vulnerable to conditions of insecurity and conflict over how to overcome the effects or impact.
- Decline in fisheries resources and farming threaten food security. Fisherfolks are increasingly unable to earn enough income from fishing to care for their family. Even the choice of sailing farther away from nearby rivers to increase the chance of better catches sometimes leads to conflict, as in rivalries between fishers in Akwa Ibom, Bayelsa, Delta, Cross River and Rivers States.
- Choices about alternative sources of livelihood are fraught with existential disagreements and conflict within families and communities, and between communities.
- The search for alternative livelihood sources generates inter-community suspicion that leads to conflict. Others directly target crimes such as piracy and kidnapping as alternative sources of income, leading to criminal and communal conflicts. Struggle over scarce resources, such as land and fishing spaces, are conditions created by climate change, clearly pointing in the direction of conflict.
- Participants linked most abduction and piracy activities with those who previously had fishing as occupation, but were disillusioned and discouraged.

- The massive harvest of mangroves for firewood and the construction of houses in Brass and Akassa in Bayelsa, set some chiefs on the road to conflict with their fellow chiefs.

### *Nature of Conflict*

Climate change has an indirect impact on conflict through its social, economic and environmental consequences. This is supported by a segment of the available literature highlighting the relationship.

### *Policy Recommendations*

- Climate change has far-reaching implications for the well-being of vulnerable rural communities. Adaptation and mitigation measures remain key elements in any response to the threats posed to communities by flooding, erosion, excess heat, thunderstorms and sea encroachment. Addressing the social, economic, environmental, insecurity and conflict effects of climate change in the context of adaptation and mitigation is a complex task. It requires combined efforts of government, civil society, business, individuals, communities, and multilateral institutions. Below are some specific recommendations to the government, civil society, communities and policymakers, derived from the findings of the study:

#### *a) Government*

- Protect shorelines of communities threatened by coastal erosion and floods.
- Invest in projects that support climate change adaptation in communities, such as clean water and micro-credit, to support agriculture and fisheries.
- Rehabilitate damaged infrastructure and build new ones to ease transportation in coastal communities.
- Provide lightning arrestors in vulnerable communities.
- Promote awareness of the importance of tree planting and mangroves, and support community adaptation efforts, such as the planting of special grasses and Indian bamboo, which is known among locals to be effective in checking erosion and flooding.
- Provide mini-drains and gutters to channel floodwater away from farms and villages.
- Provide vocational training and skills for the youth to afford them opportunities to address the impacts of climate change.
- Remove invasive plants from the shorelines and halt illegal logging in mangrove forests.
- Work with local communities to combat piracy, kidnapping and armed robbery.
- Make governance more inclusive, with communities more actively involved.
- Train members of the oil and gas host communities in monitoring and advocacy to reduce illicit oil refining activities.
- Create and pay vigilantes to support the fight against piracy and other crimes.
- Position gunboats in strategic locations on oceanic waterways to fight pirates.

#### *b) Civil Society*

- Provide more voice to powerless communities by defending their rights and raising their awareness of climate change.
- Educate community members on conflict-sensitive responses to climate

change.

- Provide a stronger voice against oil theft and mangrove destruction.

c) *Communities*

- Raise awareness about climate change and protect ecosystems at the community level.
- Avoid environmentally destructive actions like mangrove destruction.
- Embrace climate change education and opportunities for personal advancement with skills and vocation.
- Promote peaceful resolution of conflicts in communities.
- Take ownership of the struggle against illegal oil bunkering as a means of survival among youths.

d) *Business*

- Clean all oil-contaminated land and water, and stop gas flaring in the Niger Delta.
- Provide lightning arrestors in Finima, Rivers State.

## Research Findings and Project Implementation

Answers to key questions of the study with data gleaned from analysis of textual materials and those derived from the field through interviews and focus group discussions point in the direction of the reality of climate change and its impact on the socio-economic life of people. They suggest that social, economic and environmental outcomes have indirect impact on security and conflict. For the intervention of the project team, here are a couple of recommendations:

- Use cross-cutting instruments to respond to the coping needs of coastal communities based on issues that commonly characterize them, such as the social, economic and environmental conditions that make them vulnerable to insecurity and conflict.
- Adapt and promote European Union policy frameworks, such as the Integrated Coastal Zone Management (ICZM)<sup>6</sup> and Maritime Spatial Planning, within the limit of unique and nuanced social, economic and environmental settings in West Africa.<sup>7</sup>
- Support local agriculture and fishing with training, modern farming tools, and micro-credits to tackle the threat of food insecurity due to disruptions in seasonal circles of farming and fishing across communities.
- Establish effective, efficient and functional early warning systems to monitor climate-induced insecurity and conflict in the communities, and to support communities and state authorities.
- Support regular scientific and social research on climate change and conflict in West Africa, and advocacy around the uptake of findings by wider civil society and climate policy at local, national and multilateral fronts.
- Strengthen community resilience to climate change by supporting poverty reduction projects, such as skills development and smart agriculture, to deal with hunger, unemployment, crime and general human insecurity issues.
- Promote climate education with useful context-specific adaptation and mitigation strategies as key elements.
- Decolonize climate change solutions by promoting and utilising local knowledge and de-

---

<sup>6</sup>European Commission: [https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index\\_en.htm](https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm)

<sup>7</sup>The aim of MSP is protection of the West African marine environment. On the other hand, the ICZM is an integrative, interactive, inclusive, sustainable and holistic approach to addressing complex environmental problems in coastal areas.



emphasizing capitalist or market solutions.

- Promote projects and ideas for legitimate income and livelihood diversification, especially through renewable energy solutions.
- Project implementation should be guided by conflict-sensitive and “Do No Harm” principles.
- Build resilience of communities through sustained environmental bottom-up peacebuilding and inclusive approaches in partnership with relevant government agencies.

## **Akwa Ibom State**

The key demands of the Akwa Ibom State communities were:

1. Government to construct embankments on shorelines to check sea encroachment
2. Adequate security for fishers and farmers currently threatened by pirates including by providing security patrol gunboats in strategic locations on waterways.
3. Provision of basic social amenities, such as hospitals, potable water, roads
4. Support for agriculture systems in communities, especially on adaptation to climate change
5. Special attention to women's economic empowerment,
6. Basic climate change education in communities to improve responsible and conflict-sensitive individuals, and community adaptation responses.

## **Bayelsa State**

The key demands of the Bayelsa communities were:

1. Climate change awareness through community mobilisation and sensitization.
2. Training of locals in legitimate alternative livelihood strategies.
3. Construction of shore embankments to check sea encroachment
4. Skill acquisition.
5. Access to grants and micro-credits with a low-interest rate, especially for women,
6. Making climate change policy more participatory, with communities properly incorporated, to formulate legitimate coping or adaptation strategies.
7. Adequate security for fishers and farmers currently threatened by pirates including by providing security patrol gunboats in strategic locations on waterways.

## **Cross Rivers State**

The key demands of the Cross River State communities were:

1. Government at all levels should take climate change adaptation more seriously.
2. Opportunities to acquire training and resources for alternative sources of income.
3. Plant mangroves to replace those destroyed or depleted.
4. Provide clean energy solutions.
5. Climate education in coastal communities
6. Provision of basic social amenities to assuage the impact of climate change.
7. Adequate security for fishers and farmers currently threatened by pirates including by providing security patrol gunboats in strategic locations on waterways.

---

The concept is traced to the 1992 Earth Summit in Rio de Janeiro and presented in Agenda 21.

[http://www.coastalwiki.org/wiki/Integrated\\_Coastal\\_Zone\\_Management\\_\(ICZM\)](http://www.coastalwiki.org/wiki/Integrated_Coastal_Zone_Management_(ICZM))

## Delta State

The key demands of the Delta State communities were:

1. Construction of shore embankments to check sea encroachment
2. Flood protection measures
3. Promotion of agriculture by supporting farmers with extension services
4. Actions for climate resilience.
5. Adequate security for fishers and farmers currently threatened by pirates including by providing security patrol gunboats in strategic locations on waterways.

## Rivers State

The key demands of the Rivers State communities were:

1. Action to improve the economic situation of the population
2. Manage the problem of climate change.
3. Collaboration between fishers and the Nigerian Navy to address the threat of sea piracy through the positioning of multiple gunboats on waterways.
4. Construction of shore embankments to check sea encroachment
5. Flood protection measures

## General Recommendations (Niger Delta)

- A. To tackle erosion, sea-level rise, storms, floods and unpredictable precipitation,** community recommendations included:
  1. Provide shoreline embankment/protection
  2. De-silt/dredge silted creeks
  3. Relocate affected community people to new settlements
  4. Protect forests from unregulated logging
  5. Take flood protection measures by ensuring that water ways are not built on
  6. Plant trees/windbreakers
  7. Plant and conserve mangroves
  8. Stop gas flaring
  9. Invest in agriculture, and
  10. Provide early warning systems and response strategies.
- B. Recommendations made for the prevention of conflict resulting from climate change** at the community, local, state, national and regional levels included:
  - a) Strengthen community-level leadership through regular conflict management training and establishment of proper conflict management systems
  - b) Educate and train young people
  - c) Create opportunities for employment and empowerment.
- C. For preventing climate insecurity at the community, local, state, national and regional levels,** the recommended solutions are:
  1. Position gunboats in strategic places on waterways targeting sea pirates and protecting fishermen and common people
  2. Fishers and the Nigerian navy should collaborate to combat sea piracy.
  3. community-based policing
  4. Security presence in, or near, communities.

## **Togo**

The key demands of communities in Togo were:

1. Need for sensitization of stakeholders on climate change effects.
2. Leveraging community-based approaches to address tensions and conflicts related to the degradation and restoration of the environment.
3. Improving the productivity of fisheries.
4. Creating alternative livelihood opportunities.
5. Delivering basic social services, such as water, sanitation and hygiene, to victims of climate change.

## **Senegal**

The key demands of communities in Senegal were:

1. Deepen understanding on the reality of climate change.
2. Monitoring the sea as a crucial means to reduce the risk of tension and conflict.
3. Effective strategies to protect and restore agriculture.
4. Communities have enormous tourism potential that needs to be developed to improve the development of Senegal.

## **Conclusion**

The study found out that climate change, measured as changes in weather patterns and manifested in temperature increases (hot weather), sea-level rise, sea encroachment on land, coastal erosion, floods, and thunderstorms are drivers of various forms of insecurity and conflict that are mainly domestic and communal in nature. Measures to ameliorate these problems include:

- Addressing climate-related issues by paying special attention to the dynamics and nuances of issues identified through regular analysis.
- Strengthening early warning systems and responses with analytical results.
- Carrying out climate change education in some communities in the Niger Delta, where climate change is perceived as an act of God, in which humans have very little to do as mitigation. For example, extreme heat and rainfall, sea-level rise, storms and floods are perceived as problems only God can resolve. While mitigation and adaptation are generally costly to undertake, people need to fully understand that we all have a role to play in reducing the effects of climate change through appropriate responses. State and local governments should provide drainage channels to take water away from flood prone areas.
- Communities setting up conflict management systems to address climate-induced issues arising from the struggle for natural resources and the search for alternative sources of livelihood.