

**COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH** 

#### International Conference on Sustainable Mangroves Ecosystem

UNTAPPED POTENTIALS OF MANGROVE ECOSYSTEM: COMMUNITY-BASED MANGROVE MANAGEMENT AS INSPIRATION FOR EFFECTIVE NATIONAL FOREST POLICY DEVELOPMENT

Agyeman, V.K<sup>1</sup>., Kyereh, B<sup>2</sup> and Derkyi, M<sup>3</sup> <sup>1</sup>.CSIR, Ghana; <sup>2</sup>.CRNR-KNUST, Ghana; <sup>3</sup>.DFS-UENR, Ghana

> Bali, Indonesia 19<sup>™</sup> APRIL, 2017



# **PRESENTATION OUTLINE**

**CSI** 



# INTRODUCTION



- Ghana is in West Africa
- Land area is 23.95 million hectares
- Population of about 27 million people (2016), about 66% of which are rural.
- Its population growth rate is about 2.6%.
- Coastal zone stretches for approximately 550 km
- Represents about 6.5% of the land area and accounts for 25% of the population.



0

CSIR

0

**CSIR** 

0

**CSIR** 

# **INTRODUCTION**

- Satellite imagery analysis indicates fair spatial distribution of mangrove vegetation along the coast of the country, either forming strips along rivers or concentrated in lagoons.
- Estimated mangrove area was 112.6 km<sup>2</sup> as at 2007
- Mangrove vegetation in Ghana is poor in diversity. It has three distinctive species, namely;
  - Laguncularia racemosa
  - Rhizophora racemosa, which are found on the seaward side of lagoons in saline conditions
  - Avicennia africana, which occurs on the landward side of the swamps



## CHALLENGES FACING MANGROVE MANAGEMENT IN GHANA

Despite its benefits Mangrove ecosystem in Ghana is confronted with a number of challenges such as:

- Degradation of the coastal environment is linked to persistence of poverty and the pervasiveness of income disparities in much of the coastal zone.
- Wrong perceptions of mangroves and wetlands ecosystems as waste lands that only serve for breeding mosquitoes. As such:
  - Wetlands are often dredged to facilitate drainage of the water, reclaimed for other uses, or simply considered as dumping grounds for all types of refuse.
  - Wetland resources, such as fish, reeds, mangroves and thatch materials have been harvested without any attempt to regulate their exploitation.
- Stakeholders, including Traditional Authorities, seem to show interest in mangroves and other wetland resources only when they are known to have economic value or are of some cultural significance, such as sacred groves



CS3

0

**CSIR** 

**CSIR** 

0



**CSIR** 

0

SIR

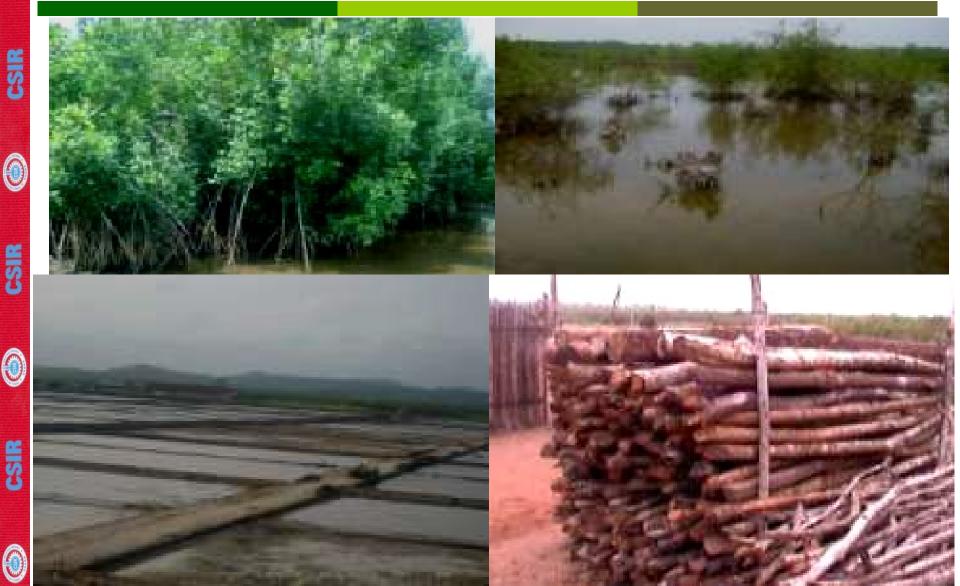
## CHALLENGES FACING MANGROVE MANAGEMENT IN GHANA

- These perceptions have stimulated increased non-sustainable practices for mangroves and wetlands (World Bank, 1998). The cost of such coastal environmental degradation (including all types) is estimated at US \$54 billion (MESTI, 2002).
- Mangroves have not been managed as a wood resource but rather as a wetlands resource.
- Hence there are no institutions meant exclusively for the management of mangroves. In fact, mangroves have not been managed (if even any) as a discrete resource from other wetland resources.
- Ghana has a well developed policy on Wetlands Conservation but there is no clear policy on mangrove ecosystem conservation
- Thus it has become no man's land resulting in its conversion to other forms of land use e.g salt industries, farmlands and woodlots.





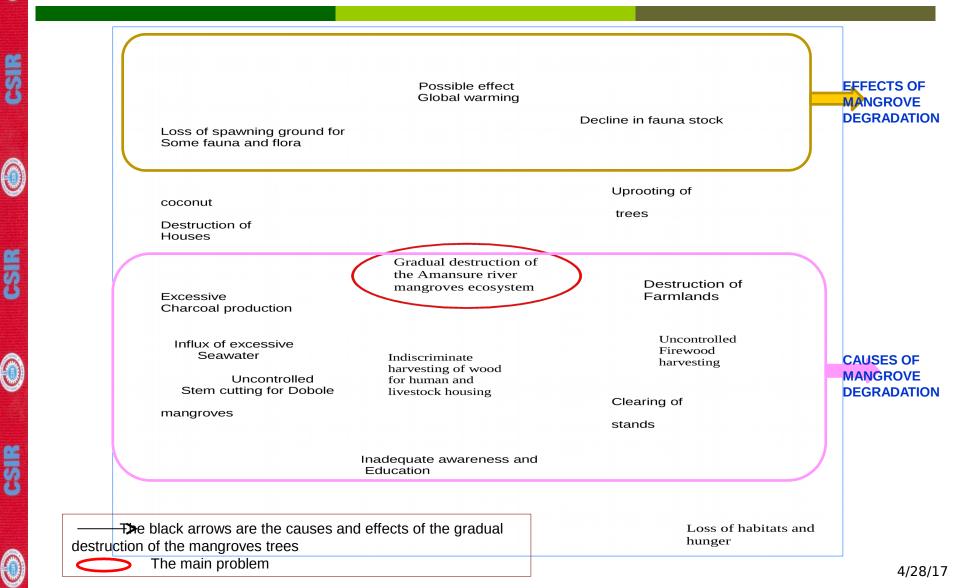
### SOME CAUSES OF MANGROVE DEGRADATION







# Causes of Mangrove Degradation from systemic perspective of Local Communities.



## MANGROVE RESTORATION INITIATIVES PRIOR TO 2006

- **1993-1999:** The Government of Ghana in collaboration with the Global Environment Facility funded the Coastal Wetlands Management Project
  - Objectives were public education and awareness-creation on the values, benefits, functions and conservation of wetlands, including Mangroves.
- 1995: The Regeneration, Sustainable Use and Management of Mangrove in the Keta Lagoon Complex Ramsar Site" was aimed at restoring a degraded mangrove area, which had impacted negatively fish stocks and turtles' breeding grounds
- 1996-1998: Rehabilitation and Community Management of Mangroves and Coastal Wetlands in the Lower Volta Delta. Project implemented by Green Earth Organization (GEO) in collaboration with eight (8) communities.
- 2000-2001: Canadian International Development Agency (CIDA) supported a restoration project on Mangrove restoration in some communities
- 2003-2005: Global Environment Facility (GEF) supported degraded mangroves restoration in four (4) communities.



CSI

**CSIR** 

0

**CSIR** 

0

#### **ITTO PRE-PROJECT ON MANGROVE RESTORATION IN GHANA IN 2006**

- In November 2006, the ITTO approved a one-year pre-project proposal on 'Sustainable Community Management, Utilization and Conservation of Mangrove Ecosystems in Ghana'
- The main approach used was desk study, expert interviews and field surveys on the restoration potential of mangroves in the country
- The field surveys covered 15 communities fringing the Amansure River





**SSIR** 

0

SSIR.

0

SA R

#### **KEY FINDINGS FROM THE ITTO PRE-PROJECT AND OTHER RESTORATION INITIATIVES**







SS

0

**CSIR** 

0







0

**CSIR** 

0

#### **LESSONS LEARNT FROM PROJECTS**

In addressing coastal degradation, interventions should focus on priority areas such as:

- Initiating institutional and policy reforms to regulate harvesting and restoration of mangroves landscapes
- Enhancing Community Access and Ownership Rights
- Strengthening Stakeholder Participation and Collaborative Mangrove Management
- Putting in Conflict Resolution mechanisms and increasing knowledge and awareness of decisionmakers or resource users
- Increasing economic benefits and devising better regulatory incentives, including Benefit Sharing



# **S**

**CSIR** 

0

**CSIR** 

0

**CSIR** 

## **POLICY AND INSTITUTIONAL REFORMS INITIATED**

- In June 1999, the Ministry of Lands and Natural Resources launched the National Land Policy which first recognized wetlands, including mangroves as environmental conservation areas
- New Forest and Wildlife Policy passed in 2012. Previous four policies enacted since 1904 did not mention Mangroves
- Policy consultation process developed which integrated public input into the policy-making process.
- Increase in public and media scrutiny of the forestry and wetlands sector
- Increased calls by local communities for greater government transparency and accountability in mangrove and wetlands management





0

**CSIR** 

0

**CSIR** 

#### UNIQUESNESS OF COMMUNITY ACCESS AND OWNERSHIP RIGHTS IN GHANA

- Ghana's land tenure regime is complex and legally pluralistic.
  - Land is owned by Traditional Authorities
  - But ownership and access to some resources such as trees are held by the State.
  - Both customary and statutory laws govern land tenure, including Mangroves.
- Nonetheless, all forestlands, including Mangroves in Ghana (except those under private plantation) are managed by the State in trust for the Traditional Authorities
- In terms of tree tenure, there are differences in tenure governing naturally occurring trees and planted trees.
- In relation to planted trees, the planter holds exclusive rights over the trees (access, withdrawal, management, alienation, exclusion).
- For naturally occurring trees, the state exercises the full range of rights (access, management, withdrawal, alienation and exclusion).



## **COMMUNITY ACCESS AND OWNERSHIP RIGHTS ENHANCED**

#### **Reforms introduced include:**

- No discrimination against any community member in participating in mangrove forest management.
- Everyone has equal access rights, ownership rights and rights to participate in mangrove management
- There are no formal arrangements for managing mangrove forests.
- Creation of Community Resource Management Area (CREMA) groups to enhance participation of local communities in management
- Benefits arising out of permits issued to mangrove forest users are used in community development projects



SS

0

**CSIR** 

0

**CSIR** 

0

SS R



0

**CSIR** 

0

## **COMMUNITY ACCESS AND OWNERSHIP RIGHTS ENHANCED**

- Open access nature of Mangrove resources have been reformed with greater community control and ownership over the resources.
- Communities are therefore willing to share benefits with partners whose inputs can contribute to increase the overall value of the mangrove resource and secure its future.
- Other actions introduced include:
  - Enhancing gender specific access to rights in forests;
  - Strengthening the roles of Traditional Authorities, indigenous forest management institutions and civil society groups;
  - Securing local community rights to participation and consultation;
  - Strengthening existing traditional and local systems, emphasizing on the role indigenous knowledge play in sustainable use of mangrove resources.



# STRENCTHENING STAKEHOLDER PARTICIPATION AND COLLABORATI MANGROVE MANAGEMENT

## **COLLABORATIVE MANGROVE MANAGEMENT SHOULD BE ...**

CSS

**CSIR** 

0

**CSIR** 

0

**CSIR** 

6

#### Based on communities rich indigenous knowledge of their mangrove ecosystem



#### **BASED ON COLLECTIVE EFFORTS OF ALL AS DEMONSTRATED THROUGH THE ACTION PLAN**

**CSS** 

0

**CSIR** 

0

**CSIR** 

0

**CSIR** 

**Conservation strategy:** Action plan on formulation of rules and regulation to govern mangrove management



- Chief and elders
- Ghana Wildlife Society
- -Unit Committee & Assembly

-NGOs,

-government research institutions



#### **ENSURING EQUITABLE SHARED BENEFITS**

•	1	ł	
U	r		
Ĺ	Ľ	)	





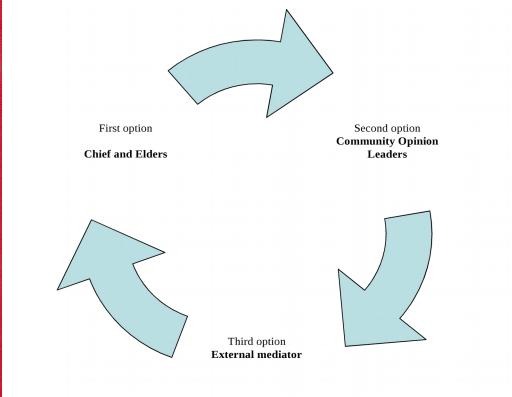




Key stakeholders	Percentage	Reasons /rationale behind percentage	
	of benefits	share of benefits.	
Traditional Authority /	10%	-They are the custodian of the resources	
Paramount chief		and will formulate and ensure effective	
		implementation of the rules, regulation and	
		sanctions on the resources.	
District Assembly (FC, Area	30%	-The Forestry Commission, District	
Council etc)		Assembly and Area councils are all	
		government agencies who have the	
		technical and scientific know-how of the	
		resource management.	
Participating /beneficiary	40%	They will spend a lot of time to plant and	
farmers		monitor the activities around the ecosystem	
Community	5%	The resources belong to the entire	
		community and the community, as a whole	
		must be given a share for developmental	
		works.	
NGOs	15%	They are supporting the management of the	
		mangroves with resources such as funds	
		and other logistics	

CONFLICT MANAGEMENT MECHANISM: NEGOTIATION MECHANISMS FOR LOCAL PEOPLE'S RIGHTS TO ACCESS, OWNERSHIP, BENEFIT SHARING AND PARTICIPATION IN MANGROVE MANAGEMENT

Currently, there are no serious ownership and use conflicts or disputes, probably because of the low value attached to mangroves.



CSI

0

CSIR

0

**CSIR** 

0

**CSIR** 

#### However, it was noted that

- Managing conflicts arising from mangrove management beyond interpersonal should begin with
  - Option 1: Engaging the chief and elders
  - Option 2: Involving community opinion leaders
  - Option 3: Involving an external mediator



0

**CSIR** 



□ITTO and other Mangrove Restoration Projects have changed mangrove landscape management

Ghana's current forest and wildlife policy, climate change policy, forestry development master plan and the national REDD+ have now made provisions for mangrove management as a result of knowledge generated by local community projects and civil society advocacy.

The country's strategy for achieving sustainable mangrove management rests heavily on community participation and deviates from the state-controlled approach which still operates in mainstream forestry.



SIR



0

**CSIR** 

# CONCLUSION

- Small community-based projects if well implemented and reported can impact on national policies and strategies.
- □It is however recommended that this will be realized only with
  - Governance reform and effective coordination of institutions
  - Greater involvement of local communities in resource management
  - Better accountability and benefit sharing
  - Development of operational standards for sustainable mangrove management.



