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Comparative Study On Mangrove Alliance For Climate (MAC) And Global Mangrove Alliance (GMA) – A Study

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ABSTRACT

This study presents overview and comparative study of Mangrove Alliance for Climate (MAC) and Global Mangrove Alliance (GMA). This study reveals how Mangrove Alliance for Climate (MAC) and Global Mangrove Alliance (GMA) differ from each other and also this study reveals on how close relationship with Mangrove Alliance for Climate (MAC) and Global Mangrove Alliance (GMA). This study reveals how Global Mangrove Alliance (GMA) working collaboratively on Climate adoption, climate mitigation, sustaining biodiversity and improving human well being, the Mangrove Alliance for Climate (MAC) reveals various types of mangrove forests across the globe and importance of mangroves. In general both Global Mangrove Alliance and Mangrove Alliance for Climate (MAC) specify on protection of coastal area from Tsunami's storm surges and soil erosions ;due to their complex root systems which despite sea wave energy. This study also reveals the challenges with mangrove conservations and also reveals various significances such as trap and cycle various organic materials, chemical elements and important nutrients in the coastal eco-systems.

Keywords: Mangrove Comparative Study

1) Introduction

The word Mangrove is derived from the Portuguese word mangue which means “tree” and the English word grove which is used for trees and shrubs that are found in shallow or muddy areas. They replace salt marshes in tropical and subtropical regions.

Coastal protection is an important ecosystem service provider by mangroves. It has been estimated that mangroves protect millions of people from flooding every year notably in densely populated areas of South East Asia and reduce the costs of flood damages worldwide.

How they grow

- Mangrove grow in saline or brackish water and can tolerate conditions that would kill most other plants.
- They have special adaptations that allow them to take oxygen and remove salt.
- Mangroves have prop roots that branch out from the stem and anchor into the mud, stabilizing the tree.
- The roots also slow down tidal waters which helps build up muddy bottom.

What they do

1) Protect the coast

Mangroves reduce the effects of erosion, storms and flooding. They protect the land from sea water during the tidal surges.

2) Support Marine life

Mangroves provide food and protection for young marine life, such as fish, crabs and prawns.

3) Support birds

Mangroves provide nesting and migratory sites for many species of birds.

4) Regular climate

Mangroves store carbon in their roots and soil, acting as carbon sink.

2) Mangrove Alliance for Climate (MAC)

The Mangrove Alliance for Climate (MAC) is an initiative pioneered by the United Arab Emirates (UAE) and Indonesia. It was later joined by India, Sri Lanka, Australia, Japan and Spain.

During the Conference of Parties (**COP 27**) Climate Summit in Sham-El.Sheikh, Egypt, UAE and Indonesia announced the “Mangrove Alliance for Climate”.

- It includes UAE, Indonesia, India, Sri Lanka, Australia, Japan and Spain.
- It seeks to educate and spread awareness worldwide on the role of mangroves in curbing Global warming and its potential as a solution for climate change.
- However, intergovernmental alliance works on voluntary basis which means that there are no real checks and balances to hold members accountable.
- Instead, the parties will decide their own commitments and deadlines regarding planting and restoring mangroves.
- The members will also share expertise and support each other in researching and protecting coastal areas.

3) Member countries of MAC in Asian Continent how benefited from MAC

The member countries of MAC in Asian continent are i) India, ii) Indonesia, iii) UAE, iv) Egypt, v) Sri Lanka, vi) Malaysia, vii) Vietnam, viii) Japan, ix) Bangladesh, x) Pakistan, xi) Singapore.

- The Alliance will rise awareness about the role of mangroves as a “nature based solution to climate change”.
- The Alliance will be amplified at G20 summit was held in Nov.15 and 16, 2022 in Bali under the presidency of Indonesia.
- MAC seeks to scale up, accelerate conservation, restoration and growing plantation efforts of mangrove eco-systems for benefit of communities globally, and recognize the importance of eco-systems for climate change mitigation and adoption.

- India is home to one of the largest remaining areas of mangroves in the world - the Sunderban.
- It has years of expertise in restore of mangrove cover that can be used to aid global measures in this direction.
- The move is in the time with India's goal to increase its carbon sink.

4) Global Mangrove Alliance (GMA)

The Global Mangrove Alliance (GMA) is an unprecedented collaboration that seeks to bring together NGO's, governments, scientists, industry, local communities and funders towards a common goal of conserving and restoring mangrove eco-systems.

Since the GMA was launched at the world oceans summit in 2018. The collaborative approach has increased and the ability to leverage funding, promote scientific research, strengthen coastal management and governance, education, disaster risk reduction, climate mitigation and adoption related plans and policies and accelerate the conservation and restoration of mangroves at scale.

In 2022, the Global Mangrove Alliance revised its goal, an ambitious plan for turning the tables on the world's mangroves. The plan contains three critical strands to be achieved by 2030.

- i) Halt loss
- ii) Restore half
- iii) Double protection

Achieving these goals will generate considerable benefits for people across the planet, while now and ongoing studies by GMA partners and researchers are allowing us constantly improve the ability to assess these.

i) Halt Loss

Reduce net mangrove losses drivers by direct human actions to zero. Human driven loss represents 62% of total losses. Our target refers to that direct, and therefore directly manageable, human-driven loss. Halting this would save approximately 168 km² by the end of 2030.

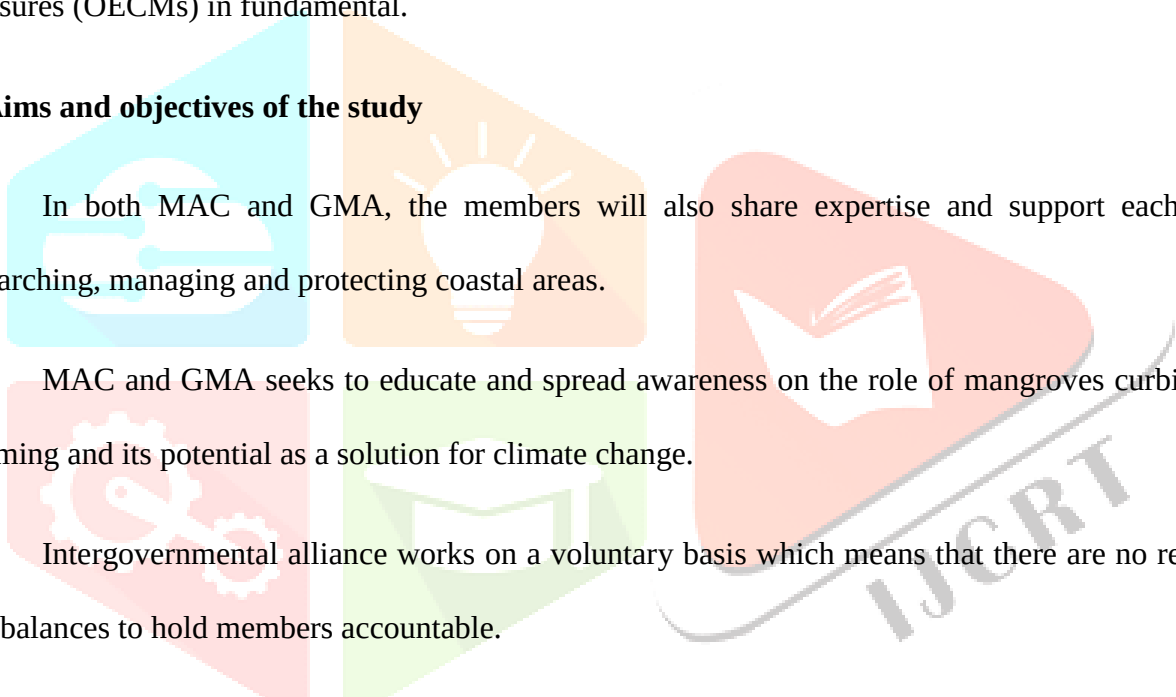
ii) Restore Half

Put back mangroves to cover atleast half of all recent loss. Of the 11,700 km² of mangroves lost since 1996, approximately 8,183 km² are considered restorable. This goal scars to restored half of this area by 2030. This goal is deeply ambitious but has enormous potential.

iii) Double protection

Ensure long-term secure protection is increased from 40% to 80% of remaining mangroves, 42% of mangroves are currently in protected areas. However, the urgency to secure a further 61,000 km² under conservation measures, including traditional protected areas and other effective area-based conservation measures (OECMs) in fundamental.

5) **Aims and objectives of the study**

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- i) In both MAC and GMA, the members will also share expertise and support each other in researching, managing and protecting coastal areas.
 - ii) MAC and GMA seeks to educate and spread awareness on the role of mangroves curbing global warming and its potential as a solution for climate change.
 - iii) Intergovernmental alliance works on a voluntary basis which means that there are no real checks and balances to hold members accountable.
 - iv) The parties their own commitments and deadlines regarding planting and restoring mangroves.
 - v) To study environmental background, structure and air pollution etc of the mangrove forests.
 - vi) Examine the level of carbondioxide and other pollutions produced in the factories.
 - vii) Analyse the whole concept of the factories related to air pollutions etc which causes harm to the human being.

6) Comparative study on Mangrove Alliance for Climate Change (MAC) and Global Mangrove Alliance (GMA)

Mangrove Alliance for Climate (MAC) and Global Mangrove Alliance (GMA) has its own merits and demerits.

- i) Mangrove Alliance for Climate (MAC) is an inter-governmental alliance whereas Global Mangrove Alliance (GMA) is a global initiative.
- ii) Mangrove Alliance for Climate (MAC) seeks to scale up, accelerate conservation, restoration and growing plantation efforts of mangrove eco systems for the benefits of communities globally. Global Mangrove Alliance (GMA) works around the world to advance. Mangrove conservation, management and restoration at community, state and regional stages.
- iii) Mangrove Alliance for Climate (MAC) is an initiative pioneered by the United Arab of Emirates (UAE) and Indonesia. The Global Mangrove Alliance was co-founded by TNC, WWF and C1 to work together to build a global community of stakeholders to leverage the expertise.
- iv) Mangrove Alliance for Climate (MAC), is an initiative for its member countries and whereas the Global Mangrove Alliance (GMA) it's an initiative to reverse the loss of critically important mangrove habitats worldwide. The target is ambitious to expand the global extent of mangrove.
- v) Mangrove Alliance for Climate Change (MAC) and its head quarter is in Dubai United Arab Emirates. The Global Mangrove Alliance (GMA) and its headquarter is located in Washington DC, United States of America.
- vi) Mangrove Alliance for climate (MAC) is a non-profit organization that works together and concentrate mainly on Asian continent, and whereas Global Mangrove Alliance (GMA) is non-profit organization that works to conserve and restore mangrove habitats worldwide.

7) Conclusion

The present study has been identified the similarity between Mangrove Alliance for Climate (MAC) and the Global Mangrove Alliance (GMA). In both the cases they try to identify the common problem of Climate issues and the benefits of Mangroves to the mankind. In Mangrove Alliance for Climate (MAC) and Global Mangrove Alliance (GMA) works for research oriented projects for the benefits of world climate issues.

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