Ocean Country Partnership Programme

Beyond MPA Designation in Ghana: Stakeholder Mapping and Gender Analysis in MPA Establishment and Implementation

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List of Abbreviations

CEWEFIA	Central and Western Fishmongers Improvement Association
EPA	Environmental Protection Agency
EJF	Environmental Justice Foundation
FC	Fisheries Commission
FoN	Friends of the Nation
GEF	Global Environmental Facility
GMA	Ghana Maritime Authority
GM	Ghana Navy
GNPC	Ghana National Petroleum Corporation
GSS	Ghana Statistical Service
GTA	Ghana Tourism Authority
GWS	Ghana Wildlife Society
HM	Hen Mpoano
IUCN	International Union for Conservation of Nature
LUPSA	Land Use and Spatial Planning Authority
LaBEC	Landing Beach Enforcement Committees
MESTI	Ministry of Environment, Science, Technology, and Innovation
MLNR	Ministry of Lands and Natural Resources (MLNR)
MoFAD	Ministry of Fisheries and Aquaculture Development
MPA	Marine Protected Area
NAFPTA	National Fish Processors and Traders Association
NCRC	Nature Conservation Research Centre
NGO	Non-Governmental Organisation
PFC	Pioneer Food Cannery
WiLDAF	Women in Law and Development in Africa
WB	World Bank
WD	Wildlife Division of the Forestry Commission

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1. Introduction

Marine Protected Areas (MPAs) are a globally recognised conservation tool intended to protect biodiversity, promote healthy and resilient marine ecosystems, and provide societal benefits (Grorud-Colvert *et al.,* 2021). MPAs that are properly designed, managed and enforced, are capable of providing a range of positive ecological benefits such as safeguarding biodiversity, promoting climate change adaptation and mitigation, and supporting the recovery of depleted fish stocks (Edgar *et al.,* 2014; Chirico, McClanahan & Eklöf, 2017; Roberts *et al.,* 2017; Grorud-Colvert *et al.,* 2021). In addition, there is growing evidence that effective MPAs can also support societal benefits and improved human well-being, including income, diet and food security to communities that are in proximity to MPAs (Marcos *et al.,* 2021; Harker *et al.,* 2022; Nowakowski *et al.,* 2023). However, the socio-ecological effectiveness of MPAs depend on a number of management and governance factors, among which stakeholder engagement and community support play key roles (Di Franco *et al.,* 2020).

Historically, around the world, protected area designation and management most frequently took a top-down (central government-led) approach, but case-studies have shown that when combined with bottom-up (community and user-led) approaches, the outcomes of MPAs can be more effective (Jones, 2012; Gaymer *et al.,* 2014). Furthermore, community-based MPAs have been shown to attain greater compliance compared to top-down approaches as community members feel a sense of ownership and responsibility; similar to terrestrial community-based resource management (Cox *et al.,* 2010; Ferse *et al.,* 2010; Gaymer *et al.,* 2014).

It is now widely acknowledged that for MPA implementation to yield effective outcomes, stakeholders and community groups should participate in the decision-making process (Beger *et al.,* 2005; Ferse *et al.* 2010; Di Franco *et al.,* 2020). Implementing a co-management approach can enable their participation. A recent literature review identified that the leading factors for MPA success were direct stakeholder involvement, effective communication and awareness between specific stakeholder groups, as well as ensuring appropriate enforcement and monitoring, control and surveillance (Di Cintio *et al.,* 2023). Effective MPA management now often involves participatory processes that engage local communities and stakeholders consistently over time. This approach helps address community resistance and incorporates local benefits, fostering better compliance and support (Gaymer *et al.,* 2014; Oyanedel *et al.,* 2016; de Oliveira Júnior, Campos-Silva & da Silva Batista, 2021).

One particular consideration for stakeholder involvement is being gender responsive, which means, empowering women by paying attention to their unique needs, valuing their perspectives, respecting their experiences and understanding developmental differences between women and men (UNICEF, 2017). The definition further ensures that measures are put in place to address inequalities across gender policies and programs (UNEP

Gender and Water Alliance, 2022). In Ghana, fishing is a highly gender-segregated occupation, and although men catch the fish, women take responsibility for processing and marketing, and often finance the fishing expeditions (Torell, Owusu & Okyere Nyako, 2015; Aduomih, 2019). Despite their key roles in fisheries, women are often left out of technical and capacity-building initiatives, community consultations and fisheries management decision-making processes because most women still constitute the majority of the marginalised population within the sector (Mutimukuru-Maravanyika *et al.,* 2017; Aduomih, 2019). If not addressed early in MPA implementation, women would likely not engage at the level of participation needed to ensure gender equity in the benefits from conservation efforts, which is vital for the social sustainability of coastal communities (Gissi, Portman & Hornidge, 2018). In this context, gender equity focuses on fairness and justice by acknowledging that women and men have different circumstances and require different resources or support to achieve equal outcomes (UNICEF, 2017).

Case studies from Tanzania and Madagascar have shown that if women's roles are not fully considered in MPA management, they will be less supportive of conservation initiatives, and in some cases this can lead to dispossession and conflicts over marine resource use (Baker-Médard, 2017; De La Torre-Castro *et al.,* 2017; Kamat, 2018). Therefore, structural and systemic barriers that limit women's participation in marine governance need to be addressed early during MPA implementation. This includes reducing gender biases and ensuring that women have equal opportunities to contribute to and benefit from conservation efforts.

In different countries and locations, the relative importance, numbers and interactions between stakeholders can vary. It is therefore critical that the key stakeholders and their association with key post-designation MPA implementation are identified and mapped. The operational definition of stakeholders in this report is adapted from Salam and Noguchi (2006) as groups (organised or unorganised) or institutions that are interested in, or may influence the outcomes of MPA establishment and implementation in Ghana.

In April 2024, it was announced that the Government of Ghana is committed to establishing an MPA in the Greater Cape Three Points Area (GCTPA) by 2026. This MPA establishment is proposed to be done through a co-management approach where local communities will assume a central role in the development and implementation of management plans and protective measures. It is also envisaged that other stakeholders, agencies, organisations and various groups in Ghana with an interest or expertise in protected area establishment will play key roles in future management of the MPA (USAID, 2024).

However, the relative importance and potential interactions between these stakeholders should be investigated and mapped to support efficient and effective MPA implementation. This report is intended to guide the identification of key stakeholders and tailor engagement strategies to support equitable participation in MPA establishment and implementation in Ghana.

It presents a stakeholder and gender analysis in the context of MPA implementation in Ghana, and comprises the following sections after the introduction:

- Section 2 outlines the methodology employed for conducting the stakeholder and gender analysis in the context of MPA establishment and implementation
- Section 3 identifies key stakeholders and their roles in MPA establishment and management processes.
- Section 4 discusses the gender composition of stakeholders in marine governance and the challenges and opportunities for addressing gender inequities in marine conservation.
- Section 5 analyses stakeholder interest-influence and relationships in MPA implementation.
- Section 6 outlines recommendations for integrating stakeholder interests and gender equality considerations in MPA implementation in Ghana.

2. Methodology

Expert elicitation, literature reviews and stakeholder validation exercises were the primary methods employed in mapping stakeholders and analysing the gender dimensions of MPA establishment and implementation in Ghana for the purposes of this report. In the first step, an expert team comprising gender specialists, ecologists and fisheries scientists were engaged in a brainstorming exercise which resulted in elicitation of their perspectives on the key topics and themes of relevance to stakeholder mapping and gender roles in marine resources management. Outcome of the expert elicitation was a priority list of four themes, namely; stakeholder typology, stakeholder interest-influence dynamics, stakeholder relationships and gender roles. Subsequently, an online search for publicly available information in the scientific and grey literature was conducted using key words from the aforementioned themes in google search engine according to the criteria in Table 1 below. In addition, the experts conducted a preliminary analysis of stakeholder influence-interest and relationships in MPA establishment and implementation.

Table 1: Criteria for literature identification using google search engine.

Key words and their combination for literature identification	
Themes	**Search terms**
Stakeholder typology	"Stakeholder and marine"
Stakeholder interest-influence	"Interest-influence and matrix" OR "stakeholder and interest" OR "stakeholder influence" OR "stakeholder interest" OR "engagement"
Stakeholder relationships	"Stakeholder and relationships"
Gender roles	"Gender" and "sensitive" OR "responsive" OR "lens" AND "marine conservation"

Additional resources, mainly project related reports, were collected from NGO partners and government institutions through in-person solicitation. These resources and the sources from which they were obtained are listed in Table 2 below.

Table 2: Resources for stakeholder mapping and gender analysis in MPA establishment and implementation in Ghana.

Relevant materials on stakeholder mapping and gender roles in Ghana's marine conservation		
Type of Resource	**Title**	**Source**
Project report	Mapping and analysis of stakeholders towards marine protected area establishment in the Cape Three Points area.	Ghana Fisheries Recover Activity (GFRA).
	Stakeholder validation of local ecological knowledge mapping for marine protected area site selection in the Cape Three Points area.	Ghana Fisheries Recover Activity (GFRA).
	Report on the regional stakeholder dialogue on marine protected area establishment processes.	Ghana Fisheries Recover Activity (GFRA).
	Stakeholder engagements towards the establishment of the Greater Cape Three Point Marine Protected Area.	Ghana Fisheries Recover Activity (GFRA).
Government report	Performance Evaluation Report of Regional Coordinating Councils (RCCs) & Metropolitan, Municipal and District Assemblies (MMDAs).	Local Governance Monitoring Report, 2022.

Further thematic analysis was conducted on each of the selected resources. Thematic analysis involved manually highlighting and coding text to draw out meaning which aligned with the expert-elicited themes. Four main themes (stakeholder relationships, stakeholder influence and interests, stakeholder typologies and gender roles) underpinned the preliminary analysis of stakeholder influence in MPA establishment and implementation in Ghana.

A stakeholder validation workshop was conducted to review, confirm and co-create, and refine the accuracy of the preliminary findings of stakeholder influence-interest and relationships against the lived experiences of key coastal and marine stakeholders in Ghana. In all, 20 individuals (15 males; 5 females), representing 15 institutions participated in the workshop. This included the chairperson of the MPA Technical Advisory Committee and four other committee members. The workshop utilised background presentations to provide context, break out group discussions to foster inclusive and active dialogue and questions and answer sessions to gather feedback.

Two breakout groups were created. The groups were tasked to evaluate the preliminary analysis against their professional and lived experiences. Against this background, each group was invited to; a) evaluate the positions of the identified stakeholders within the

stakeholder-influence matrix and b) re-examine the strength of the relationships between the identified stakeholders.

The first exercise required each group to draw bubbles representing the nine stakeholder groups in the different quadrats of the stakeholder Interest – Influence matrix based on their perceived roles as players, context setters, subjects or crowd. To facilitate this activity, a blank matrix was printed in large format for participants to indicate the positions of the stakeholders with markers. The second exercise, on the other hand, involved the use of a simple actor-linkage matrix to assess whether the relationships between each stakeholder are of conflict, complementary, or cooperation (see Figure 1). The nine stakeholder groups were listed in the rows and columns of a table creating a grid so that the interrelations between them can be described, using different colors to represent strong (cooperation), moderate (complementary) and weak (conflicting) relationships. This resulted in modification of the stakeholder interest-influence and relationships matrices (see Section 5.2). A pictorial representation of stakeholder activity is represented in the Appendices.

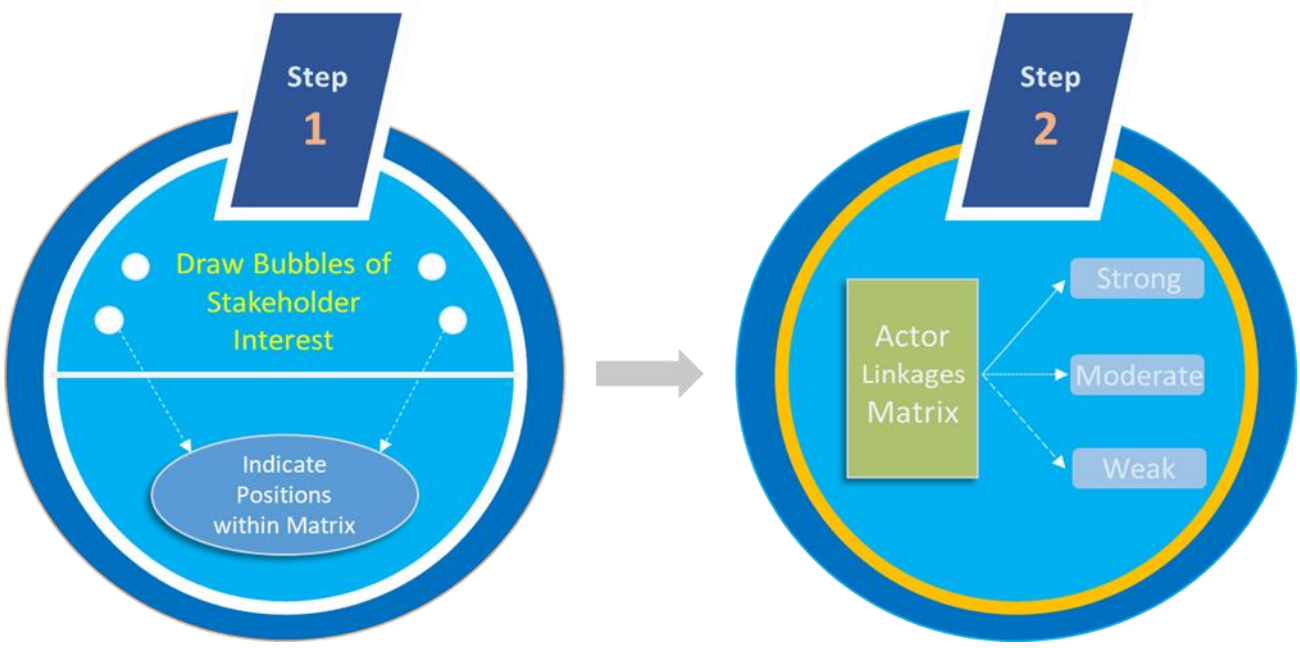

Figure 1: Stakeholder engagement approaches employed during validation workshop.

The JNCC MPA implementation cycle (see Figure 2) was utilised as a conceptual framework and heuristic tool to understand the dynamics of stakeholder engagement in MPA establishment and implementation in Ghana.

2.1. The JNCC MPA Implementation Cycle

The JNCC MPA implementation cycle (Figure 2) incorporates five key stages which are iteratively applied in the establishment and implementation of MPAs (JNCC, 2024).

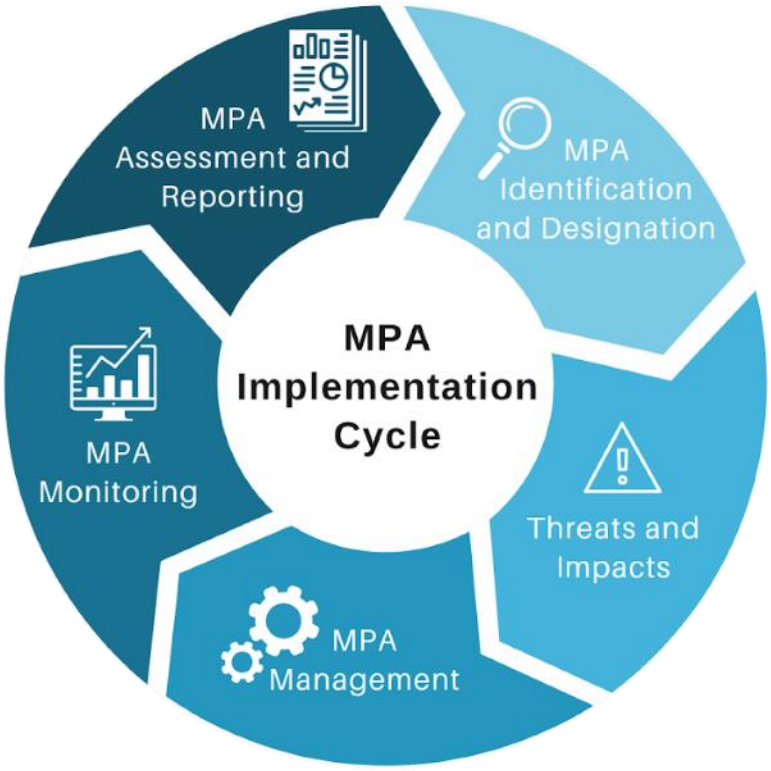

Figure 2: JNCC's MPA Implementation Cycle.

- Identification and Designation

This stage of the MPA implementation cycle (see Figure 2) includes the identification of critical areas for conservation, assessing ecological and socio-economic conditions, and determining stakeholder needs. At this stage, it is necessary to identify and engage key stakeholders including local communities, government agencies, NGOs, and universities. These engagements are necessary to incorporate stakeholder values followed by scientific assessments to identify conservation features and sites for designating different uses. For example, in the MPA identification phase for the proposed GCTPA MPA in the Western region of Ghana, Hen Mpoano conducted a year-long stakeholder engagement with government institutions at the district, regional and national levels as well as traditional authorities during meetings and workshops to solicit inputs and feedback into the GCTP MPA design (USAID, 2024). The engagements at the community level were facilitated through a local ecological knowledge (LEK) participatory mapping approach to identify specific sites that are biologically significant from the perspectives of fishing communities. Through the LEK participatory mapping, fishermen identified the presence of rocky

outcrops that were particularly important for fish populations. This was then followed up with scientific surveys to validate the locations of these reefs and their fish populations and habitat characteristics.

Involving local communities in the early stages of MPA establishment is crucial for aligning conservation objectives with local socio-economic needs and cultural practices. Whenever communities understand and participate in goal-setting for MPA establishment, such as biodiversity conservation and sustainable fisheries management, they are more likely to support and comply with regulations, which ultimately leads to better conservation outcomes (Rodríguez-Martínez, 2008; Di Franco *et al.,* 2020). Women and other marginalised groups often hold valuable LEK but may be underrepresented in assessment processes due to cultural and social barriers to gender equality (Kleiber, Harris & Vincent, 2015; Alonso-Población & Siar, 2018). Targeted efforts are needed to ensure their voices are heard, especially in identifying critical resources they depend on. Also, small-scale fishers may view MPAs as a threat to their livelihoods if they are not adequately consulted. Participatory assessments can help alleviate fears by identifying areas that can be set aside for sustainable fishing practices (Krueck *et al.,* 2019).

- Threats and Impacts

Relevant threats and impacts on protected features within MPAs are identified at this stage of the MPA implementation cycle (see Figure 2). This includes identification of the sources of the threats, whether they emanate from within the MPA or outside and the stakeholders that are responsible or impacted by the threats among others. Recommendations for managing human activities within the MPAs are subsequently developed by responsible institutions to mitigate human impacts on protected habitats, species and ecosystems. In the context of Ghana, identification of potentially harmful human activities on protected area features is conducted by government agencies and University stakeholders. This involves determination of thresholds of human activities aligned with recommended regulatory instruments to balance conservation and sustainable utilisation of marine resources.

- Management and Enforcement

The management stage of the MPA implementation cycle (see Figure 2) involves the development and implementation of management plans that balance conservation goals with sustainable resource use. Enforcement ensures compliance with MPA regulations to achieve long-term conservation goals. Active involvement of government agencies, local communities and fisher associations in MPA management facilitates the identification of shared conservation goals and objectives and the co-creation of conservation strategies (Jones, Qiu & De Santo, 2013; Voorberg & Van der Veer, 2020). Co-management approaches, where communities are given enforcement responsibilities, can improve compliance and reduce conflicts (Campbell *et al.,* 2013). In Ghana, community-based management approaches, such as Community Resources Management Areas (CREMAs), can enhance the local ownership of natural resource management objectives and

measures (Agyare *et al.,* 2015; Murray *et al.,* 2019; Baddianaah & Baaweh, 2021). CREMAs are community-based structures with devolved authorities for law enforcement and decision making over natural resources within specified geographical boundaries under Ghana's Wildlife Resources Management Act, 2023 (Murray *et al.,* 2019; FAOLEX, 2024).

Similarly, the co-management policy for the fisheries sector recognises the establishment of co-management committees for managing geographically defined and established fisheries management areas. Inclusive enforcement strategies that empower local fishers such as the Landing Beach Enforcement Committees (LaBEC) model in Ghana can reduce unintended socio-economic impacts. Enforcement measures that do not consider social dynamics may disproportionately affect women, especially those involved in subsistence fishing (Harper *et al.,* 2017). The LaBECs are trained in the protocols for the collection and reporting of fisheries infractions to law enforcement authorities. The mode of operations of the LaBECs provides a useful model for adaptation to MPA regulatory enforcement and compliance. Also, while enforcement is critical for MPA success, overly strict measures can negatively impact small-scale fishers' livelihoods (Cinner *et al.,* 2014). Providing fishers with alternative livelihood options and engaging them in patrolling activities can help balance conservation goals with socio-economic needs (Agardy *et al.,* 2003).

On the other hand, creating effective management plans that include sustainable fishing zones are important as this mitigates the negative impacts on fishers' livelihoods (Guidetti & Claudet 2010). University-led marine and coastal research initiatives are key sources of data and information for the development of management plans and adaptive management of MPAs. When governments fail to engage communities or the private sector adequately, MPAs may face significant pushback from fishers, resulting in illegal fishing, resource over-exploitation, and ultimately the failure of conservation objectives (Jones, Qiu & De Santo, 2013; Lacarella *et al.,* 2021). Widespread awareness raising targeting fishers and engagement of private sector actors on MPA goals and objectives fall within the purview of the media and non-governmental organisations.

- Monitoring

The monitoring stage of the MPA implementation cycle (see Figure 2) involves the tracking of ecological, social, and economic impacts of MPAs to ensure that objectives are being met. Community-led monitoring initiatives can enhance data collection while fostering stewardship among local populations (Danielsen, Burgess & Balmford, 2005). Training and involving local stakeholders in monitoring efforts can also create job opportunities and increase transparency (Hamilton, Potuku & Montambault, 2011). Furthermore, women can play a critical role in community-based monitoring, especially if trained in data collection and analysis. Empowering women in monitoring activities can improve household incomes and promote gender equality (Kleiber, Harris & Vincent, 2015). Also, transparent

monitoring processes that involve fishers can help address their concerns about the impact of MPAs on fish stocks (Guidetti & Claudet, 2010; Di Franco *et al.,* 2020).

Participatory approaches can provide real-time feedback from stakeholders, enabling adaptive management strategies to be developed collaboratively (Guidetti & Claudet, 2010; Gutiérrez, Hilborn & Defeo, 2011). Universities are best placed to undertake trainings and support participatory development of indicators for long-term social, economic and ecological monitoring of MPA impacts. Effective monitoring relies on collaboration between scientific teams, local communities, and government agencies, who gather data on key biodiversity indicators such as fish populations, reef health, and water quality. Monitoring key biodiversity indicators not only aids in assessing MPA effectiveness but also provides essential feedback for adaptive management, allowing managers to respond to environmental changes or emerging threats.

- Assessment

The assessment stage (see Figure 2) ensures that MPAs are effectively contributing to the protection of species, habitats and marine ecosystems. This involves continuous monitoring and assessing the conditions of species, habitats and ecosystems to determine whether conservation objectives are being met or management measures are adequate or need adjustments. The assessment process directly informs decision-making, ensuring that MPAs fulfil their primary goal of conserving marine biodiversity, maintaining healthy marine ecosystems and achieving national and international conservation targets. In 2024, the MESTI submitted Ghana's National Biodiversity Targets in alignment with the KM-GBF as part of the country's commitment towards global biodiversity conservation objectives. This submission is a key milestone in the review and update of Ghana's National Biodiversity Strategy and Action Plan (NBSAP).

Data collection and synthesis for the assessment of MPA management effectiveness falls within the scope of university stakeholders and scientific and technical committees. In Ghana, a Scientific and Technical Committee (STC), a multi-stakeholder group of experts comprising government, universities, industry, and NGO representatives, is established to advise the MoFAD/FC on the scientific basis for decisions on fisheries management. Key among the tasks of the STC are the review of assessments on the biological and socio-economic impacts of the fishing closed season. The structure of the STC and its operations also provides the basis for future assessment of MPA management effectiveness in Ghana. Stakeholders including local communities, private sector and international organisations require information on the outcomes of MPA management effectiveness assessments. Such information dissemination falls within the domain of media outlets.

3. Stakeholder Identification in Ghana

Various stakeholders play integral roles in implementing MPAs, each with different levels of influence and interests. These stakeholders can be broadly categorised as government agencies, local communities, traditional authorities, non-governmental organisations (NGOs), cooperatives, committees and associations, the private sector, international organisations, the media, universities, and research institutions. A graphical overview of key stakeholders identified for MPA implementation in Ghana is provided in Figure 3.

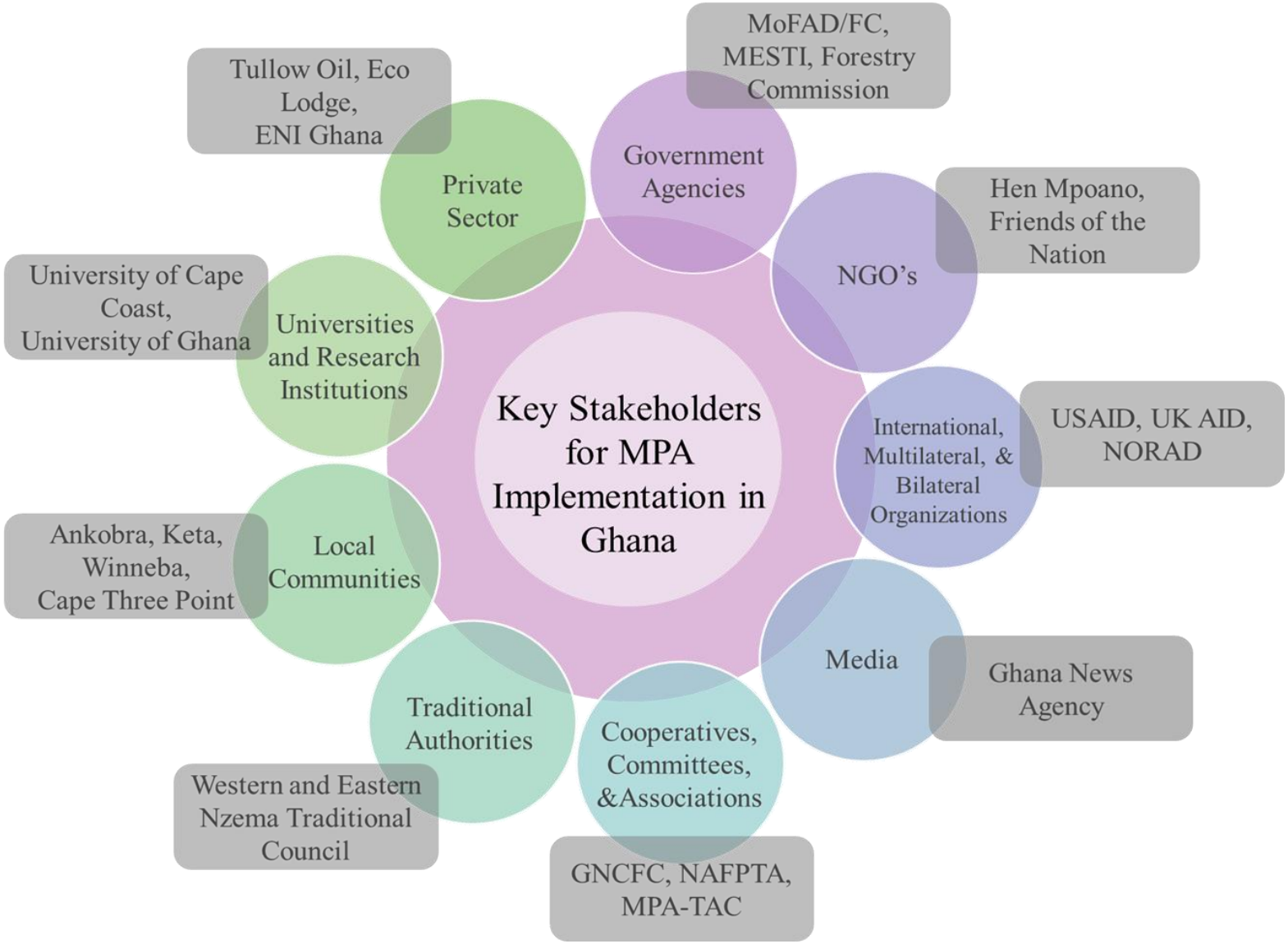

Figure 3: Stakeholder identification for MPA implementation.

3.1. Government Agencies

Government agencies in Ghana are the primary regulatory bodies responsible for the legal establishment, oversight, and enforcement of MPAs. Their efforts are key to MPA implementation and sustainable marine resource management. The government agencies, their roles and responsibilities are summarised in the Table 3 below.

Table 3: Government agencies, their roles and responsibilities in MPA implementation in Ghana.

Government Agencies and their Responsibilities on MPA Implementation	
Agency	**Roles and Responsibilities**
Ministry of Fisheries and Aquaculture Development (MoFAD)	Explicitly responsible for MPA identification and designation using powers contained in the Fisheries Act 2002 (Act 625). Fisheries Commission (FC) under MoFAD - advises the Minister responsible for fisheries on declaring marine reserves and making regulations related to MPAs.
Ministry of Environment, Science, Technology, and Innovation (MESTI)	Plays a consultative role in the establishment of MPAs in Ghana.
Environmental Protection Agency (EPA) under MESTI	In charge of environmental and social impact assessments, ensuring their suitability and monitoring their effects on marine ecosystems.
Wildlife Division (WD) of the Forestry Commission, under MNLR	Has responsibilities for the establishment of closed seasons to protect marine and wildlife species and for management of wetlands in alignment with Ramsar guidelines.
Ghana Maritime Authority (GMA)	Ensures that the mapping of marine reserves or zones for fishery conservation does not compromise maritime transportation.
Ghana Navy (GN)	In charge of monitoring, control and surveillance.
Ghana Police Service Marine Unit (GPSMU)	Responsible for monitoring, control and surveillance.

Metropolitan, Municipal and District Assemblies (MMDAs	Under the Local Governance Act of 2016, are responsible for managing human settlements and the environment within their districts, and they coordinate development plans with other government bodies.
Land Use and Spatial Planning Authority (LUPSA)	Responsible for planning marine spaces for MPA establishment and ensuring compliance with zoning regulations and for controlling development in sensitive ecosystems, such as coastal wetlands and nature reserves, to protect areas where MPAs are established.
Ministry of Justice and Attorney-General's Department (MoJAGD)	Ensure that Ghana's steps toward establishing MPAs align with its international obligations, particularly in cases involving transboundary, highly migratory, or straddling fish stocks.

This list highlights the diverse agencies that would be involved in MPA governance, policymaking, and enforcement in Ghana, focusing on maintaining sustainable use of marine resources while ensuring legal compliance with international and national frameworks. Of these agencies, MoFAD and the Wildlife Division (WD) have explicit policies and laws underpinning the establishment of MPAs. Other agencies will be active in areas of enforcement once MPAs are established, such as the Ghanaian Navy and Police service. However, it is crucial that all agencies are involved in early discussions surrounding MPA establishment if they are expected to be involved in later phases of the MPA implementation cycle.

3.2. Local Communities

Coastal communities, including indigenous groups and fishers, are integral to the effective establishment and management of MPAs in Ghana, given their long-standing knowledge of marine ecosystems and their reliance on these resources for livelihoods; whether through fishing, tourism, or other activities. Within traditional coastal fishing communities in Ghana, there exist local institutional community-based organisational structures which revere highly ranked individuals such as the Chief Fishermen and Konkohemaa's (Queen fish mongers or mammies) to represent the interests of fishers and fish mongers.

Estuarine communities along the Volta River (Volta region), Ankobra river (Western region), and Densu Delta (Greater Accra) are also key stakeholders in marine conservation by virtue of their traditional fishing culture and local norms regulating access to marine resources. Along the Volta estuary and Densu Delta, clam and oyster fishers implement closed fishing seasons through long-standing traditional norms for sustainable management of marine resources (Gomey et al., 2018). Similarly, community-based arrangements exist within the Ankobra river estuarine communities for protection and management of mangroves resources (GMFADFC, 2020). These communities directly

depend on fish, shellfish, and mangrove resources for their livelihoods. The sustainability of their resource use practices is critical to both conservation goals and well-being.

Although local communities in Ghana are most likely to be affected by MPA policies, their formal power in decision-making processes can be limited. However, their informal power is significant, as their cooperation or resistance to MPA policies can impact marine conservation outcomes, such as low or high voluntary compliance with no-take regulations. Often, their traditional knowledge of marine ecosystems and long-standing relationships with marine resources are assets that can enhance conservation efforts when appropriately integrated into management plans.

3.3. Traditional Authorities

Traditional authorities comprise chiefs, elders, and local customary leaders, that have historically held significant power and influence over the management of natural resources in coastal communities in Ghana. Traditional authorities enforce customary laws that govern the use of marine and coastal resources and have been instrumental in resolving conflicts over marine resources, particularly disputes between fishers or between fishing communities. Customary laws applied by traditional authorities include regulations on fishing seasons, types of gear used, fishing areas and rights. Local communities often follow these practices to protect fish stocks and other marine resources.

3.4. Non-Governmental Organisations (NGOs)

NGOs are crucial actors in MPA implementation, especially in terms of advocacy, research, capacity building, and monitoring. International and local NGOs in Ghana often focus on nature conservation, sustainability, and human rights, providing critical support in areas where governments lack capacity or resources. In Ghana, NGOs can influence policy by advocating for evidence-based conservation measures, promoting community-based management approaches, and ensuring that environmental and social safeguards are in place. While they do not typically hold formal power, their influence can be significant due to their ability to mobilise resources, provide technical expertise, and raise awareness of marine conservation issues. NGOs in Ghana often act as intermediaries between governments and local communities, facilitating dialogue and ensuring that stakeholder voices are heard. Key local NGOs working in the context of marine conservation in Ghana include Friends of the Nation (FoN), Hen Mpoano (HM), Environmental Justice Foundation (EJF), Ghana Wildlife Society (GWS) and Nature Conservation Research Centre (NCRC).

3.5. Cooperatives, Committees and Associations

Cooperatives, committees and associations are small non-profit organisations critical in managing marine resources as they provide a wide range of social services to the

community and contribute to creating a sustainable future (Nordin, Khatibi & Azam, 2024). Although they have always been more than just interest groups, their established relationships with the public and public sector organisations, have increasingly more ramifications for organising their constituents to participate in marine resource management at all levels.

Examples of these stakeholders in Ghana include:

- Central and Western Fishmongers Improvement Association (CEWEFIA)
- National Fish Processors and Traders Association (NAFPTA)
- Densu Estuary Women's Cooperative
- Women in Law and Development in Africa (WiLDAF)
- Ghana National Canoe Fishermen Council (GNCFC)
- Small Pelagic Co-Management Committees
- Marine Protected Area Technical Advisory Committee (MPA-TAC)
- Landing Beach Enforcement Committees (LaBEC)
- Science and Technical Committee
- MPA Management Executive Committee
- MPA Community Cluster Committees
- Fisheries Management Operational Committee

3.6. Private Sector

The private sector in Ghana, particularly businesses involved in fisheries, tourism, oil and gas, and aquaculture, have a major stake in MPA implementation. Companies operating in the marine and coastal sectors may benefit from the conservation of marine ecosystems (e.g., through ecotourism) or may see their activities restricted by MPA regulations (e.g., fisheries and extractive industries). Nonetheless, the fisheries sector would likely benefit from spillover effects which results from fish migration from protected areas to nearby locations (Di Lorenzo et al., 2020). Private sector interests often centre on maximising profits while maintaining access to marine resources, which can sometimes conflict with conservation goals. However, the private sector's engagement is crucial for ensuring sustainable practices, and their investments in eco-friendly business models can align with MPA objectives.

Private companies such as Pioneer Food Cannery (PFC), Cosmo Seafood's, and the tourism industry (hotels, tour operators, and businesses in coastal areas), Tullow Oil and Ente nazionale idrocarburi (ENI) Ghana often wield significant power due to their financial resources and political connections, which can either support or hinder MPA implementation depending on how their interests are addressed.

3.7. International Organisations

Bilateral, multilateral, and intergovernmental organisations such as the United Nations (UN), International Union for Conservation of Nature (IUCN), World Bank (WB), the UK Joint Nature Conservation Committee (JNCC) through the UK Government Ocean Country Partnership Programme (OCPP), United States Agency for International Development (USAID), Global Environment Facility (GEF), and various regional marine organisations such as the Fisheries Committee for the West-Central Gulf of Guinea (FCWC) often play a supporting role in MPA implementation [LG1] . Currently, the activities of these organisations span supporting site identification, stakeholder consultation and funding activities related to MPA establishment in Ghana.

Furthermore, these organisations provide funding, technical expertise, and policy guidance that help governments and other stakeholders meet global conservation targets, such as the 30x30 target of the Kunming-Montreal Global Biodiversity Framework [LG2] (KM-GBF). Through the funding support of international organisations, a national blue economy summit was held in 2023 to highlight political commitment towards achievement of global ocean conservation targets within the framework of the High-Level Panel for a Sustainable Ocean Economy (Ocean Panel). They hold significant influence, particularly through funding mechanisms and global partnerships that encourage countries to establish and maintain MPAs. International organisations also help monitor compliance with international agreements and ensure that MPAs are managed according to best practices.

3.8. Media

Media supports awareness raising to shape public opinions about MPAs and to foster broader community support, which is crucial for successful MPA implementation. Media upholds accountability principles in MPA implementation, ensuring that stakeholders adhere to commitments to establishing and enforcing MPAs. Through campaigns, the media brings pressure to bear on governments to prioritise MPAs in conservation policies and allocate resources for implementation. Furthermore, the media provides the platform for stakeholder engagement and consideration of diverse interests in MPA planning and management. Print and electronic media, as well as community radios, are key media outlets utilised in Ghana for information dissemination on marine conservation.

3.9. Universities and Research Institutions

Universities support research, capacity building, and knowledge exchange associated with MPA implementation. Their role includes data generation for MPA research and science. Universities also create the platforms for integration of different sources of knowledge in MPA planning and management. One example of university involvement was the Coastal and Marine Conservation Drive Project (COMADRIP) administered by the University of

Cape Coast which prioritised the Cape Three Points area for the design and development of an MPA management strategy (Jonah *et al.,* 2022).

4. Analysis of Stakeholders in the Context of Gender

The gender composition of stakeholders involved in MPA implementation reveals significant disparities in representation, roles, and decision-making power in many African countries including Ghana. This analysis examines stakeholders, including government agencies, local fishing communities, women's groups and non-profit organisations, non-governmental organisations (NGOs), and private sector actors, focusing on gender dynamics at different stages of the MPA implementation cycle. Addressing gender disparities can improve access to resources and decision-making power for women, leading to more equitable and effective conservation practices (Maliao & Polohan 2008; Baker-Médard, 2017; De La Torre-Castro *et al.,* 2017).

In Africa and Ghana, frameworks such as the African Union's Agenda 2063 and Ghana's National Gender Policy provide strong foundations for promoting gender equality in marine resource management (MoGCSP, 2015; AUC & AUDA-NEPAD, 2022). However, women's participation in decision making regarding marine governance is typically underrepresented compared to men, for example, in Kenya, there were far less women in government agencies, especially in senior positions relating to ocean management (Ojwala, 2023). Even with a more recent focus on collaborative and community-based conservation planning, women's input into resource management decision can still be limited. For example in Madagascar, women were 7 times less likely than men to participate in any facet of marine resource management, and 17 times less likely than men to be involved in decision making concerning marine resource management (Baker-Médard, 2017).

Clearly, significant challenges remain in addressing power imbalances in women's participation in MPA planning and management. For instance, within MoFAD, women occupied only 27% of leadership positions as of 2021 (Local Governance Monitoring Report, 2022). Similarly, while Ghana's Local Governance Act mandates a minimum of 30% women representation in local government structures, actual representation has consistently fallen short of this target. The Local Governance Monitoring Report (2022) indicated that, on average, women hold 18% of seats in the District Assemblies. This reflects broader national trends where women's participation in leadership remains limited and male dominance leads to a lack of female perspectives in decision-making processes regarding marine resource management. To overcome these challenges, it is crucial to continue promoting gender-sensitive policies and empowering women to take leadership roles in MPA governance.

Overall, the gender composition of stakeholders involved in MPA implementation indicates significant disparities in representation and decision-making power. While women contribute substantially to local economies and conservation efforts, their influence in formal governance structures remains limited. Addressing these disparities through targeted policies and capacity-building initiatives is crucial for enhancing gender equality in MPA management, ensuring that women's voices and perspectives are included in decision-making processes.

4.1. Gendered Division of Labor in MPA-Related Activities

In Ghana, the division of labor in MPA-related activities, such as fishing, conservation, and monitoring, is heavily gendered, reflecting traditional roles within coastal communities. Men and women often engage in different tasks related to MPAs based on social, cultural, and economic factors, with men typically taking on more formal and recognised roles, while women's contributions, although substantial, are often informal and undervalued. Case studies from other African contexts such as Tanzania and Madagascar, illustrate a clear division of labour between genders regarding marine resource use, and if women's roles are not fully considered in MPA management, it can lead to dispossession of resources and conflicts (Baker-Médard, 2017; De La Torre-Castro *et al.,* 2017; Kamat, 2018). MPAs can promote alternative livelihood opportunities, such as eco-tourism, that are gendered in nature. Men typically dominate roles in tour operations, boat rentals, and diving services due to the labour and capital intensive nature of these roles while women may be more involved in providing hospitality, handicrafts, or processing marine products for tourists (Walter, 2011).

4.2. Challenges and barriers to Gender Equality in Marine Resource Management

In Ghana, socio-cultural barriers significantly affect women's participation in resource management. These barriers, which include lack of access to land rights and low participation in marine resource decision making processes are deeply rooted in traditional norms, gender roles, and societal expectations (Nolan, 2019). Figure 4 provides an overview of challenges and barriers to the effective integration of gender equality in marine resource management in Ghana.

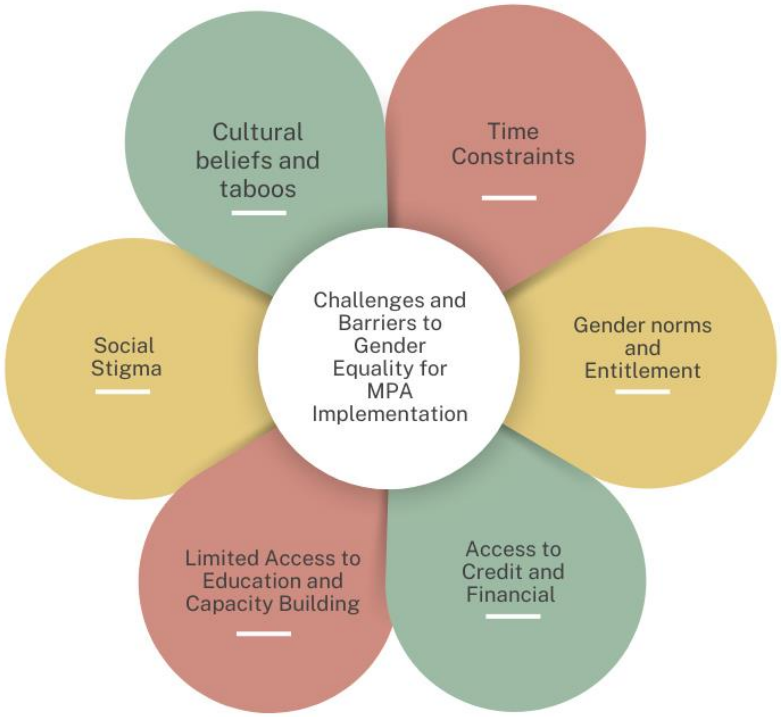

Figure 4: Key challenges and barriers to gender equity for marine resource management.

4.2.1. Patriarchal Norms and Gender Roles

Women face structural barriers to equal participation in MPA-related activities. Ghanaian society is traditionally patriarchal, where men are often seen as the primary decision-makers, both in households and communities. This dynamic extends to resource management, where women's voices are often underrepresented. For example, men dominate discussions related to fisheries and marine resources, even though women are actively involved in post-harvest activities such as processing and marketing (Torell, Owusu & Okyere Nyako, 2015; Aduomih, 2019). In fishing villages, traditional gender roles typically place men as the main users of resources (fishers, for example), and women as processors and marketers. As a result, even though women are crucial to the fisheries sector in Ghana, their responsibilities are underappreciated in decision-making processes (Aduomih, 2019). Women are frequently barred from holding leadership positions in fishery councils, which if not addressed, would likely also be true for future MPA management committees due to men being perceived as legitimate decision-makers in Ghana.

4.2.2. Cultural Beliefs and Taboos

Certain cultural beliefs and taboos restrict women's access to marine and coastal resources. For instance, in some coastal communities, it is believed that women should not fish in canoes or partake in activities traditionally reserved for men, as doing so is thought to bring bad luck. These restrictions not only limit women's economic opportunities but also exclude them from participating in the management of marine resources.

4.2.3. Limited Access to Education and Capacity Building

Women in coastal areas of Ghana often have limited access to education and capacity-building opportunities, which hinders their ability to participate meaningfully in resource management. This educational gap is partly due to prioritising boys' education over girls within many families, driven by socio-cultural norms (Adams, Intsiful & Zagoon-Sayeed, 2024).

4.2.4. Time Constraints Due to Domestic Responsibilities

Women in Ghana typically bear the brunt of domestic responsibilities, including childcare, cooking, and fetching water. These time-consuming duties leave little room for women to participate in community meetings, training sessions, or resource management committees (Agarwal, 2018). The absence of gender-sensitive policies that accommodate women's schedules further exacerbates this barrier. Women's freedom to travel independently to meetings or trainings, which may be hosted in central or remote places, is restricted by social conventions in certain communities (Agarwal, 2018). Time constraints inhibit optimal participation of women in conservation decision-making processes, requiring participatory processes to be designed to respond to the unique needs of women. Women, therefore, find it more difficult to communicate with decision-makers to convey their interests because of these barriers.

4.2.5. Lack of Financial Resources and Access to Credit

Economic barriers also play a role in limiting women's participation in resource management. Women often have less access to financial resources and credit facilities compared to men, which affects their ability to invest in resource-based enterprises or engage in community initiatives (GSS, 2021). Traditionally, men are the heads of households and control household assets and capital needed to access credit facilities. This financial marginalisation restricts their influence in decision-making processes, as economic power often translates to social power in community settings.

4.2.6. Social Stigma Against Female Leadership

Despite gradual progress in gender equality, there remains a strong societal bias against women in leadership positions in Ghana, particularly in rural and coastal areas. Women

who aspire to leadership roles in resource management often face resistance from male counterparts and community elders, who may perceive their involvement as a challenge to traditional authority structures (Torell, Owusu & Okyere Nyako, 2015). This stigma discourages women from taking on visible roles in MPA management.

5. Mapping Stakeholder Influence-Interest and Relationships in Ghana

All the identified stakeholders (see Section 3) have some level of influence over, and interest in, the establishment and management of MPAs in Ghana. Influence refers to the extent to which stakeholders are able to persuade others into making decisions or following certain courses of action (Salam & Noguchi, 2006). Influence as used in this report refers to the degree of possession of formal authority and/or access to resources such as funding, staff, legitimacy, skills and knowledge for MPA establishment and management (Bianchi and Kossoudji, 2001). High influence connotes high priority and desire for the benefits from MPA establishment and implementation. High influence assumes the access to resources to influence MPA establishment and implementation outcomes. (Bianchi and Kossoudji, 2001).

Stakeholder interests also include common concern and desired advantages or benefits derived from MPA establishment and management (Lahl, 2015). Table 4 below outlines the key categories of stakeholders and their interests in, and influence over, MPA establishment and implementation processes in Ghana. Where interests are indicated to be low, it assumes the relevant stakeholders will not prioritise MPA establishment and management.

Table 4: Categories of Stakeholders and their Interests in and Influence over MPA Establishment and Implementation in Ghana.

Stakeholder influence and interests in MPA establishment and implementation		
Stakeholder Category	**Interests**	**Influence**
Government agencies	Balance national and international conservation priorities with rights and needs of local stakeholders. Responsible for setting and monitoring achievement of national conservation targets (**High)**	Utilise regulatory and legislative authority for MPA establishment and designation of zones. For instance, the Fisheries Act of 2002 (Act 625) empowers the Minister responsible for fisheries to declare marine reserves and make related regulations **(High)**

Local communities	Protect cultural values and rights of access to fisheries resources for livelihood enhancement, income generation and food security **(High)**	Incorporate local knowledge into the processes of MPA site identification and designation and for monitoring changes in the conditions of species, habitats and ecosystems **(High)**
Traditional authorities	Protect maritime domain cultural values and traditions to preserve cultural heritage (**High)**	Exercise rights and control over access and utilisation of coastal and intertidal resources (**High**)
Non-governmental organisations	Ensure healthy and sustained marine ecosystems by supporting management planning and implementation of conservation programmes (**High**)	Facilitate education, information dissemination and outreach on MPA benefits. NGOs are constrained by their lack of legislative authority to establish MPAs (**Low**)
Cooperatives, committees and associations	Participate in marine ecosystem conservation and management decision-making processes. They represent fisher folk constituents in marine conservation decision making processes (**High**)	Incorporate local, scientific and experiential knowledge in site identification, management planning and MPA monitoring processes **(High)**
Private sector	Invest in, and derive profit from, marine resources utilisation (**Low**)	Provide funding for marine research and development (**High**)
International, multilateral and bilateral organisations	Provide guidance and best practices for MPA planning and management (**High)**	Provide funding for MPA establishment and implementation (**High)**
Media	Promote public understanding of MPA benefits and impacts. However, media is unaffected by marine conservation outcomes **(Low)**	Create platforms for dialogue on issues of equity and transparency in the sharing of MPA benefits **(High**)
Universities and research institutions	Undertake research and capacity building to inform MPA management **(High**)	Conduct marine-related ecological, social and economic research. However, they are constrained by lack of legislative authority to establish and implement MPAs (**Low**)

5.1. Stakeholder Interest – Influence Matrices

In this section, a stakeholder interest-influence matrix adapted from Reed et al. (2009), is utilised to classify and prioritise stakeholders for engagement in MPA establishment and management processes. Key players are stakeholders to be prioritised for active engagement because they have high interest in, and influence over, MPA establishment and implementation (see Figures 5, 6, 7 and 8).

Subjects have high interest but low influence over MPA establishment and implementation. They need to be involved in co-designing MPAs as some, such as local communities, may be marginalised by not incorporating their concerns and voices in MPA establishment and management strategies. Context setters are highly influential but have little interest.

Because of this, they may be a significant risk to MPA establishment and implementation and therefore should be monitored and managed. The Crowd are stakeholders who have little interest in or influence over desired MPA establishment and management outcomes and there is little need to specifically target resources towards their engagement.

Stakeholders interact and relate at the societal level to influence MPA establishment and implementation decisions. These relationships take different forms such as information flows, knowledge exchange, collaborations and partnerships. Nodes and edges illustrate stakeholders and the strength of their relationships respectively. Strong relationships mean stakeholders take complementary actions and decisions towards MPA establishment and implementation. Moderate relationships illustrate less intense cooperation among stakeholders while weak relationships represent conflicting actions and decisions between stakeholders (Reed et al., 2009).

5.2. Outcomes of Preliminary Analysis and Validation of Stakeholder Influence-Interest and Relationships

The preliminary results of the stakeholder influence-interest and relationship analysis are presented in Figures 5 and 6, respectively. Government agencies, along with international, multilateral, and bilateral organisations, were categorised as key players, indicating their strong influence and vested interest in MPA establishment and implementation. While the government is widely recognised as the primary authority responsible for MPA creation, international and multilateral organisations play a crucial role by providing financial support to facilitate this process. Universities and research institutions, local communities, cooperatives, committees, associations, and NGOs were seen as having a strong interest in the outcomes of MPA establishment, given their roles in research, local economic development, and livelihood enhancement. However, their influence over MPA establishment decisions remains limited due to the absence of a legislative mandate. In contrast, private sector actors wield significant influence, as they have the financial capacity to support MPA establishment. However, their priorities may not always align with conservation objectives. Likewise, traditional authorities can shape MPA establishment decisions by invoking customary laws and traditional practices that regulate ocean access.

Figures 7 and 8 provide modified stakeholder influence-interest and relationship analyses based on stakeholder validation of preliminary analysis results. Workshop participants identified local communities and traditional authorities as key players in the establishment, implementation, and management of MPAs in Ghana (see Appendices). There was broad consensus that these stakeholders hold significant influence and vested interest in MPA processes, as their support or opposition can either facilitate or obstruct efforts led by higher-level actors (see Figure 7). Additionally, while government agencies are recognised as key players, their effectiveness is constrained by limited financial resources, raising critical questions about their ability to sustain MPA implementation without external funding. Comparing Figures 5 and 7, Universities and NGO's remained as Subject because they do not possess legal and policy-making mandates for MPA establishment. Rather, they perform advisory functions and their consultation is necessary to leverage research and development expertise. The change in the position of media in Figure 5 (as representing crowds) and 7 (as representing context setters) is the result of their ability to shape public perception and discourse around the benefit of marine conservation.

Significant changes are evident in Figure 6 and 8. It was revealed that the Private Sector and Government have somewhat weaker relationships stemming from potential misalignment in the objective for MPA implementation. Specifically, extractive industry players are averse to marine conversation in areas of high deposit of hydrocarbons. This weak relationship was maintained in Figures 6 and 8. However, the relationship between NGOs and the private sector changed from moderate to weak between both figures. During the validation exercise, stakeholders revealed the apparent mismatch in interest for

marine conservation and profit oriented goals between NGOs and private sector players respectively.

The sustainability of the MPA initiative was an issue of concern as one participant drew parallels between MPAs and forest reserves and questioned how marine protection could be ensured given the current challenges with illegal mining in forest reserves. This led to a broader discussion about implementation timelines and the likelihood of successful MPA establishment.

The session benefited from input from a Ghana Fisheries Recovery Activity (GFRA) representative, who provided assurance about both major political parties' commitment to MPAs in their manifestos and ongoing engagement with stakeholders. He emphasised that there had been productive discussions regarding MPAs, with meetings both held with the manifesto committee and at the incoming president's office. The incoming administration showed particular interest in MPAs, though they questioned the slow pace of implementation and suggested establishing multiple sites rather than just one.

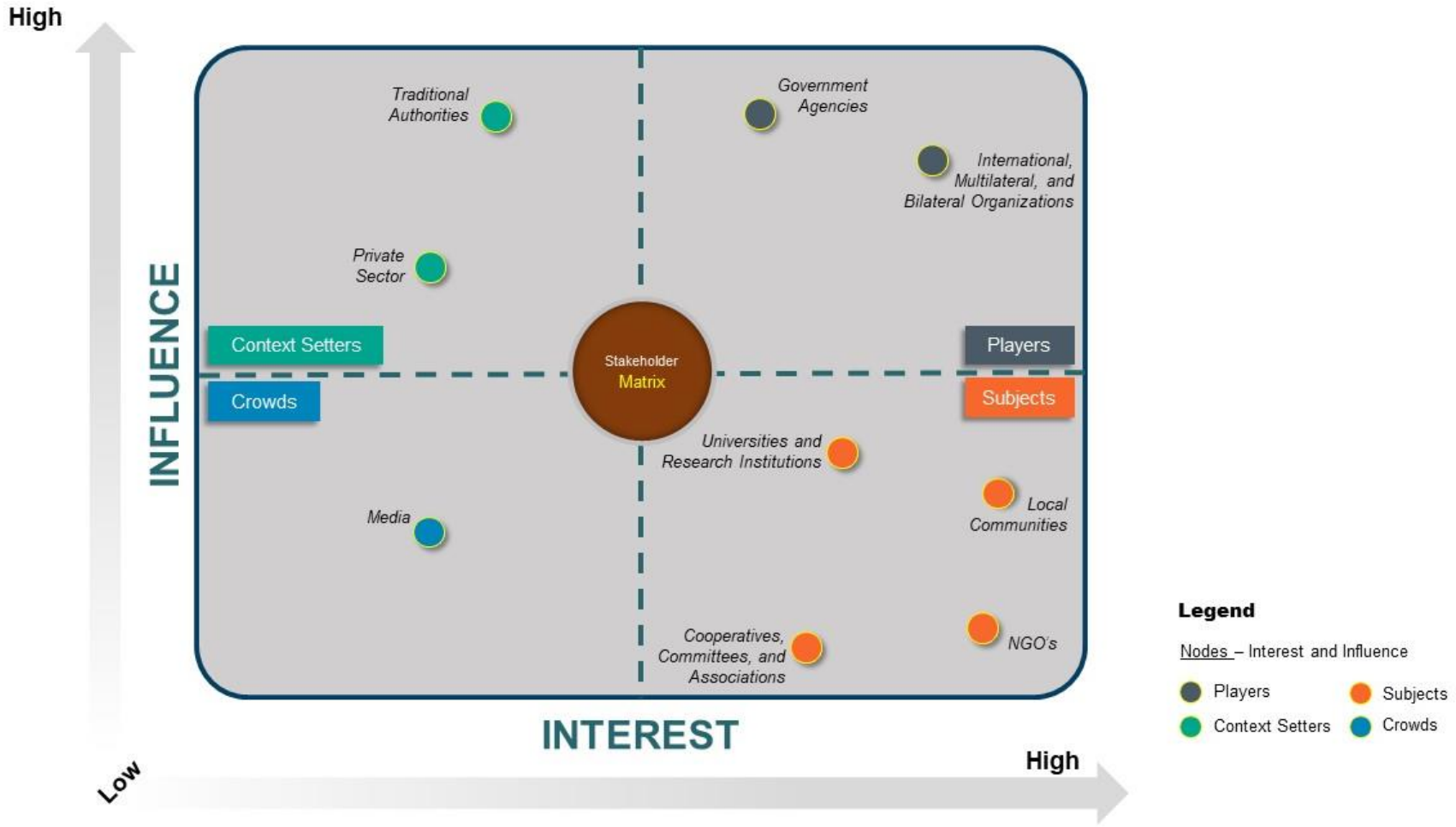

Figure 5: Results of preliminary analysis of stakeholder interest-influence for MPA implementation in Ghana.

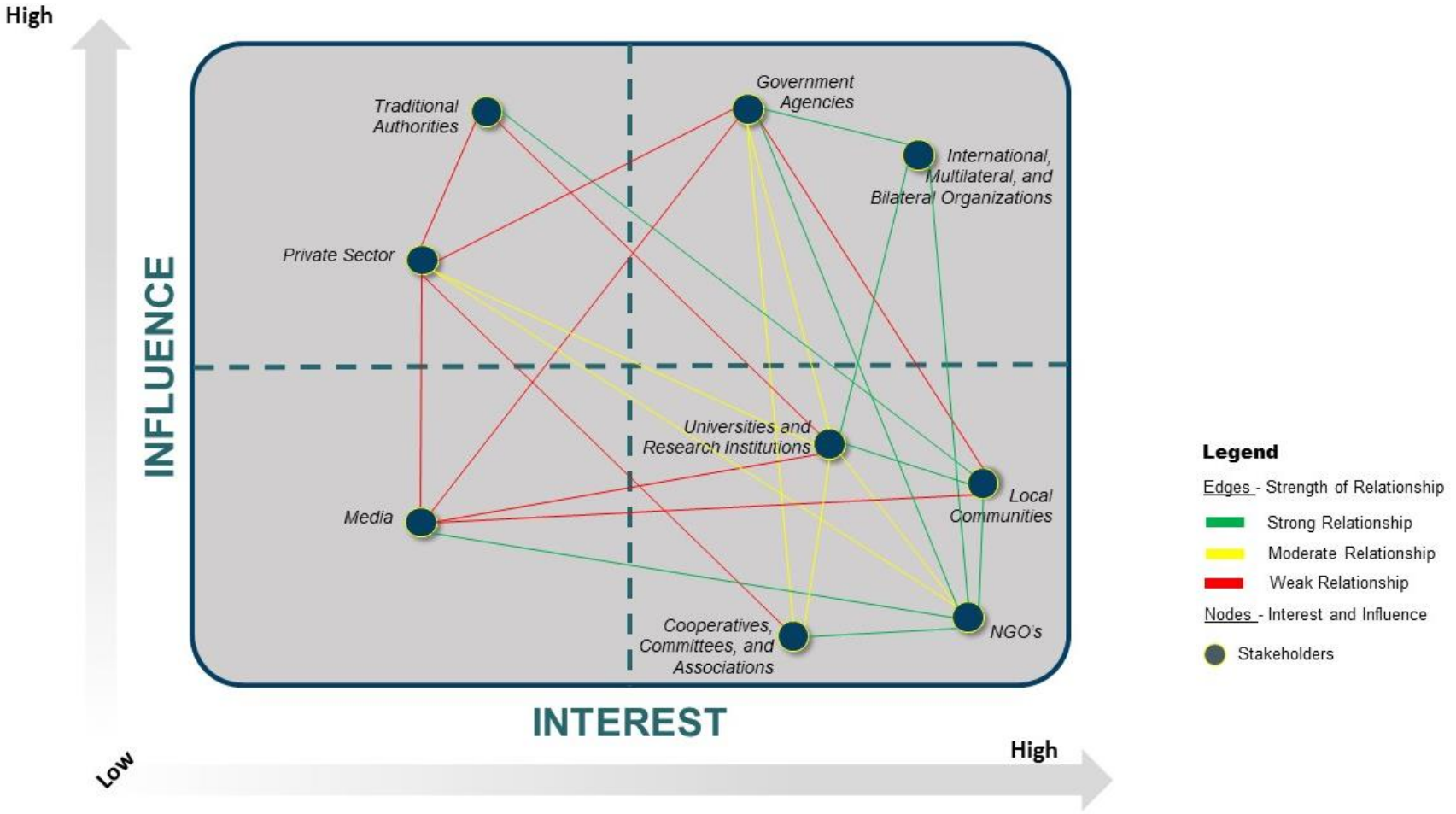

Figure 6: Results of preliminary analysis of strength of stakeholder relationships across the influence-interest matrix.

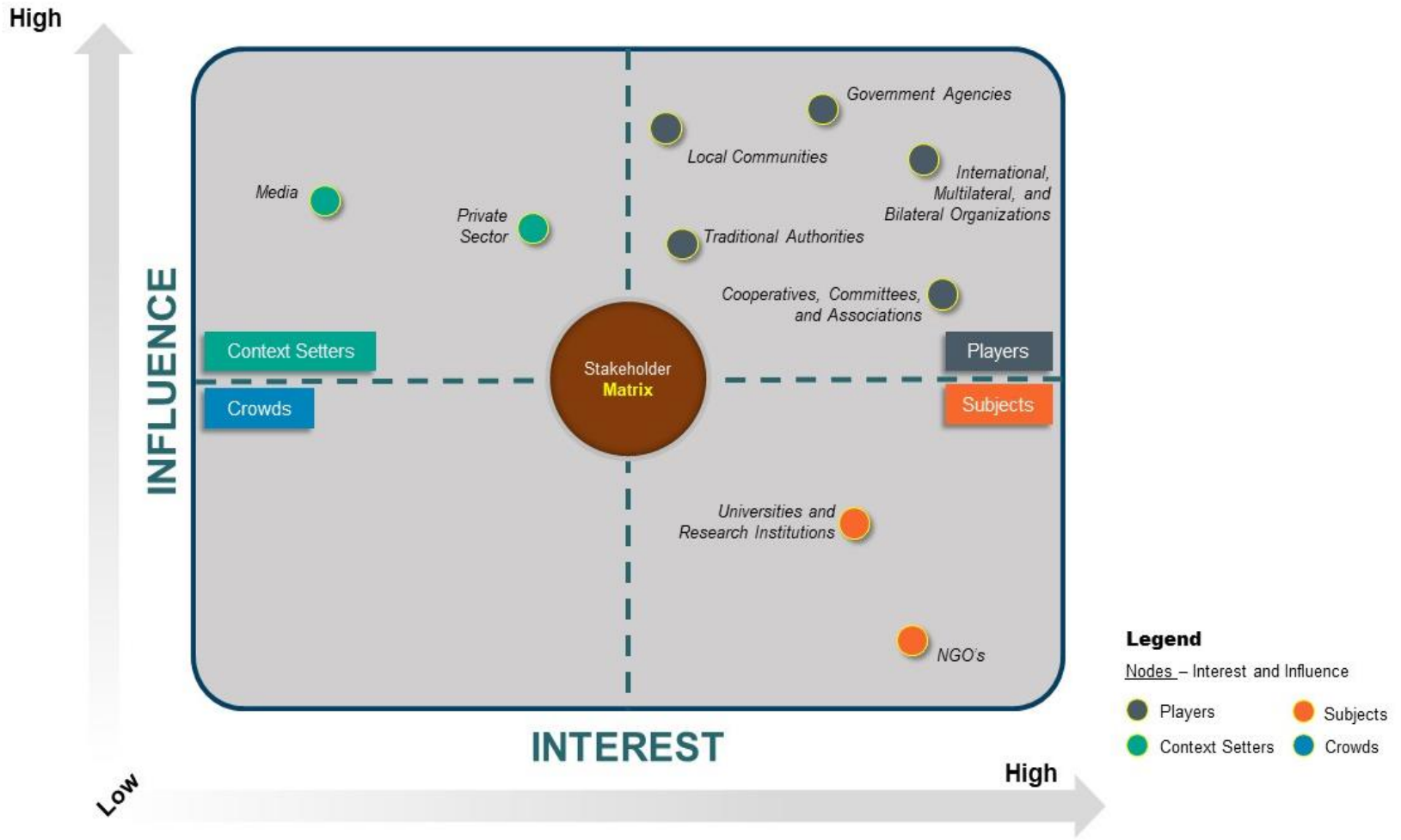

Figure 7: Results of stakeholder interest-influence matrix for MPA implementation in Ghana based on validation outcomes.

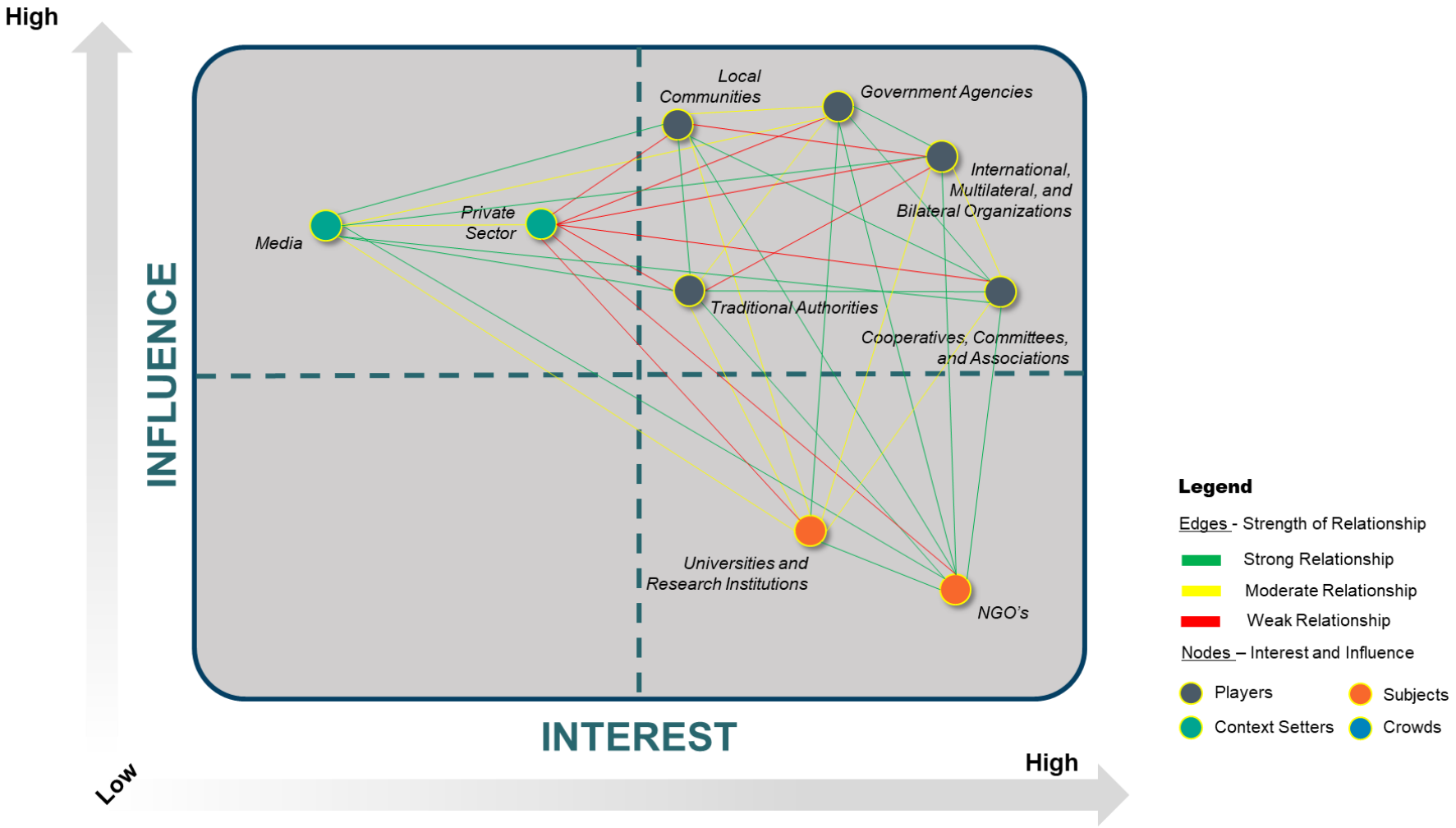

Figure 8: Results of strength of stakeholder relationships across the interest-influence matrix based on validation outcomes.

5.3. Impacts of MPA establishment and implementation on marine stakeholders

MPAs are crucial tools for conserving marine biodiversity, protecting ecosystems, and ensuring sustainable resource use (Worms, 2017). However, their implementation can have varying impacts on different stakeholder groups. The effectiveness and inclusiveness of MPAs largely depend on how well stakeholders are engaged throughout the various stages of the MPA lifecycle: assessment, management, monitoring, and enforcement (Francolini et al., 2023). Below is an analysis of these stages and their impacts on stakeholders, particularly local communities, fishers, women, and marginalised groups. MPAs can affect access to traditional fishing grounds, livelihoods, and social dynamics within communities, with gender playing a critical role in determining who benefits or may be negatively impacted from these changes.

MPAs often involve restrictions on access to critical marine areas that men and women rely on for their livelihoods. In Ghana, men typically fish in offshore areas that may be designated as no-take zones or limited-use areas under MPA regulations (Aduomih, 2019). These restrictions could directly impact their ability to continue fishing on traditional grounds, leading to reduced incomes and increased competition for fishing grounds outside the protected areas. In other locations, women who rely on nearshore and intertidal zones for gleaning (collecting invertebrates), collecting wood, and small-scale fishing, can face even greater challenges as MPAs frequently include these areas in their conservation zones, further limiting women's access to resources they depend on for food security and income (Baker-Médard, 2017; De La Torre-Castro *et al.,* 2017).

Other activities aimed at increasing awareness, knowledge, skills and institutional capacity, such as environmental education, capacity development and social communication can create positive change in values, attitudes and behaviour of stakeholders towards the environment (Akurubire, 2023). Access to resources improves scientific research and investigation on process-based research, tracking contemporary changes of marine resources (wetlands, mangroves, etc.) and environmental conditions, as well as projecting and forecasting changes, with interest to acquire further knowledge about the system under study. MPAs can force local stakeholders to adapt their livelihood strategies in response to restricted access to marine resources (Kriegl et al., 2021). Adopting alternative fishing practices, venturing into deeper waters (Trégarot et al., 2020), or shifting to other maritime industries, such as tourism, aquaculture, handicrafts, or other non-fishing-related activities.

Despite some challenges including lack of access to credit (GSS, 2021), gender norms and entitlement and limited access to education and capacity building (Adams, Intsiful and Zagoon-Sayeed, 2024), MPAs can also provide opportunities for women's empowerment and participation in sustainable resource management. Community-based MPA initiatives that include women in governance and decision-making processes can enhance their

roles in resource management and conservation efforts (Anariba et al., 2025). Additionally, MPAs that promote eco-tourism and conservation activities offer new income-generating opportunities for women (Pham, 2020), especially when they are given access to training and resources to participate in these sectors.

6. Recommendations

Recognising, understanding and incorporating diverse stakeholder values and perspectives in MPA establishment and management has the potential to enhance conservation outcomes and build resilient social and ecological systems in Ghana. This section presents recommendations for enhancing stakeholder engagement and promoting equitable MPA management as summarised below in Figure 9.

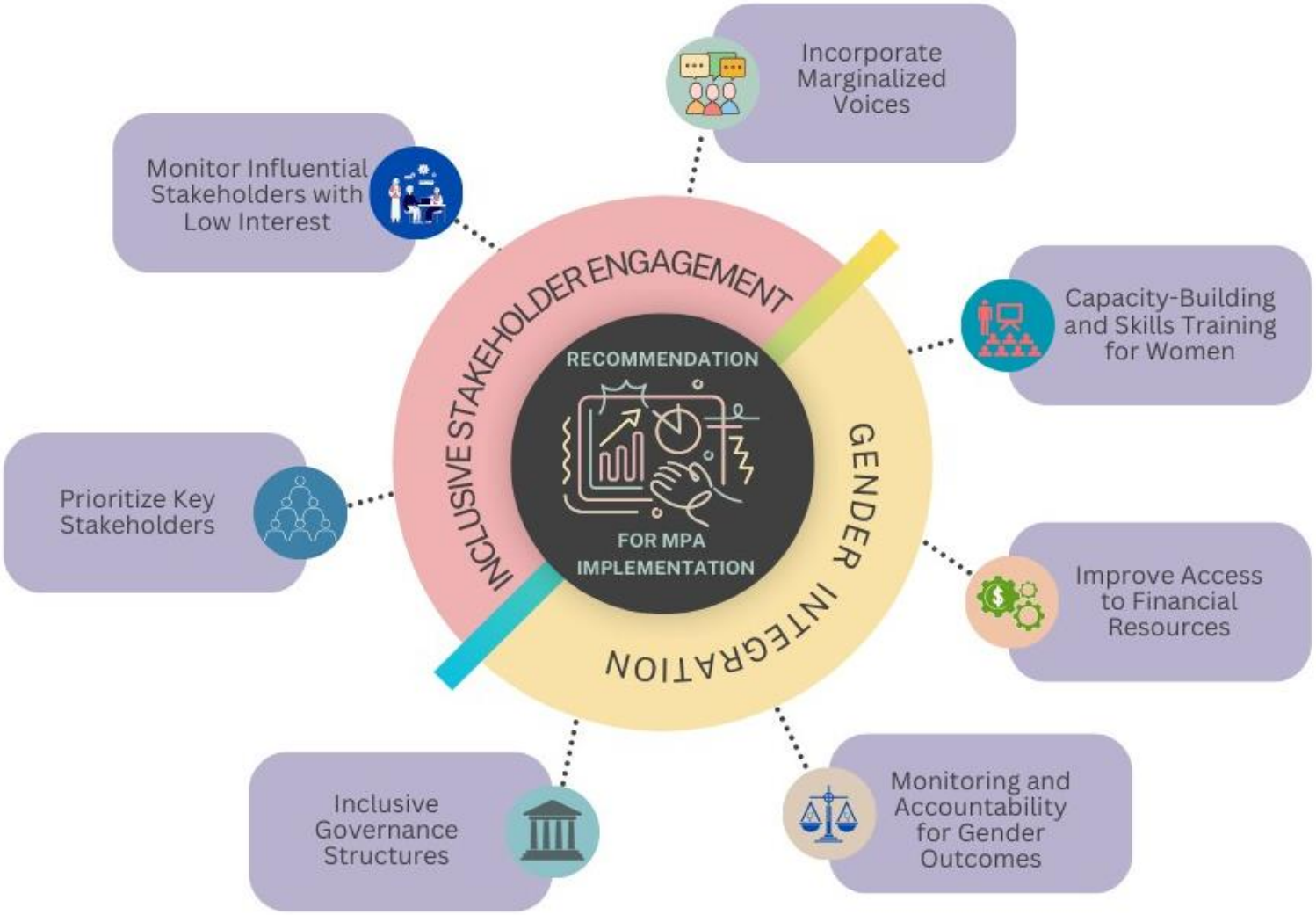

Figure 9: Recommendations for effective stakeholder participation and gender integration for effective MPA Implementation.

6.1. Inclusive Stakeholder Engagement

- Prioritise key stakeholders

Actively engage stakeholders with high interest and influence, such as government agencies and international organisations, traditional authorities, associations, committees and cooperatives and local communities (see Figure 9) in MPA planning, designation, and management processes.

- Incorporate marginalised voices

Ensure that stakeholders with high interest but low influence such as Universities and NGOs (see Figure 9) are involved in co-designing of MPAs. Their knowledge and experiences should be harnessed for site identification, management planning, and monitoring processes.

- Monitor influential stakeholders with low interest

Private sector actors have high influence but low interest in MPA establishment and management (see Figure 9). These should be carefully monitored to prevent their potential opposition from undermining MPA goals. Their involvement should be strategically managed through information sharing and elicitation of their feedback into the design, planning and management of MPAs. Likewise, the media should be well informed in order to ensure balanced and accurate reporting on the designation, management, enforcement and monitoring of MPAs.

6.2. Gender Integration

- Capacity-building and skills training for women

Capacity-building programs specifically targeted at women should be developed to help bridge the gender gap in MPA implementation (see Figure 9). Training should cover areas such as resource management, leadership, and technical skills relevant to fishing or alternative livelihoods. By providing women with the necessary knowledge and skills, they can become more empowered to engage in resource management activities and assume leadership roles within MPA governance structures.

- Improved access to financial resources

Ensuring women have equal access to credit, grants, and loans is crucial for promoting gender equality in MPAs (see Figure 9). Programs should be established to provide financial resources tailored to women's needs, helping them invest in fishing equipment, alternative livelihoods, or small businesses. Financial inclusion programs should address barriers such as lack of collateral or legal documentation, which often prevent women from accessing traditional forms of finance.

- Inclusive governance structures

MPA governance bodies should be inclusive and diverse (see Figure 9), with women being actively represented at all levels. This can be achieved by setting gender quotas for committees or decision-making platforms and ensuring that women's voices are heard in key discussions. Additionally, creating women-only forums within MPA's can provide a safe space for women to express their concerns and collectively advocate for their interests.

- Monitoring and accountability for gender outcomes

MPA governance frameworks should include monitoring mechanisms that track gender equality outcomes (see Figure 9). This includes gathering gender-disaggregated data to assess how policies and programs affect men and women differently. Clear accountability structures should be established to ensure that gender equality commitments are implemented, and progress is regularly evaluated. Additionally, grievance redress mechanisms should be in place to address any gender-based discrimination or inequities that arise.

7. Conclusions

In conclusion, a wide range of stakeholders are essential to the creation and execution of MPA in Ghana, including government agencies, traditional authorities, local communities, NGOs, cooperatives, committees and associations, the private sector, international organisations, the media, universities, and research institutions. Each stakeholder's amount of influence and interest in the creation and execution of MPAs in Ghana varies.

Participants in the validation workshop reaffirmed the importance of traditional authorities and local communities in Ghana's MPA establishment, planning, and management. Therefore, the values of equity, inclusion, justice, and openness should guide their involvement and engagement in the processes.

It was also recognised that although government agencies participate as participants, their ability to operate MPAs is hampered by a lack of necessary financial, technical, and logistical resources. Therefore, professional help, collaborative management, and long-term, external financial support are necessary components for the long-term viability of MPAs in Ghana.

Lastly, given that traditional gendered role segregation within Ghanaian fishing communities is reflected in marine conservation activities, barriers to gender equity and equality should be addressed by strengthening gender integration in MPA planning and management and engaging inclusive stakeholders.

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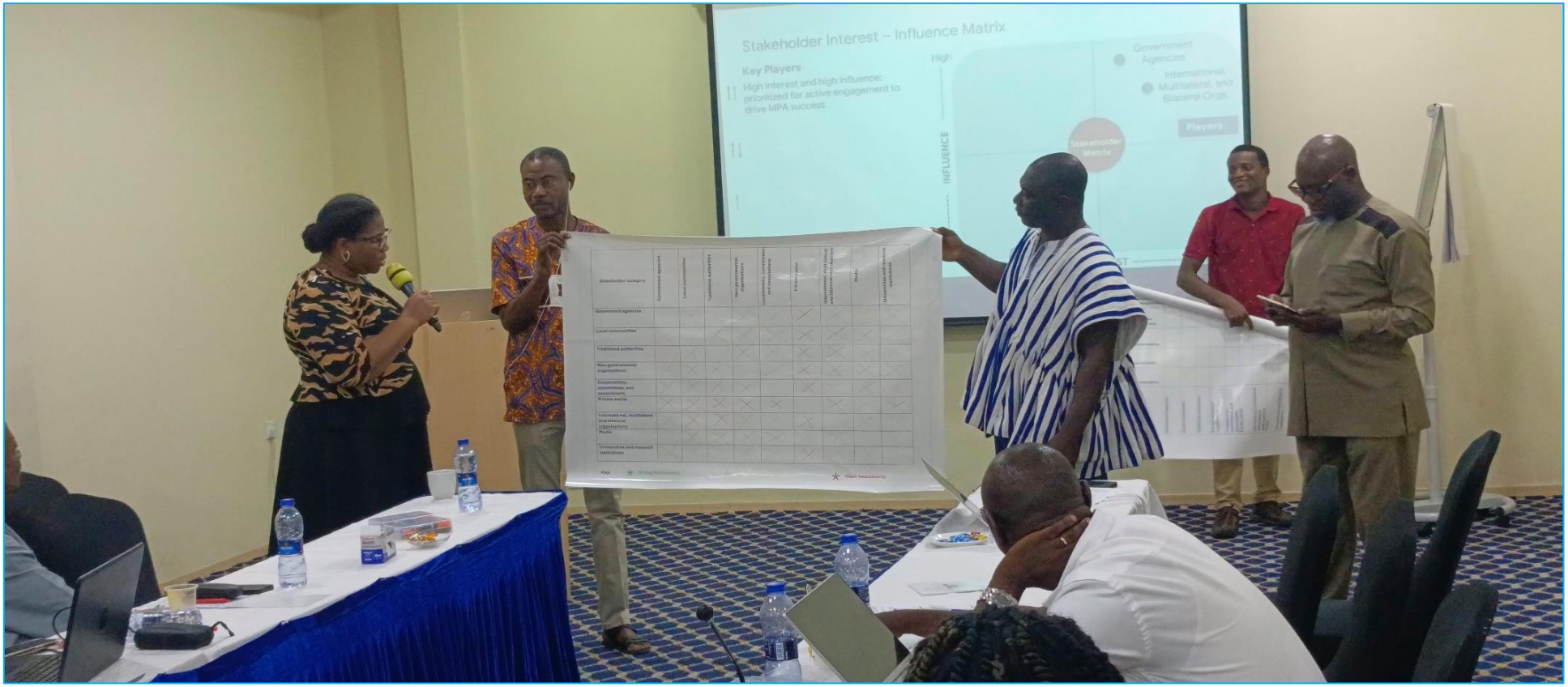
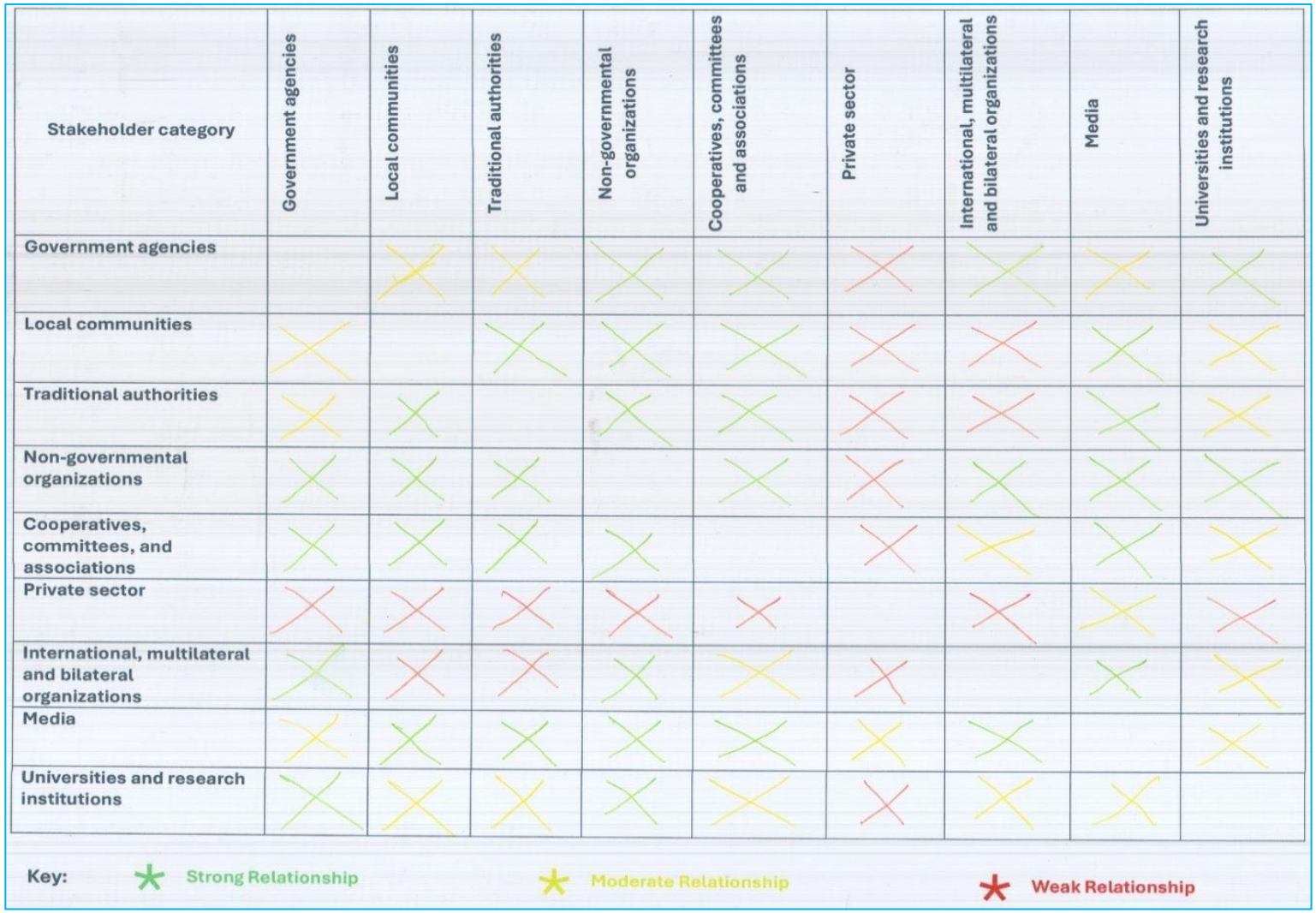
Appendix 1: A group of participants presenting their outcomes on stakeholder relationship at the workshop



Appendix 2: A group of participants brainstorming during the workshop

Appendix 3: Stakeholder evaluation outcome regarding institutional ties



Stakeholder category	Government agencies	Local communities	Traditional authorities	Non-governmental organizations	Cooperatives, committees and associations	Private sector	International, multilateral and bilateral organizations	Media	Universities and research institutions
Government agencies									
Local communities									
Traditional authorities									
Non-governmental organizations									
Cooperatives, committees, and associations									
Private sector									
International, multilateral and bilateral organizations									
Media									
Universities and research institutions									

Key: Strong Relationship Moderate Relationship Weak Relationship

Appendix 4: A cross section of participants during a group interaction session

Ocean Country Partnership Programme

The Ocean Country Partnership Programme (OCPP) is a UK Government-led programme delivered under the Blue Planet Fund in Overseas Development Assistance (ODA) eligible countries. Through this programme, Cefas, JNCC and MMO will provide technical assistance to support countries to tackle marine pollution, support sustainable seafood practices and establish designated, well-managed and enforced MPAs.

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