



On the Development of Territorial Use Rights in the Marine Small-Scale Fisheries of Sierra Leone



Tenure and User Rights in Fisheries 2018: Achieving Sustainable Development Goals by 2030
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3. Contribution of the rights-based approach to achieving sustainability

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1. Description of the Small Scale Marine Fisheries of Sierra Leone

Diversity of Fishing Crafts in the Small-Scale Fisheries of Sierra Leone

Craft Category	Dimension (m) – L x B x D	Number	Crew Number	Mode of Construction/Propulsion
Ghana Boat	21x2x1	219	> 10<30	Planked/Powered
Standard 5-10	18x2x1	705	5-10	Planked/Powered
Standard 3-5	13x1.5x1	1553	3-5	Planked/Powered/Sail / Paddle
Standard 1-3	7.9x0.85x0.62/6.5x0.45x0.3	5673	1-3	Planked or Dug-Out/Sail/Paddle
Kru Canoe	5-6x0.6x0.08	1360	1	Dug-Out/Paddle
Total		9,514		

Diversity of Fishing Nets in the Small-Scale Fisheries of Sierra Leone

Net Type	Number
Beach Seine	166
Ring net	1183
Bottom Driftnet	788
Surface Driftnet	3062
Bottom Set net	2555
Surface Set net	323
Cast net	689
Hand-line	2989
Long Line	1846
Others (Pots, Traps etc.)	544
Total	14,145



Description of the Small Scale Marine Fisheries of Sierra Leone

Species	Level of Exploitation
<i>Sardinella species</i> (Herring)	Fully exploited,
<i>Ethmalosa fimbriata</i> (Bonga Shad)	Over exploited,
<i>Decapturus rhonsus</i> (False Scad (Pollock))	Underexploited,
<i>Chloroscombrus Chrysursus</i> (Atlantic Bumper (Kente))	Underexploited,
<i>Pseudotolithus elongatus</i> (Bobo Croaker (Gwangwa))	Fully exploited
<i>Galoides decadactylus</i> (Lesser African Threadfin (Shinenose))	Fully exploited.
<i>Ethmalosa fimbriata</i> and <i>Sardinella species</i> make up for 62.6% of the total small-scale catch with <i>Ethmalosa fimbriata</i> contributing 50% of total small-scale catch	



Description of the Small Scale Marine Fisheries of Sierra Leone

Parameter	Number
Fishers	37,053
Fulltime	29081
Part-time	5783
Foreign Migrant	954
Local Migrant	1235
Landing Sites	641
Women in Post-harvest	1,300 (85.5%)
Women boat owners	361 (4.3%)



The small-scale fisheries of Sierra Leone exploits diverse ecosystems such as; coastal near shore, estuaries, intertidal zones, mangroves and the open sea

Description of the Small Scale Marine Fisheries of Sierra Leone

Economic contribution and social implications of the fishing activity

- Account for up to more than 80% of annual catch and that figure was about 90% in 2009.



- But it has not been captured in the national accounts (because transactions are informal, taking place at isolated locations).
- 63.1% of the population depend on fish for animal dietary protein
- Most workers are employed in relatively low productivity jobs in agricultural self-employment (59.2 percent) and non-farm self-employment (31.3 percent). Small-scale fisheries as an employer of last resort (due to the safety-net role afforded by the open access regime) is playing an important role as a self-employer.
- Small-scale fisheries employment of 9% of the economically active population could be increased with the introduction of value added facilities and other employment generating activities in the fish value chain.



Description of the Small Scale Marine Fisheries of Sierra Leone

Economic contribution and social implications of the fishing activity

SDGs and Fisheries





- Fish and income from fish can help eradicate extreme poverty and hunger (SDG 1& 2)
- Increased consumption of fish would ensure health lives and promote wellbeing (SDG 3).
- Moreover, women dominate the post capture process, thereby providing the opportunity to promote gender equality and empower women (SDG 5).
- The sub-sector is well positioned to promote inclusive growth (SDG 8) and ensure sustainable consumption patterns (SDG 12).
- Sustainable use of the aquatic zone contributes to environmental sustainability (SDG 14). Fish - migratory and straddling resource and one of the most traded commodities. This should engender global partnership for sustainable development (SDG 17).



2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Management of the Small-Scale Fisheries Before the Local Government Act (2004)



- fisheries management was characterised by static management strategies or tactics designed at the central government department responsible for fisheries and implemented by their protégées with little or no involvement of other stakeholders.
- Licences were levied by extension officer but access was more or less open to anybody who could acquire gears with no monitored limit on quantity to catch, where to fish or type of gear to use. 
- Traditional leaders and Master Fishermen settle conflicts with limited success and conflicts between small-scale fishers and their industrial counterparts before MFMR were rarely settled to the satisfaction of the former. 
- Bulk of the catch was sold fresh to vendor and other buyers on the beach after crew and boat owner catch ration has been reserved. Catch information was collected across the landing sites by extension officers

2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Management of the Small-Scale Fisheries at the Promulgation of the Local Government Act (2004)



- Transfer of some responsibilities of small-scale fisheries management to local council s could be traced to the enactment of the Local Government Act (LGA) 2004 (GoSL, 2004).



- **Baio (2006)** Argued, this created the scenario of managing nostalgia for relinquished power, unpreparedness to assume power and the occupancy of the perfect stranger.
- This is so because, LGA 2004 followed fast pace implementation schedules assuming that task requirements are well understood when the problems were undefined. Unheeded government fisheries ministry displeased with the arrangement involving relinquishing power; local fisher communities who were unprepared to assume power in terms of lack of basics needs; and finally, local councils comprising of politicians without the needed knowledge in fisheries management but put in charge of small-scale fisheries management, constituted the mismatched setup.



2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Management of the Small-Scale Fisheries at the Promulgation of the Local Government Act (2004)



- This was a recipe for chaos as the LGA, 2004 immediately superseded the fisheries policy of 2003 in a clear show of policy incoherence that weighed heavily on resource management in the small-scale fisheries sector.
- It is therefore not surprising that catch statistics on small-scale fisheries was not collected between 2010-2016 because in a rent extraction drive, the LGA 2004 focused on licencing of canoes and collecting fees instead of more traditional management functions such as generation of management information for evidence-based decision making.
- The general and persisting weakness in the small-scale is the lack of stock assessment. Baseline assessment was abandoned in 2008 due to shallow nature of the inshore as the vessel could not trawl in the shallow waters. Functional management of the sector was as in the period before the Act.



2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

- Participatory arrangement involves the broad range of interested parties in the decision making process having organised stakeholder groups with built capacities to assume such responsibilities.
- This system was initiated by the development of Marine Protected Areas under the auspices of the Institutional Support for Fisheries Management Project (ISFMP) – (2007-2010). But, the proposal of introduction of Territorial Use Rights in Fisheries (TURFs) with the advent of the West African Regional Fisheries Programme in Sierra Leone (WARFP-SL) World Bank 2010) accelerated substantive actions of the declaration of MPAs expected to evolve into TURFs.
- The process of forging MPAs and TURFs comprised of eliciting stakeholder views on MPA concept linked with a more conceptualised mechanism implemented based on a clear strategic framework. This framework was supported through the World Bank funded West Africa Regional Fisheries Program in Sierra Leone (WARFP-SL/MFMR, 2013) based on a process approach

2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Processes

The process entailed five key aspects:

- (1) Development of a Conceptual and Strategic Framework
- (2) Declaration and Organization of Communities
- (3) Delineation of Boundaries and Territories
- (4) Registration and Institutionalization of Community Management Associations (CMAs)
- (5) Incentives for Change.

2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

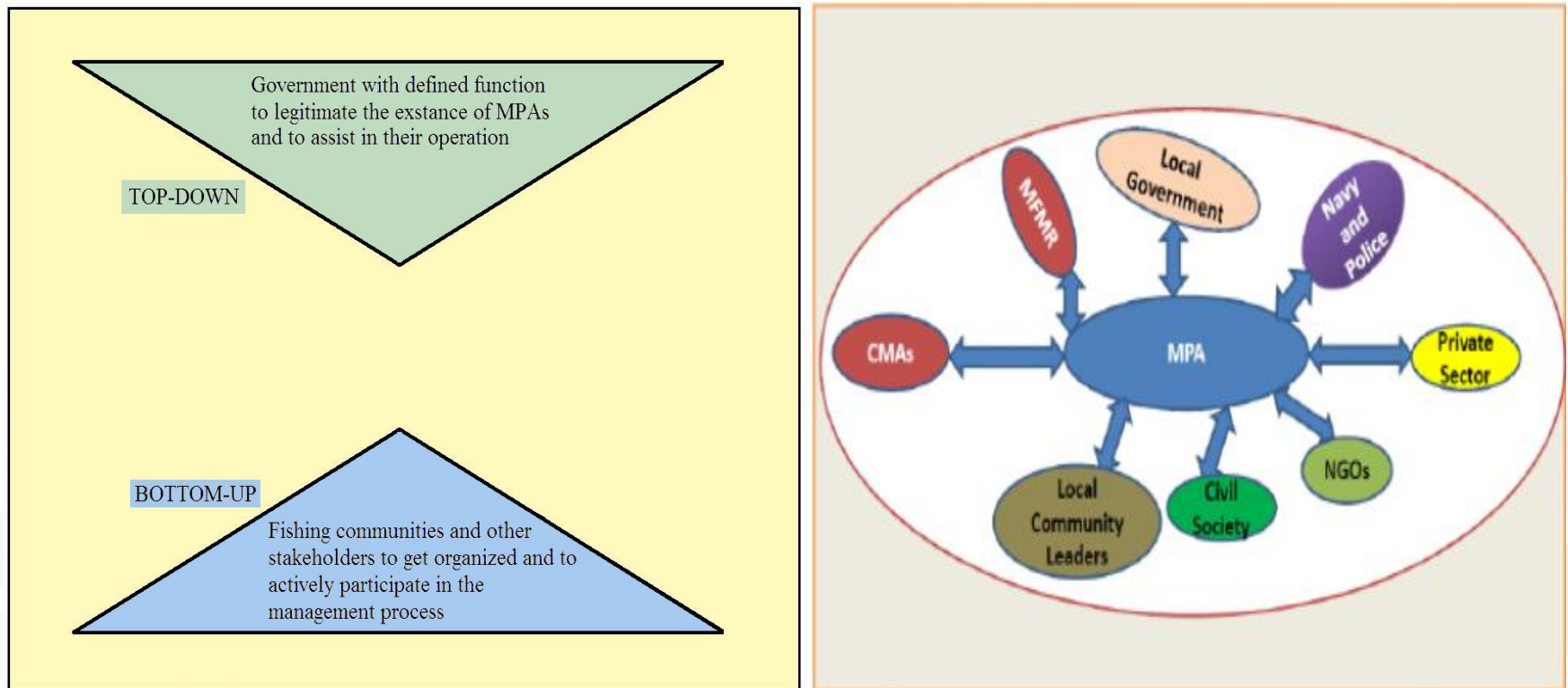
Development of a Conceptual and Strategic Framework

1. Central government legitimise the existence of MPAs and assist their operation.
2. Fishing communities and other stakeholders are organised and actively participate in the management process.
3. A wide range of stakeholders participate in MPA management.

2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Development of a Conceptual and Strategic Framework



2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Declaration and Organization of Communities

During the consultations, stakeholder agreed on key steps such as;

- A preparatory phase where MPAs were identified and extension service staff trained
- A pilot project phase involved identification and organisation of fishing communities; identification of alternative livelihoods; and legalisation and enforcement of by-laws.
- The expansion phase fully engaged the community stakeholders holding exchange meetings and harmonising and management activities
- Minister declare MPA areas at a declaration phase with delineated boundaries

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Rights-Based Approach: Allocation and Characteristics

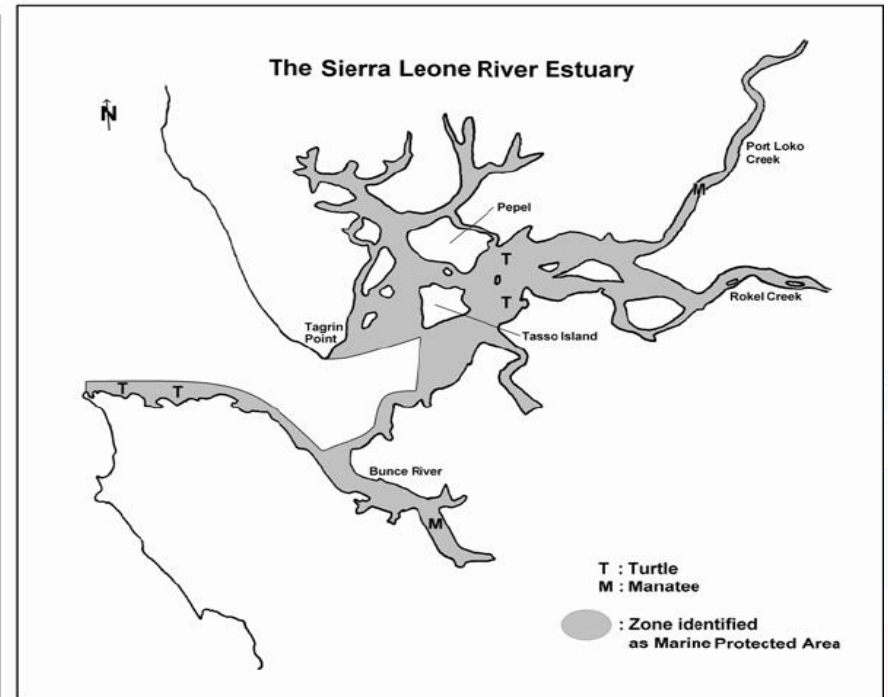
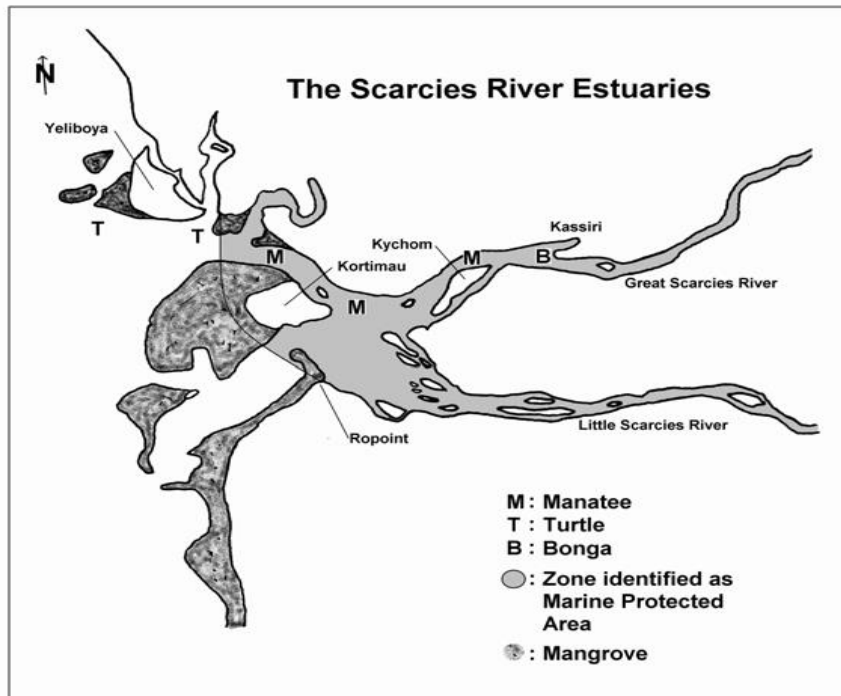
Delineation of Boundaries and Territories

- The MPA boundaries including CMA territories in each chiefdom were delineated through a team work combining skills of geographical information system (GIS) practitioners, fisheries scientists and community stakeholders.
- The local stakeholders provided knowledge on the characterisation of communities to permit access by the scientific team. This aided the use of global positioning systems (GPS) to obtain detailed coordinates of MPA areas including chiefdom boundaries around CMA localities.
- 4 MPAs were established between 2012-2015 in the Scarcies River Estuary, Sierra Leone River Estuary, Yawri Bay and the Sherbro River Estuary. A total of 30 CMA clusters were forged to manage the MPAs with a distribution of 5, 6, 10 and 9 CMA clusters respectively. 5 elected executives comprising of, namely; Chairman, Secretary General, Public Relation Officer, Financial Secretary and Treasurer.

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Rights-Based Approach: Allocation and Characteristics

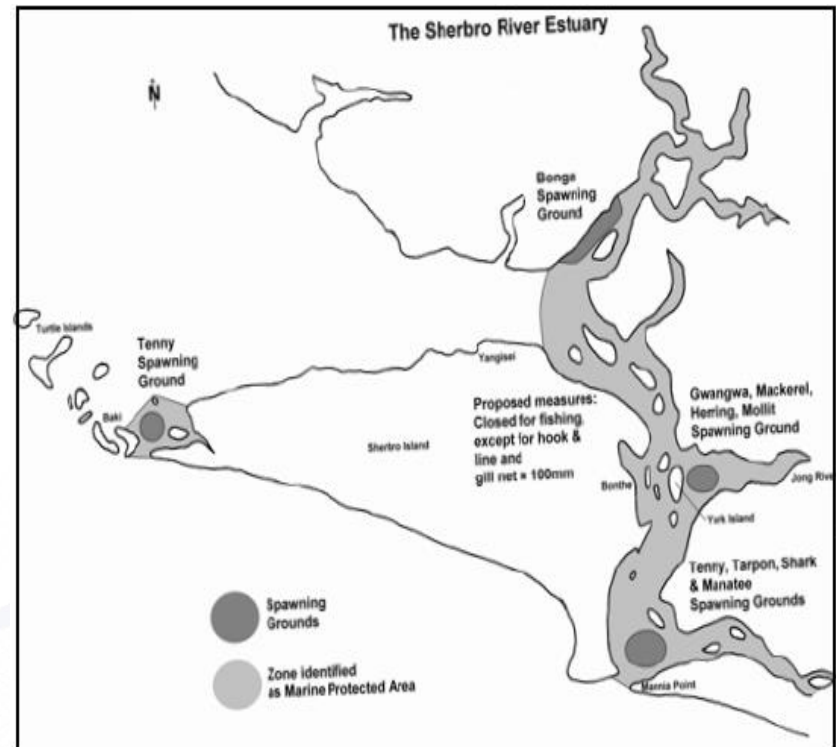
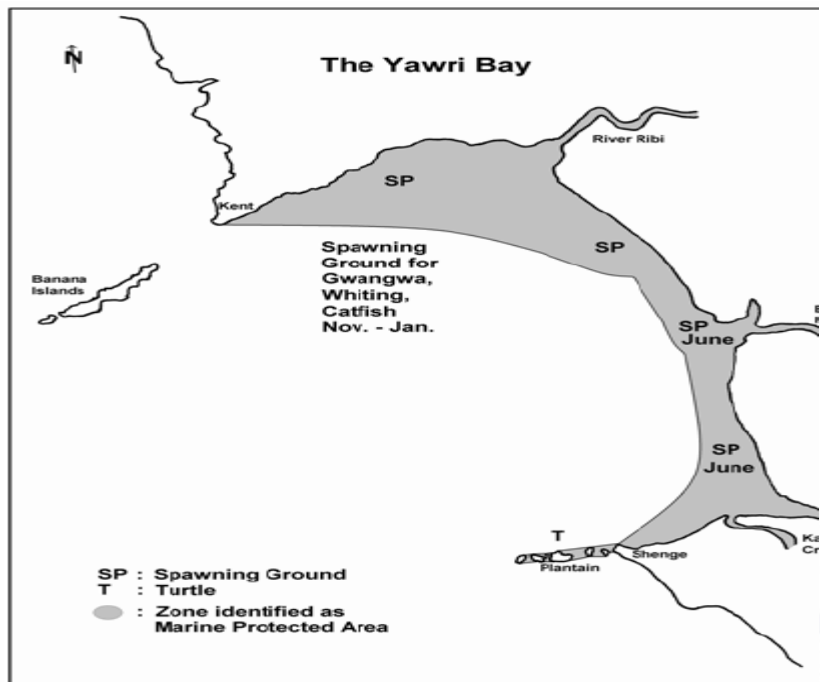
Delineation of Boundaries and Territories



2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Delineation of Boundaries and Territories



2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Registration and Institutionalization of Community Management Associations (CMAs)

- As part of the registration process, CMAs developed their own constitution as an input for the legal registration and institution of their organisation involving a name check screening by the Criminal Investigation Department of the Sierra Leone Police to issue a police clearance certificate.
- Registration with the Ministry of Social Welfare, Gender and Children's Affairs (MSWGCA) as an indigenous local voluntary organization followed, after which, a certificate of registration was issued. The final step was to register each CMA with the Local Governance authority.

2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Registration and Institutionalization of Community Management Associations (CMAs)



2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Declaration

27. DECLARATION OF YAWRI BAY AS A MARINE PROTECTED AREA IN SIERRA LEONE

Cabinet considered a memorandum by the Minister of Fisheries and Marine Resources - CP(2012)19

CABINET

- (1) noted the presentation by the Minister of Fisheries and Marine Resources on the proposal for the Declaration of Yawri Bay as a Marine Protected Area (MPA) in Sierra Leone as contained in memorandum CP(2012)19 of 13th March 2012, and annexures thereto;
- (2) noted the significance and rationale for the establishment of Marine Protected Areas (MPAs) in Sierra Leone fishing waters;
- (3) approved the declaration of Yawri Bay as a Marine Protected Area as a first step, and subsequently the Sherbro River, Scarcies River, and the Sierra Leone River Estuaries;
- (4) agreed that the Minister of Fisheries and Marine Resources should effect the Declarations in (3) above.

2. The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Incentive for Change

- In order to encourage stakeholder's participation in the enforcement of MPA regulations at their various localities, an incentive for change measure was employed by the MFMR supported by Government and development partners including the World Bank funded West Africa Regional Fisheries Programme in Sierra Leone.
- Under this support, fishing nets and accessories were distributed free of cost in fishing communities that voluntarily surrendered illegal fishing nets, and other large quantities sold at 50% reduced costs in fishing communities.

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Rights-Based Approach: Allocation and Characteristics

Management under the System

- Legally recognised rights were initially allocated to Local councils after the LAG (2004) who were responsible for licenses. However, these rights are now allocated to CMAs who then extend the rights to various actors or actor groups such as individual fishers, boat owners, fisher organisations etc.
- Fishing access rights are restricted by community management associations (CMAs), based on type of fishing gears used and areas fished. Industrial fishing vessels are excluded from fishing within the 5-6 nautical miles Inshore Exclusion Zone (IEZ).
- Legally recognised rights are allocated to those who historically participated in the fisheries and to the communities represented by CMAs. Allocation was mindful of the economic viability of the fishing activity, the rights of the next generation of fishers and sustainable of the stocks. Fishing rights are allocated for fishing with specific gears and areas. Fishing rights are valid for one year after which licenses must be renewed.

The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Management under the System

- Fishing rights which could be inherited are not sold but are transferable between fishers with no limit on catch. There are no limits on number of rights that could be held. Customarily measures used by Master Fishermen and traditional leaders who served as custodians of fishing grounds and reserve the authority to resolve conflicts and levy sanctions are maintained to supplement the current right-based measures.
- Customary rights are allocated for all gears except monofilaments and the so-called “channel net” with small-sized meshes regarded as destructive. However, nowadays, issues of factors considered for allocation; duration of rights; limits on number of rights and whether rights could be inherited or transferable follows the decision of central government and CMAs.

The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Management under the System

- One important lesson learnt is that the processes involved in the institution of right-based management takes time and should not be rushed especially when strong traditional management systems were non-existent.
- As the full assessment of the impact of the MPAs under the current management system is to be undertaken to inform the implementation of the TURFs, specific observed changes could not be reported at this stage. Nevertheless, the process of instituting TURFs has consolidated stakeholder's organisation, capacity building, confirmed the delineated areas and approved laws. Substantive applications of the by-laws in management had just begun and its yet to be evaluated.

The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Management under the System

- The number of fishers and their vessels (with or without engines) is expected to surge because of the suspicion by fishers and other stakeholders that the institution of TUR Fs will cap capacity (Stephen Cunningham, Personal Communication, 2016). Thus, both size composition and quantity of fish caught is not expected to be on the increase.
- Both the duration and distance covered have not change but monofilament and “Channel Nets” are no longer in use. Fish aggregation devices are not used and the effectiveness of lights which fishers believe do aggregate fishes has not been established. Changes in ownership of vessels since establishment of MPAs are yet to be fully investigated.

The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Management under the System

- Government authorities and local communities are responsible for monitoring rights using clearance of documentation and vessel clearance before fishing; patrol vessels and beach patrol during fishing; catch monitoring during landing and market sales monitoring during the post-landing.
- Enforcement measure often used includes economic measures such as fines, confiscation of catch or gears and soft measures involving peer group pressure.
- With the incentive for change and the policing of the IEZ by patrols, we have witnessed the decrease in the major types of non-compliance namely; using destructive illegal nets, incursion in the IEZ and the open access nature of the fisheries.

The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Management under the System

- Conflicts existing includes disagreements with fishers and management authorities, between communities for resource, between fishing communities and migrant, small-scale and industrial fishing operatives.
- Non-fishery sources of conflicts include agriculture, tourism, coastal infrastructure projects and oil exploration. Pollution by oil palm production company (SUCFIN) in the southern estuary and lakes, pollution from iron ore mining activities in the North and oil exploration in the South are important threats.
- Although moderately effective, the conflict resolution mechanisms include the legal system using the courts, government authorities and customary systems such as tribal councils. Hazardous events impacting the fisheries include floods and coastal erosion, solid wastes (plastic and household materials), agriculture pollution (pesticides, insecticides).

The Evolution of Small-Scale Fisheries Management in Sierra Leone onto Rights-Based Approach

Rights-Based Approach: Allocation and Characteristics

Management under the System

- Impacts on the rights holders (who are accessible in case of an emergency) include communities having to leave due to coastal erosion and stock mortality from agriculture pollution - reminiscent by the massive catfish mortality in the early 2000s.



3. Contribution of the rights-based approach to achieving sustainability

Sustainable Use of the Resources

- Although an evaluation of the right-based system is yet to be carried out, a number of observable changes could be observed. The incentive for change has ensured that legal gears are used.
- The effective protection of the IEZ means that stock rebuilding could be achieved due to the protection of the insure from industrial vessels. Moreover, the vessels registration exercise as part of the process of developing right-based fisheries requiring clearance of documentation and vessel clearance means that the fisheries is no longer open.
- Together, these measure should contribute to a sustainable use of the resources. Empowerment of resource users has enabled the monitoring of remote landing sites where peer group is applied to ensure sustainable management. For example, landing of juvenile fish is not allowed at Tombo landing sites.

Contribution of the rights-based approach to achieving sustainability

Economic Viability of the Fishery

- The unit cost of harvest decreases with an increase in stock size which has a cost saving effect. Large stock size could be maintained by effective effort and catch control in a healthy environment which suggests limited entry from rights based fisheries management.
- Reforms in the fisheries are therefore geared towards effort and catch controls to maintain a healthy stock level. The process of vessel registration with a unique number including documentation of the gears and owners is geared towards the monitoring of capped capacity going forward.
- Adjusting effort to the value of catch at the margins would sustain economic viability of the small-scale fisheries of Sierra Leone. However, as argued earlier, the economic viability is contingent on the economic performance of the national economic

Contribution of the rights-based approach to achieving sustainability

Social equality

- Notwithstanding the fisheries resource sustainability and economic viability threats the pre-right based management systems exhibited, small-scale fisheries as employer of last resort has always served as a social safety net catering for the poor and vulnerable.
- The challenge managers should face is the reconciliation of ensuring livelihood security for resource dependent communities and sustaining resource health.
- Fisheries connect with many SDGs that enhances social equity such as for example , fish and income from fish can help eradicate extreme poverty and hunger (SDG 1 & 2), while an increased consumption of fish would ensure health lives and promote wellbeing (SDG 3). Moreover, women dominate the post capture process, thereby providing the opportunity to promote gender equality and empower women (SDG 5). The sub-sector is well positioned to promote inclusive growth (SDG 8) and ensure sustainable consumption patterns (SDG 12).
- The management system considers the needs of poor and vulnerable including women, economic viability of the fishing activity, the rights of the next generation of fishers and sustainable of the stocks.

4. Main Challenges and Way Forward

Challenges for the Fishery

- With more than ½ of the population living below the national poverty threshold, fisheries is a vital safety-net for many people.
- This has been a major challenge to the introduction of rights-based fisheries, as this will involve the exclusion of some resource users, and options for fishers' engagement in non-fisheries livelihoods are underdeveloped. The issue of sustaining effective mechanisms to detect and curb threats to environmental sustainability (such as the use of destructive fishing methods like explosives, monofilament netting materials or the so-called 'channel fishing') is an important challenge.
- The absence of micro-credit schemes for CMAs have not facilitates a speedy involvement of community to govern their fishing tenure rights effectively. The human capacity needs to manage fisheries resources following right-based paradigm is quite appreciable and transaction cost high requiring direct financial support.

4. Main Challenges and Way Forward

Challenges for the Fishery

- A serious issue with fisheries sector reform is that once actions have been taken to conserve fish stocks it may be years before the full benefits are felt and the results are evident in terms of increased catches.
- This makes it harder for governments to institute unpopular reforms – even though these are in the best interests of the nation, fishing communities and individuals.
- Fishermen and their families are used to receiving an instant ‘same day return’ on their catch and are less willing or able than stakeholders in other economic sectors to wait for gradual improvements. Traditional fishing practices are quite literally a way of life for many Sierra Leoneans and have been handed down from one generation to the next.
- In order to change attitudes and gain acceptance of new approaches to fishing, there is a need for a major awareness building and communications strategy targeting, in particular the traditional leaders of the fishing communities.

4. Main Challenges and Way Forward

Improving Fishery Sustainability in the Future

- More support is required to develop effective mechanism to detect and curb threats to environmental sustainability (such as the use of destructive fishing methods like explosives, monofilament netting materials or the so-called 'channel fishing').
- Community Monitoring Control and Surveillance (MCS) programmes - designed with the full participation of resource users - will be effective because it empowers stakeholders to defend their own interest/livelihoods. Curbing the IUU fishing in the IEZ represents an important step towards reducing poverty in the small-scale fisheries. Catch and effort data is fundamental in fisheries management and the lack of which during the institution of MPAs and TURFs was the single most challenge to the success of the nascent system.
- Co-management must be sustained because it establishes a clear line of communication between interested parties so that the interaction process is both complimentary and supplementary with respect to mapping out the desired state of affairs; formulating the rules of the game in pursuing such goals and implementing management/governance strategies or tactics.

4. Main Challenges and Way Forward

Improving Fishery Sustainability in the Future

- MPA management demands high cooperation and collaboration/information sharing between the interest groups which must be enhanced.
- The CMAs should be empowered to participate in community surveillance and report fishing trawler incursions into the IEZ to the MFMR in order to scale up surveillance in those localities.
- Promoting and sustaining TURFs going forward will require the provision of micro-credit schemes that will pave the way for fishers and other community stakeholders to engage in alternative livelihood activities. This would enable them to effectively govern and enforce their tenure of fisheries in their communities.
- Management plan that take the current biological, social and economic status of the fisheries system must be developed because rights-based fisheries management introduces efficiency by specifying the quantity, type and size of fish to catch and when, where and how to catch them based on a predetermined management plan.

4. Main Challenges and Way Forward

Improving Fishery Sustainability in the Future

- In developing existing strategies and plans, it will be prudent to ensure that measures are in place to offer encouragement and practical assistance to fishers to convert to more sustainable practices while at the same time introducing effective enforcement.
- The will to enforce management measures must be unwavering because, while the broad principles of tenure rights and right-based fisheries are accepted, the majority of the fishing community simply do not believe that the new regulations will be enforced because they have witnessed the failure of so many previous efforts to introduce firm management.
- Resource users have shown keen interest in co-management ventures evident from the successful process of establishing community management associations for the management of MPAs.

4. Main Challenges and Way Forward

Improving Fishery Sustainability in the Future

- Sustained human and material capacity development of stakeholders including professional organizations would put them in good stead for continued sound resource stewardship. The establishment of platforms for stronger participation and information sharing in the transition from resource users to stewards would enhance future sustainability. Sustained public reinvestment in fisheries would preserve resource sustainability gains.

THANKS

