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A Situational Analysis of Small-Scale Fisheries in Malawi: From Vulnerability to Viability

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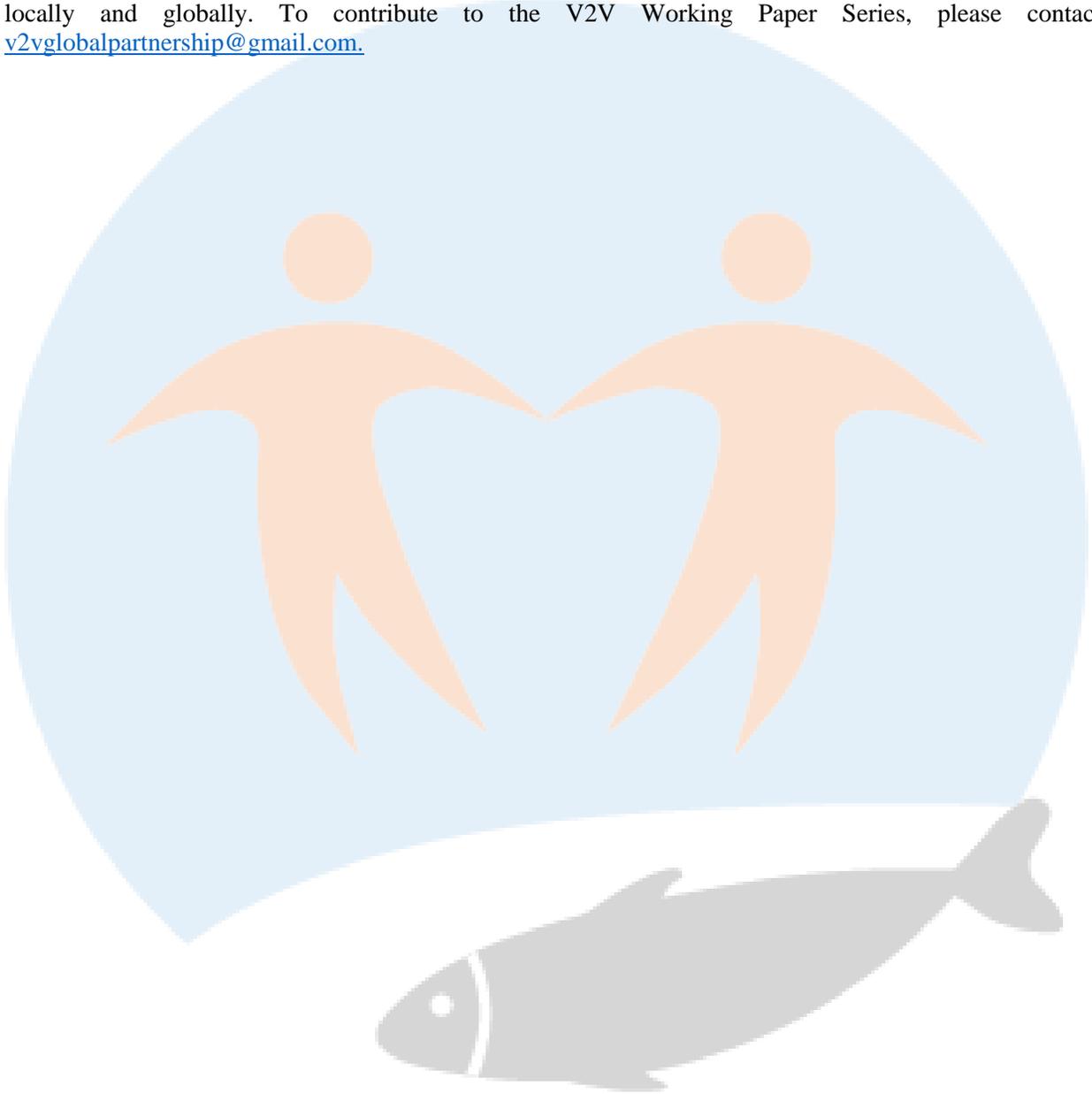
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A V2V Situational Analysis of Small-Scale Fisheries

Small-scale fisheries (SSF) are an important economic resource, both at the local and global level; their depletion has ramifications on fundamental aspects of life, spanning from food security to society's wellbeing and culture. On the global scale, SSF provide food security and a source of livelihoods and income for more than 100 million people. The objective of the V2V Situational Analysis is to build a global perspective on key vulnerabilities and opportunities associated with SSF viability across six countries in Asia (Bangladesh, India, Indonesia, Japan, Malaysia, Thailand) and in six countries in Africa (Ghana, Malawi, Nigeria, Senegal, South Africa, Tanzania). Each country-level situational analysis identifies the key social-ecological drivers of change, emerging issues and challenges confronting SSF, and important policy and governance concerns.

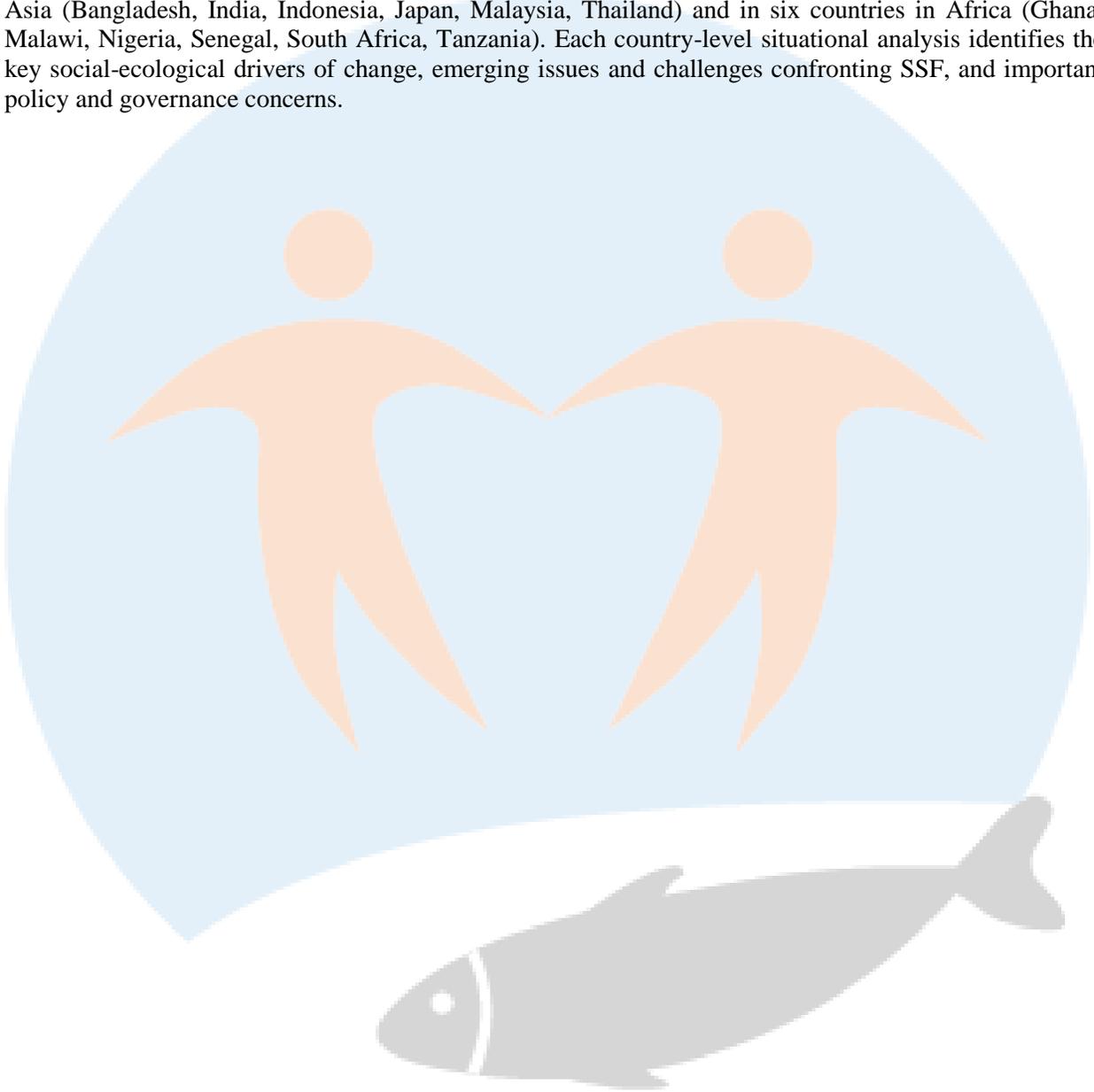
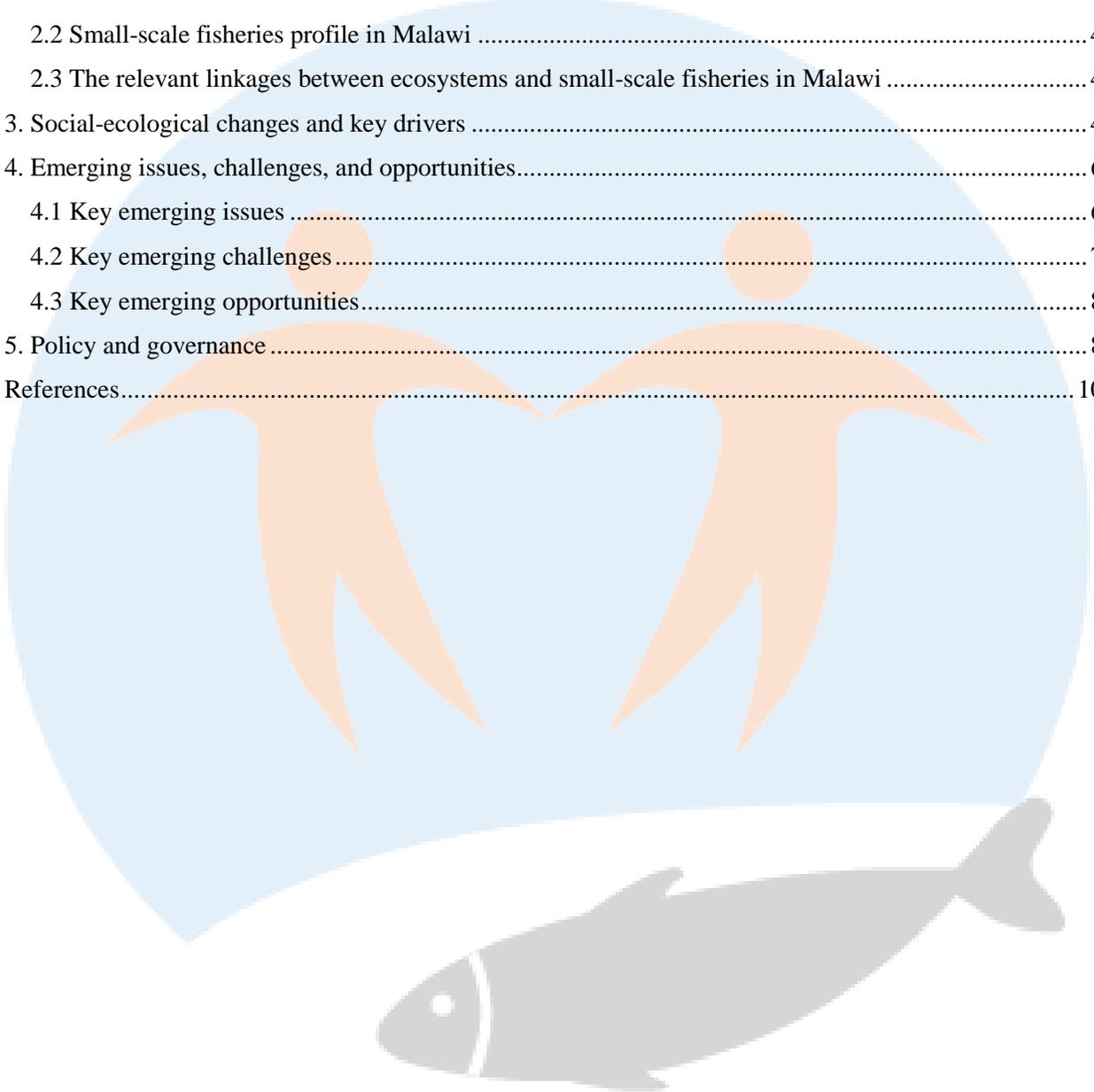


Table of Contents

1. Introduction.....	1
2. Meaning and status of small-scale fisheries.....	3
2.1 Small-scale fisheries contribution to Malawi.....	3
2.2 Small-scale fisheries profile in Malawi	4
2.3 The relevant linkages between ecosystems and small-scale fisheries in Malawi	4
3. Social-ecological changes and key drivers	4
4. Emerging issues, challenges, and opportunities.....	6
4.1 Key emerging issues	6
4.2 Key emerging challenges.....	7
4.3 Key emerging opportunities.....	8
5. Policy and governance	8
References.....	10



A Situational Analysis of Small-Scale Fisheries in Malawi: From Vulnerability to Viability

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1. Introduction

Lake Chilwa Basin is located in the Southern Malawi districts of Machinga, Phalombe, and Zomba, between 15° 15'S and 35° 45'E and shares its eastern shore with Mozambique. The lake basin has a total surface area of 2,248 Km² (roughly 40 km across from east to west and 60 km from north to south) and the lake has an average maximum depth of less than 6m. Lake Chilwa is part of a transboundary lake basin with a total watershed area of 8,349 km²; of which 5,669 km² (68%) is in Malawi and 2,680 km² (32%) is in Mozambique (Agnew & Chipeta, 1979). The total size of the area inhabited by people in the entire basin is approximately 7,499 km² (GoM, 2018).

The basin corresponds to a tropical inland lake system and freshwater ecosystems. The lake itself is an enclosed system (an endorheic) and, therefore, it is slightly saline. The fisheries performed in the lake are predominantly small-scale (SSF) in nature. Three main fish species occur in the lake, and these include Matemba (*Barbus paludinosus*), Makumba (*Oreochromis shiranus chilwae*), and Mlamba (*Clarias gariepinus*). The main habitats for these fish species include emergent aquatic vegetation which covers two thirds of the lake, submerged aquatic vegetation that grows primarily adjacent to river mouths where freshwater flows into the lake, and a rocky area lying near the eastern shoreline towards the middle section of the lake. The lake also encompasses enormous wetland areas locally known as *dambos*.

Key stakeholders in the Lake Chilwa Basin include fishers, fish processors, fish traders, rice farmers, local leaders (village heads), political leaders, beach village committees, NGOs, CSOs, government institutions (MDAs), projects, etc. The lake has 3,466 fishing households (gear owners and crew members), thereby giving rise to a total of 20,826 persons directly affected by the SSF vulnerabilities. The total number of people in the case study area is estimated at 1,911,612 persons (GoM, 2018).

The environmental history of Lake Chilwa can be described in terms of time and space. To begin with the former, there are two predominant timescales governing the ecosystem variability: Inter-decadal and seasonal. The lake surface area periodically expands or contracts in years of extreme high or low rainfalls. Similarly, the lake level changes in wet and dry seasons within a year. The water level of Lake Chilwa has a long history of fluctuations (Nagoli, 2016). Official documentation of Lake Chilwa water levels show more than twelve recessions between the early 1900s and 2019. The Scottish explorer, David Livingstone was the first to document the Lake Chilwa water level changes in 1879. Since then, Lake Chilwa has had severe recessions in 1879, 1900, 1914-15, 1922, 1931-32, 1934, 1954, 1960-61, 1967, 1973, 1995, 2012, 2015 and 2019 (Kalk et al. 1979; Njaya et al. 2001; GoM, 2000; Jamu et al. 2012, Chiotha et al, 2017; Zuzani et al, 2019). Some of these recessions were complete dry-ups such as in 1934, 1967, and 1995. The lake ecosystem is also under increasing pressure from the expansion of agriculture (in both the catchment and the floodplain) as human population rises and demand for food increases. The lake water is also used

for irrigation as well as for domestic purposes. There are two large irrigation schemes in the Lake Chilwa floodplain (Domasi and Likangala) that provide water and space for the production of rice and other crops through intensive farming all year round (Ferguson and Mulwafu 2007). The vegetation is also used for thatching houses including construction of temporary homes both upland and for the lake's floating houses, locally known as *zimbowela*. These demands are causing conflicts over resource use and increasing competition for water (Kambewa, 2006). Lake Chilwa was designated as a wetland of international importance in November 1997 (Ramsar site No. 869).

The vulnerabilities of the SFF of the Lake Chilwa Basin started in time immemorial and only became more prominent from the time Malawi as a country assumed multiparty politics in 1994 (Hara, 1998). Currently, the key vulnerabilities point to: loss of livelihoods (fishing, farming, bird hunting, and other economic activities), reduced household income, gender-based vulnerabilities, loss of species diversity, poor ecosystem health, and conflicts and power over resource use. Prior to the year 1994, fisheries management in Malawi was centrally governed through a top-down approach. The government premised the fisheries management on the assumption that fisheries resources are a state property and, therefore, became solely responsible in terms of governance, for (1) setting fisheries management objectives, (2) defining and providing the knowledge base for management, and (3) ensuring implementation of management decisions. As a result, decisions were taken at the central level (top-down), management objectives primarily focused on conservation aspects, and the knowledge base had primarily been defined as resource biology. Implementation had been through policing. The involvement of fishing communities was rather limited in all respects, and the management system was top-down in relation to both setting management objectives, defining the knowledge base, and implementation.

The top-down approach did not prevent overexploitation of fish resources as is evident from Malawi's experience where many important stocks e.g., Chambo (*Oreochromis* species), that were subjected to this regime for decades, have been severely overexploited and even collapsed. One of the main reasons for the lack of success for this approach is that it left the fishing communities completely out of the process and built-up barriers between the fisheries administrations and the fishing communities, thereby undermining the legitimacy and efficacy of the management system (Hara, et al 2003). These past experiences and the present challenges for fisheries management have led to a general acceptance that institutional reforms in the governance structures for fisheries management are required in Malawi.

A new governance approach in Malawi's fisheries sector must therefore be able to address the problems facing the fishing communities in the present situation including:

- The risk of exclusion from resources and markets due to globalization, competing uses of the freshwater and coastal environment, and other activities which may lead to reduced resource productivity.
- Provision of an institutional framework to control access and resolve questions of distribution of access between fishers.
- Reverting overexploitation to sustainable exploitation of the living aquatic resources on which the fishing communities rely.
- Reconciling the immediate needs of fishing communities with international agreements focusing on the aquatic ecosystem.

For these attributes to be realized, the government should generally perceive co-management as a means to introduce more democratic principles into fisheries management, but not to recognize co-management as an instrument to reach its management objectives more efficiently by involving fishing communities in the

implementation process. The government has to be prepared to expand user participation to setting management objectives and determining what knowledge to include in the management process (with inclusion of fishers' knowledge as a basis for management decisions on equal terms with research-based biological knowledge).

This change is happening only in a form of dialogues among key players in fisheries management with potential to occur and be adopted in the near future. The perceived opportunities from this change include:

- Augmenting and fostering ownership of the fisheries resources among the small-scale fisheries.
- Reduced reliance among the fishing communities on external authorities (e.g. Government, NGOs, CSO, Projects, etc) when it comes to pertinent decision-making processes, actions and costs.
- Consolidating self-financing initiatives among the fisher-folk local management institutions for sustained and viable fisheries.

2. Meaning and status of small-scale fisheries

2.1 Small-scale fisheries contribution to Malawi

The Fisheries Sector in Malawi substantially contributes to the food security and livelihood of millions of Malawians, where currently over 60,000 fishers and 9,000 fish farmers are directly engaged in fishing and fish farming activities respectively and indirectly supporting 500,000 people who are involved in fish processing, fish marketing, boat building and engine repair. The sector contributes about 4 per cent to the Gross Domestic Product (GDP), and fish continues to provide 70 per cent of the animal protein intake of the Malawian population and 40 per cent of total protein supply for the country.

However, Malawi's annual fish production which is currently averaging 150,000 metric tonnes— of which 90% is contributed by small-scale fisheries (SSF) is not meeting the demand. The sector has been experiencing a number of challenges that has led to the declining of high value fish species like Chambo (*Oreochromis* spp) and has subsequently reduced per capita fish consumption in Malawi to about 8 kg, below the 13-15 kg per capita per annum recommended by the World Health Organization (WHO). The decline in the per capita supply and protein intake brings serious nutritional implications for the nation, especially to some vulnerable groups such as the HIV and AIDS infected people, the aged, orphans and the poor.

The fisheries sector is constrained in its entire fishery value chain stages due to declined fish stocks; limited aquaculture development; poor fish handling and low value addition; limited capacities at all levels for public and private sector institutional structures; weak social development and decent work that encompass gender disparity, climate change and HIV/AIDS; and low fish production from aquaculture due to poor quality feed and fingerlings and weak participation of the private sector. In addition, there is limited alternative income sources among the fishing communities coupled with environmental degradation due to poor land-use patterns and increased pressure on natural resources including fish due to high human population growth. Another factor affecting catches from the lakes is the low regenerative capacity of some species. Special micro-ecosystems of some species have been destabilized by, for example, environmental degradation. As a result, the regenerative potential of the affected species has declined, thereby affecting the biomass in the lake. In addition to these challenges, the sector is also vulnerable to climate shocks. Over the past decades, Malawi has been affected by extreme weather events, which usually include floods and

droughts that have negatively affected livelihoods of communities and caused large economic, social, and environmental costs. The adverse impacts of climate change will exacerbate the risks, therefore, increasingly affecting Malawi’s population and potentially impacting economic and social development of the country.

2.2 Small-scale fisheries profile in Malawi

Small-scale fisheries in Malawi’s context are defined as all fisheries that are labour-intensive, use mainly own labour (i.e., family labour), use low capital investments on wooden vessels and outboard engines, and exploit fisheries resources of the inshore fishing grounds of all the lakes and rivers (Fishery Policy Brief on Types of Fisheries in Malawi by Weyl et al 2001). Table 1 summarizes the key features of inland SSF in Malawi.

Table 1				
<i>Summary of small-scale fisheries profile in Malawi</i>				
Terms used in SSF	Gear types	Vessel types	Ecosystem types	Ecosystem detailed types
<ul style="list-style-type: none"> • Artisanal • Indigenous • Inland • Inshore • Small boat • Small scale • Subsistence • Traditional 	<ul style="list-style-type: none"> • Cast nets • Gillnets • Gleaning • Harpoons • Hooks and lines • Lift nets • Poison/explosives • Recreational fishing gears • Seine nets • Surrounding nets • Traps 	<ul style="list-style-type: none"> • Canoe • Raft • Wooden 	<ul style="list-style-type: none"> • Freshwater 	<ul style="list-style-type: none"> • Beach • Lagoon • Lake • River

2.3 The relevant linkages between ecosystems and small-scale fisheries in Malawi

Nutrients flow through surface run off in the forms of siltation and sedimentation, emanating from upstream onto the rivers, the lagoons all the way to the lakes through the beaches. The SSF of the Lake Chilwa Basin operate in all these different ecosystems using a variety of fishing methods, i.e., use of weirs and fish traps in rivers; gillnets and open water seine nets in lagoons and lakes; and some seine nets are operated from the beaches. These varied SSF fishing operations target different fish species assemblages ecologically across the ecosystems with varied economic and cultural values and significance.

3. Social-ecological changes and key drivers

The key drivers that have occurred in the Lake Chilwa Basin over time include: environmental degradation in the natural setting, prevalence of migrant fishers in the social setting, and governance and power relations in fisheries management. All these examples of key drivers underpin SSF vulnerabilities and their quest to become viable.

Environmental degradation in the natural setting involves land use change/deforestation, thereby causing erosion, sediment run-off, and climate change (causing intense periods of rain and flooding). In addition, there have been annual rainfall variability due to naturally and anthropogenically caused climate change and variability. In some instances, there has been severe destruction of aquatic vegetation where the fishers have been physically removing submerged aquatic vegetation (SAV) in order to increase the feasibility of seine netting. As a result, there have been enormous fluctuations in lake level which has compromised lake habitats, species abundance and diversity. The fish have therefore lost their protection and have become easily caught by large and active fishing gears.

The Lake Chilwa Basin has witnessed a surge in the prevalence of migrant fishers and these have disrupted the social setting of the Basin. The open access nature of the SSF and the fact that the lake is transboundary have compounded the disruption in the sense that overfishing has been noticeable in the lake over the years. This has been characterized by growth in numbers of fishers, numbers and types of fishing boats, numbers and types of fishing gears, frequency of fishing trips in a single day, etc. The open access nature of fishery drives fishers to maximize catch in the short run at the cost of long-term biological and economic sustainability. Furthermore, there have been resource use conflicts between fisheries from the Malawian side of the lake with their Mozambican counterparts. Other equally important drivers include unprecedented increase in human population growth, inadequate fish handling and fish processing practices, and poverty, among others.

Malawi changed its political system of government from a one-party rule to multi-party politics in 1994. This change reflected badly on the personal integrity of the citizenry in general and fishers in particular towards adherence to fisheries regulations. The fishers became inclined to fishing practices which were not compliant to set regulations, and this has contributed to the severe declines in fish stocks and localised extinctions of some species in the lake. This change entails that there is need to focus on inclusivity of all players in the general management endeavours of the fisheries resources. Inclusivity in this case underpins all processes, actions and associated costs related to fisheries management specifically aimed at rebuilding the fish stocks for the betterment of the small-scale fisheries. This, therefore, presupposes that V2V gears itself towards championing such issues of inclusivity through rethinking sustainable fisheries management options and strategies for the Malawi's waterbodies in general and Lake Chilwa in particular.

The overall fisheries management framework has changed over the years on the part of fisheries governance. The first of the fisheries resources, where traditional chiefs informally control the rights to harvest the resources within their geographical zone of authority, is recognized by the Fisheries Act as Local Fisheries Management Authorities (LFMAs). The traditional management originates from pre-colonial times when the fisheries resources were managed under a common property regime. The fishery was regulated by family heads, village heads, and chiefs.

Under the government led fisheries management, the central government was initially enforcing technical restrictions through the top-bottom approach where it was crafting the fisheries management rules without prior consultations with the concerned fishing communities. This posed serious implications on the effectiveness and efficiency of the enforcement of the regulations/rules. The need for an alternative management approach therefore came into consideration based on the challenges the centrally controlled system had. As a result, the Participatory Fisheries Management (PFM) program was piloted in Lake Malombe in 1993. Due to noticeable success stories and lessons learnt, the Program extended to Upper Shire River and the rest of the major water bodies, and this approach is currently a core business/function of the Department of Fisheries. It has augured well with the concept of decentralization among the local government institutions in the context of implementation of decentralized functions of the central government.

The PFM was premised on the understanding that it would be a tool used to improve legitimacy, increase compliance to fisheries management rules, and, therefore, reduce incidences of overfishing. This is due to the understanding that the tenets of the PFM entail that resource users are fully involved in decision-making with regard to the management of the fisheries resources and that they are able to police the regulations through their own local fisheries management institutions such as BVCs and FAs. This is deemed as an avenue towards ownership of the resources and the regulations by the very same communities which are making use of the resources. This period coincided with the change in the political system of the country from a one-party to a multi-party state. This is reflected in the way the Constitution of the Republic of Malawi was amended in 2010. The amended constitution recognizes responsible environmental management and improved conservation of natural resources.

In the past, many BVCs were appointed by the traditional authorities; usually, the GVH and these committees included a number of members who were not involved in the actual fishing. These members did not have real knowledge of the fishery and, therefore, had no direct connection with the fishing industry. Some of the members who were incorporated in the BVCs included: local leaders, business captains outside fishing and political leaders, among others. Either the Group Village Heads or senior political leaders were dictating the committees. Furthermore, these BVCs had no membership, registered or otherwise and no membership criteria. In contrast to the foregoing, Fisheries Conservation and Management (Local Community Participation) Regulations 2000 were signed into law on February 8th, 2000, by the Minister of Natural Resources and Environmental Affairs. This legislation strengthened an enabling environment and guidance for the promotion of participatory fisheries management in Malawi. In October 2001, the Ministry of Natural Resources and Environmental Affairs published the National Fisheries and Aquaculture Policy. This prompted further encouragement towards perfecting the PFM. The whole process has therefore strengthened the performance of the local institutions in management of the fisheries resources.

Since 2000, Fisheries Conservation and Management Regulations govern Malawi's fishery. The Malawi Fisheries Policy and Fisheries conservation and Management Act includes participatory fisheries management (PFM) - legitimizing community participation and providing a legal framework for co-management. The regulations control fishing effort and protect breeding stock and juvenile fish by allowing such measures as closed fishing seasons, closed areas, mesh size restrictions, minimum harvest size limits, fishing net maximum headline length, and fishing licenses. However, widespread non-compliance of these regulations has made them ineffective, leading to continued declines in the Chambo fishery in Lake Malawi and Malombe.

4. Emerging issues, challenges, and opportunities

4.1 Key emerging issues

Key emerging issues in Malawi's SSF are identified below:

- Need for governance and policy reforms that would consider balancing human element, resources, and ecosystem issues.
- Loss of species diversity and poor ecosystem health.
- Need sustain Malawi's effort towards ensuring recovery of its economically important fish species, e.g., Chambo, *Oreochromis* species, as part of its motivation to increase resilience of fisheries, environment, and sustainable livelihoods of the resource users (SSF).

- Conflicts between investors, e.g., cage owners and small-scale fishers who operate their fishing gears close to where the cages are installed.
- Gender and power relations in decision-making.
- Conflicts between small-scale and large-scale fishers in terms of fishing zones since illegal trawlers are seen fishing in shallow water fishing grounds where gillnets and sein fishers operate. There are cases where gillnets get damaged by trawlers, and this affects the livelihood of the small-scale fishers.
- The need for extensive community consultations to afford buy-in for facilitating key stakeholder active participation and implementation of the earmarked interventions.

4.2 Key emerging challenges

Relevant emerging challenges from Malawi context include:

- Implementing EAFM requires special consideration for rights-based fisheries management, which is relatively difficult to undertake within the small-scale fisheries for sustainable fisheries management.
- Prevailing inadequacy of skilled manpower and financial resources would negate the country to fully embrace EAFM.
- Extensive consultations with key stakeholders could be costly if they are not properly well planned.
- Addressing issues of gender. For example, addressing the issues of gender and power in decision-making can help transition from vulnerable to viable small-scale fisheries in Malawi. There is enormous gender differentiation among the small-scale fisheries which is mostly reflected through differences in roles and responsibilities between men and women; women rely on men to access fish and fish products on the landing sites, they cannot decide on the types of fish and time of accessing that fish, and they are not making their own decisions on the type of fishing processing technologies to use, among other aspects. Some of the drivers of vulnerabilities in gender and power include: long-term traditional practices which presuppose men as sole decision-makers, low literacy levels among the fisher-folks, and limited or no interactions with other societies where issues of gender are well recognised and adopted.

The consequences of these issues for SSF include the following:

- Women are victims in terms of limited access to fish and fish products, where they experience abuses of various forms from their male counterparts, e.g., sexual abuses through transactional sex.
- In all practices and actions where sustainable fisheries management is a goal among the SSF, women's voices are ignored. This is in contrast to scenarios where women are recognised as equal partners in sustainable and viable fisheries management.
- For SSF to be viable, women should be treated as equal partners and their voice must be incorporated in decision-making processes and actions.

4.3 Key emerging opportunities

Relevant emerging opportunities from Malawi context include:

- The adoption of the Ecosystem Approach to Fisheries Management (EAFM) for Malawi's SSF is a great opportunity that would enable the country to work towards achieving the balance between human and ecological issues.
- There is existing political will and willingness from stakeholders to get involved in the sustainable fisheries management endeavours at all levels.
- Strategies can be formulated and/or adopted in order to resolve various resource use conflicts in a transparent and participatory manner.
- The Fisheries Conservation and Management Act of 1997 is undergoing review. This implies that critical issues regarding the concerns for SSF viability can also be incorporated in the Fisheries Bill.

5. Policy and governance

The Department of Fisheries is the legitimate authority mandated to manage and monitor fisheries in Malawi through the development and implementation of management plans. These plans are developed based on scientific information on resource status, and they also take into consideration the social, cultural, and economic factors that affect exploitation and management of lake resources. Management of fisheries in Malawi lakes is guided by the National Fisheries and Aquaculture Policy (GoM, 2000), with the objective of managing the fish resources for sustainable utilization and conservation of aquatic biodiversity to enhance quality of life for fishing communities. The policy aims at maintaining fish stocks at, or above, a level that can produce a maximum sustainable yield (MSY). The main responsibility of the Department of Fisheries, therefore, is to apply appropriate management and control measures that can maintain MSY in all lakes in Malawi. The policy also contains a range of sub-sectoral policies relating to extension, research, participatory fisheries management, fish farming, training, riverine and floodplain fisheries, and marketing. The policy further promotes community participatory fisheries management. Strong local institutions appear to be '*conditio sine qua non*' for the sustainability of small-scale fisheries in most developing countries such as Malawi (Kosamu, 2015). The V2V will augment the implementation of the Policy with respect to consolidating the partnerships that are earmarked to contribute towards sustainable fisheries management in Malawi. One important outcome from this Policy towards viability of SSF is the elaboration of local fisheries management plans and management agreements which are based on laws where most of the inputs are from the SSF. As such, there will be important trade-offs in V2V driven by this Policy framework.

In order to achieve the fisheries policy objective, the Department of Fisheries uses three types of fisheries governance systems to manage lake fisheries: traditional, government-centered, and co-management (Munthali, 1994; Njaya, 2007; Hara, 2006). The traditional system is centered on traditional authorities as custodians of fisheries resources. Under this system, fisheries are under the jurisdiction of a single traditional authority, and the right to harvest resources within a specific traditional authority is controlled by the traditional chief or leader. The traditional fisheries management system is heavily dependent on tenurial rights and taboos (Munthali, 1994). The traditional authority has strong rules regarding fishing practices, and thus, this management system is based on informal rules that are applicable to small-scale fisheries. This system is still used to manage specific fisheries.

The government-centered system focuses on control of fisheries resources by central government and is based on a wide range of conventional regulations and restrictions that are applied to manage resource use. This system dates back to the 1940s, when commercial fishing was introduced during colonial rule in Malawi, and is the predominant fisheries management system (Hara, 2006). To facilitate the implementation of this system, the Department of Fisheries has put in place several management tools to ensure that fisheries resources are managed sustainably. These include fisheries laws and regulations as outlined in the Fisheries Act (GOM, 1973).

The Fisheries Act contains fisheries regulations that aim at maximizing fisheries production with reference to MSY through indirect regulation of fishing effort. The Fisheries Act was developed mainly to achieve biologically sustainable exploitation of the Chambo (*Oreochromis* spp.) stocks through regulations such as minimum mesh size for gillnets, closed season for seine nets, and habitat protection (Hara, 2006). Due to widespread non-compliance to fishing regulations, the government-centered system failed to protect the Chambo stocks in Lake Malawi and Malombe, and yield declined from 9,000 MT in the mid-1970s to less than 2,000 MT and 50 MT, respectively, in 2001.

The need to redress the collapse of the Chambo fishery in Lakes Malawi and Malombe in the mid-1990s and the paradigm shift in fisheries management towards user involvement during this period led to the introduction of co-management, also known as participatory fisheries management (FAO, 1993). Co-management was later introduced to Lakes Malombe, Chilwa and Chiuta (Donda, 2001; Njaya, 2007). According to Pinkerton (1989), most co-management agreements between government and fishing interests have arisen out of crises caused by rumored or real stock depletion, or from political pressure regarding the inability of government to handle specific problems. In Malawi, the crises that led to the introduction of co-management include the collapse of the Chambo fishery in Lakes Malawi and Malombe; failure by government agents to control entry of migrant open water seine net fishermen in Lake Chiuta, and the drying up of Lake Chilwa.

Co-management was given legal recognition in the form of a new Fisheries Conservation and Management Act (GoM, 1997). The Fisheries Policy was also revised to incorporate co-management approaches and other emerging fish production areas such as aquaculture (GoM, 2000). The main focus of the policy, however, remained maximizing sustainable fish supply (GoM, 2000). The Fisheries Conservation and Management Act provides the legal basis for ensuring that input and output controls and technical regulations are enforced to maintain fisheries at MSY. The output controls limit the quantity and quality of fish being landed and legal-size limits on fish. Technical measures, which include gear limitations, mesh size restrictions, closed seasons and protected areas, are used to limit over-exploitation of the fishery by placing restrictions on the types, characteristics, and mode of operation of the gear used.

The outcomes for V2V, based on the transition between these 3 different management approaches, include the following scenarios:

- With co-management at play, V2V will consolidate the sustainable fisheries management in Malawi through inclusivity of key partners (women and the youth inclusive) in decision-making processes and actions.
- All partners will be able to appreciate and meaningfully contribute to I-ADApT Case Study development for Malawi's sustainable fisheries management for SSF.

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Vulnerability to Viability (V2V) Global Partnership

The Vulnerability to Viability (V2V) project is a transdisciplinary global partnership and knowledge network. Our aim is to support the transition of small-scale fisheries (SSF) from vulnerability to viability in Africa and Asia. Vulnerability is understood as a function of exposure, sensitivity and the capacity to respond to diverse drivers of change. We use the term viability not just in its economic sense but also to include its social, political, and ecological dimensions.

The V2V partnership brings together approximately 150 people and 70 organizations across six countries in Asia (Bangladesh, India, Indonesia, Japan, Malaysia, Thailand), six countries in Africa (Ghana, Malawi, Nigeria, Senegal, South Africa, Tanzania), Canada and globally. This unique initiative is characterized by diverse cultural and disciplinary perspectives, extensive capacity building and graduate student training activities, and grounded case studies from two regions of the world to show how and when SSF communities can proactively respond to challenges and creatively engage in solutions that build their viability. Further information on the V2V Partnership is available here: www.v2vglobalpartnership.org.

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**VULNERABILITY TO VIABILITY
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