



Strengthening collective action to address resource conflict in Lake Kariba, Zambia

STRENGTHENING COLLECTIVE ACTION TO ADDRESS RESOURCE CONFLICT IN LAKE KARIBA, ZAMBIA

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Citation

This publication should be cited as: Elias Madzudzo, Loziwe Chilufya, Hangooma Gordon Mudenda and Blake D. Ratner. (2014). Strengthening collective action to address resource conflict in Lake Kariba, Zambia. Program Report. Collaborating for Resilience.

Acknowledgments

Many people and organizations from Zambia and Zimbabwe contributed to this research collaboration. Mr. Patrick Ngalande, director of the Department of Fisheries, provided essential guidance. Dr. Harris Phiri, then head of the Fisheries Research Unit; Mr. Killion Kalonga, deputy director of capture fisheries; Mr. Timothy Phiri, fish trade specialist; and Mr. Joseph Mutale, aquaculture specialist, also contributed. Mr. Mebelo, the late Mrs. Maureen Wamulume and Ms. Beatrice Katongo from the Siavonga Department of Fisheries handled the logistics and interfacing with the community. Emmanuel Silwimba and Simon Banda from the Sinazongwe Department of Fisheries Station helped with transboundary work. Moono Munkombwe Kanjelesa of the Zambia Environmental Management Agency played a key role and trained Department of Fisheries staff and community members on environmental impact assessment.

His Royal Highness, Chief Simamba of the Bagande Royal Establishment and his Simamba Traditional Advisors Committee supported the project, as did Headman Mr. B. Khonde. Mr. L. Chipeleme and Mr. Dyson Tembo of the village management committee provided support and research assistance. Fish traders Naphy Mambwe, Christine Mutale, Regina Tembo, Jesscar Mwanza, Mary Nyamutowe, Brenda Habango, Juliet Phiri, Carlo Chingala and Grace Tembo attended meetings in Siavonga and Kamimbi. Mrs. Norah Mashekwa of the Siavonga Rural District Council gave input into the workshops.

Musuka Mutondo and Malcolm Dimuna of the nongovernmental organization Siavonga Nutrition Group in Kamimbi advocated for strong links between research and development. Mr. Alexander Kasenzi of the NGO Harvest Help offered networking support. Mr. G.J. Jordan, Mrs. Jordan and Mrs. Pieterse of the Kapenta Fishermen's Association, Paul Mwera, Charlie Kilner and Chris Chiwenda from Kariba Harvest, Albert Nsonga from Yalelo Fish Farms, and Y. Pardha Saradhi and Ronaldo Gitano of Savannah Streams all offered support. David Kadye and Nobuhle Ndhlovu from the Zimbabwe Parks and Wildlife Authority's Lake Kariba Fisheries Research Institute, Crispen Phiri and Maurice Mutsambiwa from the University Lake Kariba Research Station, and Kefasi Nyikahadzoi and his team from the University of Zimbabwe enriched the discussions on transboundary water bodies.

Bumango Musando, Yvonne Chilufya, Wilson Mhlanga, Alexander Kasenzi, Venantious Mulenga Musonda, and WorldFish staff Steven Cole and Andrew Ward reviewed drafts of this report and made useful comments. Simon Heck, Saskia Husken, Jocelyn Runnebaum and Margaret Mwene made contributions to the initial stages of this initiative.

Primary financial support for the Strengthening Aquatic Resource Governance project was provided by the Federal Ministry for Economic Cooperation and Development, Germany. This research is supported by the CGIAR Research Program on Aquatic Agricultural Systems and the CGIAR Research Program on Policies, Institutions and Markets.

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INTRODUCTION

People-centered development is about “enabling people to become more conscious, to understand themselves and their context such that they are better able to take control of their own future.”¹ Where natural resources are a key component of the rural economy, the ability of the poor to realize their visions for the future depends significantly on institutional structures that govern resource access and management. This case study reports on an initiative on the shores of Lake Kariba in Zambia that aimed at enabling communities to have greater influence over their futures through improvements in aquatic resource governance.

Lake Kariba, like many places, is facing growing pressure from competing claims on the natural resource base. These include artisanal and commercial fishing, tourism and hydropower generation, and most recently, large-scale investments in commercial aquaculture. In the absence of inclusive and equitable decision-making, this competition risks aggravating existing social and economic divides, motivating social conflict.

The Strengthening Aquatic Resource Governance initiative focused on developing multistakeholder dialogue to address such competition. STARGO is an action research collaboration that has been implemented in three ecoregions, of which Lake Kariba is one. STARGO used a model called Collaboration for Resilience, or CORE, to organize structured processes of dialogue in support of institutional innovations to address local conflicts.² The CORE approach aims to gather all the key stakeholders for a given domain of resource competition. The stakeholders work jointly to build a shared appreciation of the challenges, debate alternative responses, and build commitment for actions that support local livelihood resilience.³

This case study report documents the experience in Lake Kariba: the rationale for the approach followed, steps in the capacity-building process, obstacles encountered, and the institutional innovations supported. It also synthesizes outcomes and lessons relevant for policymakers and practitioners who may wish to implement a similar approach. The report complements outcomes and lessons documented from the STARGO experience on Lake Victoria in Uganda⁴ and the Tonle Sap Lake in Cambodia,⁵ as well as a cross-regional synthesis of lessons.⁶

The report is organized as follows: The next section, Section 2, provides background on the context for resource management in Lake Kariba, integrating historical factors of ethnicity, demography, economy and ecology of the lake, as well as the history of fisheries co-management as a vehicle for conflict management on the lake. Section 3 summarizes the contemporary legal and institutional framework, including decentralization and recent developments in fisheries policy. Section 4 discusses the dialogue process and institutional innovations promoted, and Section 5 presents key outcomes. Section 6 summarizes lessons for future efforts at strengthening resource governance.

HISTORICAL CONTEXT OF COMPETITION OVER AQUATIC RESOURCES IN LAKE KARIBA

Lake Kariba is an artificial reservoir — the largest in Africa — created by the construction of the Kariba Dam. Initiated under colonial rule, the decision to build the hydroelectric dam did not include consultation with the indigenous farming populations living along the Zambezi River.⁷ Inundation of the area displaced about 57,000 households, mainly of the Gwembe Tonga ethnic group. On the Zambian side, 34,000 households relocated to areas along the 983-kilometer shoreline and other areas away from the lake.⁸



Figure 1. Map of Lake Kariba

The displaced communities occupied the lowest levels of a highly stratified society.⁹ They were made to move involuntarily, and not adequately supported to adjust to agriculture away from the river flood plain.¹⁰ The state assumed that income and nutrition from fishing in the lake would make up for the relocation, and that fishing would drive the local economy.¹¹ With the lake holding such promise for local livelihoods, the state paid scant attention to agricultural development in the area and did not equip the traditional leaders with the skills to manage the economic transition.

In 1967, the Zambian government introduced a freshwater clupeid, *Limnothrissa miodon* (Boulanger), known locally as “kapenta.” This fish inhabits the deep, open water of the lake. The kapenta fishery now supports extensive commercial enterprise on both the Zambian and Zimbabwean sides of the lake. Until 1980, the Zambian government limited the allocation of kapenta fishing licenses according to an

assessment of the lake’s biological carrying capacity. The larger-scale kapenta fishing licenses went mainly to whites who could afford the capital for establishing a kapenta business, rather than artisanal fishers from the indigenous population; this bias introduced a marked racial dimension into the competition over fishery resources.

Prior to 1980, the Tonga formed the dominant ethnic group using the inshore artisanal fishery. This was due to their historical predominance in the region, combined with prior legislation that specifically excluded other ethnic groups from the fishery.¹² In 1974, the Zimbabwean war of independence escalated, making both the inshore and open-water fisheries inaccessible. In 1980, the war in Zimbabwe ended, and all Zambians became eligible to fish in Lake Kariba.¹³ There was an influx of predominantly white commercial kapenta investors and indigenous African artisanal fishers. Migration led to tensions between traditional leaders and the immigrants over illegal fishing gear and fishing methods, as well as over itinerant fishers’ frequent disregard of traditional leaders and their authority.

In 1994, with the support of the Norwegian and Danish governments, the Kapenta Fishermen’s Association,¹⁴ local councils, local chiefs and the Department of Fisheries agreed to adopt a co-management approach for the lake fishery.¹⁵ A Lake Kariba Inter-Zonal Fisheries Management Association was established to coordinate the process. The rural district council provided some of the financial support from levies on fishing businesses.¹⁶ Part of the co-management plan required fishers dispersed along the shoreline and on the islands to settle and operate from designated villages within the chiefdoms. The traditional chiefdoms, whose boundaries overlap the jurisdiction of the district authorities, would make up a subsystem of the Lake Kariba Inter-Zonal Fisheries Management Association. The co-management plan thus recognized the parallel structures of traditional and state authority (see Figure 2). For the donors, co-management offered a means to channel some support directly to local

organizations and build capacity in the local civil society. For the chiefs, co-management was a means to manage growing heterogeneity in the local population.

In Zambia, over 90 percent of the land area remained under customary tenure after independence, regulated through traditional rulers,¹⁷ though this figure has begun to decline with the conversion of customary to state land made possible through the 1995 Land Act. The new co-management arrangements incorporated the traditional leadership structures of the area chiefs and the networks of village headmen under their authority. Most of the fishery areas in riparian hinterlands and along the lakeshore are traditional lands controlled by chiefs.¹⁸ Settlement on these lands and fishing activities in the adjacent waters require permission from these traditional rulers. Co-management was attractive to chiefs because it sought to sedentarize the mobile fishers that were scattered in about 250 villages along the lakeshore and on the islands. A new unit, the village management committee, was introduced to oversee the welfare of the fishers and their families, with the village headman included as a member of the village management committee.

The chiefs' desire for control and order coincided with the kapenta companies' desire to end the informal kapenta trade. Kapenta companies were suffering losses to informal trade between their crew and illegal buyers of fresh kapenta. Locating the fishers in defined villages, they reasoned, would make it easier to curtail this informal trade. In the end, the tone and tenor of the relocation of fishers as part of the co-management initiative reflected the desires of the kapenta fishers who supported the process.¹⁹ This legacy of mistrust remains a constraint today in building support for a more genuinely collaborative approach to co-management.

For the Department of Fisheries, constrained by limited capacity to survey and enforce rules on a vast fishery, co-management offered the advantage of shifting the burden of surveillance to the village management committees and chiefs. The rural district councils welcomed co-management because it would enable the fishers to be more easily found for levy collection. On the other hand, the councils

were often less enthusiastic when it came to committing part of the levies collected to supporting surveillance on the lake.

Complicated by the diverging motivations of the principal actors involved, implementation of the co-management process was hardly consensual. Overå calls the process "co-management through forced relocation."²⁰ Many small-scale artisanal fishers were against sedentarization because of the advantages of mobility, including opportunistic migration and evading council levies. Kapenta fishing crews disliked the new

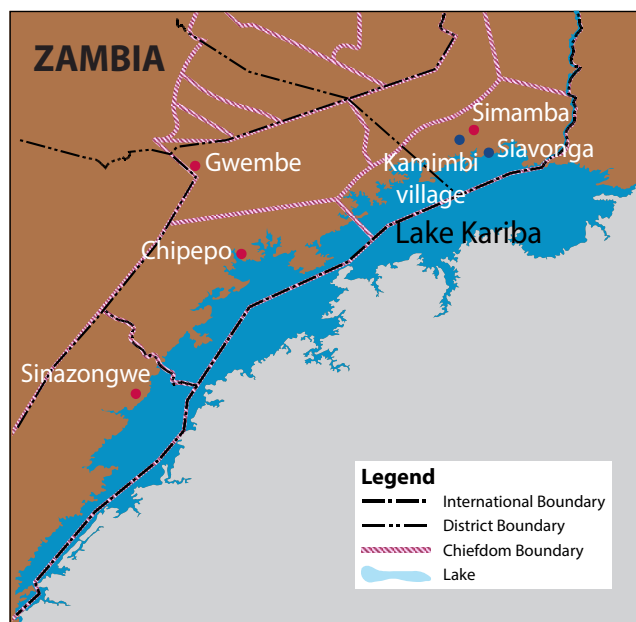


Figure 2. Map of districts and chiefdoms along the Zambian shore of Lake Kariba

arrangements because — as employees rather than independent operators — they would now be reliant on the decisions of the business owners, many of whom operate multiple rigs.²¹

Because of the coercion in the relocation process, headmen stopped cooperating with the chiefs, and the chiefs' relationship with kapenta companies became tenuous. The Department of Fisheries did not provide adequate technical support due to lack of resources and insufficient ownership of the process. Unsustainable fishing methods remained widespread, such as "kutumpula," a form of "active fishing" involving driving fish into nets and fishing in fish breeding areas. The trade in fresh kapenta as part of informal income for fishing crews reportedly continued, and fishers reoccupied the islands. Surveillance by the Department of Fisheries waned with the conclusion of donor support. Commercial kapenta fishers' attempts to take the law into their own

hands led to more disputes. The shortcomings of this earlier co-management effort underline the importance of re-establishing a sense of legitimacy in rule-setting and enforcement in the eyes of multiple users of the lake resources.

New factors have increased the sources of tension and conflict. Following demands for affirmative action to address historical racial inequities, more small-scale players have acquired licenses to operate a kapenta business, prompted in particular by provisions of the Citizens Economic Empowerment Act No. 9 of 2006. Older kapenta fishers allege that partly because of increasing numbers of fishers, effort continues to increase while yield per unit effort is decreasing. Some kapenta fishers, in desperation, have encroached on the inshore fishery in search of kapenta. In that process, they often damage artisanal fishers' nets and fish in breeding areas, angering the artisanal fishers. The conflicts between artisanal fishers and kapenta rig operators constitute another dimension of the challenges to co-management that current dialogue efforts must address.

Most recently, the Zambian government has promoted commercial aquaculture to address increasing domestic demand for fish, with a particular focus on Lake Kariba. Investors — mostly large companies — established cage aquaculture farms in areas close to the Kariba

lakeshore, with plans for rapid expansion.²² From a base of initial production in 2013, companies such as Yalelo and Lake Harvest cite production targets that will surpass a total of 20,000 metric tons per year. While increasing overall production of fish on the lake, cage farming in the Kariba fishery also alters existing rights and fish movement to the potential disadvantage of artisanal fishers. For example, the cages attract wild fish because of the higher concentration of feed in the cage areas, but other lake users are not allowed access within 100 meters of the cages. Local artisanal fishers have expressed concern that cordoning off areas around the cages also affects their navigation routes, expanding the zones under private control and potentially shrinking the commons. The introduction and expansion of commercial cage aquaculture, while relatively new, represents a major challenge for conflict management. It also brings opportunities, including new employment in the aquaculture operations and in related services.



Photo Credit: Hyder-Haske/Peoples Television Inc.

Fish seller at market

CURRENT POLICY, INSTITUTIONAL AND LEGAL FRAMEWORK GOVERNING LAKE KARIBA FISHERIES

In this context of increasing competition among multiple users of the lake's resources, the Zambian government introduced a major policy shift with the adoption of the Fisheries Act of 2011. Since independence in 1964, all Zambian fisheries acts had vested management responsibilities in the central government, but the Fisheries Act of 2011 creates the legal context for co-management of fisheries.²³ This shift complements the National Decentralization Policy, which was launched in 2002.²⁴ This policy devolves certain authorities for natural resource management, including management of fisheries, to the district councils. While the decentralization policy offers opportunities to make development planning more responsive to local needs, it had left the role of traditional authorities unresolved.²⁵ The Fisheries Act of 2011 creates an explicit mechanism to bring together state and traditional authorities. Under the act, the minister whose ministry houses the Department of Fisheries may, on the recommendation of the director of the Department of Fisheries, declare any area of water a fisheries management area and appoint a fisheries management committee to manage the area. The fisheries management committee has legal authority to effect a management plan that is enforceable by law. Membership on the fisheries management committee comprises representatives of local authorities, local riparian fishing communities, each chief whose area is included in a management area, NGOs, commercial fishing operators, the aquaculture industry, and two other persons selected by the minister. The minister also appoints the chair of the management committee.

While the Fisheries Act of 2011 accords overall authority on fisheries to the minister and the director of the Department of Fisheries, there is scope for management committees to negotiate with other parties, implement an agreed management plan, and make recommendations to the director. In this regard, the act is a shift from a line authority, "silo" management approach to one that values a diverse network of different actors and roles.

The Zambia Environmental Management Agency, for instance, has oversight of environmental impact assessments on new investments — including commercial aquaculture operations — while the chiefs hold authority over allocation of customary lands along the shoreline. Effective collaboration among these actors is a necessity if the co-management approach is to succeed. The Fisheries Act of 2011 creates a legally defined space for dialogue among diverse stakeholders; the challenge is for these diverse actors to make use of that space in a way that promotes more equitable decision-making and more sustainable resource management.

With the Fisheries Act of 2011, the Department of Fisheries is focusing on improving governance and social relations among stakeholders as the basis for inshore fishery management. According to Department of Fisheries officers, the proposal is to demarcate the inshore fishery into zones linked to the four chiefdoms: Chipepo, Mwemba, Simamba and Sinazongwe. The Department of Fisheries is working to establish management committees to develop and implement management plans for the respective fisheries. The management plans will demarcate the fishery under consideration, identify any transboundary arrangements needed for successful implementation, determine fishing quotas, and ensure compliance with Zambia's Environmental Management Act. Department of Fisheries oversight provides some checks and balances for the conduct of the management committees, and the plan calls on the Department of Fisheries to play brokering roles among different stakeholders and management committees.

In addition to addressing the ongoing challenge of intense competition in the lake's capture fishery — considering artisanal and commercial users, resident fishers, and seasonal migrants — co-management plans must also address the rapid growth in commercial aquaculture. According to Zambia's National Aquaculture Strategy and the Fisheries Act of 2011, aquaculture farms will increase in number. This implies that areas accessible to artisanal fishers will decrease.²⁶ Because the artisanal fishers opportunistically shift their fishing activity according to which zones are productive at a given time,²⁷ their exclusion from certain zones can reduce their ability to adapt to seasonal variability, with negative implications for their catch and livelihoods.²⁸

There are a number of institutional hurdles that also need to be addressed if co-management is to be implemented effectively under the new policy, as well as to avert the kinds of conflict that frustrated earlier efforts. For example, benefit and cost sharing is not specified, and there are no provisions in the law for how to handle disputes that may emerge between the management committees and the Department of Fisheries. Neither are there explicit mechanisms outlined to address the

power differences among actors who form a management committee, in order to assure that its decisions are not manipulated by individuals or interest groups. Likewise, there are no provisions to support gender equity in decision-making. The collaborative decision-making anticipated in the management committees, moreover, implies a profound shift in the role of the chiefs, from authorities who cannot be criticized in their domain to participants in a more democratic decision-making structure.

All of these factors — a shift in the policy context, new sources of resource competition and institutional hurdles — point to the need for innovative approaches to multistakeholder dialogue. The STARGO collaboration worked to promote such dialogue, initially at a small scale but with the intention of piloting a structured process of stakeholder interaction that could be applied more broadly in addressing the challenges of co-management of the lake ecosystem.



Yalelo cage aquaculture operations, Lake Kariba

DIALOGUE PROCESS AND INSTITUTIONAL INNOVATIONS

This section discusses the experience of implementing the STARGO project in the Lake Kariba region. The overall project purpose was to strengthen the capacity for collaboration among producer organizations and other civil society groups, governments, and private sector actors to address resource competition and develop governance arrangements that manage future resource competition equitably. The section documents the process of implementation in Lake Kariba by recording experiences, the rationale for different approaches followed, the different steps in the capacity-building process, obstacles encountered, and the institutional innovations supported.

A major lesson emerging from previous experiences is that a sole focus either on fishery biology and maximum sustainable yields or on fisher behavior does not address conflicts adequately.²⁹ In assessing the experience of the Zambia-Zimbabwe Southern African Development Community Fisheries Project, for example, one team of analysts observed that “in many cases these conflicts are more based on psychology than on biological realities.”³⁰ While acknowledging the importance of understanding the biological status of the fishery and the dynamics of the ecosystem on which it depends, the STARGO collaboration focused on the institutional and governance questions that the Department of Fisheries had previously considered outside its domain of research.

The STARGO collaboration adopted an action research approach, combining efforts to understand current challenges with efforts to address those challenges and learn from experience. The first stage involved scoping and diagnosis, which included consultations with a range of groups that have roles in managing resource competition in the Lake Kariba region. These included village management committees, the Lake Kariba Inter-Zonal Fisheries Management Association, Department of Fisheries researchers, officials responsible for fishing permit and surveillance systems, the Zambia Environmental Management Agency, members of the Kapenta Fishermen’s

Association, traditional leaders, and the newest players — cage aquaculture enterprises. This network was found to be loosely connected, comprising interest groups whose agendas were sometimes working at cross purposes. The project also undertook assessments that probed the history of co-management efforts on the lake and the implications of the recently adopted Fisheries Act of 2011, as outlined in the prior two sections.

The dynamic and complex context of the Lake Kariba fishery meant that blueprint approaches would not be appropriate. STARGO opted for a learning-by-doing strategy to foster a locally owned and locally driven approach. The approach implied developing new or better ways for the stakeholders to work together to enhance the ecological and socio-economic benefits of the system. This broad objective was the basis of the local innovations the STARGO project supported. The institutional innovations involved the use of soft skills like forging linkages across levels for networking, participatory monitoring for learning across levels, and partnerships with other organizations and stakeholders to influence policy and institutional arrangements.

Given a short time period — approximately nine months — in which to plan and pilot innovations, the project team chose to focus on one local site, building up to different levels of institutional interaction from there. Kamimbi village is situated in Siavonga District, on the Zambian shoreline of Lake Kariba (see Figure 2). The main source of income in the village is fishing using nets, with residents reporting a maximum gross monthly turnover of approximately \$100 per capita. Some of the villagers are Tonga, the ethnic group relocated to make way for the rising waters of the Kariba Dam. The Tonga fishers also practice crop agriculture and animal husbandry. Kamimbi is also home to migrant fishers who come from other parts of Zambia solely for fishing.

Since the economic and structural adjustment era of the early 1990s, the government of Zambia has opened up traditional land for commercial development and private tenure. Investors could purchase land in Kamimbi and other shoreline villages to establish tourist facilities and cage aquaculture farms.³¹ In this context, Kamimbi village is an arena for learning the effects of policy and institutional changes, such as commercialization of communal land and changes in fishery legislation. It is a fitting location to observe the effects of policies on natural resource management, institutions and organizations, as well as to explore strategies for addressing these changes.

Initial discussions with local stakeholders revealed a number of conflict areas. These included increasing numbers of fishers against declining catches per capita, obstruction of access on the lake as well as in the fishing village, unclear land transfers to investors, resource access managed by multiple sets

of rules, and challenges to co-management authority systems. These conflict areas were occurring in the context of both poor mechanisms for stakeholder dialogue and leadership conflicts and contests.

The capacity development process facilitated by STARGO began with a search for a generic purpose common to all stakeholders. Three major planning activities formed the bases for the institutional innovations supported in Lake Kariba: an initial scoping visit to Lake Kariba by the STARGO team that included a variety of stakeholder consultations, and two participatory, multistakeholder workshops in October 2011 and February 2012. Outputs of the scoping and workshop activities included mappings of the conflict situation, past and current conflict management initiatives, and stakeholder attributes, as well as a shared vision of the future that served as a basis for commitments to action. The process is summarized in the box below.

Applying the CORE dialogue approach in Lake Kariba

STARGO used the principles of the CORE approach for planning, implementing and evaluating institutional innovations. Here we outline how the planning and implementation phases panned out in practice.

The workshops were successful in getting key actors engaged from the policy sector, private enterprise and the artisanal fishing sector. All stakeholders appeared to value the dialogue-brokering role of a neutral player like WorldFish working together with the Department of Fisheries. Dialogue was also more acceptable because most of the stakeholders had experienced the limitations of more adversarial approaches in earlier co-management initiatives (see Section 2 above). The second workshop revisited the visions of the desired future that were produced in the first workshop and ranked them in order of both importance and the possibility of outcomes within the project period. The second meeting also detailed what had already been done to address the challenges, actors and actions necessary to realize these visions. Outputs of this exercise became the basis for deciding on entry points for institutional innovations and developing plans for these.

The overarching purpose for this initiative in Lake Kariba emerged from participants' aim "to have a sense of belonging regardless of one's status," which the participants later reformulated as a shared vision to "promote a culture of dialogue among stakeholders." As action plans were developed and refined, the project coordination team committed resources to supporting dialogue events as required. Initially, the coordination team was apprehensive about the zeal that the community showed toward implementing project action plans. Because the process was unfamiliar and they wanted to limit risk, the coordination team at first tried to control the activities undertaken. After consultation with other team members and reflection on the principles of the CORE approach, however, they were able to resolve to step back and let the community take the lead in implementation.

To initiate a needs assessment, the project team undertook a reconnaissance visit to the Kariba region to identify key issues. The initial visit identified multiple users and dynamics. Workshops brought together different stakeholders who were linked to Lake Kariba at different levels to test and reinforce their willingness to dialogue and achieve a broader, systemic view of resource use and competition in the lake. This inception phase was primarily concerned with initiating a process of engagement with the stakeholders and working together to define the contours of support for capacity building. The workshops were also used to collectively move from microrelationships and conflicts to a more inclusive purpose that would inform the theory of change and monitoring strategies.

The dialogue process provided a means to recognize the individual needs and circumstances of each organization and at the same time help the different stakeholders work together as an effective system. The key stakeholders involved included the Department of Fisheries, the NGO Harvest Help, the Kamimbi community and Chief Simamba, Siavonga Rural District Council, the Zambia Environmental Management Agency, Kapenta Fishermen’s Association, and the cage aquaculture firm Kariba Harvest.

In the first workshop, participants drew pictures of their vision for the future regarding the lake and the environment, as well as the means and interactions with other actors needed to realize these visions. Overall, the visions reflected a desire to have a predictable environment in which to carry out their activities, and an improved climate of collaboration. To identify the gaps that existed and avoid duplication of effort, workshop participants also reviewed current and past initiatives relevant to each element of the vision. Table 1 is a summary of the vision and existing initiatives.

Discussions probing the gaps between the vision and current conditions revealed a number of critical priorities for action. Department of Fisheries officials, for example, emphasized how the passage of the Fisheries Act of 2011 created a mandate for promoting more community-based approaches to natural resource management. The artisanal fishers noted how prior efforts established local co-management units, but many of these were currently in limbo. These artisanal fishers interacted with essentially all actors — kapenta fishers, the Department of Fisheries, investors on riparian land, and cage farms — yet lacked the capacity to effectively deal with these actors.

Vision of the future	Existing initiatives toward the vision
Improved co-management of aquatic resources	<ul style="list-style-type: none"> • Fishing sites already designated. • Village scouts exist, but poor policing. • Department of Fisheries suspended issuing of kapenta fishing licenses. • Village management committees exist, but have limited capacity. • Fisheries Act of 2011 supports co-management.
Improved harbor management	<ul style="list-style-type: none"> • Local authority and Kapenta Fishermen’s Association collaborate on harbor management.
Diversified livelihoods	<ul style="list-style-type: none"> • Smallholder irrigation supported by NGOs. • Fish-farming extension services exist but have poor staffing.
A level playing field among aquatic resource users	<ul style="list-style-type: none"> • Legislation to protect the small-scale fishers and traders from unfair competition. • Biannual Lake Kariba Inter-Zonal Fisheries Management Association meetings.
Improved transboundary relationships	<ul style="list-style-type: none"> • Biennial Zambia-Zimbabwe technical consultations. • Joint operation committees and patrols. • Joint frame surveys exist. • Unsatisfactory transboundary resource management.

Table 1. Vision and existing initiatives toward the vision, from October 2011 workshop

Building on the jointly formulated vision and assessment of current conditions, the second workshop focused on identifying institutional innovations that could be supported by specific actions involving the key stakeholder groups. Linked action areas were identified:

- Activities linked to managing current and potential conflict arising from the use of the fishery.
- Collaboration activities that address tension over use of the land on the lakeshore.
- Development of a capacity to engage and leverage a win-win relationship with current and future private sector investors in Kamimbi.

Project activities included facilitating meetings among the communities affected by the privatization of previously common-property land, between communities and the traditional leaders responsible for allocating land to investors, and between communities and investors. The meetings were intended to sow a spirit of collaboration rather than confrontation and to promote a culture of dialogue between the investors and the community.

After several steps of refinement, the project team agreed to focus on the following outcomes:

- Community and Department of Fisheries knowledge regarding environmental impact assessment improved to ensure effective community dialogue with project proponents during the environmental impact assessment process.
- Communication between investors and the communities in Kamimbi to protect the interests of the poor and create synergies between the two parties.

These outcomes were selected as priority areas for interventions that would support conflict management in the Kariba region and had potential for progress in the short period of implementation. The next section details actual outcomes achieved.



Lake Kariba dialogue workshop

This section presents a review of the outcomes of the STARGO collaboration in the Lake Kariba region. Findings are based on STARGO monitoring reports, Zambia Environmental Management Agency monitoring reports, community diaries maintained at Kamimbi village, and follow-up visits through August 2013. The monitoring and evaluation methodology is detailed further in the box on page 16.

Key outcomes include the following:

Strengthened collaboration among key players, particularly the Zambia Environmental Management Agency, the Department of Fisheries and the Kamimbi community. Community representatives indicated that they found their newly established link with the Zambia Environmental Management Agency empowering. The relationship was key to demonstrating that within policy-making circles there was an institution with a mandate to attend to environmental concerns affecting local communities. The Kamimbi community rated their interaction with the Zambia Environmental Management Agency highly because they felt equipped to deal with the investors in a manner supported by the legal framework. With the information they got from Zambia Environmental Management Agency training, the community was able to open channels of communication with neighboring investors and address concerns that they previously lacked the means to deal with.

Improved dialogue with investors, yielding agreements in response to community concerns. Villagers in Kamimbi village have negotiated agreements with commercial aquaculture investors to maintain fishing grounds and access routes, as well as to secure local jobs. Following the training by the Zambia Environmental Management Agency and the Department of Fisheries to encourage the use of environmental impact assessment provisions as a platform to promote dialogue between investors on the lakeshore and fishing communities, Kamimbi fishing village convened a meeting with investors, mediated by the chief. This resulted in a negotiated agreement with one of the investors

to address how to maintain access routes used by villagers and their children that had been blocked. At the end of the program, Kamimbi had developed a register of key concerns, the investors involved, and their compliance levels with environmental impact assessment regulations. Other points of dialogue included herbicide use near the lake and employment of local residents in the new enterprises. The village chairperson reported the dialogue with the investor as successful; a new relationship had developed between the community and the investor where both emerged winners.

Enhanced community involvement in environmental impact assessment processes. Prior to the STARGO collaboration, an initial environmental impact assessment hearing on cage aquaculture took place with little community participation. The second hearing, following the training, attracted a large proportion of the Kamimbi community. Community representatives presented their concerns openly, and multiple stakeholders cited the dialogue with investors as an empowering and transformative process. It opened a channel for poor residents who were typically excluded from decision-making to have a voice, and community members became more articulate in expressing their concerns. Village leaders also saw value in continuing to pursue this priority on their own.

Reduction in disputes between artisanal and commercial fishers. The dialogue process also produced results in addressing the grievances of artisanal fishers whose gear was regularly damaged by larger-scale kapenta fishing rigs. The district commissioner of Siavonga had already been looking into this issue, and called for a meeting between the Kapenta Fishermen's Association and artisanal fishers, where each group raised complaints against the other. Stakeholders agreed to a follow-up meeting, and the Department of Fisheries officer at Siavonga has been engaged in helping to mediate the dispute as part of a broader effort at implementing community-based co-management. In a follow-up visit in August 2013, fishers reported that the number of incidents had decreased significantly.

Increased responsiveness and accountability of traditional leadership. Based on its experience with the dialogue approach, the Kamimbi village management committee achieved a greater degree of legitimacy and capacity to address other community concerns in discussions with the regional chief — and the chief has responded. Regarding land allocation to investors, for example, the chief has shifted toward a much more inclusive mode of consultation with village leaders, replacing past practice that witnessed land allocation decisions being made without local consultation. The chief had initially doubted the value of bringing community members into direct dialogue with investors, but by the end of the process had become a strong advocate of the approach. He also showed a new readiness to respond to other community priorities, such as a concern over poor marketing opportunities that forced women from the village to spend too much time transporting their fish to town. The chief announced that he had identified an investor who could put up an ice plant on the condition that the fishers agreed to sell their entire catches. In response, the village representative praised the chief for playing his role well.

Commitment of commercial investors to community dialogue. The dialogue workshops produced commitments from cage aquaculture investors to continue to meet with artisanal fishers to discuss ways of ensuring mutual benefits from the lake. A subsequent meeting allowed the artisanal fishers to express their fears that they may lose access to fishing grounds because of the farmers' biosecurity concerns. The investors were also concerned about the extent to which the law will protect their investments from fishers wishing to set their nets close to the cages. Large-scale cage farming is a new development in the area, and its effects on fish populations and movement are yet to be observed. The investors were also eager to demonstrate their openness so that artisanal fishers would raise any future concerns directly before tensions escalate. Follow-up interviews with representatives of the aquaculture companies revealed enthusiastic support for the process of capacity building that STARGO facilitated. Chris Chiwenda, a representative of Kariba Harvest, one of the aquaculture enterprises on the lake, described

the approach to stakeholder engagement as innovative and explained that the company has adapted the approach for its outreach initiatives. "Personally, and for the business," said Chiwenda, "it's a key factor because it gave us a direction — or indication — of how we would work with the community. It's one of our primary concerns."

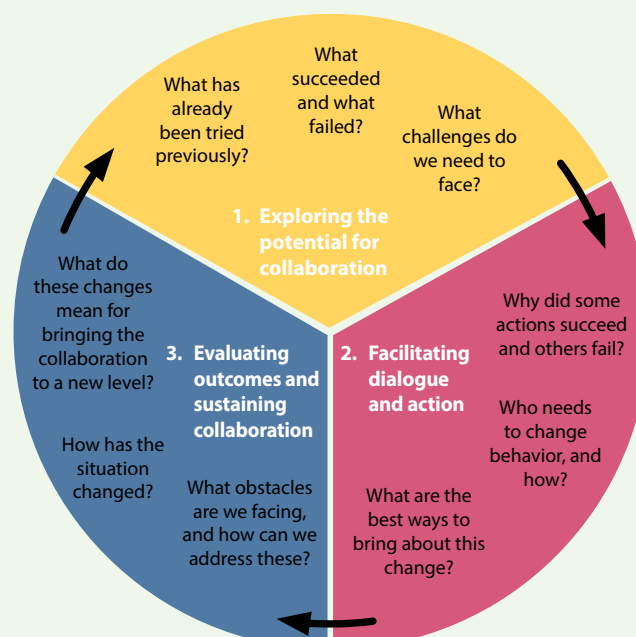
A new model for civil society engagement. "The project was able to bring people together, and in that process of bringing people together, people started identifying the issues," said Alexander Kasenzi, the director of Harvest Help Zambia, a local partner in the STARGO collaboration. "Above all, what I saw being critical in the whole process, at every meeting, at every workshop, a plan of action was made," Kasenzi added. By involving all stakeholders in the development of these action plans, the project's learning-by-doing strategy fostered locally owned and locally driven co-management of the lake's resources. In Kasenzi's view, the structured approach to multistakeholder dialogue, action planning and evaluation offers important lessons for NGOs like his that work across multiple dimensions of rural livelihoods and natural resource management.

Plans from national authorities to build on the dialogue approach. Impressed by the use of environmental impact assessment procedures as a trigger for effective dialogue between investors and communities, staff of the Zambia Environmental Management Agency are making plans to incorporate the dialogue principles into their support for environmental impact assessment implementation in other areas. The Department of Fisheries official said that the outcomes of the STARGO collaboration represent a significant achievement that should be celebrated as a success and that holds key lessons on conflict resolution for Lake Kariba stakeholders more broadly. With the project activities ending, he committed the Department of Fisheries to support continued multistakeholder dialogue. Similarly, the director of the Department of Fisheries at the national level, Patrick Ngalande, has identified the STARGO collaboration as a key source of learning in the development of a renewed national policy on fisheries co-management.

Monitoring and evaluation process and methodology

Planning, monitoring and evaluation in the STARGO collaboration were designed with an integrated vision of the outcome areas. Predicting the set of changes that are needed to achieve success is difficult; pathways to the intended outcomes could not be designed in advance other than in generic terms. To accommodate the dynamic nature of the environment in which the project was being implemented, planning and monitoring required a learning-driven approach where interventions in the past and present are seen as experiments that inform the next stages of implementation. Examples of unpredicted developments include the passage of the Fisheries Act of 2011, the requirement for environmental impact assessments on all future investments, and the development of new investment portfolios on the water as well as on the lakeshore. Because of the learning-by-doing approach, monitoring became an important way to generate information for participatory stakeholder learning and midcourse adjustments, and to measure change. Monitoring and evaluation has been applied following the three broad phases of the CORE approach:³²

- 1. Exploring the potential for collaboration:** What stakeholder collaboration has been tried before at Lake Kariba? Previous initiatives to manage resource-use competition were examined through existing literature, commissioned reviews, and presentations of experiences by officials and community representatives at workshops.
- 2. Facilitating dialogue:** To understand the development of a monitoring and evaluation system, we need to understand the underlying theory of change; that is, the assumptions about the way a chain of events links with the purpose of the initiative. In selecting strategies, we asked why previous actions failed or succeeded. Through workshop activities, participants explored alternative ways to achieve the visions for the future in terms of actors, habits and practices.
- 3. Action and learning:** This stage addressed the questions, "Are we making progress? What obstacles are we facing? How can we address these?" Monitoring and evaluation was undertaken at a number of levels: Zambia Environmental Management Agency-led monitoring of the use of environmental impact assessments, records of activities kept by the community, a diary maintained by two members of the community as a record of the developments and reflections on lessons learned, and visits and discussions led by WorldFish and Department of Fisheries researchers.



The STARGO capacity-building process enjoyed support from policy officials, state agencies, diverse community members, traditional authorities and private sector players. Given the short period of project implementation, it is too early to judge the lasting impacts on the behaviors and interactions of key stakeholders or the longer-term implications for governance. The evaluation of outcomes nevertheless points to a significant change in capacity within the Department of Fisheries, the Zambia Environmental Management Agency, the Kamimbi community and the investors; a shift in orientation by the area chief; and good prospects for an extension of lessons from this experience to broader scales. What are the key lessons?

A structured process of dialogue can build collaboration despite power differences.

Village management committees had been created in the earlier co-management period on the assumption that collectives of land and resource users share a common interest that will form the basis for communal property management regimes. But in the absence of ongoing support, village management committees like the one in Kamimbi lacked means to effectively engage other actors in addressing resource competition and promoting the interests of small-scale fishers. The CORE dialogue approach provided a structured process for multiple stakeholders to build a shared understanding of current challenges from different perspectives, explicitly acknowledging power differences and strengthening stakeholder relationships across scales. Bringing in a national statutory body like the Zambia Environmental Management Agency to address the local level, for instance, allows the local community to legitimize their concerns within a broader legal framework.

Political recognition and support increases the chances that collaboration will be sustained. From the outset, the Department of Fisheries had joint responsibility for the facilitation process, and this proved critical in building the agency's commitment to continue the collaborative approach after the project's conclusion. Likewise, support from the regional chief and from the Zambia Environmental

Management Agency brought additional sources of legitimacy. Outside the formal dialogue workshops, ongoing negotiation by multiple groups was required to secure and maintain these different sources of key institutional commitment to the process.

Investing in innovations requires a tolerance for uncertainty and risk. Institutional innovations like the ones STARGO promoted require a tolerance for risk through a readiness to allow the communities to take over leadership of local initiatives. The facilitators initially sought to guide the STARGO investment by their presence at all community activities. The community, however, was determined to implement the planned activities with or without the presence of the project facilitators. Through this process, project facilitators learned to trust and respect the communities' ownership of the action priorities they had agreed upon. This handover of control to the communities to allow them to independently implement the project activities made it feasible to then initiate a participatory monitoring process where the community representatives documented progress and welcomed reviews by outsiders as a nonintrusive means of supporting joint learning.

Learning and adaptation require a change from conventional development programming. The CORE practitioner's guide,³³ drafted at the beginning of the initiative and revised as a result of this learning, provided a common point of reference for all activities. The CORE approach was not a blueprint, but left the practitioners latitude to operationalize it according to the local context. It provided a vision for the whole program of support, helping ensure that activities were logically connected and contributed to the overarching purpose, and encouraging reflection around obstacles and lessons. Development actors interested in a stakeholder dialogue approach need to provide the space for groups to build capacities through experimentation. The approach also implies a willingness to operate based on clear intended outcomes but without the centralized planning and monitoring associated with traditional project management.

Brokering roles are key. Dialogue among stakeholders is not a one-off exercise but a continuous process through different phases of competition and collaboration over resource management. Villagers in Kamimbi were able to effectively engage in dialogue in an unusually supportive context. In this case, an international research organization (WorldFish), working with financial support from an international development agency (the German Federal Ministry for Economic Development Cooperation), partnered with a key government agency (the Department of Fisheries) to pilot a structured approach to dialogue with a particular focus on enhancing the voice of typically marginalized groups. This international support, in turn, attracted an unusual level of interest from other government agencies, including the Zambia Environmental Management Agency. As government, civil society and private sector associations look to carry lessons from this initiative forward, particular attention needs to be paid to the brokering roles that help build legitimacy for dialogue and protect it from being steered in favor of the interests of powerful groups.

Current guidance on developing effective institutions for fisheries co-management emphasizes the importance of inclusive, multistakeholder dialogue that engages the broader governance context.³⁴ This is particularly crucial in a situation where small-scale, artisanal fisheries compete with

commercial interests, with very different degrees of influence on decision-making. International reviews of fisheries co-management experience point likewise to the way that inclusive dialogue can build legitimacy of co-management institutions, and the vital role of strong local leadership and linkages among actors at different levels.³⁵

Complementing experiences documented elsewhere,³⁶ the Lake Kariba experience provides evidence that the CORE approach to multistakeholder dialogue and action planning can help achieve these goals. Indeed, while this application of the dialogue approach focused on fisheries co-management, those engaged in the process — from community members to NGO leaders, policy officials and private enterprises — concluded that the fundamentals of the approach have much broader value. That is because the underlying tensions of competing uses for shared resources, complex dynamics of power, and the need for more inclusive decision-making apply equally to questions such as agricultural land tenure, management of forests and water resources, shared use of pasturelands, or climate change adaptation. In each of these domains, a technical understanding of trends in resource use and potential responses is inadequate if not complemented by a robust and legitimate process of multistakeholder dialogue, enabling local actors to make choices that help shape their futures.



His Royal Highness Chief Simamba (in red robe) with research team members, village leaders and Department of Fisheries officers, Bagande Palace, Siavonga District

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This publication should be cited as:
Elias Madzudzo, Loziwe Chilufya, Hangooma Gordon Mudenda and Blake D. Ratner. (2014).
Strengthening collective action to address resource conflict in Lake Kariba, Zambia. Program Report.
Collaborating for Resilience.

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