

## SCALING-UP THE POPULATION, HEALTH, AND ENVIRONMENT APPROACH IN THE LAKE VICTORIA BASIN: A REVIEW OF THE RESULTS FROM PHASES I AND II OF THE HOPE-LVB PROJECT

The people and environment of the Lake Victoria Basin face complex and interrelated challenges. Communities are dependent on the lake's resources, but population growth, forest clearing, and unsustainable fishing and agricultural practices threaten the bounty of the Basin. Families lack access to quality health services and opportunities for alternative livelihoods. Population, health, and environment (PHE) projects address the complex connections between humans, their health, and their environment by implementing integrated activities that simultaneously improve access to health services, including sexual and reproductive health and family planning, while also helping communities manage their natural resources and conserve the critical ecosystems on which they depend. This brief summarizes the results from the internal evaluation of Phases I and II of the HoPE-LVB project, implemented from 2011-2017.

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Since 2011, Pathfinder International has worked with local partners to address these challenges through the Health of People and the Environment in the Lake Victoria Basin (HoPE-LVB) project. The first two phases of this integrated PHE project were funded by the David and Lucile Packard Foundation and the John D. and Catherine T. MacArthur Foundation, with additional support from the United States Agency for International Development (USAID) via the Evidence to Action, IDEA, PACE, and BALANCED projects, and the Winslow and Barr Foundations. In Phase I, Pathfinder implemented the project with partners Ecological Christian Organization (ECO), Osenala, and Conservation through Public Health (CTPH); Phase II was implemented by Pathfinder with ECO and Nature Kenya. HoPE-LVB aims to reduce threats to the biodiversity and ecosystems of Kenya and Uganda, while simultaneously increasing access to sexual and reproductive health services. This brief summarizes the findings from the HoPE-LVB internal evaluation conducted at the end of 2017 that examined the achievements of Phases I and II and complements an external evaluation report funded by USAID’s Office of Population and Reproductive Health.

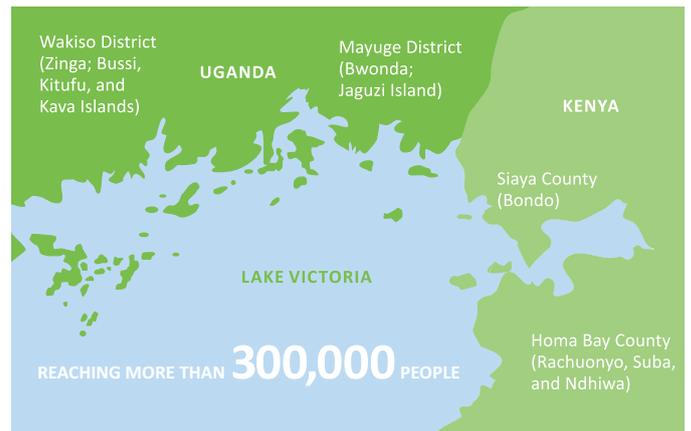
## Context

Lake Victoria is the world’s second largest freshwater lake and the largest lake in Africa, with a total catchment of 250,000 square kilometers. The Lake Victoria Basin (LVB) area encompasses five countries: Tanzania, Kenya, Uganda, Burundi, and Rwanda. The LVB is rich in biodiversity and endowed with a variety of natural resources, supporting an estimated population of over 44 million people<sup>1</sup> across the region. Population growth, also impacted by in-migration, is increasing pressures on these vital natural resources, resulting in declining land productivity, soil degradation, desertification, deforestation, loss of biodiversity, livestock and crop diseases, and declining fisheries.<sup>2</sup> Overfishing and deforestation are exacerbated by depleting natural resources and environmental stress from climate change and increasing industrialization, leading to food insecurity and declining health outcomes, such as high maternal mortality rates and poor sexual and reproductive health outcomes. To reduce pressures and improve wellbeing, it is vital that communities, particularly women and youth, acquire knowledge and skills in sustainable resource use and sound livelihood strategies, as well as healthy behaviours and hygienic living conditions.

## Phase I Activities and Objectives

Phase I (2011–2014) of the HoPE-LVB project focused on achieving results in both the health and environment sectors, as well as demonstrating the feasibility of and developing support for the integrated PHE model for HoPE-LVB communities. Initial needs assessments conducted by project staff and local stakeholders verified the need for a cohesive project that addressed the interrelated drivers of environmental degradation and poor sexual and reproductive health outcomes.

To engage community support and ensure long-term sustainability, the Phase I strategy was developed in partnership with local groups and worked at the individual, community, and structural levels.



At the individual level, the project built the capacity of PHE champions and model households to engage in and promote healthy behaviors, natural resource management (NRM), and alternative livelihood development. At the community level, the project strengthened the abilities of Beach Management Units (BMUs) and other existing community groups in healthy behaviors and sustainable resource use and improved the accessibility of sexual and reproductive health services through increased outreach and improved referral systems. At the structural level, the project worked to strengthen policies that support health and NRM and to institutionalize the PHE approach within Country governments and inter-governmental bodies, including the Lake Victoria Basin Commission. The project also partnered with ExpandNet to ensure sustainability and prepare for scale-up in Phase II using their methodology of “beginning with the end in mind.”<sup>3</sup>

## Phase I Results

An internal evaluation of Phase I used both qualitative and quantitative data to document successes and challenges in advancing sexual and reproductive health, improving NRM, and community acceptance of the PHE approach. Quantitative monitoring data was collected from health centers, BMUs, and model households, and qualitative data was gathered through key informant interviews, and focus group discussions with representatives from community groups involved in the project.

The Phase I evaluation found significant improvements in indicators in each sector, as well as high levels of PHE acceptance by project communities. Highlights from this evaluation are below and further details are included in the brief *Sustaining Health, Rights, and the Environment in the Lake Victoria Basin*.<sup>4</sup>

### INCREASED DEMAND FOR AND UPTAKE OF ESSENTIAL SEXUAL AND REPRODUCTIVE HEALTH SERVICES

In Phase I, HoPE-LVB supported 5 health facilities in Kenya and 4 in Uganda, in addition to community health workers. Project staff documented increases in uptake of essential sexual and reproductive health (SRH) services, including family planning and facility deliveries. A surge in new contraceptive users accessing their method of choice at the community level, facility level, and through outreach services likely indicates a pre-existing demand for contraceptives which the project helped to satisfy. In Uganda, the number of new users grew

from 263 at baseline (July–September 2012) to 3,369 during the project’s third quarter (January–March 2013) and in Kenya, new users increased from 102 at baseline (July–September 2012) to 485 by the final quarter of the first phase (July–September 2014). HoPE-LVB significantly increased the range of contraceptive methods available at health facilities in project sites: from four methods to eight in Uganda and from five to six in Kenya. There were also large increases in uptake of long-acting and reversible contraceptives (LARCs), including implants and IUDs. Implant uptake was particularly striking in 2013 (Year 2): In Uganda, implant use almost tripled from the previous year, while in Kenya, implant use nearly doubled.

Facility deliveries increased greatly in both countries, particularly among young mothers (aged 12–24) who went from zero facility deliveries in Kenya and one in Uganda at baseline (July–September 2012) to 110 in Kenya and 86 in Uganda by the final quarter of the first phase (July–September 2014).

Focus group responses suggest that bringing SRH messages to non-health community groups such as BMUs and farmers groups helped to reach new audiences, normalize use of SRH services, and reduce misconceptions about family planning. Community outreach and referral mechanisms were also found to increase male engagement, enabling more women and couples to seek family planning, maternal health services, and HIV testing. Qualitative data also indicates that respondents found the quality and reliability of service at health facilities improved with HoPE-LVB involvement.

### **SUSTAINABLE ALTERNATIVE LIVELIHOODS BENEFIT WOMEN**

Qualitative data from Phase I already suggests changes in household gender dynamics. While some of this is likely due to targeted outreach with SRH messages, much of it seems related to project support for alternative and sustainable income generating sources, particularly for women. A key HoPE-LVB intervention was training women from model households how to make energy-saving cooking stoves. Women reported the health and comfort benefits of the cooking area with reduced smoke, as well as the reduced time burden needed to gather wood and feed the stove. The women trained by the HoPE-LVB team were also able to make and sell these cookstoves, increasing their financial independence and power in their households.



### **COMMUNITIES ADOPT SUSTAINABLE FISHING PRACTICES**

HoPE-LVB worked with BMUs—existing community groups that include fishers, boat owners, and other related community stakeholders—to manage fishery and beach resources and enforce environmental regulations. During Phase I, BMU members demarcated

a total of 16 fish breeding grounds, adopted sustainable fishing practices, and began to patrol for illegal fishing. Qualitative data from both BMU members (who participated in the implementation of new practices) and non-BMU community members indicate that a wide range of stakeholders saw the benefits of the new practices and would support their continued application. Respondents saw the successes of both the sustainable fishing practices and the adoption of sustainable farming practices as evidence of their capacity to affect change, and reported a greater sense of control over their future and the future of their environment.

### **POLICYMAKERS ARE INVESTED IN THE INTEGRATED APPROACH**

The HoPE-LVB focus on advocacy from the beginning allowed the project to build significant support from policymakers and see results of their support early on. Over 12,000 participants attended PHE advocacy events during Phase I and several governing bodies began the process to institutionalize PHE within their organizations. By the end of Phase I, Uganda’s Family Planning Costed Implementation Plan included a line for PHE programming, the Homa Bay County Development Plan (in Kenya) included PHE funding, and the Lake Victoria Basin Commission (LVBC) was actively promoting the HoPE-LVB approach across the Basin. Members of project-supported communities noted the increase in government attention to their challenges and appreciated the government officials’ visits to their communities and the opportunities for direct engagement with policymakers that this attention afforded.

***A key HoPE-LVB intervention was training women from model households how to make energy-saving cooking stoves.***





## Phase II Objectives

After donors and stakeholders met and discussed Phase I results, the three main donors (MacArthur Foundation, Packard Foundation, and USAID) pledged continued support for Phase II (2014–2017). Phase II capitalized on the momentum and gains of Phase I to further contribute to the environmental management and sustainable development of the LVB region through the following objectives:

**OBJECTIVE 1: Deepening and expanding implementation of current HoPE-LVB interventions to improve sexual reproductive health (SRH) and; maternal, neonatal, and child health (MNCH) outcomes while increasing capacity to sustainably manage natural resources for improved food and livelihood security.**

**OBJECTIVE 2: Refining and packaging the HoPE-LVB PHE model approach for dissemination and facilitating capacity building of other organizations to replicate the model.**

**OBJECTIVE 3: Advocating for and supporting the process of institutionalizing the HoPE-LVB model in regional, national, and local government systems and non-governmental organizations around the LVB.**

A priority for Phase II was to expand the geographic reach of the HoPE-LVB project, which meant implementing activities in additional communities in both Uganda and Kenya. At the same time, the project was working with less funding for Phase II than it had been allocated in the previous phase. With the successes documented by the Phase I evaluation, HoPE-LVB was able to move beyond proving that PHE can lead to improvements by sector and

was able to focus on ensuring that the project was sustainable, scalable, and replicable. The Phase I emphasis on *“beginning with the end in mind,”* using guidance and technical support from ExpandNet, supported by USAID, has helped to ensure that integration can both continue in current communities and can also be replicated, as relevant, throughout the LVB via existing structures, including the LVB Commission of the East African Community.

By simplifying interventions and offering less intensive support from Pathfinder directly, the project was able to work in a larger geographic area with a lower budget while increasing ownership by communities. For example, BMUs from the Phase I sites held trainings for BMUs from the newly added communities. Exchange visits facilitated knowledge sharing between communities and provision of technical assistance. As envisioned from project inception, model households shared the products of project purchased resources, including the offspring of goats and cuttings from fruit trees.

Phase II supported further scale-up and sustainability by continuing to develop champions and advocates at multiple levels. Champions from Phase I communities worked to build support and recruit champions in new communities. Advocacy at the national and subnational levels was designed to begin the institutionalization of PHE priorities through policies that support integrated development programs and sustainable resource use. The project also held site visits for policymakers and delivered presentations to governing bodies on the benefits to PHE with the goal of increased support among decision makers and additional funding for project activities. Staff continued to collaborate with local leaders and community members to address their priorities, and maintained relationships with many existing partners, including We Care Solar<sup>5</sup>, the National PHE Networks in Uganda and Kenya, the related line ministries such as the National Population Council in Uganda and the National Council on Population and Development

in Kenya, while establishing new ones with the Rwenzori Center for Research and Advocacy (RCRA), Central Young Christian Organization, and Tanyoka Community Based Organization.

## Evaluation Methods

The aim of the Phase II evaluation was to (1) determine the project's achievements in family planning; MNCH services; Water, Sanitation, and Hygiene (WASH); and NRM (2) determine the effect of the model household approach on promoting integration for and scale up for P, H, and E, (3) describe how the PHE approach has strengthened community systems/structures, and (4) assess the sustainability of the HoPE-LVB PHE approach in terms of ownership of project-supported interventions, application of systematic planning for scale up, PHE intervention scale up at different levels (indication of sustainability), and replicability.

This evaluation was conducted in Kenya and Uganda in both Phase I sites and the Phase II sites that were added for scale up. Sites were divided into those defined as experienced/mature (sites that began in Phase I) and semi-experienced (sites that began in Phase II). HoPE-LVB project staff used the following methodologies to collect data for the assessment:

- **secondary analysis of service statistics** from routine project data on utilization of family planning, MNCH services, WASH, conservation and integration practices of model households,
- **quantitative survey of model and non-model households** assessing knowledge and practices prior to the HoPE-LVB project and practices in the present,
- **self-administered questionnaire for health care providers** to assess provider capacity, attitudes, perceptions and experience in improving utilization of family planning, MNCH, WASH and nutrition services,
- **focus group discussions (FGDs)** on the perceptions, behaviours and practices of the communities in the project sites to determine to what extent the PHE approach to programming has improved uptake of family planning/MNCH services, and
- **key informant interviews (KIIs)** conducted with PHE Champions, District leadership and national level PHE network members, as well as Sub-County and County Health Management Team Members (S/CHMTs) members and health management teams to assess the existence of an enabling environment at county/district level and its effect on the provision of quality family planning/MNCH, WASH and nutrition services.

## Phase II Results

In Phase II, HoPE-LVB was able to document sustained positive results by sector at both Phase I sites and those that were added in Phase II. This evaluation also documents achievements in scaling up and building the capacity of local communities. That these results were found despite challenges speaks to the sustainability of the PHE model and local support for the activities. The project operated in a much larger geographic area, including moving into a new county in Kenya and three new sites in Uganda, with fewer financial resources but was still able to produce positive effects in large part due to the ownership and dedication of community

groups and local leaders. Furthermore, 2017 was a significant challenge due to the political instability resulting from the contested national elections. Some of this instability is reflected in the results for that year, but enthusiasm for continuing the work and overcoming any losses remains. The following sections discuss some highlights of the Phase II evaluation results.

### INCREASED QUALITY AND USE OF ESSENTIAL SRH SERVICES

Continued success in the area of family planning and maternal health services was due to effective interventions increasing both demand for services and the quality and availability of services at local health centers. To create demand, HoPE-LVB implemented a number of targeted outreach activities to male-dominated farmer's groups and BMUs, community health workers, women's groups, and youth groups, to sensitize these key community members. Survey results reflect changes in attitudes and behaviors towards family planning among both men and women, including increase in perception that family planning reduces pressure on the environment while improving the health and economic situations of women and families.



Messages on healthy timing and spacing of pregnancies (HTSP) and MNCH were delivered together with information on NRM, among traditionally male-dominated groups in non-traditional settings. As a result, boys and men showed increased knowledge about family planning and willingness to speak about it within the community and with partners. In Kenya, where the BMUs were leaders in mobilizing fishers to embrace family planning, project health centers documented 14 vasectomies in the new project sites, up from one in the years preceding the intervention.

Continuing the trend of increased uptake of long-acting contraceptive methods that was found in Phase I, analysis of health center data from the new Phase II project sites in Kenya found increases in uptake of long-acting contraceptives for both women and men when compared with the years before the project. Between 2014 and 2016,

the project focus on improving access to longer-acting methods may have resulted in a decrease in distribution of short-acting methods in addition to the concurrent increase in the uptake of long-acting methods.

Sites in Uganda documented a drop in use of short-term methods, most notably combined oral contraceptive pills from 2015 onward, which is related to a long national stock-out of pills that began in early 2015.

**FIGURE 1. UGANDA: TREND OF TOTAL CYP DISTRIBUTED (2012–2016)\* FOR FACILITIES IN THE PROGRAM**

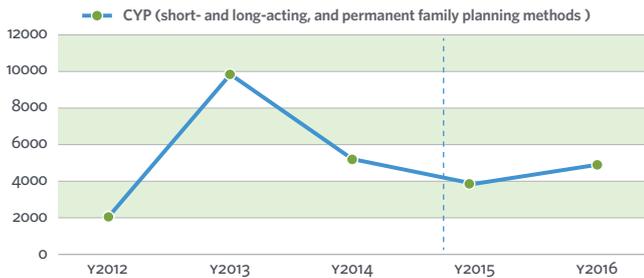


Figure 1 provides more information on the trends in total Couple Years of Protection (CYP) between 2012 and 2016 for Uganda’s sites. In the first year, there were increased numbers of women taking on LARCs. As demand was satisfied and some level of saturation may have been reached, the project observed a reduction in uptake.

**FIGURE 2. KENYA: TREND OF TOTAL CYP DISTRIBUTED (2011–2016)\* FOR MATURE SITES ONLY**

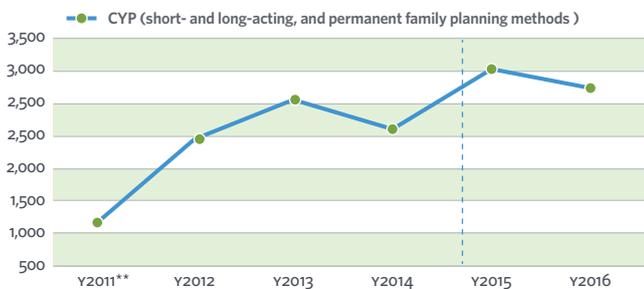


Figure 2 highlights the CYP trends for health facilities in Kenya that were supported by the project. The project significantly reduced efforts related to promoting short-acting methods because it was already a focus of the government. By supporting accelerated and focused interventions on long-acting and permanent methods of modern contraception especially in Phase II, interest in and usage of LARC, such as intrauterine contraceptive devices (IUCDs) and implants, climbed. The project intervention focused on LARCs by providing service delivery training to health service providers and education to community groups. This dual-pronged strategy yielded positive results.

In 2017, the project observed reductions in budgetary allocations in the two counties where the project worked, as resources were diverted to the general elections. There was significant inconsistency of contraceptive supplies. Additionally, a national nurses’ strike paralyzed service delivery across HoPE-LVB sites, negatively

affecting uptake of short-acting methods more than long-term methods due to the frequency at which a client must visit facilities to seek those respective services.

Overall, prior to HoPE-LVB, clients faced difficulties accessing family planning due to periodic stock-outs, limited method availability, lack of training of health providers, and long distances to get to health facilities. HoPE-LVB sought to address these challenges by instituting outreach services and training health providers at multiple levels: health workers at facilities were trained on comprehensive family planning service delivery, including LARCs; community health workers were trained on provision of pills, condoms, and moon/cycle beads for the first two years, and injectables in the third. HoPE-LVB also focused on improving contraceptive supplies and strengthening Health Information Management Systems (HMIS). In Uganda, the project reprinted Uganda Ministry of Health family planning registers to improve recording of facility data and worked with the relevant stakeholders to ensure contraceptive buffer stocks to mitigate stock-outs. By the end of Phase II, minimal stock-outs were reported; the abovementioned nationwide stock-out of pills that occurred during Phase II was monitored closely by HoPE-LVB staff to minimize the damage to clients.

In both Kenya and Uganda, being a model household was significantly associated ( $p < 0.001$ ) with having discussed healthy timing and spacing of children with a spouse or partner. In Kenya, our research found that 73.1% of model households had discussed the number and timing of children with a spouse or partner as compared to 53.3% of non-model households. In Uganda, 61.2% of model households had, compared to 27.0% of non-model households. The majority of households (70 to 75%) reported that they talked with their spouse about this topic for the first time during the HoPE-LVB project.

**FIGURE 3. KENYA AND UGANDA: SKILLED BIRTH DELIVERIES (2012–2016)\* FOR MATURE FACILITIES ONLY**

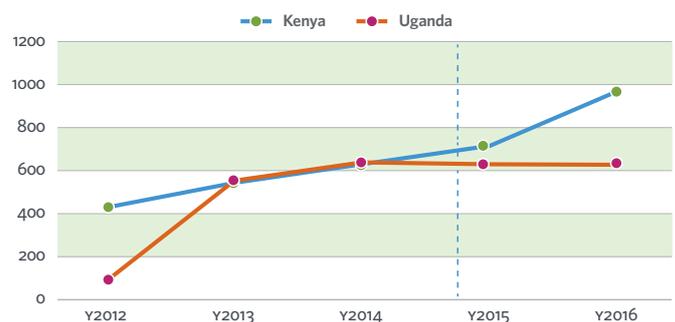


Figure 3 highlights the trends in skilled birth deliveries (SBDs) reported from 2012–2016 in sites supported in both Phase I and II in Kenya and Uganda. Over time, the number of SBDs increased. In order to increase quality and use of MNCH services, HoPE-LVB trained health care providers in Emergency Obstetric and Newborn Care (EmONC) and Lifesaving Skills (LSS), with a focus on the identification of life-threatening conditions and carrying out basic care as they refer women to the health facilities for skilled care.

\*Dotted line demarcates the start of Phase II in September 2014; data is shown through 2016 as data was collected for only part of 2017.

\*\*2011 full year data from Kenya was obtained from HMIS as reference; the project was launched in late 2011 but project activities did not begin until 2012 in both countries.



Community health workers also identified clients with nutrition, antenatal care (ANC) and immunization needs and services. HoPE-LVB also supported integrated community dialogue meetings that helped to contribute to the increase in SBDs by normalizing conversations about receiving MNCH care and raising awareness of its benefits.

According to focus group participants, the training sessions and community dialogues increased community trust in MNCH care and led to more pregnant women accessing prenatal, delivery and post-natal services from the health facilities. Health service providers at HoPE-LVB-supported facilities also reported being motivated by the trainings and the regular support they received from the project, which they say helped them to gain confidence in their skills.

Furthermore, the use of solar power for renewable energy likely contributed to increases in SBDs. HoPE-LVB partnered with We Care Solar which helped to install solar lighting across supported facilities which previously had no electric power to enable health service providers carry out skilled deliveries at night.

#### **EXPANDED WASH PRACTICES AND ACCESS TO SANITATION FACILITIES**

The HoPE-LVB baseline survey found that most household members washed and disposed of household waste in the lake. Livestock and other domesticated animals often grazed on the shore and defecated there, leading to increasing risks of disease outbreaks in addition to polluting the lake. To improve adoption of safe WASH practices at the community level, HoPE-LVB initiated community dialogue sessions led by community health workers, constructed new pit latrines, promoted community mobilization which resulted in the formation of a Community Led Total Sanitation committee and related committees, participated in the Global Hand Washing Day, and supported school WASH programs for in-school adolescents and youth. At the household level, improvement

of WASH practices was led by the model households through trainings, practical demonstrations, and peer support.

The project helped in the establishment of more than 4,481 new latrines across Uganda and Kenya, and influenced 9,220 households on hand washing practices. Demonstrating the efficacy of the model households and the outreach work they did in their communities, as well as the strong partnerships that HoPE-LVB built with local government authorities and WASH communities, non-model households saw a 49% improvement in WASH across indicators

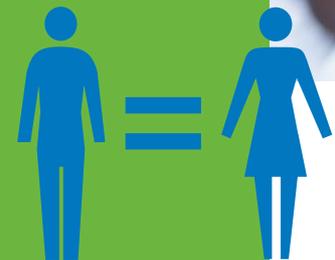


including availability of functional pit latrines, functional hand washing facilities, safe drinking water, utilization of dish racks and clothing lines. Focus group participants also self-reported increases in all WASH practices, including decreased crude dumping and increased use of refuse pits and composting.

Along with the WASH improvements, project sites have seen reduced disease outbreaks. In 2015, there was a cholera outbreak around Lake Victoria, affecting several areas including the Islands. Thanks to support from the HoPE-LVB project, there was no household in the Uganda sites affected.

## FOCUS ON GENDER AND YOUTH

The Interagency Gender Working Group defines *Gender Transformative* as approaches that “actively strive to examine, question, and change rigid gender norms and imbalance of power as a means of reaching health as well as gender equity objectives” (Greene & Levack 2010). Integrated PHE projects have a unique ability to achieve these goals because, by their nature, they engage both men and women in activities and topics that fall outside traditional gender roles. For HoPE-LVB, this means involving men and boys in conversations about reproductive health and family planning, and women and girls in decisionmaking about natural resources and livelihoods. The Phase I evaluation found that the involvement of women in economic activities had major impacts on gender relationships, and this finding was repeated in the Phase II evaluation. As women are earning money, they are able to purchase household necessities, improving household well-being, increasing women’s feeling of empowerment, and reducing household conflict. Women are also taking on more leadership roles in BMUs and other not traditionally female-led community organizations.



**“Most of us relied on our husbands to provide. We had low self-esteem, feared to engage in anything and talk to people in our community. But with HoPE-LVB project intervention, this has changed.”**

— A MEMBER OF THE YOUNG MOTHER’S GROUP IN JAGUZI SUB-COUNTY, MAYUGE DISTRICT, UGANDA

**“There are women who are executives of the BMUs. Out of nine, four are women.... Before, the women had little self-esteem and left everything for men which is quite different now. Women’s incomes have increased. The BMU men have been reached and men now support their women to seek family planning services; they are aware of the financial pressures of big families.”**

— BMU MEMBER

At the same time, men are now more comfortable discussing topics such as family planning with their wives and in the community.

**“We can now share openly our experiences as now the benefits outweigh the side effects associated with them. Even as men, there is no more shame in speaking about family planning and promoting its use in the different homes.”**

—A MALE PHE CHAMPION

Youth have also been active in supporting the HoPE-LVB project. In many communities, schools have formed PHE clubs where youth discuss the linkages between population, health, and the environment and engaged in activities including creating nurseries at the schools, planting trees, and implementing alternative livelihoods. School PHE activities significantly helped environmental conservation efforts in 22 schools in Kenya and 13 schools in Uganda. Some schools in Kenya established their own tree nurseries and woodlots, while others set up horticultural farms to grow vegetables.

One youth savings group attended a HoPE-LVB training on energy-saving stoves and then began to produce and sell these stoves in their communities.

**“Before the project, we (youth) had an association that seemed [to be] going nowhere and every government program excluded us. Inclusion of the youth into the development agenda by HoPE LVB project united us for a common goal. This has enabled us move to greater heights as a Youth SACCO.”**

—KAWANGUZI HUSSEIN -CHAIRPERSON YOUTH SACCO JAGUZI ISLAND



## **IMPROVED NATURAL RESOURCE MANAGEMENT PRACTICES LED TO INCREASED FOOD SECURITY AND REDUCED DEFORESTATION**

Building on the success of the sustainable fishing interventions of Phase I, HoPE-LVB has continued to build the capacity of BMUs to identify and demarcate fish breeding areas and to train fishers and community members on proper fishing practices such as the appropriate use of nets. In the areas where these practices have been put in place, communities have experienced an increase in fish catch, improving food security and livelihoods. While due to the large size of the LVB ecosystem, it is difficult to directly attribute these increases to project activities, it is clear that HoPE-LVB has successfully built the capacity of communities to engage in sustainable fishing practices, and of BMUs to enforce these practices and spread the activities to new sites.

HoPE-LVB focused significant efforts on encouraging agroforestry as part of its efforts to promote sustainable NRM across sites. The project supported the planting of 680,768 (Uganda 616,491, Kenya 64,277) trees in model households, health facilities, schools, beaches and other public places. The survival rate was 82% for Uganda and 64% for Kenya. The project undertook a forest mapping exercise to document changes in tree cover around project sites. At baseline, it was found that the Uganda sites had 3,718 hectares of tree cover and the Kenya sites had 364 hectares. Over the project period, Uganda tree cover increased considerably by 97 hectares, unfortunately these gains were offset by loss of tree cover of 358 hectares, resulting in a net loss of 261 hectares, or 6.6%, of total area with at least 50% tree cover. In Kenya, only seven hectares of tree cover was lost across Kenya project sites, but this loss was offset by 30 hectares which re-grew to  $\geq 50\%$  tree cover, for a net of 23 hectares or 6.7% gain.

## **FAMILIES GENERATED ADDITIONAL INCOME THROUGH ECOFRIENDLY ALTERNATIVE LIVELIHOOD ACTIVITIES**

As many of the families in the project sites are dependent on fishing for their incomes, HoPE-LVB initiated and supported a variety of alternative livelihood activities to diversify household income and use resources sustainably. These activities include savings and loan groups, beekeeping, tree nurseries, fruit orchards, and goat rearing.

From early in the project, model households were trained in the production of energy-saving stoves. Following the successful adoption of these stoves by model households, community members have scaled up this intervention and began to produce these stoves on a commercial scale as an alternative livelihood. At the end of Phase II, the project had supported construction of 17,319 energy stoves in Uganda and 8,342 stoves in Kenya. In Uganda, young mothers campaigned to ensure each young mother's household had an energy-saving stove. The young mothers visited each other and helped construct new stoves while repairing broken ones. This was a sign of strong community social support coupled with improved knowledge, skills and the spirit of giving back to the community as a sign of appreciation of HoPE-LVB support. The project trained 60 model household members, all



women/young mothers, in how to make an environmentally safe liquid soap that can be sold and used in markets along the beaches, schools, health facilities, and other model households. The soap is packaged in reusable bottles and 20% of profits are reinvested into savings and internal loans groups. HoPE-LVB has supported a pool of trainers who now help neighboring communities that would like to begin making and selling soap to diversify their livelihoods.

## **THE INTEGRATED APPROACH IS INCORPORATED INTO LOCAL POLICIES FOR LONG-TERM SUSTAINABILITY**

Since its inception, HoPE-LVB has focused on advocacy for institutionalizing the PHE approach. At the end of Phase II, the project has worked with communities to develop, draft and implement a total of 60 by-laws in both Kenya and Uganda. Many of the by-laws target fish breeding areas, and these by-laws have been used by BMUs and the Fisheries Departments in both countries to protect identified and demarcated areas. Other by-laws focus on the protection of water sources, preventing raw/crude disposal home and farm waste into the rivers, streams and springs to help communities protect themselves against water borne diseases and other health risks associated with poor sanitation and hygiene. The Wambasa community in Siaya County, Kenya established a By-law Development Committee comprised of village elders, youth representatives and community health workers which developed a set of rules focused on health promotion and environmental conservation. Health-related by-laws adopted include that every expectant mother must attend at least four ANC visits and deliver in a



**Model households shared information with other community households on specific practices including hygiene and sanitation, sustainable agriculture, and MNCH and voluntary family planning.**



## Model Households: The Heart Of PHE Integration

Focus group discussion participants contend that the model households are the most important element of the HoPE-LVB approach. Model households shared information with other community households on specific practices including hygiene and sanitation, sustainable agriculture, and MNCH and voluntary family planning while documenting the integrated benefits they see in their homes. Model household members report wanting to be strong role models for their communities and many community members were so impressed with the example that they applied and trained to become model households themselves. By the end of Phase II, there were 1,583 active HoPE-LVB model households (801 in Kenya and 782 in Uganda), and 13 model villages, where more than 50% of the homes are model households (6 in Uganda and 7 in Kenya).

### Focus groups reported the following benefits of model households:

- A) Increased earnings from livelihood activities such as energy saving stoves and reduced daily expenditures through use of energy saving stoves.
- B) Adoption of kitchen gardens for household vegetable needs has helped increase availability of a variety of vegetable species. Gardens also contribute to the health/improved nutrition of family members and reduced household expenditure on the same.
- C) Training on the importance of tree planting practices and facilitation with seedlings has resulted in community members increased desire to plant trees and more specifically agroforestry trees which have led to improved crop yields.
- D) Access to proper WASH practices such as construction of toilets, treatment or boiling drinking water, having dish racks for utensils has improved. Focus group discussion participants acknowledged the extent to which this has minimized the rates of water borne diseases within these communities.
- E) Reduced cost of living due to the adoption of family planning practices (as reported by participants). Reduced number of children to take care of makes it easier to attend to other pressing needs of the family such as education and improved quality of life for the household members. The project has improved access to family planning commodities and services.
- F) Improvement in health status, especially for children under five, due to sustained immunization programs by the project.
- G) Trainings of the members of the community on sustainable farming practices such as mulching, intercropping, mixed farming and organic farming has empowered the community and increased production from farming practices.
- H) Improvement in wellbeing of the family members due to the holistic approach of PHE, which has given households hope for a better future with children going to school, enough food in the home, stake in preserving the natural resources they depend on, income generated from different activities, and well-skilled and capacitated household heads and members.

health facility. The project encourages the sustainability of these policies by encouraging relevant county and local government authorities, including county departments involved in agriculture, forestry, water and sanitation, fisheries, and education, to promote and embed the integrated approach in their projects' and program's workplans.

HoPE-LVB worked closely with intergovernmental organizations including the East Africa Community's (EAC) Lake Victoria Basin Commission (LVBC) to institutionalize support for the PHE approach. Pathfinder International signed a memorandum of understanding with LVBC in 2016 and LVBC released a Regional PHE Strategic Plan (2016-2021) shortly afterwards. Pathfinder has since been recognized as the voice of civil society organizations in three EAC countries' PHE networks with secretariats at the National Council for Population and Development in Kenya, the National Population Council in Uganda, and the Ministry of EAC in Tanzania.

## New Evaluation Methodologies

While the results from the HoPE-LVB Phase II evaluation indicate success in each sector, as well as in scaling up the approach to further sites, challenges in interpreting the results lead us to conclude that conducting an extremely robust evaluation of a highly integrated project continues to be difficult. As implementation of PHE projects grows, most projects, including this one, have engaged in traditional monitoring of results by sector and attempting to measure value-added. In recognition of these challenges, several technical expert organizations were included to support M&E of this integrated project; however, the results still fail to capture the breadth and complexity of the activities and relationships.

It is essential that new methods are used to evaluate these new types of projects. There is no consensus yet on the best process for measuring integration and scale-up across multiple sectors, but Pathfinder International is engaged in working to move this effort forward. Pathfinder's PHE Learning Lab initiative is currently collaborating with the University of California at Berkeley on a proposal that includes a component to better understand the types of methods that can be used to study PHE more effectively. Several methodologies have been proposed that may begin to measure the complicated web of relationships manifest in PHE projects. These methodologies, including "complexity-aware monitoring,"<sup>7</sup> measuring "contribution claims,"<sup>8</sup> and "theory-based impact evaluation,"<sup>9</sup> are designed for situations where the relationships between inputs and outcomes are complex and multidirectional. They aim to measure whether a change has taken place, and assess the degree to which it was caused by the project interventions.

To successfully implement any method that will be able to draw these kinds of transformative conclusions, extraordinarily high levels of interdisciplinary research capacity are needed, and the research must be continuous and uninterrupted by typical donor funding cycles of three to four years.

## The Next Steps

As HoPE-LVB moves into Phase III, the project staff are focusing on refining the core strategies that have been successful in the previous phases but can be improved for more effective and efficient delivery and scale-up. These include improving the systems for training and tracking model households, enabling existing model households to take on a larger role in training and monitoring new ones in a local setting, increasing demand for health services through encouraging non-health groups to make referrals, and improving the quality of fisheries data from BMUs. Many of these



approaches involve empowering community members and trained local resource persons to take on significant roles in implementing HoPE-LVB activities and collecting data when staff are not present, and project staff are working on strategies to maintain community motivation and focus.

Pathfinder will further scale-up the advocacy work by bringing community voices to key development advocacy platforms at sub-national, national, regional, and global levels. These voices will help to ensure the sustainability of the HoPE-LVB model by highlighting the benefits of the PHE approach for meeting the targets of country level development plans and the Sustainable Development Goals (SDGs).

## Conclusion

The evaluation of Phase II of the HoPE-LVB project demonstrated that the project was able to sustain many achievements in family planning, MNCH, WASH, and NRM even while scaling up to more sites with less funding. Communities report high satisfaction and acceptance of the project and its messages, and policymakers have begun to integrate the PHE approach into local and national policies. At the same time, the project team has learned many lessons about documenting the benefits of the integration itself as well as some of the more complex relationships between interventions and outcomes.



Integrated programs, and PHE in particular, are uniquely suited to helping to achieve many of the SDGs. The PHE model is well aligned with the SDG framework, and the cost-efficiencies and other synergies that allow implementers to optimize scarce resources are essential for reaching SDG targets quickly and effectively. Integrated approaches like PHE, however, have not yet received the level of support that is needed to address the challenges identified by this evaluation, and that would be necessary to refine them for wider application. Further study of the process and benefits of PHE programs like HoPE-LVB, particularly

using innovative methods such as those described above, would be useful in assessing and improving PHE programs, but also in identifying the most effective means of reaching the SDGs.

As climate change receives much of the attention of the global development community, it is important to remember that women and families and their human rights, including sexual and reproductive health and rights, should be at the center of climate mitigation and adaptation efforts. In rural communities in developing regions, women are often the most affected by changes in climate but, by prioritizing family planning and women's sexual health and rights, they can also be leaders in building resilient families and communities. The successes of the HoPE-LVB project suggest that further investment in the implementation science of PHE projects will help not only to achieve sustainable results in family planning and reproductive health, but in many of the global Sustainable Development Goals.

## ENDNOTES

- 1 Current population estimate by the Lake Victoria Basin Commission.
- 2 United Nations Environment Program (UNEP), *Lake Victoria Basin Environment Outlook*, 2007.
- 3 World Health Organization and ExpandNet, *Beginning with the End in Mind: Planning Pilot Projects and Other Programmatic Research for Successful Scaling Up*, 2011.
- 4 Pathfinder International. *Sustaining Health, Rights, and the Environment in the Lake Victoria Basin*. Watertown, MA: Pathfinder International, 2015. [www.pathfinder.org/publications/sustaining-health-rights-and-the-environment-in-the-lake-victoria-basin](http://www.pathfinder.org/publications/sustaining-health-rights-and-the-environment-in-the-lake-victoria-basin)
- 5 We Care Solar promotes safe motherhood by providing health facilities with reliable lighting, mobile communication, and medical devices using solar electricity, packaged within a Solar Suitcase. [wecaresolar.org](http://wecaresolar.org)
- 6 A SACCO is a government-run Savings and Credit Co-Operative.
- 7 USAID. *Complexity-Aware Monitoring*, Monitoring and Evaluation Series Discussion Note, 2013.
- 8 International Institute for Environment and Development (IIED), *Clearing the fog: new tools for improving the credibility of impact claims*, April 2016. <http://pubs.iied.org/1735911IED/>
- 9 International Institute for Environment and Development (IIED), *Theory-based impact evaluation*, March 2017. <http://pubs.iied.org/pdfs/1740411ED.pdf>

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