

Population, Health, and Environment: an integrated approach to conservation



Case Studies, Generic Theory of Change, Evidence, Recommendations and Outreach
10 December 2021

*Year 2 of a Conservation Measures Partnership Learning Initiative
supported by the Gordon and Betty Moore Foundation*



Photo source: Blue Ventures | Garth Cripps



***This work is dedicated to
Negash Teklu of PHE
Ethiopia Consortium.***

***Known as the “Grandfather
of PHE”, Negash was a
passionate advocate for this
integrated approach. His
unwavering enthusiasm is
an inspiration to the global
PHE community.***

He will be deeply missed.

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List of acronyms and abbreviations

Acronyms & abbreviations			
CAML	Conservation Action and Measures Library	IRHC	Integrated Reproductive Health and Conservation
CMP	Conservation Measures Partnership	NRM	Natural Resource Management (including conservation and ecosystem restoration actions)
CS	Conservation Standards	PHE	Population, Health and Environment
FP	Family Planning	RH	Reproductive Health
GCC	Grey Crowned Crane	SDG(s)	Sustainable Development Goal(s)
IUCN	International Union for the Conservation of Nature	TOC	Theory of Change



0. Abstract

Learning process

A group made up of three facilitators and 13 experts furthered the learning that was completed in 2020 relating to an integrated health and conservation approach termed Population, Health and Environment (or PHE). In this second year, we investigate five real-world PHE cases, compare them against a generic theory of change, evaluate the added value of integrating health and conservation actions, and share the learning across multiple platforms and with numerous audiences.

Case studies

The five case studies investigated in this learning initiative are all African examples. They include:

- 1) **Madagascar:** Blue Ventures' integrated health-environment programme
- 2) **Uganda:** Healthy wetlands for cranes and people of Rukiga
- 3) **Ethiopia:** Scaling out integrated and multisectoral ecoregional approach in Bale Eco-Region
- 4) **Ghana:** Integrating health and family planning into Greater Amanzule wetland landscape conservation and small-scale fisheries management in the western region of Ghana
- 5) **Tanzania:** Landscape conservation in western Tanzania



Two case-specific theories of change

Two of the five cases were selected for a deeper analysis. Case-specific TOCs were developed to describe the project design, anticipated (and realized) results, and ultimate desired outcomes.

The **Madagascar: Blue Ventures' integrated health and environment programme** TOC illustrates how a listen-led approach, with referrals between program components, attention to local marine management area governance, and support for diverse livelihoods has led to improved nearshore fisheries, livelihoods, and human health.

The **“Case 2 - Uganda: Healthy wetlands for cranes and people of Rukiga, Uganda”** TOC illustrates how integrating health together with conservation agreements, supporting livelihoods, and involving the community in NRM, can lead to reduced pressures on wetlands that benefit cranes, livelihoods, and human health.



Photo source: Blue Ventures | Garth Cripps

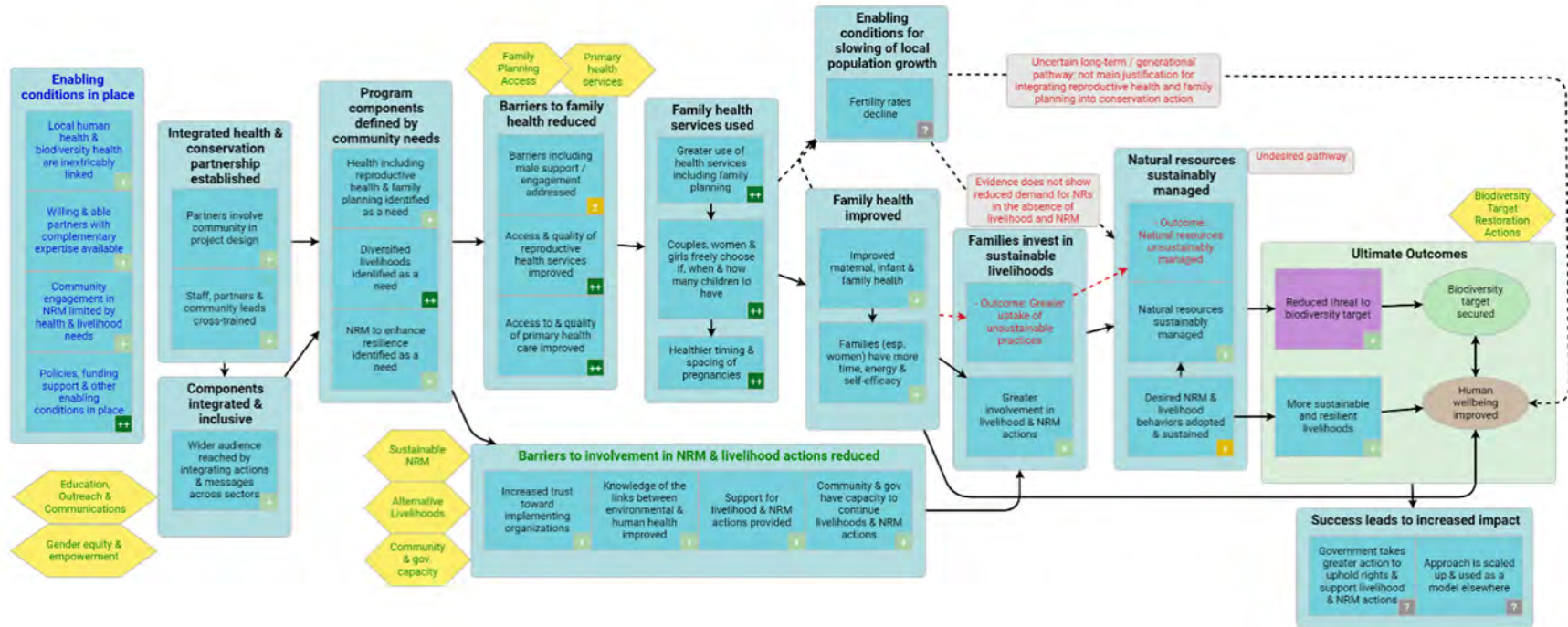


Photo source: Mark Baron/Margaret Pyke Trust

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A generic theory of change with evidence

The “Integrating reproductive health & family planning into conservation action” TOC (initially developed in 2020) was adapted based on learning from the case studies. The case studies were also used to evaluate evidence toward results in the generic TOC. This evidence is noted in dashboard colors on the TOC and interrogated more fully in the report.



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Value of integration of conservation and health actions

A key assumption behind integrating health and conservation action into a PHE program, is that integration across sectors will lead to greater and longer lasting environmental and social impacts than if the sectors were operating in parallel without integration or should only one sector operate in an area. Potential pathways for this added value of integration were investigated using case studies. All of these cases realized added value from integration because of the following pathways:

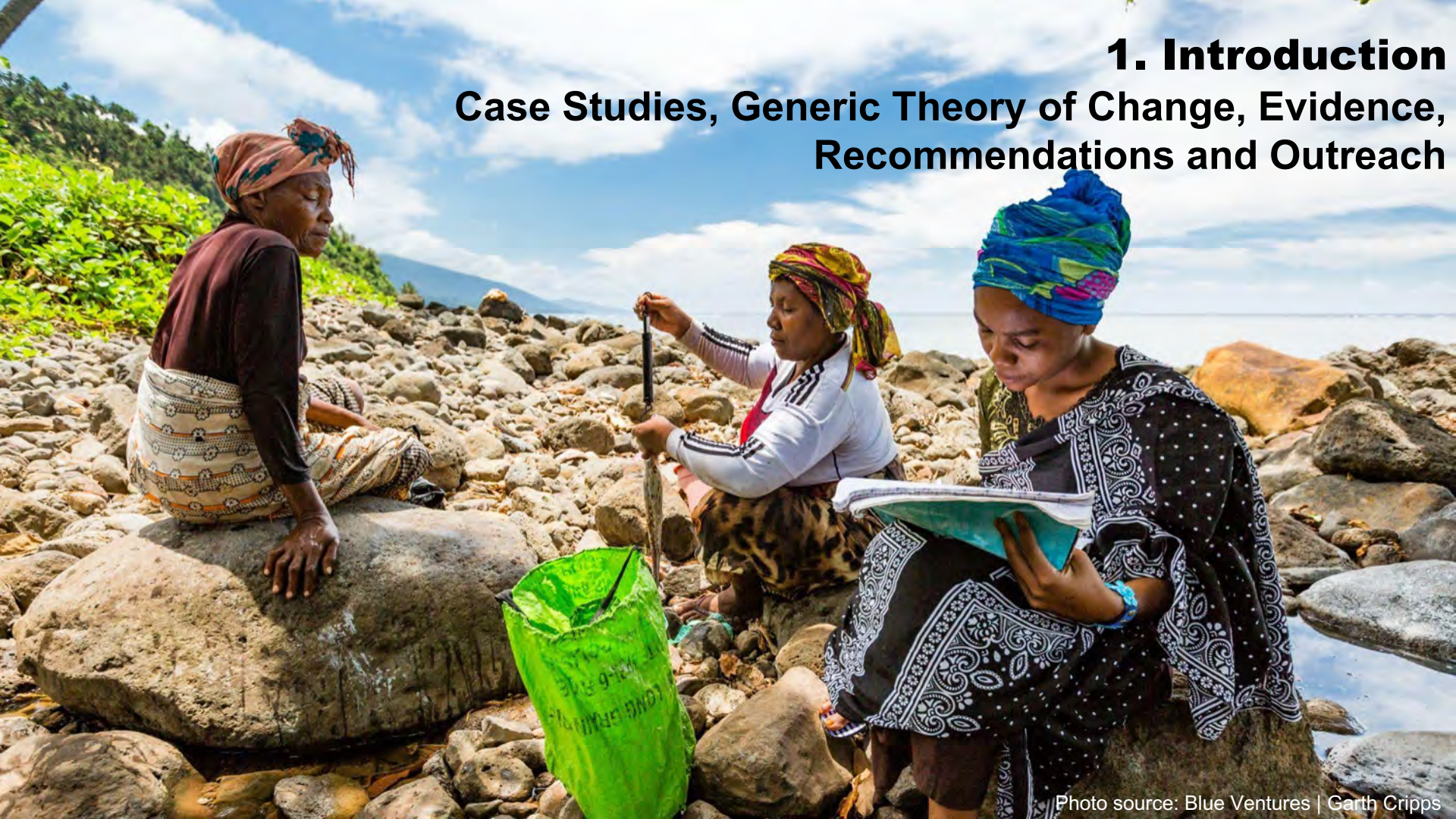
- **Greater reach** - integration allowed the implementing organizations to reach a greater portion of the community.
- **Greater opportunities** - integration of messages and implementation provided cost-effective opportunities for community members to learn about and get more involved in different components of the project. In particular, women became more involved in NRM and livelihood actions after attending health initiatives.
- **Improved health** - health interventions (including family planning) improved family health affording community members (particularly women) more time, energy and self-efficacy leading to greater involvement in NRM and livelihoods.
- **Improved trust** - by listening to the community, allowing project components to be driven by community needs, and integrating health into project work, trust improved and community members became more involved and committed to NRM actions.

Next steps to finalize the two year PHE Learning Initiative

- Submit a paper to Journal of Conservation Science and Practice summarizing 2020 and 2021 PHE Learning Initiatives.
- Conduct a webinar to the Conservation Standards community at a CMP members meeting in 2022.
- Support the IUCN Task Force on family planning and engage in related outreach opportunities.

1. Introduction

Case Studies, Generic Theory of Change, Evidence, Recommendations and Outreach



1.1 Introduction - Progression from 2020

Recap of results from 2020 PHE Learning Initiative

In 2020, the Conservation Measures Partnership (CMP) and the Gordon and Betty Moore Foundation funded a learning initiative aimed at assessing Population, Health and Environment (PHE) as an integrated approach for conservation. A collaborative learning group of PHE experts and facilitators produced (among other products), a PHE definition for the conservation sector and two generic theory of change (TOC) models illustrating the anticipated values and conservation impacts of integrating health, and specifically integrating reproductive health and family planning, with conservation action as part of a PHE approach.

Purpose of this 2021 continuation of the PHE Learning Initiative

The PHE Learning Initiative was continued for a second year in order to:

- Learn from real world PHE case examples,
- Adapt the generic 2020 PHE TOC model based on those cases,
- Evaluate case evidence toward the generic PHE TOC model,
- Make recommendations from the learning, and
- Share the learning and related products within and beyond the conservation sector.

Continuing with and building upon the group of PHE experts from 2020, our team of three facilitators worked with the PHE experts to identify PHE case studies, which we have use to analyze our understanding of PHE.



1.2 Introduction - PHE Definition

A Population, Health and Environment (PHE) definition for the conservation sector (from the 2020 PHE Learning Initiative)

One of the products from 2020 was the development of a PHE definition designed for the conservation sector. Below is the working definition that was developed:

PHE is a multisectoral partnership approach to biodiversity conservation, human health, and sustainable livelihoods. PHE approaches are developed inclusively and equitably in response to local situations and the expressed needs of the people most closely linked to biodiversity conservation. PHE is intended to improve human health, particularly reproductive health, while empowering communities to achieve sustainable livelihoods, manage natural resources, conserve biodiversity, and maintain ecosystem services.

By integrating actions across multiple sectors, PHE can reach more people linked to biodiversity outcomes, engage more men in reproductive health, and more women in livelihood and natural resource management. PHE can, ultimately, achieve more significant and longer-lasting conservation outcomes than would likely occur without integration. When barriers to family planning are removed and contraceptive needs are met, women and girls can exercise their reproductive rights, leading to healthier timing and spacing of pregnancies, improved health of women and their children, and more time and energy to engage in education, conservation, and livelihood activities.



1.3 Introduction - This Report

Report purpose

The purpose of this report is to present key findings from the second year of the CMP-Moore PHE Learning Initiative. In this report, we summarize the learning process, present and compare the case studies, provide case-specific TOCs, report on evidence toward an adapted generic TOC, highlight the outreach plan, and make recommendations for future action.

Report audiences

People who we hope will use this report include:

- **Conservation organizations and practitioners** who are interested in or who are currently applying PHE.
- **Population, Health and Environment experts** currently supporting PHE.
- **Funders** who might want to promote and/or support PHE.

Report format

This is an annotated slide deck, designed primarily for reading and collaboration versus presentation. It is organized in sections that are akin to chapters - Introduction, Methods, Results, Discussion, Conclusion - with slides containing detailed content. The Appendices following the report provide more detail. In addition to this report, there is a related entry in the CMP Conservation Measures and Action Library that contains the presented TOC models and related details and evidence reports.





2. Methods

Survey and case-specific work

Key contributors to this second year of the PHE Learning Initiative

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** Facilitators/Lead Authors

2.1 Methods - Survey

Case study survey

Through consultation with a few of the key PHE experts, a survey was designed to identify case study similarities and differences from the 2020 PHE generic TOC model. The survey consisted of 44 questions broken down into four sub-categories, (1) general information about the case, (2) case compared to generic situation assessment, (3) case compared to the generic theory of change, and (4) a general discussion section.

Through our outreach plan (Appendix 2) and connections made by the PHE experts, we sent out the survey to potential case study collaborators.

Case study selection

A total of eight case studies were received. Three cases were removed as health and family planning were not key components in the project design. Five case studies were included and are reported on as part of this learning initiative.



2.2 Methods - Case-specific work

Case study analysis

In addition to analyzing survey responses, we reviewed background documents and interviewed representatives of four of the five cases to clarify survey responses. Based on availability (and not on relevancy of the case), we worked closely with two groups to draw up and report on two case-specific TOCs. We assessed differences and similarities between the various cases.

Adaptation of generic TOC

We used the case studies to improve and adapt the generic “Integrating Reproductive Health & Family Planning into Conservation Action” TOC originally developed in 2020.

Evidence report against generic TOC

We used case survey responses and additional information gained from interviews and background documents, to assess evidence that cases were realizing the results laid out in the generic TOC. We developed a dashboard evidence rating system as noted below and recorded these ratings and explanations as result reports in the generic TOC model using the Result Tracking option in Miradi.

When all cases reported evidence of having achieved a result, the result was ranked **dark green**. When most cases reported evidence and others were too early to tell (or did not provide that information), it was ranked **light green**. When some reported evidence of achievement and some reported evidence to the contrary, it was recorded **yellow**. When all cases reported evidence contrary to the result, it was ranked **red**. And finally, when our survey and interviews did not cover the result (particularly for results that were added during adaptation), it was ranked **gray** as not assessed.

Key	
All case evidence verifies assumption	++
Some case evidence exists to verify assumption	+
Contradictory case evidence exists	±
All case evidence contradicts assumption	-
Evidence was not assessed to verify this assumption	?





3. Results

Case examples and adaptation
to generic theory of change

3.1 CASE STUDIES

Ghana



Integrating Health and Family Planning into Greater Amanzule Wetland Landscape Conservation and Small Scale Fisheries Management in the Western Region of Ghana

Lead organization: Hen Mpoano

Ethiopia



Scaling Out Integrated and Multisectoral Ecoregional Approach In Bale Eco-Region

Lead organization: FARMAFRICA

Tanzania



Landscape Conservation in Western Tanzania

Lead organization: The Jane Goodall Institute

Uganda



Healthy wetlands for the cranes and people of Rukiga, Uganda

Lead organization: Margaret Pyke Trust

Madagascar



Blue Ventures' integrated health-environment programme

Lead organization: Blue Ventures Conservation

3.1.1 CASE STUDIES - Madagascar

Brief introduction

Blue Ventures' integrated health-environment programme commenced in 2007. It combines support for family planning, community health, livelihood diversification, gender-inclusive fisheries management, mangrove conservation and local marine area governance. Blue Ventures' approach to conservation puts fishing communities at the centre of marine management efforts. The health, wellbeing and food / financial security of fishing communities is understood as being paramount to enabling achievement of conservation goals. These fishing communities are reliant on marine ecosystems for their livelihoods therefore social outcomes cannot be achieved without appropriate conservation action.

Location of case study

The Velondriake locally-managed marine area in the Atsimo-Andrefana region of southwest Madagascar.

Project partners

Partners: Blue Ventures, Ministry of Public Health, Ministry of Environment, Ministry of Fisheries, Marie Stopes Madagascar, Population Services International, USAID ACCESS (health project), Catholic Relief Services, Copefrito, Indian Ocean Trepang, University of Toliara.

Donors: MacArthur Foundation, Helmsley Charitable Trust, Segal Family Foundation, Vitol Foundation, International Climate Fund, Norges Vel, Rufford Foundation, Ernest Kleinwort Charitable Trust



Photo source: Blue Ventures | Garth Cripps



Photo source: Blue Ventures | Garth Cripps

3.1.1 Case 1 - Madagascar: Blue Ventures' integrated health-environment programme

Case highlights

- Blue Ventures champions a listening-led approach to biodiversity conservation which revealed pressing unmet health needs (including family planning). Incorporating primary and reproductive health into ongoing fisheries management and coastal livelihood programming allowed Blue Ventures to strengthen trust with community members and provided an entry point for engagement with women.
- The programme started in 2007 with a single-sector environmental focus on periodic octopus fishery closures. However, it became clear that other pressing issues were impeding their ability to engage in conservation and fisheries management actions. In prioritizing and responding to community needs, trust and collaboration increased and led to greater, more inclusive, more resilient community engagement in marine management.

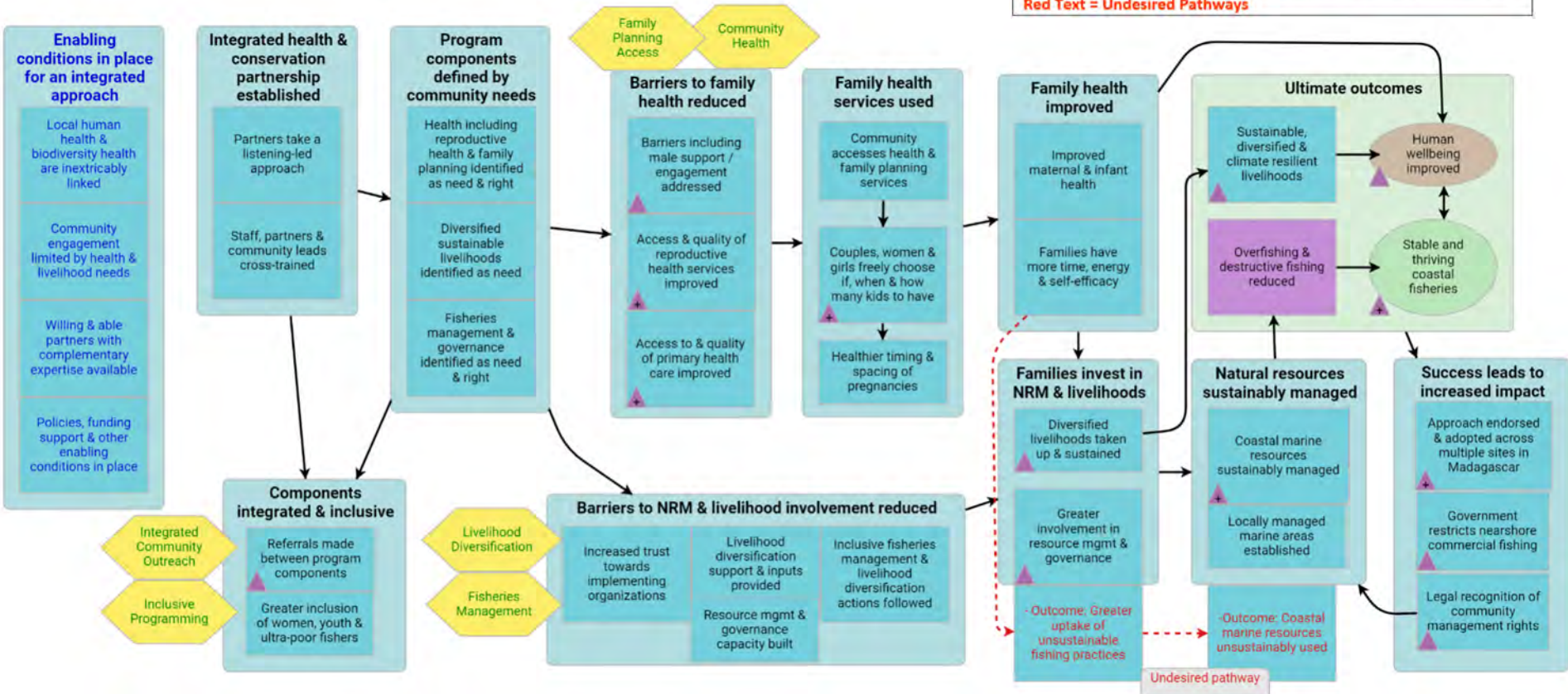
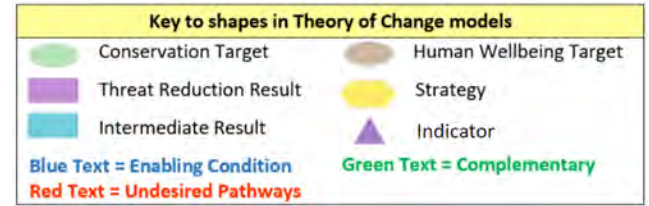
Case comparison to generic theory of change

- Focused on Coastal marine ecosystem conservation and fisheries management and governance of locally managed marine areas
- Started with a single sector focus, then through a listening-led approach, determined an integrated approach would likely have greater impacts
- Emphasized referrals between components

Case-specific lessons

- Capturing the value-added impacts of integrating health and conservation actions has been challenging.
- Identifying and collaborating with willing partners with complementary skills and similar values has been critical to success.
- Convincing donors of the value of cross-sector programming and coordination of a range of grants, program activities, and specialized staff into a coherent, well-coordinated program has been challenging.
- Being guided by community needs and cross training staff and community actors have been critical to the successes realized.

3.1.1 Case 1 - Madagascar: Blue Ventures' Integrated Health-Environment Programme



3.1.1 Case 1 - Madagascar: Blue Ventures' Integrated Health-Environment Programme

Overview of the Theory of Change (highlighted text is unique to this case)

- a. Starting on the far right hand side of the diagram, the **ultimate desired outcomes** (*green group box*) of the Blue Ventures' Integrated Health-Environment Programme are to increase the area under local management, reduce unsustainable fishing practices, and ensure a stable and thriving coastal fisheries. Simultaneously, recognizing the interdependence of coastal communities and the health of coastal fisheries, this approach aims to improve human wellbeing through improved family health and diversified livelihoods.
- b. Moving to the left side of the diagram, this integrated approach requires a number of **enabling conditions** (*blue boxes with blue text*) to be in place. There should be a direct linkage between human health and the health of the environment. Community needs assessments may reveal that community engagement in conservation and management actions are limited by their poor access to health services and livelihood diversification options. Willing partner organizations with complementary skills who recognize the importance of cross-sector approaches are needed. Finally, government, policy and funding support to secure, maintain, and, eventually, scale up the desired outcomes is needed.
- c. The first **intermediate result** (*blue boxes*) group box required is the establishment of an integrated partnership between health, conservation and other relevant partners. This partnership allows for the delivery of integrated messages and services that reach a wider and more targeted audience than would be possible through a single-sector approach. Partners need to commit to taking a listening-led approach and to cross-training.
- d. The next two **intermediate result** group boxes define the main parts of the integrated programme. The core **strategies** (*yellow hexagons*) or programme components of Family Planning Access, Community Health, Livelihood Diversification, and Fisheries Management are defined by community needs from the listening-led approach. The enabling **strategies** of Integrated Community Outreach and Inclusive Programming are central to the integrated approach to reduce barriers to engagement particularly among marginalized groups.

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3.1.1 Case 1 - Madagascar: Blue Ventures' Integrated Health-Environment Programme

Overview of the Theory of Change

- e. The health-related **intermediate results** (*five blue group boxes along the top*) illustrate how the Family Planning Access and Community Health **strategies** are meant to reduce barriers to access, see an increase in use of services, and lead to healthier families with more time, energy and self-efficacy.
- f. Along the bottom, **intermediate results** to reduce barriers to involvement are critical first steps in the Fisheries Management and Livelihood Diversification **strategies**. These include increasing trust and goodwill and seeing that gender-inclusive fisheries and livelihood actions are followed, that appropriate support is provided for livelihood diversification, and management and governance capacity is built.
- g. If families are healthier and barriers to their involvement in fisheries management and livelihood involvement are reduced, then the **intermediate result** group boxes of families investing in coastal fisheries management and livelihood diversification leading to sustainable management of coastal resources are likely to occur. Note that it is important to monitor and ensure that the **undesired results** (*blue boxes with red text*) of investing more time and energy in unsustainable practices are not realized. This undesired pathway can be mitigated through adequate support for livelihood diversification, allowing families to access food and income in environmentally sustainable ways.
- h. Finally, success from this integrated approach is expected to lead to increased impact including having the approach replicated in other locations, with government engagement by civil society platforms leading to supportive policies such as legally recognizing the management rights of communities, restricting nearshore commercial fishing and endorsing integrated health-environment approaches to conservation.

MADAGASCAR: LIST OF CASE SPECIFIC INDICATORS

Result	Indicator	Result	Indicator
Referrals made between program components	# referrals made between program components	Coastal marine resources sustainably managed	Area set aside as no-take Area under co-management
Barriers including male support / engagement addressed	Community (esp. male) attitudes towards family planning	Sustainable, diversified & climate resilient livelihoods	# with increased income from livelihoods disaggregated
Access & quality of reproductive health services improved	# of reproductive health clinics providing services # or range of reproductive health services Increase in knowledge of clinic staff	Approach endorsed & adopted across Madagascar	Gov policies encouraging uptake of HE Total area under local management Total number of LMMAs in Madagascar
Access to & quality of primary health care improved	# of completed consultations disaggregated # of service delivery points	Government restricts nearshore commercial fishing	New policies restricting commercial fishing
Couples, women & girls freely choose	# of contraceptives distributed (by type) % women & girls who report family planning needs unmet	Legal recognition of community management rights	# LMMAs legally recognized as protected areas
Diversified livelihoods taken up & sustained	# involved in livelihood action disaggregated	Goal: Stable and thriving coastal fisheries	Catch per unit effort (target species) Fish biomass (target and non-target species)
Greater involvement in resource mgmt & governance	# involved in fisheries mgmt actions disaggregated	Goal: Human wellbeing improved	Average wellbeing score

3.1.2 CASE STUDIES - Uganda



Brief introduction

The wetlands of Uganda's Rukiga District are vital for the food and water security of the local community. The same wetlands are critical nesting habitat for Uganda's national bird, the Endangered Grey Crowned Crane. These wetlands are under increasing human pressures from a growing human population needing farmland. The project seeks to establish conditions to enable long-term conservation of Grey Crowned Cranes and improved human health by responding to the interconnected challenges faced by the community.

Location of case study

Rukiga, South Western Uganda.

Project partners

Partners: Margaret Pyke Trust, International Crane Foundation / Endangered Wildlife Trust Partnership, Rugarama Hospital and London School of Hygiene & Tropical Medicine.

Donors: Department for Environment, Food & Rural Affairs' Darwin Initiative, Population Institute and Robert Luff Foundation.



3.1.2 Case 2 - Uganda: Healthy wetlands for cranes and people of Rukiga, Uganda

Case highlights

- The project aims to empower communities to conserve wetlands. Pressures on Rukiga's wetlands are an example of how lack of livelihoods, compounded by larger families than couples would choose if they had desired health services, affect biodiversity and the natural resource base, negatively impacting ecosystem health, human health, and poverty.
- The project is an example of how conservation and health organisations can work together to respond holistically to community identified interconnected challenges.
- The project is designed to evaluate the value of integration. Partners work with 8 communities; 4 where health and conservation messages and actions are integrated, and 4 where messages are separate and actions are in parallel.
- Conservation agreements are a key tool used to provide alternative sustainable livelihoods and healthcare services (reducing unplanned pregnancy), coupled with habitat restoration and soil and water conservation, enabling long-term wetland health for people and cranes.

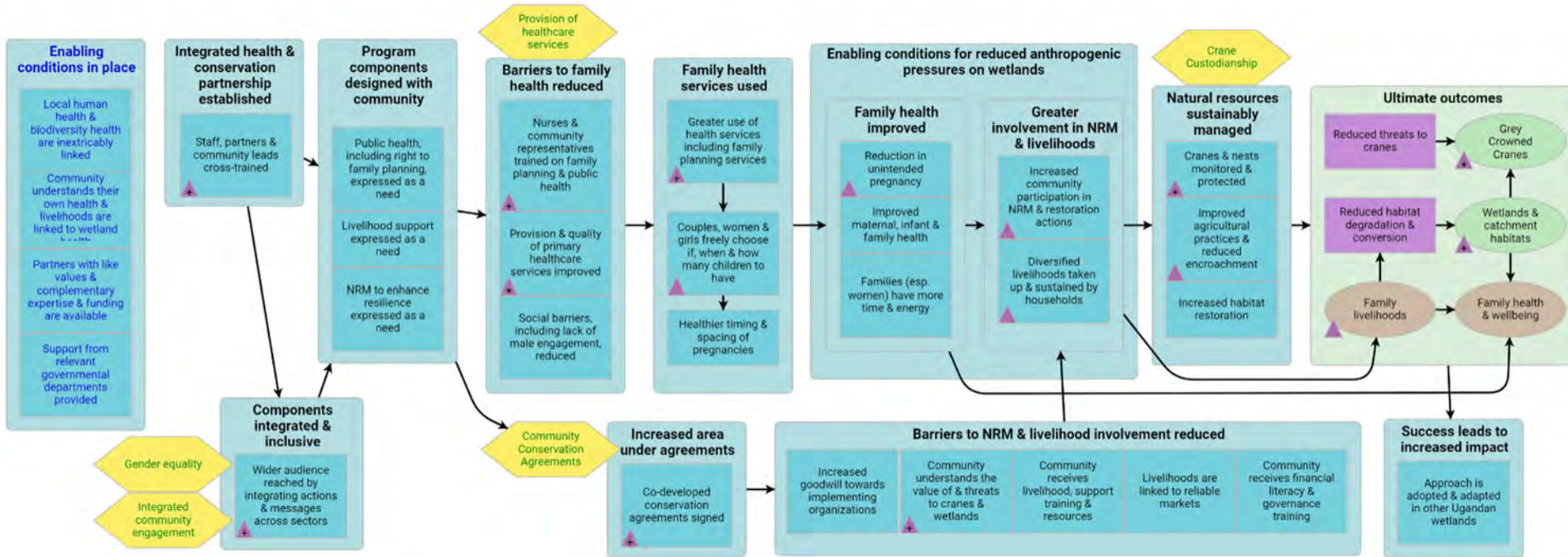
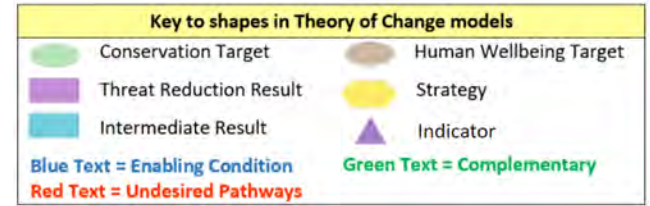
Case comparison to generic theory of change

- Specificity to wetland and catchment habitats and the Grey Crowned Crane, which serves as a powerful flagship species for securing wetlands.
- Established as an integrated approach from the start.
- Designed with controls to evaluate the value of integration against parallel single-sector approaches.
- Utilizes conservation agreements as a mechanism to gain community commitment to NRM actions in exchange for training and livelihood support.
- Community representatives play a vital role in spreading integrated messaging.

Case-specific lessons

- Designing the project to evaluate the value of integration has taken extra effort but will hopefully provide evidence to justify an integrated approach and enable increased long-term support.
- Assuring regular, clear and timely communications from all partners on planned actions has been a challenge. Properly adapting single sector programming into PHE programming requires time, detailed planning and a full understanding of the partner organization's activities.

3.1.2 Case 2 - Uganda: Healthy wetlands for cranes and people of Rukiga, Uganda



3.1.2 Case 2 - Uganda: Healthy wetlands for cranes and people of Rukiga, Uganda

Overview of the theory of change (highlighted text is unique to this case)

- a. Starting from the far right hand side of the diagram, the **ultimate desired outcomes** (*green group box*) of the Uganda PHE case study are to reduce habitat degradation and conversion of wetlands and the surrounding catchment habitats, while simultaneously reducing direct threats to Grey Crowned Cranes and benefiting human wellbeing through improved family health and the provision of diversified sustainable livelihoods.
- b. Moving to the left side of the diagram, this integrated approach requires a number of **enabling conditions** (*blue boxes with blue text*) to be in place. There should be a direct linkage between human health and the health of the environment, and this should be understood by the local communities. Multi-sectoral partners with analogous values, complementary expertise and funding should be available. Finally, support from relevant government departments should be provided.
- c. The first **intermediate result** (*blue boxes*) group box required is the establishment of an integrated health and conservation partnership. This partnership facilitates the design of the project components with community participation, and allows for the delivery of integrated messages and actions that reach a wider audience than would be possible through a single-sector approach.
- d. The following and diverting **intermediate result** group boxes describe how barriers to family health and NRM and livelihood involvement are reduced through the delivery of **supporting strategies** (yellow hexagons), including “Health care provider capacity building”, “Gender equality”, “Integrated community engagement”, and “Community Conservation Agreements”.

3.1.2 Case 2 - Uganda: Healthy wetlands for cranes and people of Rukiga, Uganda

Overview of the theory of change

- e. By reducing barriers to family health, greater use of health services, including family planning, would be expected, leading to healthier families with more time, energy and self efficiency. Simultaneously, the provision of support, training and resources for NRM and livelihood activities leads to greater involvement (of both men and women) in NRM, restoration, and livelihood activities. As community conservation agreements are co-developed and signed by both the conservation NGO and the community members involved, this contractual agreement is expected to result in increased likelihood of commitment to and support for NRM and livelihoods.
- f. If families are healthier and more involved in NRM and livelihoods, the **intermediate result** group box of natural resources sustainably managed is more likely to occur. This includes improved agricultural practices, reduced encroachment, increased habitat restoration, and through the support of the Crane Custodians strategy, increased protection and monitoring of cranes and their nests. These combined results are likely to lead to the ultimate outcomes described above.
- g. Finally, success is expected to lead to increased impact as this approach is adopted and scaled up in other Ugandan wetland regions.

UGANDA: LIST OF CASE SPECIFIC INDICATORS

Result	Indicator	Result	Indicator
Staff, partners & community leads cross-trained	# of nurses and volunteers scoring >80% on USHAPE Increase in family planning knowledge of staff	Community understands value of cranes & wetlands	Knowledge of importance of cranes & wetlands Views on the environment
Provision & quality of healthcare services improved	# of family planning outreach clinics # of visits to clinics for family planning services Increase in range of family planning methods offered	Increased community participation in NRM actions	# of households implementing desired actions
Greater use of health services including family planning	Diversity of methods used New family planning users Retention / sustained use	Diversified livelihoods sustained by households	# involved in livelihood activities by men and women
Couples, women & girls freely choose	Reduction in unmet need for family planning	Cranes & nests monitored & protected	# of Crane Custodian reports # of trained Crane Custodians
Reduction in unintended pregnancy	% reduction in unplanned pregnancies	Goal: Grey Crowned Cranes	# juvenile cranes # new nest sites # of breeding pairs / breeding success
Co-developed conservation agreements (CAs) signed	# of Community Conservation Groups registered # of ha of wetland under CAs # of ha of farmland under CAs	Goal: Wetlands & catchment habitats	Area of wetland (ha) Water clarity
		Goal: Family livelihoods	# of households benefiting from livelihoods

3.1.3 CASE STUDIES - Ethiopia

Brief introduction

The Bale Mountains EcoRegion Sustainable Management Programme aims to contribute to the conservation and sustainable development of the unique biodiversity and ecological functions of the greater Bale Mountains EcoRegion in south central Ethiopia, whilst establishing and enhancing sustainable local livelihoods, as well as primary and reproductive health. Local communities are involved in the sustainable management of the area, supported by government bodies, across the whole Bale Massif. The Bale Mountains EcoRegion is a critical watershed not only to the local communities but also to Ethiopia and neighboring countries.

Location of case study

Bale Ecoregion, South Eastern Ethiopia

Project partners

A consortium of Farm Africa (lead organization), SOS Sahel Ethiopia, International Water Management Institute, Frankfurt Zoological Society and the Population Health and Environment Ethiopia Consortium.



Photo source: John Hopkins University Global Health Now



Photo source: Woodrow Wilson International Center for Scholars

3.1.3 Case 3 - Ethiopia: Scaling out integrated and multisectoral ecoregional approach in Bale Eco-Region

Case highlights

- The overall program objective is to improve livelihoods of vulnerable people in Southern and Eastern Ethiopia while protecting the environment by tackling current unsustainable practices which threaten the long-term income and food security of people living in the region.
- This is an ecoregional approach. The approach recognizes that ecosystem functions need to be managed at a landscape scale and involve communities that depend upon resources. The approach was first piloted in seven districts and is now being scaled up across the ecoregion.
- Stakeholders all all levels were involved in regular planning and in program implementation. Local engagement occurred through cost-effective, integrated capacity building events that combined population and family planning interventions with livelihood, conservation, and protected area management approaches.
- The project has brought about significant improvements in the lives and livelihoods of the communities and in the natural environment of EcoRegion and the Ethiopian government has endorsed the PHE approach as a preferred approach to biodiversity conservation.

Case comparison to generic theory of change

- Critical watershed conservation at a regional scale for local, national and international water and food security.
- Integrated approach from the start.
- Very strong government buy-in with adoption of PHE as a national approach to biodiversity and environmental conservation.
- Emphasis on participatory management of forest & rangelands both within and outside of formal protected areas.
- Use of “gate keepers” including religious leaders.

Case-specific lessons

- Involving community members from the onset of the project (i.e. during the problem identification to evaluation phases) is crucial.
- Identifying and building on existing contexts, such as community based organizations and other existing structures, has been an important entry point..
- Involving religious leaders in dismantling long held traditional beliefs and misconceptions towards fertility and family planning is key.

3.1.4 CASE STUDIES - Ghana



Brief introduction

The Integrating Health and Family Planning into Greater Amanzule Wetland Landscape Conservation and Small Scale Fisheries Management in the Western Region of Ghana project is the first PHE project in Ghana. It is led by Hen Mpoano, a legally registered Ghanaian non-governmental organization dedicated to supporting inclusive and integrated management of coastal and marine ecosystems that generate long-term benefits to nature and people. Hen Mpoano means Our coast | Our future; it signifies the holistic understanding that ecosystems are integral to lives and livelihoods. The purpose of this project is to build local capacities for long-term conservation and management of natural resources.

Location of case study

The Greater Amanzule Wetland (GAW) landscape. This biologically rich area extends from the Ankobra estuary to the Tanoe/Ehy river on Ghana's south-western boundary with Cote d'Ivoire.

Project partners

Hen Mpoano, JSI and FHI 360. Funded by USAID



3.1.4 Case 4 - Ghana: Integrating health and family planning into Greater Amanzule Wetland landscape conservation and small-scale fisheries management in the western region of Ghana

Case highlights

- The geographical focus of the project is the 50,000-hectare Greater Amanzule Wetland landscape. The area is rich in biodiversity, serves as nesting site for marine turtles, is listed as a Key Biodiversity Area by Birdlife International, and meets the criteria for a Wetland of International Importance according to the Ramsar Convention. Residents are mostly poor and depend directly on ecosystem services from mangrove forests, estuarine/lagoon fisheries and small scale farmlands for survival.
- The landscape is covered by swamp and mangrove forest which erects physical accessibility barriers to health care and other services by inhabitants of this area. Government health provision typically does not reach these isolated communities and the nearest health facility is distant.
- There are about 30 different communities living within this landscape. This integrated PHE approach was piloted in a cluster of three closely linked communities.

Case comparison to generic theory of change

- Estuarine ecosystem conservation and fisheries management.
- Very short term application of PHE approach (11 months) onto a 10-year running project.
- Used existing trust and trained community actors to connect the community with district health outreach that was then sustained without project support.
- Piloted the PHE approach in 3 out of 30 villages in the landscape but lack funding to scale up approach.

Case-specific lessons

- Adding a family planning component to an existing environment program is a cost effective way for addressing holistic development needs of natural resources dependent communities.
- Involving men, as key influencers and potential allies, in family health actions including reproductive health and family planning was missed.
- Scaling up this successful approach is hampered only by the need for funding; communities and district governments are keen to scale up.

3.1.5 CASE STUDIES - Tanzania

Brief introduction

The Landscape Conservation in Western Tanzania project is designed to conserve forests known to be key chimpanzee habitat. The project approach focuses on community-based conservation. Key components include incorporating land use planning, improving natural resources governance and adaptation to climate change, improving environment-friendly livelihoods, and promoting rights-based reproductive health.

Location of case study

Four districts in Western Tanzania.

Project partners

The Jane Goodall Institute, Local government (district councils), Pathfinder International, Research Triangle Institute, National Land Use Commission, Tanzania Wildlife Authority, Tanzania Forest Services, Ministry of Education.



Photo source: Jane Goodall Institute



3.1.5 Case 5 - Tanzania: Landscape conservation in western Tanzania

Case highlights

- Rapid population growth (2.8% per annum) has been one of the key underlying factors for environmental degradation in the landscape resulting in increased pressure on natural resources. Therefore, addressing barriers to family planning and human reproductive health aims to reduce pressure on available natural resources. While the community did not single out reproductive health as a need, it was during strategy development that family planning as a priority was identified.
- A combination of social and biodiversity outcomes were designed to meet identified community priority needs. During a participatory assessment it was revealed that conservation was not the priority problem of the community, instead health, education, provision of clean water and access to capital were identified as needed. This led to integrating the needs of the community into the conservation initiatives so as to build trust and increase community engagement thereby allowing for increased benefits from an integrated approach.

Case comparison to generic theory of change

- Landscape-level forest conservation for chimpanzee habitat.
- Incorporation of community-based land use planning and governance.
- Important emphasis on youth environmental education.

Case-specific lessons

- Integrating the needs of the community into the conservation initiatives builds trust and increases community engagement.
- Integrating health and conservation action not only improved project credibility, it also reduced project operation costs.
- Establishing open and regular communication with the community and local partners, and involving those stakeholders in strategic planning early on, enabled successes.
- Ensuring timely and inclusive communications to address issues and concerns as they emerged was important..

3.2 Results - Case Comparison

What is common among the cases?

There are important similarities between the five cases that may be common across many PHE projects. These include the following:

- The biodiversity/environment goals justify project location and scale
- Population pressure is a driver of environmental degradation and poor health & there is a high unmet need for family planning
- Project components are designed in consultation with and based on community needs
- Components include actions to support for sustainable / climate adapted and diversified livelihoods
- Components include NRM often including restoration actions
- Components include health actions including reproductive health and family planning
- Components include gender equity actions
- Components include capacity building for community groups and often capacity building for local government
- Projects make use of individual community members to deliver messages and act as change agents



What is distinct about the cases?

This table summarizes some of the unique attributes of each case study

Case study	Biodiversity focus	Duration	Scale	Unique to design
1- Madagascar	Coastal marine ecosystem	Project began in 2007. Health integrated in 2010.	One Local Marine Managed Area (LMMA); approach scaled up to dozens of LMMAs	Fisheries management & governance Listening-led approach Emphasis on referrals between components
2 - Uganda	Wetlands as habitat for cranes	Project began in 2020. Integrated health from start. Planned for 5+ yrs	Eight villages within one district	Designed to evaluate the value of integration Use of conservation agreements as a central tool
3 - Ethiopia	Watershed of int'l importance for water security	Project >8 years. Health integrated from start. In second phase.	Landscape approach to scale pilot to additional seven districts	Strong government buy-in to PHE Emphasis on participatory management Use of "gate keepers" including religious leaders
4 - Ghana	Estuarine / nearshore marine ecosystem	Project >10 years. Health integrated in 2019 for less than 1 year.	Three communities of thirty in landscape of concern	Very short-term investment in health integration Used existing trust & trained community actors Connected district health agents to community Lack funding to scale up approach
5 - Tanzania	Forests as habitat for chimpanzees	Project began in 2018. Integrated health from start.	Landscape approach across four districts	Emphasis on community land-use planning & governance Emphasis on youth environmental education

3.3 Results - Changes to generic TOC model

Adaptation of the “Integrating Reproductive Health & Family Planning into Conservation Action” TOC

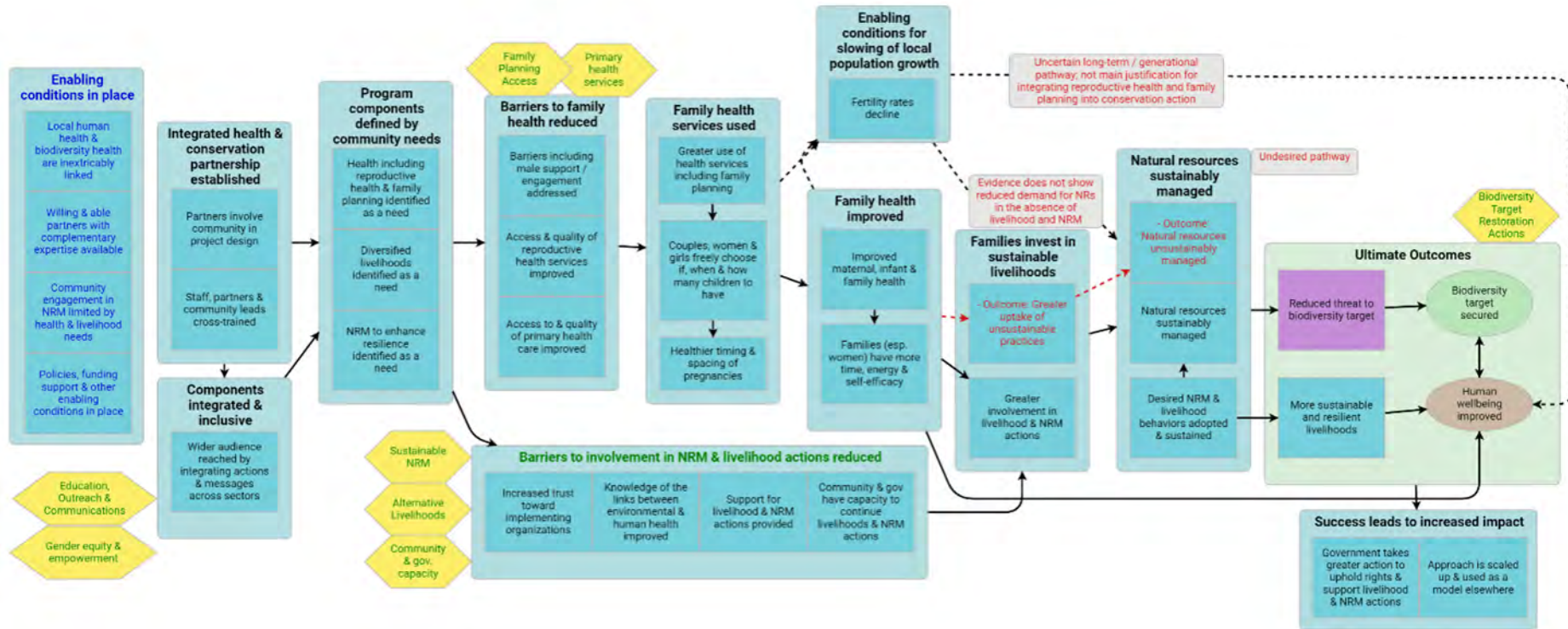
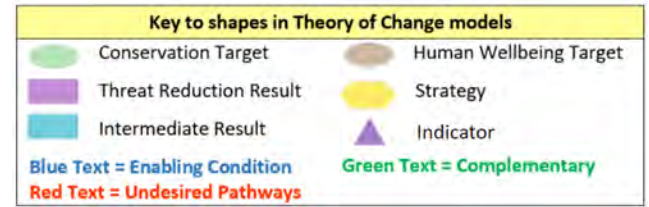
From the five case studies, we went back to the generic TOC and adapted it. Mostly we added factors that were missing. Note that the original 2020 version of the generic TOC was developed specifically to show the added value of including a reproductive health and family planning component to an integrated health and conservation program; therefore, the family planning component was drawn out more than other components. The cases put equal emphasis on all components. This adapted version is more reflective of the full set of components and anticipated results in a PHE program.

Key changes

- Addition of high-level result “project components defined by community needs”.
- Addition of high-level result “project components integrated & inclusive” with an emphasis on referrals between components.
- Addition of the importance of building the capacity of community groups and government entities to continue NRM and livelihood work without intervention.
- Addition of the desire to have the project impacts scaled up in other areas and to have greater government support.



3.2.1 (adapted) Integrating Reproductive Health & Family Planning into Conservation Action



3.2.2 Integrating Reproductive Health & Family Planning into Conservation Action

Overview of the theory of change

- a. The main theory in this diagram is represented in the group boxes with black text. Group boxes with blue text are enabling conditions and those with green text are contributing results supported by other integrated strategies.
- b. The **ultimate desired outcomes** (*green group box*) are to reduce threats to biodiversity, while ensuring that natural resources are sustainably managed, biodiversity is conserved, and ecosystem services are maintained. Simultaneously, this approach aims to improve human health, particularly reproductive health, and achieve more sustainable and resilient livelihoods for local people.
- c. Moving to the left side of the diagram, this integrated approach requires a number of **enabling conditions** (*blue boxes with blue text*) to be in place for it to be relevant and successful. There should be a direct linkage between human health and the health of the environment, i.e. communities are directly dependent on natural resources and the ecosystem services they provide. Willing and able partners with the relevant expertise should be available. Community engagement in NRM and conservation action is limited by access to basic and reproductive health services and sustainable livelihood opportunities. Finally, government, policy and funding support for the desired outcomes should be secured.
- d. The first **intermediate result** (*blue boxes with black text*) group boxes required for this approach to be effective includes the establishment of an integrated partnership between health, conservation and other relevant partners. This partnership allows for components to be integrated and inclusive facilitating the delivery of integrated messages and services that reach a wider and more targeted audience than would be possible through a single-sector approach.
- e. The following intermediate result describes how program components should be defined by community need from the onset. Health, including reproductive health and family planning, diversified livelihoods and NRM to enhance resilience should be identified by the community as priority needs.

3.2.2 Integrating Reproductive Health & Family Planning into Conservation Action

Overview of the theory of change

- f. A critical initial stage in this integrated approach includes the intermediate results to remove barriers; barriers restricting access to health and family planning services, and equitable involvement in natural resource management, and sustainable livelihoods.
- g. The supporting **strategies** (*yellow hexagons with green text*) of “Education, outreach and communication” and “Gender equity and empowerment” help remove barriers and improve knowledge and appreciation of the linkages between population growth, human health, and the environment that sustains both human wellbeing as well as biodiversity.
- h. The **intermediate results** describe how reducing barriers to family health leads to the use of family health services, which allows couples, women and girls to choose whether, when and how many children to have. This is expected to lead to healthier timing and spacing of pregnancies, which improves family health. Families, especially women will have more time and energy to engage in livelihood and natural resource management opportunities.
- i. Integrated supporting **strategies** engage community members in sustainable livelihoods and natural resource management such that the **undesired results** (*blue boxes with red text*) of investing more time and energy in unsustainable practices are not realized.
- j. There is uncertainty (*dotted arrow*) about whether healthier families and healthier timing and spacing of pregnancies results in a long-term decline in the fertility rate. Additionally, a decline in the fertility rate may not result in reduced demand for natural resources.
- k. The integrated **strategies** (*yellow hexagons with green text*) necessary to achieve desired outcomes will be situation dependent and are not limited to the eight illustrated.

3.4 Results - Outreach plan

Purpose of outreach plan

As part of the continuation of the 2020 CMP PHE Learning Initiative, key contributors work together to develop and implement an outreach and engagement plan. The plan has helped to increase and improve how the 2020 PHE Learning Initiative findings, tools and resources are shared within CMP, the wider conservation and donor communities, as well as with other sectors. The plan streamlines engagement opportunities, helps coordinate preparation and facilitation of those opportunities, and stores completed outreach event information and recordings. This plan identifies various channels for sharing PHE Learning Initiative results, including through virtual and in-person events, online dissemination, and through publications showcasing learnings and outcomes. The full outreach plan with hyperlinks to recordings can be found in the [Appendix](#).

Key partners

- Margaret Pyke Trust and IUCN Task Force
- WWF, Conservation International, and Africa Biodiversity Collaborative Group (ABCG)
- Population Reference Bureau
- International Crane Foundation
- Endangered Wildlife Trust
- PHE Ethiopia Network
- USAID
- Jane Goodall Institute
- WWF-CARE Alliance



4. Discussion

Key Findings from the Learning



Photo source: Jane Goodall Institute

4.1 Discussion - Evidence

Summary of case evidence toward the generic TOC

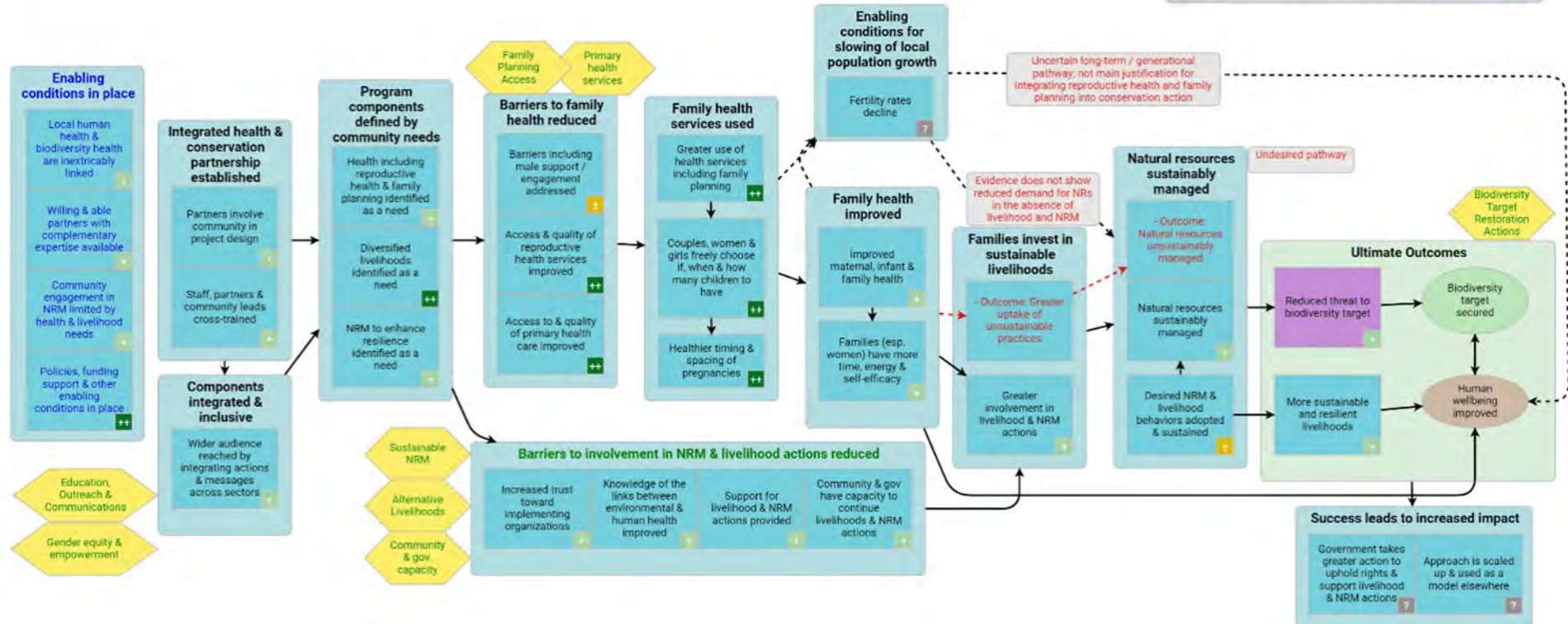
- Most results have good evidence from the case studies (particularly the longer running cases). Note that case informants were involved in both the 2020 and 2021 learning initiative, so the generic TOC was developed with their lessons in mind.
- Strong evidence exists that integrating conservation and health actions leads to increased stakeholder reach. Not only do the partners have the ability to reach different sectors of the community, but integrated messaging and referral systems increase involvement in all components. It should also be noted that all of these cases had explicit strategies around gender and inclusion.
- There is strong evidence that integrating health with conservation action leads to greater trust and greater involvement in NRM and livelihood actions.
- Strong evidence exists that adding a health component leads to improved family health, and that reducing barriers to family planning leads to improved family health. These both lead to more time, energy and self-efficacy.
- There is strong evidence that integration of health and conservation action leads to greater women involvement in NRM and livelihood actions. This can, in part, be explained by improved health and increased time and energy, but may also be attributed to explicit strategies to increase women engagement.
- Mixed evidence exists that increased involvement in NRM and increased uptake of diversified livelihoods leads to reduced pressure on the natural resources.
- Mixed evidence exists to verify that communities and local partners sustain the NRM and livelihood actions in the absence of intervention.
- There is some negative evidence that increase time, energy and self-efficacy can lead to greater environmentally unsustainable actions; however, with attention to livelihood support and community governance, this can be minimized.



4.1.1 (adapted) Integrating Reproductive Health & Family Planning into Conservation Action

Adapted TOC with dashboard evidence report on results

Key	
All case evidence verifies assumption	+++
Some case evidence exists to verify assumption	++
Contradictory case evidence exists	+
All case evidence contradicts assumption	-
Evidence was not assessed to verify this assumption	?



4.1.2 Key to interpreting evidence slides

This key is to be used in conjunction with the slides below

Relevant part of TOC being considered



Key question

4.1.2 Evidence toward the generic PHE TOC

Are these the health-related results achieved in implementation?

Each row is one desired result

Results	Summary of Evidence from 5 Cases	Example evidence from cases
Barriers including male support / engagement addressed	Contradictory case evidence exists: three of five cases had evidence to confirm that the participation in discussions, knowledge sharing, and support of men around family planning and reproductive health increased.	In Ghana, the project did not explicitly include men from the onset as potential allies for family planning adoption. The project documented that the lack of inclusion of men hindered family planning adoption in certain circumstances.
Access & quality of reproductive health services improved	All case evidence verifies assumption. All five cases had empirical evidence to confirm that barriers to family planning were identified and reduced.	In Madagascar, a full range of short-acting contraceptive options is now available from community health workers based permanently in all villages across the Velondriake locally managed marine area with long-acting options offered on a quarterly basis in partnership with Marie Stopes Madagascar.
Access to & quality of primary health care improved	All case evidence verifies assumption. All five cases had empirical evidence to confirm that barriers to family health were identified and reduced.	In Madagascar, interviews revealed that women using health services were experiencing better physical and mental health, and a greater sense of control over their lives.
Greater use of health services including family planning	All case evidence verifies assumption: all five cases had empirical evidence to confirm that the uptake of health services in focus community groups increased.	In Madagascar, modern contraception use among sexually active women of reproductive age increased from 25 percent in 2009 to 59 percent in 2013 according to Blue Ventures' social survey data.
Couples, women & girls freely choose if, when & how many children to have	All case evidence verifies assumption: All five cases had either empirical (1) or anecdotal (4) evidence to confirm that improved family planning services and knowledge led to the healthier timing and spacing of pregnancies in focus communities.	In Tanzania, case study evidence indicated a reduced number of children born to families benefiting from family health services.

Cell colors indicate evidence from case studies:

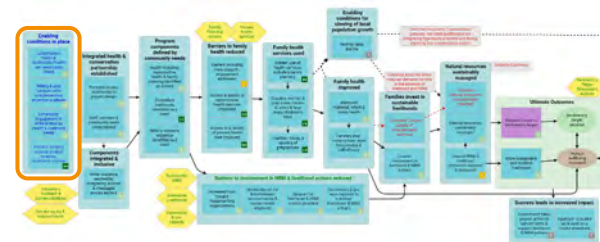
- All case evidence verifies assumption (dark green)
- Some case evidence exists to verify assumption (light green)
- Contradictory case evidence exists (yellow)
- Evidence was not assessed to verify this assumption (gray)

This column is a summary of the evidence from all five cases

This column captures some of the case specific evidence

4.1.2 Evidence toward the generic PHE TOC

Are these the enabling conditions for an effective PHE program?



Results	Summary of Evidence from 5 Cases	Example evidence from cases
Local human health & biodiversity health linked	Some evidence exists to verify assumption: at least two cases had empirical evidence to verify that local human health and biodiversity health are inextricably linked. Evidence was not assessed for this assumption in the other cases.	It is commonly accepted and documented in the scientific literature that the environment and biodiversity supports human and societal needs, including food and nutrition security, energy, development of medicines and pharmaceuticals and freshwater, which together underpin good health.
Willing & able partners with complementary expertise	Some case evidence exists to verify assumption: four of five cases confirmed that a strong strategic partnership between at least one conservation organisation and at least one human health organisation was in place. One case worked collaboratively with health institutions rather than through a strategic partnership framework.	In Uganda, a tripartite project agreement exists between Margaret Pyke Trust, Rugarama Hospital and the International Crane Foundation. In Ghana, there was not an explicit partnership. However, Hen Mpoano catalyzed engagement with the community and delivery of district health services.
Community engagement in NRM limited by health & livelihoods	Some evidence exists to verify assumption: at least one case had empirical evidence to verify that engagement in NRM and conservation action is limited by health and livelihood needs.	In Madagascar, community focus group discussions highlighted unmet health needs and economic barriers to engagement in marine management.
Policies, funding & other enabling conditions in place	All case evidence verifies assumption: all five cases had empirical evidence to confirm that local government agencies, traditional authorities and community leaders supported the initiative from the onset of the project.	In Uganda, two years prior to the implementation of the project, the partners conducted extensive scoping activities that included team meetings with all relevant community structures and stakeholders (District Health Officer for the Kabale region, community leaders, teachers and headmasters, and religious leaders) to gain their input and support.

4.1.2 Evidence toward the generic PHE TOC

Are these important results in the design of a PHE program?



Results	Summary of Evidence from 5 Cases	Example evidence from cases
Community involved in project design	Some evidence exists to verify assumption: at least three cases had empirical evidence to verify that project design was a collaborative approach between multi-sectoral partners and community members. The remaining cases were not assessed for evidence linked to this assumption.	In Uganda, planning sessions with Local Council Leaders of the Sub-Counties and Parishes were undertaken. These enabled the project to get further buy-in and support and to identify the eight community groups for the focus of project activities.
Staff, partners & community leads cross trained	Some evidence exists to verify assumption: at least three cases had evidence to verify that staff, partners and community leads received integrated conservation and health training. The remaining cases were not assessed for evidence linked to this assumption.	In Madagascar, longitudinal survey data indicated increased staff, partner, and community understanding and appreciation of the connections between environmental and human health, including agreement with the statement that voluntary uptake of family planning services may help to support sufficient availability of natural resources for everyone.
Wider audience reached through integration	Some evidence exists to verify assumption: three cases had evidence to verify that a wider audience was reached as a result of the multi-sectoral partnership and the integrated integration of actions and messaging. The remaining cases were not assessed for evidence linked to this assumption.	In Madagascar, community member engagement was supported through referrals to connected programme activities.

4.1.2 Evidence toward the generic PHE TOC

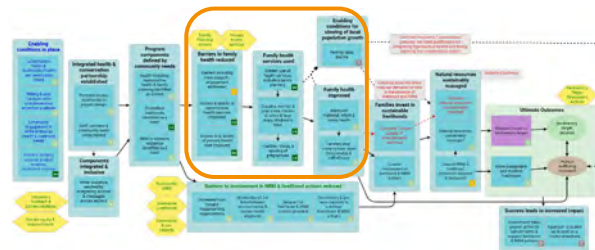
Are these the main components in the design of a PHE program?



Results	Summary of Evidence from 5 Cases	Example evidence from cases
Health & family planning identified as need	Some case evidence exists to verify assumption: four of five cases had evidence to confirm that during the planning phase, some or all focal community groups identified reproductive health and family planning as a need. In one case, reproductive health was not singled out as a need during the initial planning phase of the project, but was later identified by the community.	In Uganda, all focal community groups identified reproductive health and family planning as a need during one-to-one interviews in project communities. In addition, during qualitative baseline data collection in project communities, 28 focus group discussions and 40 key informant interviews were conducted with men and women that identified specific issues relating to reproductive health and family planning.
Diverse livelihoods identified as need	All case evidence verifies assumption: all five cases had empirical (4) or anecdotal (1) evidence to confirm that during the project planning phase, some or all focal community groups identified alternative, sustainable livelihoods as a need.	In Tanzania, communities identified the need to access capital for small enterprises and businesses.
NRM identified as needs	Some evidence exists to verify assumption: at least two cases had evidence to verify that NRM was identified by either the community or the government to enhance resilience. In these cases NRM actions were aligned with the government's mandate to conserve and restore ecosystem services. The remaining cases were not assessed for evidence linked to this assumption.	In Uganda, communities identified techniques such as trenching (a cultural practice that is now less frequently applied) and the removal of exotic <i>Eucalyptus</i> trees as an urgent NRM need in order to improve resilience.

4.1.2 Evidence toward the generic PHE TOC

Are these the health-related results achieved in implementation?

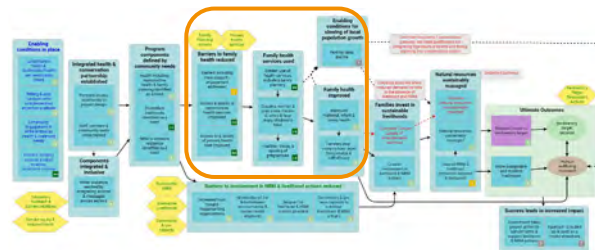


Results	Summary of Evidence from 5 Cases	Example evidence from cases
Barriers including male support / engagement addressed	Contradictory case evidence exists: three of five cases had evidence to confirm that the participation in discussions, knowledge sharing, and support of men around family planning and reproductive health increased.	In Ghana, the project did not explicitly include men from the onset as potential allies for family planning adoption. The project documented that the lack of inclusion of men hindered family planning adoption in certain circumstances.
Access & quality of reproductive health services improved	All case evidence verifies assumption: All five cases had empirical evidence to confirm that barriers to family planning were identified and reduced.	In Madagascar, a full range of short-acting contraceptive options is now available from community health workers based permanently in all villages across the Velondriake locally managed marine area with long-acting options offered on a quarterly basis in partnership with Marie Stopes Madagascar.
Access to & quality of primary health care improved	All case evidence verifies assumption: All five cases had empirical evidence to confirm that barriers to family health were identified and reduced.	In Madagascar, interviews revealed that women using health services were experiencing better physical and mental health, and a greater sense of control over their lives.
Greater use of health services including family planning	All case evidence verifies assumption: all five cases had empirical evidence to confirm that the uptake of health services in focus community groups increased.	In Madagascar, modern contraception use among sexually active women of reproductive age increased from 25 percent in 2009 to 59 percent in 2013 according to Blue Ventures' social survey data.
Couples, women & girls freely choose if, when & how many children to have	All case evidence verifies assumption: All five cases had either empirical (1) or anecdotal (4) evidence to confirm that improved family planning services and knowledge led to the healthier timing and spacing of pregnancies in focus communities.	In Tanzania, case study evidence indicated a reduced number of children born to families benefiting from family health services.

[Continued on next slide]

4.1.2 Evidence toward the generic PHE TOC

Are these the health-related results achieved in implementation?



Results	Summary of Evidence from 5 Cases	Example evidence from cases
Healthier timing & spacing of pregnancies	All case evidence verifies assumption: All five cases had either empirical (1) or anecdotal (4) evidence to confirm that improved family planning services and knowledge led to the healthier timing and spacing of pregnancies in focus communities.	In Madagascar, interviews revealed family planning users appreciated the ability to plan and space their pregnancies through the use of modern contraception.
Fertility rates decline	Case evidence was not assessed to verify this assumption.	-
Improved maternal, infant & family health	Some case evidence exists to verify assumption: four of five cases had evidence to confirm that improved family planning services and knowledge led to healthier families in focus communities. In one case it was too early to expect evidence to verify assumption.	In Madagascar, empirical evidence in the form of interviews revealed that family planning users appreciating experiencing better physical and mental health, and being better able to care for their children including in terms of food and healthcare.
Families (esp. women) have more time, energy & self-efficacy	Some case evidence exists to verify assumption: four of five cases had either empirical (1) or anecdotal (3) evidence to confirm that increased uptake of family planning and reproductive health services resulted in women having more time and energy available. In one case it was too early to expect evidence to verify assumption.	In Tanzania, reports have shown more women participating in sustainable livelihood activities, family planning, tree planting and beekeeping.

4.1.2 Evidence toward the generic PHE TOC

Are these the NRM & livelihood-related results achieved in implementation?



Results	Summary of Evidence from 5 Cases	Example evidence from cases
Increased trust toward implementing organizations	Some case evidence exists to verify assumption: four of five cases had either empirical (2) or anecdotal (2) evidence to verify that community attitudes towards participating (and other) environmental organization improved. In one case it was too early to expect evidence to verify assumption.	In Madagascar, there was some empirical evidence from integrated social surveys demonstrating appreciation of Blue Ventures' presence and programme. However these attitudes were not uniform among all community members particularly among those who had not directly participated in or benefited from the programme.
Knowledge of the links between environmental & human health improved	Some case evidence exists to verify assumption: four of five cases had empirical (2) or anecdotal (2) evidence to verify that community knowledge of the links between environmental quality and human health improved. In one case it was too early to expect evidence to verify assumption.	In Tanzania, recent assessments have indicated that members of the community can explain the relationship between health and environment.
Support for livelihood & NRM actions provided	All case evidence verifies assumption: all cases had empirical or anecdotal evidence to verify that focus communities received support, training & resources for livelihood & NRM actions	In Uganda, community members received financial literacy & governance training to support the sustainability of their livelihood initiatives.
Community & gov have capacity to continue livelihoods & NRM actions	Some evidence exists to verify assumption: at least three cases had evidence to verify that community and government capacity to sustain NRM and livelihood actions improved. The remaining cases were not assessed for evidence linked to this assumption.	In Ethiopia, government staff capacity regarding knowledge, attitude and practice towards NRM improved as a result of the project intervention. The project ensured 63% of the government departments incorporated environmental issues and its priorities into their annual plans.

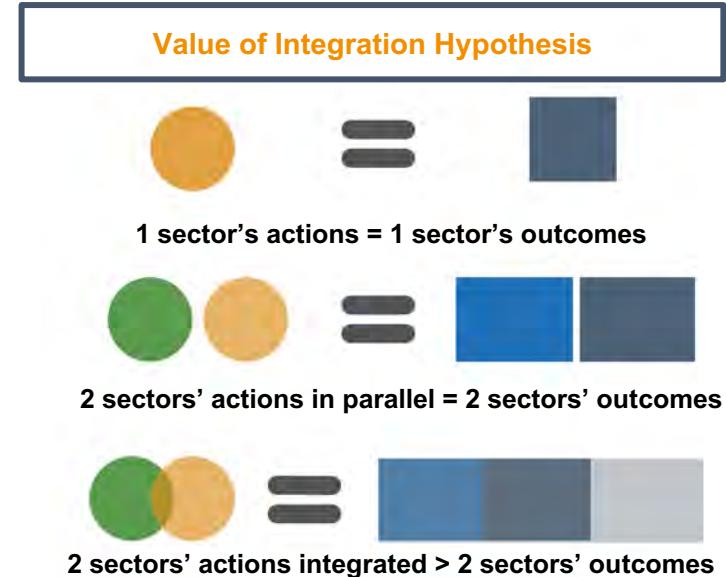
4.2 Discussion - Value of Integration

What is the value of integration?

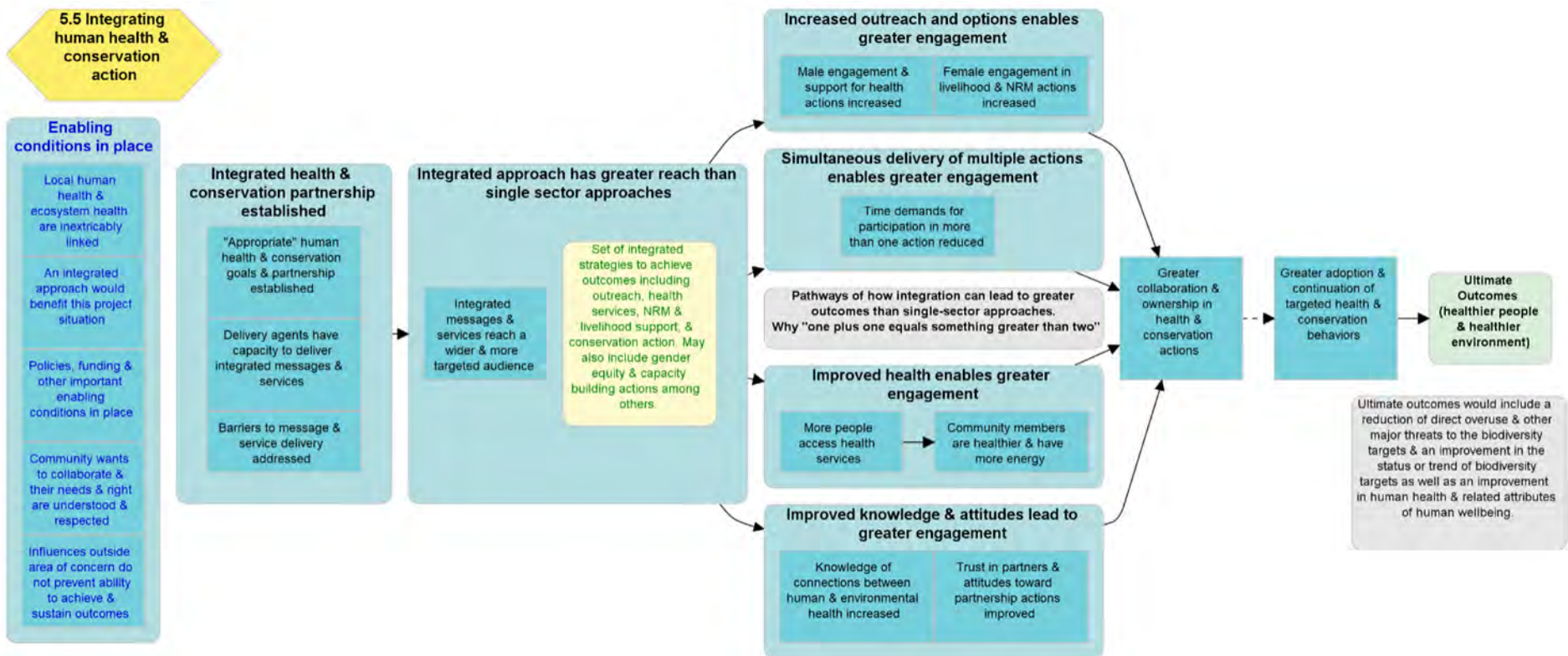
Integrating actions across sectors in a multi-disciplined partnership adds complexity and often costs in terms of time, resources, and funding. In 2020, we identified that one of the greatest barriers to adoption of PHE approaches is funding; particularly funding for the integration as opposed to compartmentalized funding by sector. Being able to demonstrate that integration of conservation and health actions leads to greater impacts as compared to single sector approaches operating in isolation or in parallel in the same area but not in an integrated way, will help to justify the investment in these approaches.

In 2020, we had developed a separate TOC model to show the added value of integration. The “**Integrating Human Health & Conservation Action**” TOC depicted and summarized on the following slides, illustrates various pathways that may enable an integrated conservation and health approach to have greater and longer lasting conservation impacts than non-integrated approaches.

We use evidence from the cases to further investigate these pathways in the table to follow.



4.2.1 Integrating Human Health & Conservation Action



4.2.1 Integrating Human Health & Conservation Action

Overview of the Theory of Change

- a. The **ultimate desired outcomes** (*green box*) are to achieve a reduction in direct overharvesting of local natural resources and major threats to biodiversity, as well as an improvement in human health & related attributes of human wellbeing.
- b. Moving to the left side of the diagram, a number of **enabling conditions** (*blue boxes with blue text*) need to be in place for this integrated approach to be relevant and effective. These include a direct linkage between human and environmental health; government, policy and funding support for the desired outcomes; expressed interest and needs by the community; and, the fact that influences from outside of the area of concern do not prevent the ability to achieve outcomes.
- c. The first two group boxes of **intermediate results** (*blue boxes with black text*) required for this approach to be effective include the establishment of an integrated partnership between health, conservation and other relevant partners. This partnership allows for the delivery of integrated messages and services that reach a wider and more targeted audience than would be possible through a single-sector approach.
- d. The **intermediate results** that follow represent the different pathways that may lead to greater engagement in health, natural resource management, livelihood, and conservation actions than may be possible in non-integrated single-sector approaches. These pathways may include improved health, improved knowledge and attitudes, increased outreach, increased opportunities, and/or maximized time with community.
- e. The **intermediate result** of greater engagement is assumed to lead to greater adoption and continuation of desired behaviors leading to the ultimate outcomes. The dashed line indicates an important assumption that requires more evidence.
- f. As **outcomes** are realized, improved community value of and ownership over desired behaviors creates a feedback loop that reinforces behavior change and leads to greater and sustained outcomes that benefit both people and the environment.

4.2.2 Key Findings on Value of Integration

This table summarizes pathway evidence that integration leads to greater conservation-related outcomes

Pathway	Evidence that pathway leads to greater impacts (overall and by case)						How pathway has worked	Actions to support outcomes
	All	1	2	3	4	5		
Wider reach	some	yes	yes	yes	mix	no info	More members of community engaged. Partners brought abilities to reach new sectors of the community. Exception is in Ghana where health sector had no previous access to the community. More staff across partnership reach more members of community. Project design included actions to engage women and more vulnerable populations.	Select partners with existing connections and trust within the community. Cross-train staff. Include gender and inclusion actions.
Increased outreach	some	yes	yes	yes	mix	no info	Greater support for women's health and involvement. Greater male support for women, their health and role in environmental solutions when connections made during NRM & livelihood actions and when men involved in health discussions. Exception is Ghana where men were not involved in health action at the start and this became a barrier.	Integrate messages. Involve men in health and family planning outreach.
Increased opportunities	yes	yes	yes	yes	yes	yes	More women involved in environmental solutions. Greater involvement of women in NRM & livelihoods when connections made during health visits and with direct efforts to increase women involvement.	Integrate messages. Conduct simultaneous trainings, service provision, etc. Set up referral programs.

[Continued on next slide]



Pathway	Evidence that pathway leads to greater impacts (overall and by case)						How pathway has worked	Actions to support outcomes
	All	1	2	3	4	5		
Increased knowledge of connections	yes	yes	too soon	yes	yes	yes	<p>Community more committed to environmental solutions.</p> <p>Increased knowledge of connections led to changes in attitudes and subsequent increased investment in NRM actions. Case leads noted that communities think holistically and understand implicitly that their wellbeing is connected to the environment.</p>	Respect existing knowledge of connections. Design outreach and education with community involvement. Involve community in monitoring and share results.
Improved attitudes	yes	yes	too soon	yes	yes	yes	<p>Increased involvement in environmental solutions.</p> <p>Including community in project planning, having community needs define program components, adding a health component, transparent & frequent communications, working to address governance rights, etc. improved trust and increased involvement.</p> <p>In Ghana, trust was already high among the focal communities; however, integration of a health component increased trust of surrounding communities and allowed opportunities for scale up.</p>	Involve community all the way through. Establish frequent, dependable, and open communication. Help community address impacts coming from outside.
Improved health	yes	yes	too soon	yes	yes	yes	<p>Women more involved in environmental solutions.</p> <p>Improved health (including reduction in unintended pregnancies) freed up women to engage more in NRM & livelihood actions and community leadership. It should be noted that significant health improvements can be achieved without integration and with only parallel health actions.</p>	Partner with health sector to address pressing needs and reduce barriers to family planning.
Maximized time	no info	no info	no info	yes	no info	yes	<p>Increased involvement in environment solutions.</p> <p>Offering programming at the same time in the same places allowed community members more time to invest in NRM actions. Note that our survey questions and interviews with case leads did not explicitly address this pathway.</p>	Conduct simultaneous trainings, services, and engagement opportunities.



5. Conclusions

Recommendations and
Next Steps

Photo source: Blue Ventures | Garth Cripps

5.1 Conclusion

Summary of lessons learned

In 2020 we focused on providing better clarity for the conservation sector on what a PHE approach is and better understanding of the barriers to adopting a PHE approach. This learning has focused on confirming our understanding of PHE and testing assumptions with evidence from real world cases. Toward that end, we refined the generic TOC, reported on evidence along the adapted TOC, and provided two case-specific TOCs as examples of PHE projects at different stages and in different contexts.

Through this learning we have confirmed that the adapted generic TOC is a good reflection of real world PHE projects (or at least the five we investigated). We have confirmed that, particularly in the longer-running PHE projects, that results are being achieved as expected including evidence that results are leading to the achievement of ultimate desired outcomes. We have further investigated key pathways where case examples have seen the integration of health and conservation action lead to greater impacts.

Although few, these cases report real benefits from taking a PHE approach. In particular, they have all realized increased involvement of the community and especially of women in solutions that reduce biodiversity threats, restore ecosystem functions, and improve human wellbeing.

To better document and provide evidence toward the added value of integrating health and conservation action, ideally PHE projects would be designed to be able to compare results between integrated actions and non-integrated actions, either before and after integration or with controls, such as has been done in the design of Case 2 - Uganda. Additionally, PHE monitoring would track not just increase in involvement, but also how desired actions are sustained over time, including after outside intervention.

The following table summarizes recommendations that arose from the work with case lead during this second year of learning.

NOTE: There are a great many other resources to support PHE design and implementation. The curated [PHE resource list](#) for the conservation sector is a great place to look for more guidance.



5.1 Conclusions - Recommendations

Recommendations to improve success of a PHE approach and evaluate value of integration

Stage	Recommendation
Partnership Formation	Involve multiple sectors/partners with similar values and complementary skills (and funding if possible) and coordinate with them well. Crosstrain staff and key government and community agents to understand and deliver integrated messages.
Design	Involve the community from the beginning. Assure transparent, regular, and dependable communications with community, partners and other key stakeholders. Make sure to consider the most vulnerable.
	Be open-minded and adaptable; allow the project components to be defined by community needs and to shift as the situation and priorities change.
	Consider an exit strategy during design. Include appropriate capacity building & governance support to enable local actors to continue actions without intervention.
Implementation	Build on existing contexts, such as community groups, government extension agents, etc. Build their capacity to continue project components post outside funding. Use community champions as change agents, including religious and community leaders.
	Involve men in reproductive health and family planning discussions from the start. Use various means to dispel myths, misconceptions, and stigmas associated with family planning. Make sure family planning options are affordable into the future.
	Work at different geographic and time scales as needed for different components.
M&E	During project design, plan for how added value of integration will be measured.



Photo source: NTRI/Roshni Lodhia



5.2 Conclusions - Next Steps



Immediate Next Steps

The immediate next steps involve further outreach:

- (1) Paper to be submitted to Journal of Conservation Science and Practice. This product will be finalized in 2022 and will include products and a summary of learning from both the 2020 and 2021 PHE Learning Initiatives.
- (1) A CMP Webinar in 2022. This webinar will take place early next year to discuss our learning from this 2021 initiative
- (1) Continued interaction with the IUCN Task Force on family planning and related outreach opportunities.





Who can and cannot use a monthly injectable

Most women can safely use this injectable



But usually cannot use this injectable if:

- Smokes heavily AND age 35 or older
- High blood pressure
- Gave birth in the last 3 weeks
- Breastfeeding 6 months or less
- May be pregnant
- Some other serious health conditions

6. Appendix

Additional Information Supporting the Learning Initiative Findings

6.1 Appendix 1 - Full case narrative links and CAML entries

Case study	Project name	Lead implementing organisation	Narrative link	CAML status
1 - Madagascar*	Blue Ventures' integrated health-environment programme	Blue Ventures Conservation	Click here	Final
2 - Uganda*	Healthy wetlands for the cranes and people of Rukiga, Uganda	Margaret Pyke Trust	Click here	Final
3 - Ethiopia	Scaling Out Integrated and Multisectoral Ecoregional Approach In Bale Eco-Region	FARMAFRICA	Click here	Draft
4 - Ghana	Integrating Health and Family Planning into Greater Amanzule Wetland Landscape Conservation and Small Scale Fisheries Management in the Western Region of Ghana	Hen Mpoano	Click here	N/A
5 - Tanzania	Landscape Conservation in Western Tanzania	The Jane Goodall Institute	Click here	N/A



6.2 Appendix 2 - Outreach plan

Event	Date	Lead	Target audience	Brief description and other partners
Webinar: What's new in PHE?	July 22, 2021	ABCG	Conservation community, PHE community	<p>Panel discussion on recent activities relating to global Population, Health and Environment (PHE) with implications for Africa's biodiversity, hosted by the USAID-supported Africa Biodiversity Collaborative Group. By linking conservation and family planning activities, communities and policymakers can mitigate impacts and provide compensation for biodiversity loss to deliver positive conservation outcomes.</p> <p>Panelists include:</p> <ul style="list-style-type: none"> • Margaret Pyke Trust and the IUCN task • Conservation Measures Partnership (CMP) PHE Learning Initiative leaders • ABCG PHE task members Conservation International, with World Wildlife Fund-US and the Jane Goodall Institute
Webinar: ABCG PHE Approaches and Benefits for Conservation	August 2021	ABCG	ABCG members and conservation member organization staff	<ul style="list-style-type: none"> • Overview PHE approach and successes in Africa • ABCG PHE task activities • Overview PHE reference sheet • Recommended next steps



Event	Date	Lead	Target audience	Brief description and other partners
People-Planet Connection Community Dialogue	August-Sept 2021	PRB, Knowledge SUCCESS	Climate Change, Gender, and PHE communities	Launch of Dialogue feature on new USAID-supported People-Planet Connection site. Community moderated discussion led by PACE and Knowledge SUCCESS on linkages between gender and climate change.
National Population Councils Regional Coordination Group: PHE Roundtable	August 2021	PRB	National Population Councils in Eastern and Western Africa	Roundtable update of NPC's roles in national-level PHE networks in East and Western Africa, with presentation on updates in PHE including CMP convening tools and resources.
Webinar: PHE Approaches and Lessons Learned	August 23, 2021	ABCG	USAID missions in West and Central, East and Southern Africa, ABCG members and conservation member organization staff	<ul style="list-style-type: none"> ● Overview PHE approach and ABCG PHE task activities ● PRB's 2021 World Population Data Sheet and PHE connections in Africa (10 minutes) – Tess McCloud, PRB ● Successes in Africa - PHE Ethiopia (Negash Tekla) ● Overview PHE reference sheet ● Recommended next steps
Philippines PHE Network Conference	Sept 2021	Philippines PHE Network, PRB	Southeast Asia PHE actors and conservation partners	Virtual convening of Philippines PHE Network and Southeast Asian partners to highlight learnings and adaptations to PHE in Philippines and in the region during the COVID-19 pandemic.

Event	Date	Lead	Target audience	Brief description and other partners
IUCN World Conservation Congress: Biodiversity and Family Planning events	Sept 2021	IUCN Task Force, Margaret Pyke Trust	Wider conservation donor and partner community	Hybrid virtual/in-person events led by IUCN task force on reducing barriers to family planning for biodiversity conservation.*May be pulled out of events.* MPT - Speaker pitch with slides, text, videos may still be possible. Janet, Cheryl, Clive to do speaker pitch as well.
CCNet Africa Gathering	Oct 2021	Claire, CCNet coaches, Tess McLoud	African conservation practitioners using the Conservation Standards	Tess McLoud (Policy Advisor at the Population Reference Bureau (PRB)) presented on the highlights from PRB's 2021 World Population Datasheet, and how this data can be used to inform conservation in Africa, especially with regards to Population, Health & Environment (PHE or integrated reproductive health and conservation) approaches. The presentation is available here.
PHE Policy and Practice Group Meeting	Sept 2021 (tentative)	TBD PHE P&P member; PRB	PHE Policy & Practice Group	Quarterly (now transitioning to every other monthly) meeting of PHE Policy & Practice community to discuss current themes and updates in PHE
ABCG PHE End of Project Brown Bag	Sept 2021	ABCG	USAID/Washington and Africa missions, donors ABCG members and conservation member organization staff	4 speakers with recommendations for donors and PHE projects in the coming years (TBD)
COP26 and pre-COP26 events	Oct-Nov 2021	Margaret Pyke Trust, FP2030, Project Drawdown, PRB	Wider climate change donor and partner community	Hybrid virtual/in-person events around UN climate change conference. UK Govt hosting pre-COP RH and environment event - bring in conservation players. Climate and health conference pre-COP

Event	Date	Lead	Target audience	Brief description and other partners
CCNet virtual rally	Oct 2021	Claire Relton, David Johnson & Kat Lloyd	Global conservation practitioners using the Conservation Standards	Virtual keynote talk at the Conservation Coaches Network global 2021 rally, titled: the increasing recognition to barriers to family planning as a conservation issue.
Webinar: Mises à Jour en Santé, Population, Environnement	Oct 2021 (tentative)	PRB, FP/Earth	Francophone conservation and PHE community	Webinar in French to feature projects, partners, and resources in the Francophone space in PHE.
CMP webinar	Feb 2022	CMP Initiative members	CMP members, CCNet	Closing webinar to present findings - potential to target non-PHE communities