Bhutan for Life

PROSPECTUS

"The problems facing the world today—they challenge all of us equally. And the solutions to these challenges must come from a real sense of concern and care for others, for all sentient beings and, for future generations. We must care about what happens to this earth."

His Majesty Jigme Singye Namgyel Wangchuck, King of Bhutan
His Majesty's Address at Keio University, Japan (2011)

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On the cover: *Rheum nobile*, a flowering species of rhubarb native to the Himalaya.

EXECUTIVE SUMMARY

BHUTAN FOR LIFE

Bhutan is at a pivotal moment in its history. Nestled in the Himalayas, this small country has long held a deep commitment to conservation. Its mountains, forests, and rivers nourish diverse species and sustain Bhutan's predominately rural population. The country's Gross National Happiness philosophy upholds environmental protection as fundamental to national wellbeing, and its constitution mandates that a minimum of 60 percent of the country remain under forest cover. More recently, the country made a bold commitment to remain carbon neutral forever.

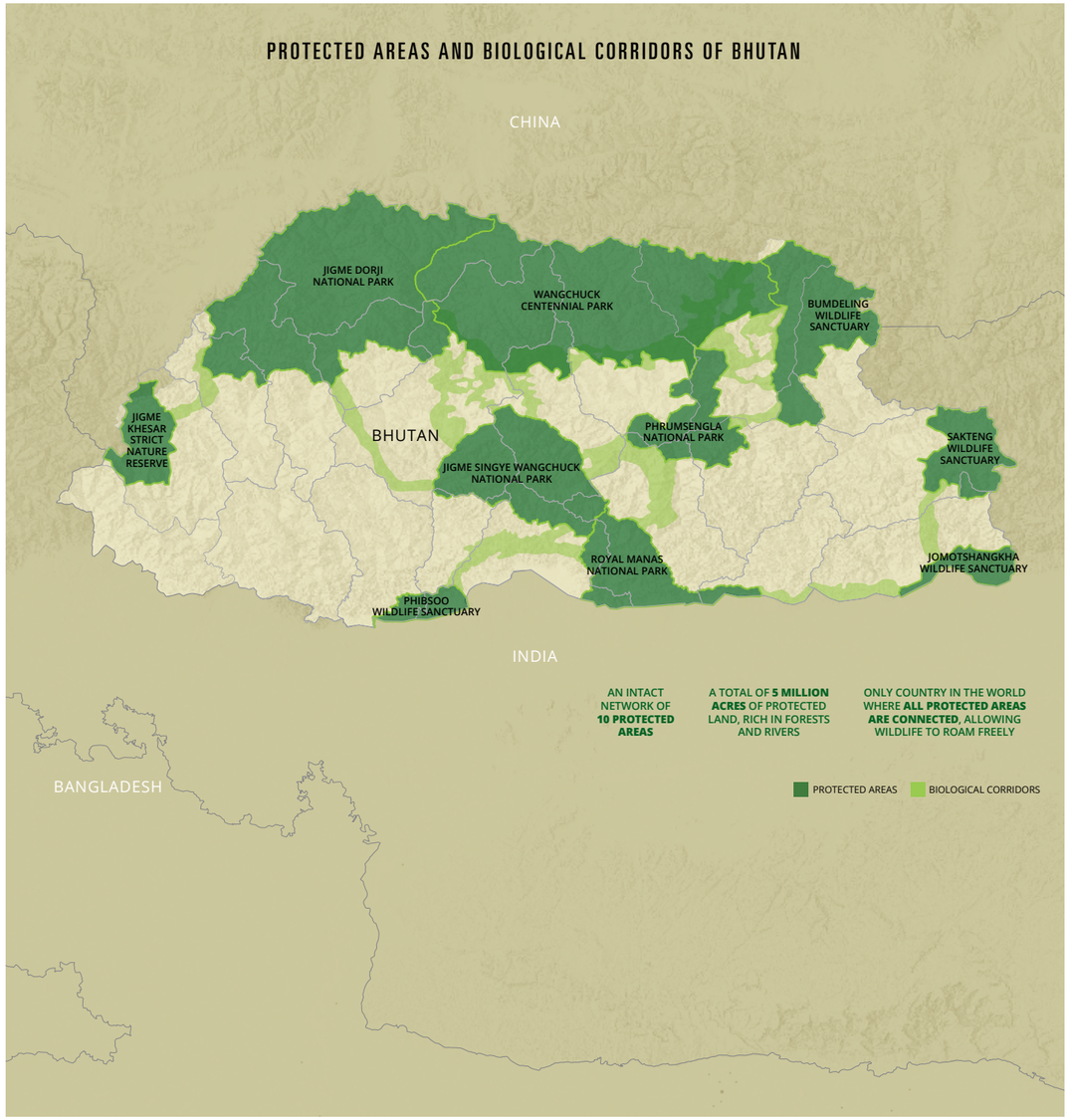
As it opens its doors to modernity, Bhutan confronts a new reality. It's young and growing population is faced with challenges of unemployment, poverty, and a lack of modern infrastructure. Climate change and rising demand for resources are bringing unprecedented threats to the environment. This once relatively isolated kingdom is changing quickly.

Within this shifting context, new possibilities emerge. For investors interested in long-term conservation impacts, Bhutan today presents an exceptional set of favorable conditions. Few nations on Earth have managed to protect their natural wealth in the way that Bhutan has, and fewer still share its dedication to conservation in the future. A young and politically stable democracy, it is eager to enact systems that will benefit all life within its borders—from trees to wildlife to people. It has a rare opportunity to chart a unique development path that entwines protection of the environment with economic growth. In doing so, it can grow into a model for the world.

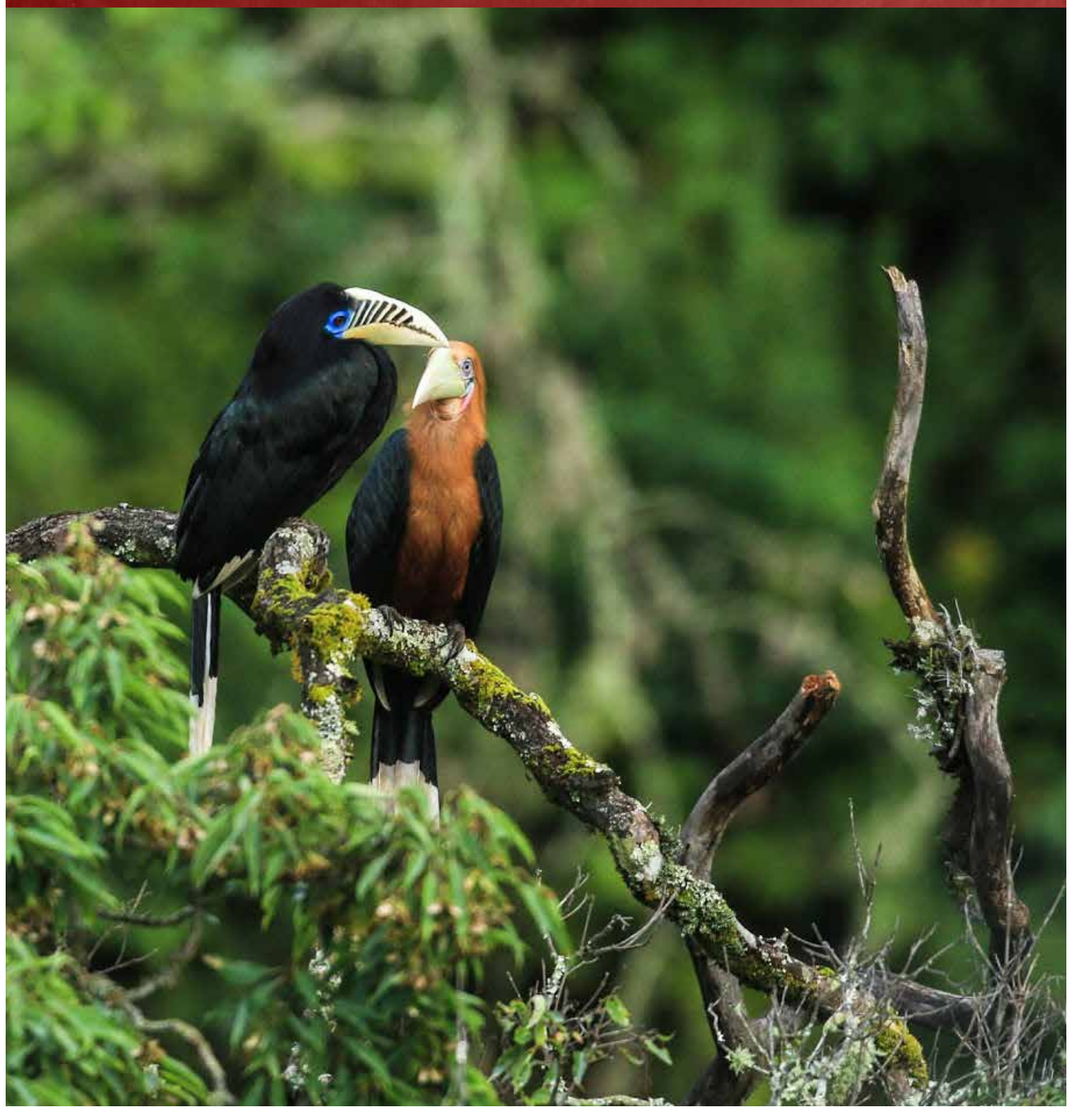
To make this a reality, the Royal Government of Bhutan and WWF are pursuing a *project finance for permanence* (PFP) model. PFP is **an innovative approach to sustainably finance the long-term protection of important ecosystems** around the world. Borrowing tactics from private finance, one of its trademarks is a single closing deal in which all partners come together to sign and agree to full funding. It offers governments of developing countries a transition fund over an agreed time frame, giving them time to build up capacity and organize internal funding sources to manage protected areas in perpetuity.

Known as Bhutan for Life, the initiative will provide Bhutan's government with a $40 million transition fund until 2030 to build up and effectively manage a robust network of protected areas and wildlife corridors, covering 51 percent of the country. This network will protect and restore wildlife—including endangered elephants, tigers, elusive snow leopards, and critically endangered white-bellied herons; contribute to rural economic development and the wellbeing of Bhutan's people; and support robust climate mitigation and adaptation measures. The impacts will extend far beyond Bhutan's borders to the millions of people who rely on the region's rivers, and will elevate Bhutan across the world as an example of permanent forest protection and climate resilience.

We welcome new partners and investors to join us in supporting the future of this small nation with a big heart.



Bhutan's protected areas make up 51 percent of the country, harboring diverse wildlife and sustaining local communities.



BACKGROUND

FEW PLACES ON EARTH SHARE THE DEPTH OF BHUTAN'S COMMITMENT TO CONSERVING NATURE

More than 70 percent of Bhutan is covered with forest—one of the highest proportions of any country in Asia—and the country boasts a 5-million-acre network of protected land rich in mountain forests, pristine rivers, and thriving wildlife such as tigers, snow leopards, and elephants. Bhutan sits in the heart of the Eastern Himalayas—one of the world's 10 most biodiverse regions.

Bhutan's forests are not only important as habitat for wildlife, but also as necessary defenses as the country grapples with increased impacts from climate change. Forests help reduce run-off, improve groundwater recharge, reduce erosion, and improve water quality. Some 69 percent of Bhutan's population lives in rural areas, and forests and surrounding landscapes underpin their livelihoods, providing food, shelter and income.

Bhutan's environment also benefits the region and the world by providing clean water, clean air, and carbon sequestration. Bhutan's rivers, which flow into neighboring India and Bangladesh, are part of a network of rivers emanating from Asia's "water towers" that provide water for one-fifth of the world's population. Its forests sequester more than 6 million tons of carbon dioxide annually—four times more than what Bhutan emits. **Bhutan has committed to remaining carbon-neutral forever.**

Bhutan's current conservation and biodiversity status is a result of the far-sighted vision and leadership of its kings and the country's centuries-long tradition of living in harmony with nature. The Royal Government of Bhutan further strengthened its commitment in the 1970s by formally adopting the development philosophy of Gross National Happiness, envisioned by the fourth king, which includes environmental conservation as one of its four pillars. More recently, Bhutan has made robust commitments to the United Nations Sustainable Development Goals, especially those relating to environmental sustainability, poverty alleviation, food security, and water quality, and the Convention on Biological Diversity Aichi targets.

Bhutan's protected area network, which encompasses 10 protected areas all linked by biological corridors, covers more than 51 percent of the country. These landscapes contain a vast repository of ecosystems, species, and genetic diversity, and play a critical role in supporting socioeconomic and environmental health within and around Bhutan. **The protected area system is especially critical to the country's climate resilience, providing the connectivity between habitats and refugia that these ecosystems and species will need to adapt to ever-increasing temperatures and climate change impacts.**

But Bhutan's natural resources are more threatened now than ever before, despite the government's political will and impressive conservation milestones. As it opens up to the world, the country has changed more in the last 50 years than the past 500 years combined. Rapid modernization, the adoption of democracy, and a significant shift in demographics have all contributed to a country in transition. Today, 60 percent of the country's population is below the age of 34. Natural resources are exploited as new industries are created and existing ones grow to meet the needs of a rapidly growing population. There are fewer stewards of the land in rural areas, as people move to cities and larger towns in search of the perceived and real comforts of modernity. And, as in other Himalayan countries, the impacts of climate change are growing and expected to be particularly severe in this region. At the same time, serious threats are coming from outside Bhutan's borders, resulting in increased illegal extraction of natural resources and poaching of wildlife. These incursions are increasing both in frequency and impact, such that Bhutan's current enforcement capacity is being overwhelmed.

According to UN, World Bank and Asian Development Bank analyses, Bhutan is a low middle income developing country faced with severe constraints due to its small size, landlocked location, extremely rugged terrain, and limited resources. Most of Bhutan's population is engaged in subsistence farming and forestry, and Bhutan's largest export is hydropower sales to India. Environmentally conscientious tourism is also an expanding sector.

Bhutan is heavily dependent on foreign aid to support its development. In recent years foreign aid (mostly from India) represented one quarter of Bhutan's government expenditure, or more than half of public investment, and about 10 percent of the country's GDP. Foreign lending was equivalent to 60 percent of the GDP, and debt services recently accounted for more than 10 percent of total exports.

Given the current economic scenario, it will be challenging to undertake Bhutan for Life without an injection of private and public grants to bridge the current conservation gap, which would give the country time to steadily ratchet up its own financial commitments.

The world recognizes the extraordinary value of Bhutan's rare natural assets and the difficult realities the Royal Government and Bhutan's people are facing as they strive to skillfully fuse sacred values and traditions with the challenges of poverty and development in the 21st century. **Bhutan for Life offers a unique opportunity for public and private investors to help carve a path forward that both upholds the protection of nature and invigorates economic development for Bhutan's people.**

A young democracy, Bhutan faces challenges from a growing population, poverty, climate change and increasing threats to its natural riches from beyond its borders. Now is a critical time for the country.

BHUTAN FOR LIFE BY THE NUMBERS

60%
OF BHUTAN'S POPULATION IS UNDER THE AGE OF 34

$15.5B
IN ECOSYSTEM SERVICES IS GENERATED IN BHUTAN EACH YEAR

70%
OF BHUTAN IS COVERED BY FOREST

1/5TH
OF WORLD'S POPULATION DEPENDS ON THE HIMALAYAN REGION'S RIVERS FOR WATER

200
SPECIES OF MAMMALS LIVE IN BHUTAN, INCLUDING TIGERS, RED PANDAS, AND GOLDEN LANGURS

700
BIRD SPECIES LIVE IN BHUTAN, INCLUDING THE WHITE-BELLIED HERON

5M
ACRES OF LAND PROTECTED (51% OF THE COUNTRY)

15%
OF THE TOTAL POPULATION LIVES WITHIN 10KM OF PROTECTED AREAS

69%
OF THE POPULATION LIVES IN RURAL AREAS

Biodiversity

Bhutan's protected area network is one of the most comprehensive in the world—ranging from tropical grasslands and forests in the southern foothills, through temperate forests in the central mountains, to high alpine meadows. It is home to 200 mammal species, including tigers, and 700 species of birds.

People

About 69 percent of Bhutan's population lives in rural areas. Poverty is prevalent, and rural families are heavily dependent on natural resources to fulfill basic needs. More than 60 percent of the country is under 34, and many young people are moving to cities to find work, leaving fewer stewards of the land in rural areas..

Economy

The economy of Bhutan is based on agriculture and forestry. Bhutan's hydropower potential and its growing attraction as a tourist destination are key resources. Bhutan for Life will protect the country's watersheds, supporting agriculture and hydropower, and encourage the growth of ecotourism to advance conservation and sustainable economic development.

THE MODEL

BHUTAN FOR LIFE USES AN INNOVATIVE APPROACH BORROWED FROM THE WORLD OF FINANCE

Setting aside land as a protected area is one of the most certain and powerful ways to conserve the health of an ecosystem and secure benefits for local people. Bhutan has a robust network of protected areas that spans 5 million acres, but these parks are still quite young, with most having been established in the 1990s. Due to resource shortages, Bhutan's protected areas lack infrastructure and adequate numbers of trained staff.

Project Finance for Permanence (PFP) is a key part of the solution to these challenges. PFP, which is adapted from a common private finance practice, is a means for permanent and full funding of conservation areas. **A signature component of the PFP approach is a single closing that delivers pledged funds when conditions for permanence are met, which serves to motivate the parties and draw out new resources and commitments. PFP initiatives address an issue often seen in the conservation community: piecemeal or insufficient funding for the management of conservation areas.**

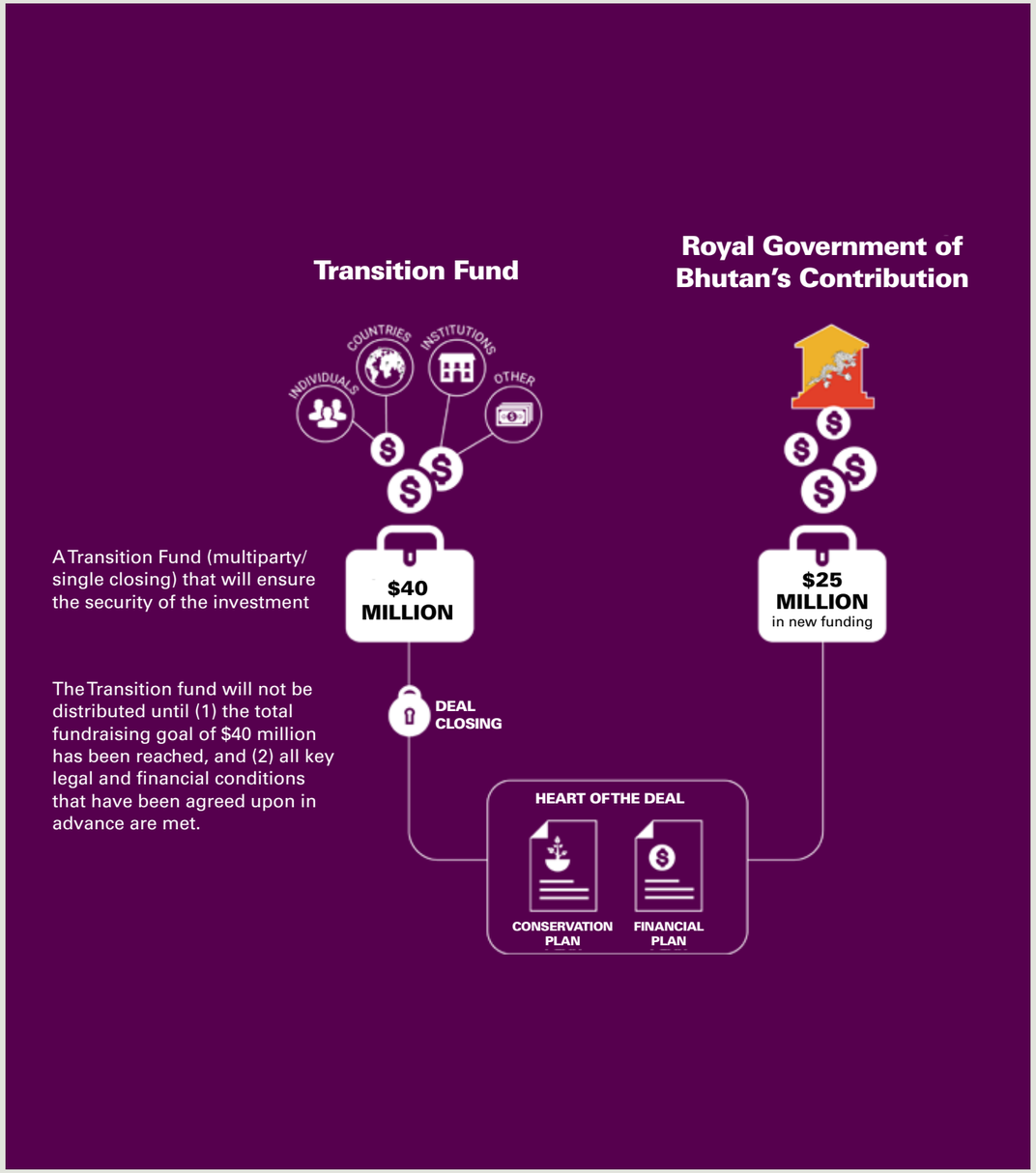
PFP has a growing track record of securing the benefits provided by conservation areas over the long-term. WWF sees scaling up this approach as urgent, given the threats of rapid species decline, deforestation, climate change, and resource depletion facing the planet. Bhutan for Life is part of a global strategy to strategically increase the number and accelerate the pace of PFP initiatives.

Bhutan for Life is modeled in part on the success of ARPA for Life—the largest PFP to date, orchestrated by the government of Brazil, WWF, and a diverse group of partners from public and private sectors. In 2014, ARPA for Life created a $215 million fund to permanently protect 150 million acres of Brazilian Amazon rainforest—a landmark win for conservation.

Bhutan presents highly favorable conditions for the PFP model, including high levels of government transparency, political stability, a leadership deeply committed to conservation, an economy that will directly benefit from the ecosystem services protected areas provide, a developing ecotourism industry, and a national ethos that upholds reverence for the environment. The initiative will likewise benefits from WWF's partnership and experience with successful PFP initiatives in Brazil and elsewhere. Bhutan for Life will be the first PFP initiative in Asia and, as such, can provide a model for other Asian countries to follow.

Bhutan for Life has developed a detailed conservation plan that outlines expected conservation and socioeconomic outcomes over the life of the transition fund: from 2017 through 2030. In accordance with the PFP approach, the Bhutan for Life transition fund will only be launched when the total fundraising commitment target has been reached and all key legal and financial conditions necessary to secure the deal are in place.

A board consisting of donors, WWF, government, and other partners will oversee the transition fund and disburse funds each year, as long as predetermined conditions, including conservation milestones and financial transparency, continue to be met. This ensures that all financial needs to cover activities are committed from the start, and creates financial incentives to minimize the risk of partners not meeting their obligations throughout implementation. At the end of the transition fund, the Royal Government of Bhutan will assume full responsibility for financing the protected area system in perpetuity.



EVOLUTION

2030 — Bhutan for Life transition fund completes and the Royal government of Bhutan assumes full responsibility for sustainable financing

2025 — 80 percent of households within Bhutan's protected areas have access to nature-based employment

2020 — Wild tiger populations in Bhutan have increased by at least 20 percent over 2015 levels

2018 — From here onwards, Bhutan's protected areas sequester 2.6 million tons of C02 annually

2017 — Bhutan for Life transition fund officially closes

2016 — Royal Government of Bhutan completes Bhutan for Life conservation plan and Prime Minister Tobgay delivers a TED talk on Bhutan's commitment

2015 — WWF CEO Carter Roberts and Prime Minister Tshering Tobgay conduct multi-city tour to present Bhutan for Life

2014 — Royal Government of Bhutan and WWF sign MoU to begin conservation and finance planning

2013 — Bhutan for Life conceived with early start-up funding

IMPACTS

BHUTAN FOR LIFE'S IMPACTS WILL DIRECTLY CONTRIBUTE TO THE ACHIEVEMENT OF THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

BENEFITS FOR NATURE

Unlike piecemeal conservation projects that invest in one park for a few years, Bhutan for Life offers a far-sighted solution for the permanent protection of the country's entire 5-million-acre network of protected areas. It is an approach designed to deliver measurable and long-term benefits.

Bhutan for Life will protect the country's vital watersheds, forests, and ecosystem services. By 2018, more than 2.7 million acres of forest will be maintained within Bhutan's protected areas, sequestering 2.6 million tons of CO_2 each year. By 2022, at least one stretch of river of high conservation, economic and cultural value will be designated as free-flowing and managed for conservation and climate resilience. By 2023, protected area and biological corridor management plans will incorporate climate change mitigation and adaptation strategies. Bhutan for Life will ensure that all protected areas and biological corridors are furthermore equipped with the necessary staff, infrastructure, and technology to conserve these valuable assets over the long-term.

The Bhutan for Life transition fund will increase populations of two flagship species by 2022, including increasing tiger numbers by 20 percent over 2015 levels. By 2018, all of Bhutan's protected areas and biological corridors will have established the zero poaching framework and instituted SMART (Spatial Monitoring and Reporting Tool) to radically improve patrolling effectiveness. By 2022, we expect to see significant improvements in the management of protected areas, with conservation plans developed for 10 additional priority species.

BENEFITS FOR PEOPLE

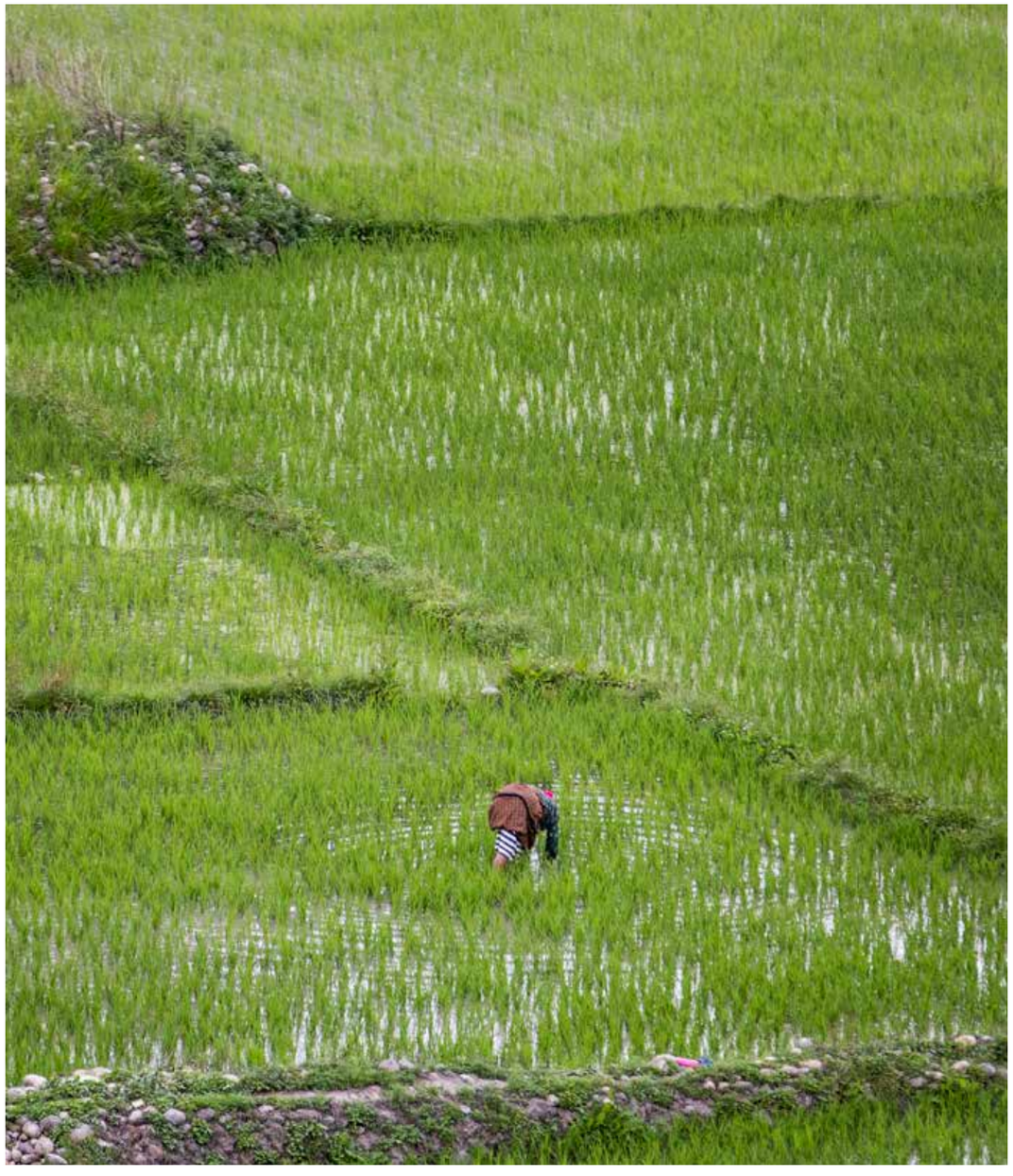
Bhutan for Life will conserve the country's natural assets in active partnership with local people. There are 35,000 people living within the protected area network, most of whom depend on natural resources for their livelihoods. In addition, approximately 110,000 people living in rural areas less than 10 km from protected area borders, and half Bhutan's population living in rural areas downstream benefit from an array of ecosystem services that protected areas provide. Bhutan for Life will work directly with local communities to develop sustainable, climate-resilient land management that enshrines traditional knowledge. Bhutan for Life will also directly support sustainable economic development. An initial estimate of the total value of the country's ecosystem services is about $15.5 billion per year—approximately five times the country's GDP. Two emerging industries—hydropower and tourism—depend heavily on natural resources.

Ecotourism and nature-based business models will be created for all protected areas based on sound market assessments, conservation gains, planning, and multi-stakeholder engagement. By 2025, Bhutan for Life aims to see 80 percent of households within protected areas with access to nature-based employment and income-generating opportunities. Because conflict between communities and wildlife is a growing issue, Bhutan for Life will ensure that 80 percent of households living within protected areas benefit from reduced human-wildlife conflict by 2020 as a result of adoption of human-wildlife conflict prevention strategies.

As importantly, Bhutan for Life will work with communities living within protected areas to increase their resilience to climate change and disasters, employing both traditional knowledge and the best available science. This will be complemented by climate-smart reforestation efforts.

UNITED NATIONS DEVELOPMENT GOALS SUPPORTED BY BHUTAN FOR LIFE

NATIONAL AND GLOBAL BENEFITS



CONSERVATION PLAN

If action is not taken now to address the challenges Bhutan is facing, there is no guarantee that Bhutan's forests will remain intact. The country is at risk of losing or degrading the forests and other natural resources it has worked so hard to protect. The project finance for permanence (PFP) approach offers a proven model that provides long-term protection of Bhutan's network of protected areas. In one agreement, it mobilizes the governmental, financial, and other commitments needed to develop Bhutan's network of protected areas and maintain it forever.

But to be successful and to ultimately realize the Bhutan for Life vision—that the people of Bhutan preserve their natural heritage to benefit the country and the planet for posterity—the Bhutan for Life PFP effort includes a set of specific, measureable, time-bound conservation and socioeconomic milestones and supporting activities. To achieve these milestones, we have developed a conservation plan centered on a guiding mission and five themes.

MISSION AND FIVE THEMES

Ensure a robust network of protected areas and biological corridors in Bhutan (representing more than 51% of the country) that secures human well-being and biodiversity conservation, and increases climate resilience by serving as a:

1. Sanctuary for the diversity and persistence of life
2. Purveyor of sustainable, resilient ecosystem goods and services
3. Reservoir for carbon and adaptation to climate change
4. Center of economic opportunity and community well-being
5. Center of effective management and efficient services

Within the five themes, there are 6 goals and 15 milestones that encompass the overarching outcomes of Bhutan for Life, as described on the following pages.

THEME 1

SANCTUARY FOR THE DIVERSITY AND PERSISTENCE OF LIFE

MAINTAIN STABLE AND THRIVING POPULATIONS OF KEY SPECIES[1]

To achieve this first goal, conservation experts need to ensure that wildlife have enough food, space to roam, and protection against threats. They also need to understand the impacts of climate change on species and their habitats, so that they can develop climate-smart conservation strategies specifically for those species.

To protect species against threats of poaching and other illegal activities, protected area staff need appropriate skills and equipment to conduct effective law enforcement such as SMART[2] patrolling, crime detection, anti-poaching operations, and crime scene investigation. Informant networks, communications systems, and enforcement capacity must be strengthened for police officers and other officials. Finally, it is also critical to enhance inter-agency and bilateral cooperation (in particular with India) and information sharing regarding illegal wildlife trade.

This first goal includes the following key milestones:

MILESTONE 1: By 2022, populations of tigers and snow leopards—two flagship species that represent major ecosystems—are increased (tigers by at least 20% over 2015 levels).

MILESTONE 2: By 2022, information on the conservation status of ten other high-profile, lesser known, endangered or endemic flora and fauna species established, and five climate-smart species conservation plans developed.

MILESTONE 3: By 2018, Zero Poaching Framework and SMART/effective patrolling instituted in all protected areas to prevent, combat and monitor poaching, wildlife trade, and other illegal activities.

MAINTAIN HABITAT AND ECOSYSTEM DIVERSITY AND CONTIGUITY

This second goal includes assessing the rate and extent of habitat fragmentation and degradation due to climate change and other anthropogenic causes in order to designate high biodiversity habitats, degraded lands, and climate refugia. Studies will also provide critical information to recommend revision of biological corridors that link protected areas to one another, to ensure their functionality under changing future scenarios. Protected area staff will undertake various habitat management activities including invasive species inventory and control; restoration of grasslands and alpine meadows; improvements to riverbanks, wetlands and Ramsar Sites; and provision of climate-smart training and equipment for protected area staff to prevent, monitor, and respond to forest fires. Experts will also develop green and climate-smart design/construction principles for building infrastructure in and around protected areas. These principles will be applied to new construction, helping limit impacts of poor infrastructure planning on key ecosystem services.

This second goal has one associated milestone:

MILESTONE 4: By 2022, key high biodiversity and climate resilience value habitats (and areas that connect them) are under improved management.

[1] Criteria will be established to select (in addition to tigers and snow leopards) the five species for which conservation plans will be developed.

[2] SMART (Spatial Monitoring and Reporting Tool) is a suite of best practices and data collection and analysis tools that help protected area and wildlife managers better monitor, evaluate and adaptively manage patrolling activities.

Bhutan for Life will support increasing populations of key species, including tigers and snow leopards.

THEME 2

PURVEYOR OF SUSTAINABLE, RESILIENT ECOSYSTEM GOODS AND SERVICES

The single goal under Theme 2 is that the protected area network provides sustained ecosystem services for socioeconomic and ecological well-being.

IDENTIFY AND ASSESSS PRIORITY WATERSHEDS

The first step is to conduct the necessary hydrological, climate, biological, sociocultural, and economic assessments and multi-stakeholder consultations regarding Bhutan's rivers. This information will help the government of Bhutan designate at least one high-conservation, economic and culturally valued stretch of river linked to a protected area as free-flowing, and effectively manage that stretch for conservation and climate-resilience. The government will also identify and prioritize 10 critical watersheds within protected areas for drinking water, irrigation, and hydropower generation.

LAUNCH WATERSHED PROTECTION MECHANISMS

A critical next step is building the capacity of local individuals and organizations to ensure that they can implement these management plans. Subsequently, a foundation for payment for ecosystem services (PES) schemes (e.g. park entry or water fees) in the protected areas will be established. This includes PES feasibility assessments, capacity development, and facilitation and structuring of PES agreements, which will lay the groundwork for signing and implementation of these agreements (both of which may occur after BFL's 14-year implementation period). After implementation, funding from the PES mechanisms will start to flow, thereby increasing local community support for conservation activities.

INCORPORATE NATURAL CAPITAL VALUATION AND CLIMATE RESILIENCE IN PLANNING

The last major area of work under Theme 2 is to ensure Bhutan's National Five Year Plans incorporate natural capital valuation, key ecosystem services provided by the protected area network, and salient climate change risks and mitigation/adaptation activities. This includes modeling climate change scenarios and impacts on Bhutan's biodiversity, freshwater resources, and economy. The government of Bhutan will include relevant activities for the Ministry of Agriculture and Forests and other government agencies within the Five Year Plan.

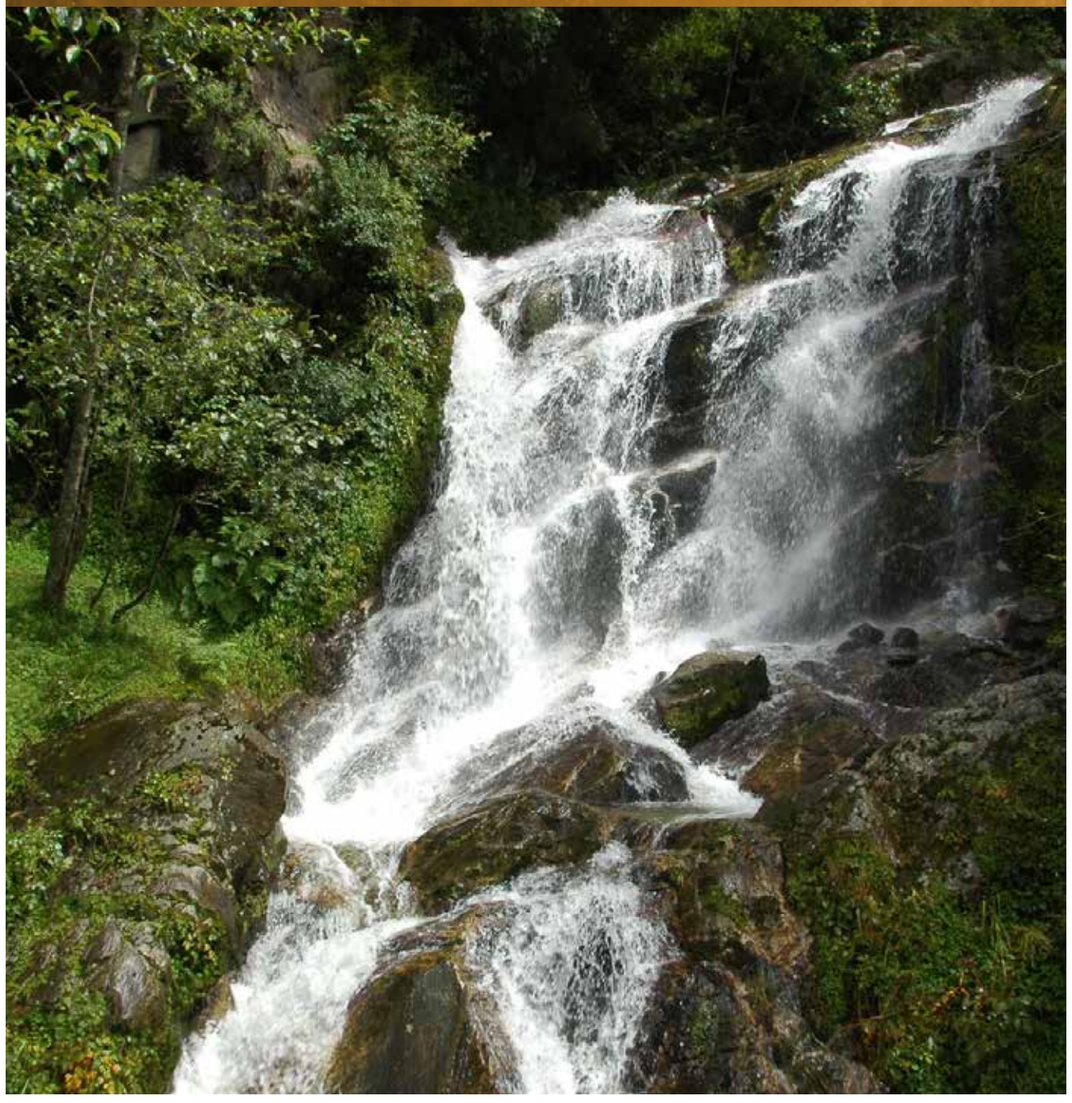
This goal has three associated milestones:

MILESTONE 5: By 2022, at least one high conservation, economic and culturally valued stretch of river linked to a protected area is designated as free-flowing and effectively managed for conservation and climate-resilience.

MILESTONE 6: By 2023, watershed conditions in 10 critical catchments within the protected area network (one per protected area) are improved for climate resilience, wildlife and socioeconomic development.

MILESTONE 7: By 2023, National Five Year Plans and all protected area and biological corridor management plans incorporate natural capital valuation, key ecosystem services, and salient climate change risks and mitigation/adaptation strategies.

The plan delivers protection of the country's globally important river system and robust climate resilience measures.



THEME 3

RESERVOIR FOR CARBON AND ADAPTATION TO CLIMATE CHANGE

CONTRIBUTE TO BHUTAN'S CARBON NEUTRALITY AND EFFECTIVELY BUFFER THE IMPACTS OF CLIMATE CHANGE

To achieve this goal, we will start by conducting regular biodiversity inventory surveys, and the National Forestry Inventory. These assessments include activities to strengthen and update land cover mapping, and information management and monitoring systems to detect forest cover change, climate change, and ecological responses of forests and other systems to the impacts of climate change. Results from those assessments help inform development of five-year plans for sustainable and climate-resilient forest management practices among communities living within the protected area network.

Based on the assessments and plans, sustainable and climate-resilient forest management practices will be implemented in the protected area network. In addition, degraded land areas identified in the assessments will be field-truthed, and climate-smart restoration in the mapped land areas will be implemented.

This goal includes the following milestones:

MILESTONE 8: From 2018 onwards, forest quality and extent (at 2.7 million acres) maintained within the protected area network, thereby sequestering storing 243 million tons of carbon dioxide equivalents.

MILESTONE 9: By 2020, degraded lands within the protected area network are brought under climate-smart reforestation mechanisms to enhance the carbon stock (above and below ground).

Keeping Bhutan's forests intact is critical for buffering the impacts of climate change.

THEME 4

CENTER OF ECONOMIC OPPORTUNITY AND COMMUNITY WELL-BEING

The single but broad goal under Theme 4 is that the socioeconomic well-being of communities living within the protected area network is enhanced, and that these communities continue to live in harmony with nature. This goal includes four main areas of intervention:

MITIGATE HUMAN-WILDLIFE CONFLICT

Mitigating human-wildlife conflict (HWC) starts with identifying HWC hotspots, causes, and the effectiveness of various interventions, and using that information to update the five-year HWC Mitigation Strategy and propose amendments for relevant policies. Implementation will include building capacity and providing equipment to community organizations, installing cost-effective and innovative mitigation mechanisms, and strengthening and expanding community-based crop and livestock insurance schemes. These interventions will reduce and/or compensate for HWC, decrease the losses to communities from HWC, and thus increase local community support for conservation activities.

PROVIDE ACCESS TO NATURE-BASED EMPLOYMENT AND INCOME-GENERATING OPPORTUNITIES

Providing access to nature-based employment and income-generating opportunities could include developing an ecotourism strategy and recommending policies to promote nature-based tourism and enterprises in the protected area network. Ecotourism and nature-based business models will be created for all protected areas based on sound market assessments, conservation gains, planning, and multi-stakeholder engagement. This will include assessing the feasibility of joint ventures, providing equipment and production inputs to develop ecotourism enterprises, and building appropriate ecotourism infrastructure. Commercial viability and sustainability assessments will be conducted for non-wood forest products within the protected area network, and sustainable harvesting operational plans for communities will be developed. Local communities' capacity will also be enhanced to help them effectively develop and sustain these enterprises.

The result will be the establishment of 10 ecotourism enterprises (in partnership with the private sector and local communities), 30 nature-based local enterprises, and sustainable harvesting and local processing of selected commercially important nonwood forest products.

INCREASE COMMUNITIES' DISASTER AND CLIMATE RESILIENCE

Increasing communities' disaster and climate resilience starts with identifying community-based climate vulnerability, their capacity to respond to changes, and understanding local responses to climate change. With this information, climate adaptation plans can be developed for all communities living within the protected area network. Priority sites for various interventions will be identified, designs will be developed, and local communities' capacity to execute will be enhanced.

ENGAGE COMMUNITIES IN CONSERVATION

Finally, while all of the above interventions will help ensure that communities living within the protected area network support and engage in conservation initiatives, additional community engagement activities will be implemented to increase local awareness of the importance and benefits of protected areas. These include outreach programs, involvement of local communities in planning and decision-making, youth training programs, and employment opportunities.

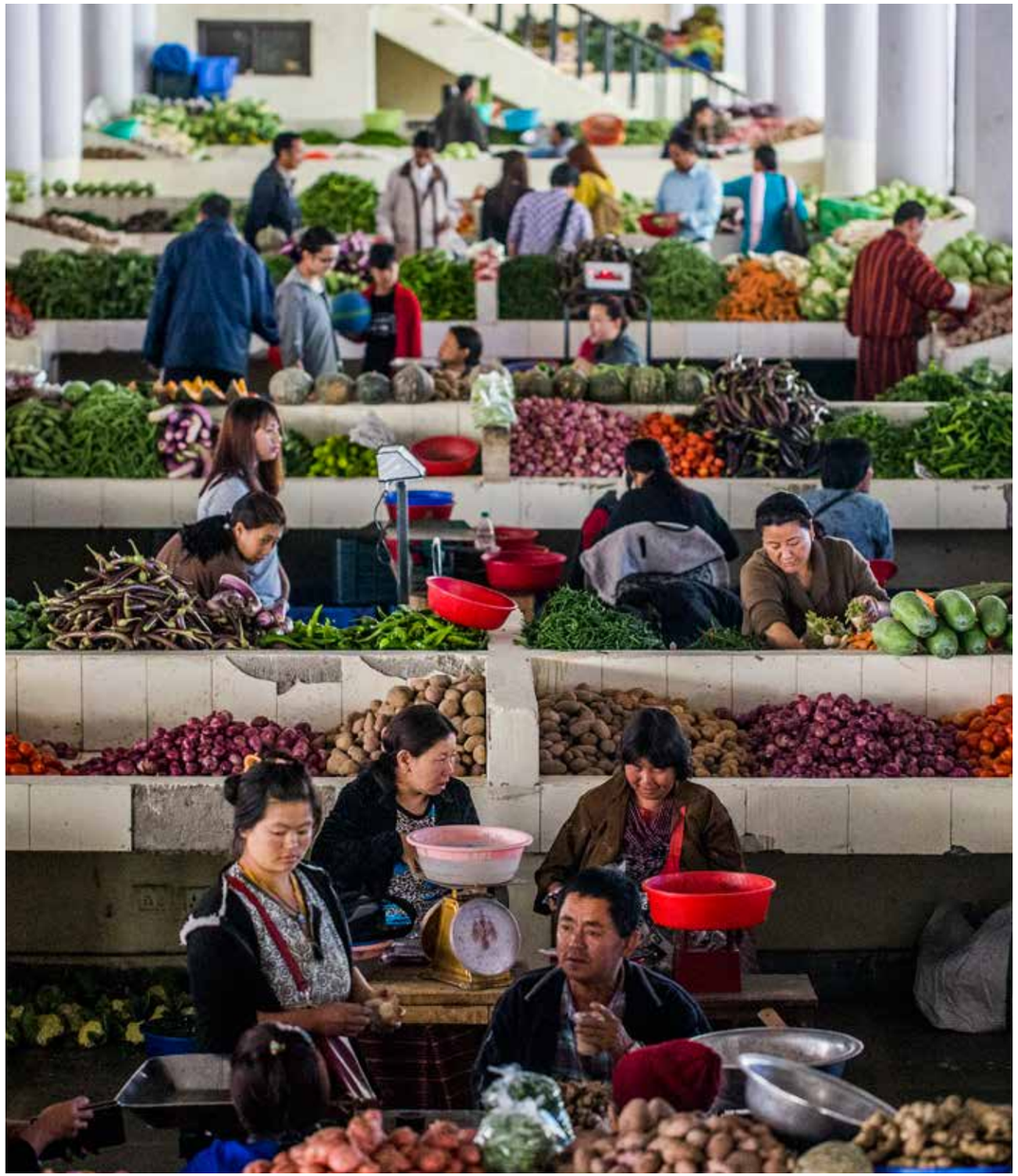
This goal is associated with the following milestones:

MILESTONE 10: By 2020, 80% of all households within protected areas benefit from reduced human-wildlife conflict as a result of adoption of appropriate policies, technologies and systems.

MILESTONE 11: By 2025, 80% of all households within protected areas have access to nature-based employment and income-generating opportunities.

MILESTONE 12: From 2023 onwards, all communities living within protected areas use traditional knowledge, best available science, and technologies to increase their climate and disaster resilience.

MILESTONE 13: By 2024, all communities living within protected areas value, support, and engage in conservation initiatives, including waste management.



THEME 5

CENTER OF EFFECTIVE MANAGEMENT AND EFFICIENT SERVICES

The single goal under Theme 5 is that organizational, institutional, and resource capacity is strengthened for effective management of the protected area network.

CONDUCT REGULAR BIODIVERSITY AND SOCIOECONOMIC MONITORING

This starts with conducting biodiversity inventory and socioeconomic surveys of conditions within protected areas and biological corridors every five years. Based on that information, and synching with Bhutan's National Five Year Plan cycle, climate-smart management plans for each protected area and the biological corridors will be developed. These surveys will also inform participatory zoning that will be carried out every ten years for each protected area and biological corridor. In addition, all areas will be physically demarcated and ongoing maintenance to fix demarcation pillars will be provided.

PROVIDE NECESSARY INFRASTRUCTURE, STAFF AND EQUIPMENT

To ensure appropriate and sufficient capacity to execute conservation activities, every five years, competency-based human resource and training needs will be identified, and the network's staffing plan and training sessions updated. Necessary staff will be hired and trained. Necessary vehicles, field and office equipment will be purchased, maintained and replaced at regular intervals. Essential infrastructure, such as headquarter buildings, staff quarters, guard posts, and visitor information centers will be constructed.

PRACTICE ADAPTIVE MANAGEMENT

Finally, information management systems for data collection and standardized reporting will be periodically strengthened, implementation of activities will be monitored annually, and achievement of milestones assessed regularly as needed. Every five years, protected areas and biological corridor effectiveness will be evaluated using the Bhutan METT+ approach. In addition, the Bhutan for Life initiative will undergo a periodic review of progress and results in 2020, a midterm evaluation in 2025, and a final evaluation in 2030. Lessons learned from monitoring activities, milestones, management effectiveness, and Bhutan for Life results will be incorporated into updated plans as part of adaptive management.

This goal is associated with the following milestones:

MILESTONE 14: The protected area network is clearly demarcated (by 2022), has climate-smart management plans (by 2018), and has a system to track management effectiveness (by 2018).

MILESTONE 15: By 2021, all protected areas and biological corridors are equipped with adequate and competent staff, by 2023 all protected areas and biological corridors are equipped with essential equipment, and by 2026 all protected areas and biological corridors have essential infrastructure.

[3] METT+ (Management Effectiveness Tracking Tool) is a widely accepted tool to identify and analyze protected area management effectiveness that has been tailored for Bhutan.

Bhutan for Life will transform management of the country's protected areas, increasing capacity and expertise at all levels.

DEAL STRUCTURE AND GOVERNANCE

Bhutan for Life's Vision, Mission and Milestones will be achieved by mobilizing, in a single agreement, all the governmental, financial and other commitments needed to develop Bhutan's network of protected areas and maintain it forever. The Project Finance for Permanence (PFP) approach is based on a private sector practice of fully financing large, complex, well-defined projects through a set of rigorous plans and conditions that all main private and public sector partners agree to in advance.[4]

The PFP agreement coalesces in a single closing and is comprised of several key components:

- The first is the Bhutan for Life Conservation Plan, which details the conservation and socioeconomic outcomes of the initiative, and how it will achieve and track them.

- The next component is a cost model, which contains detailed cost estimates for each activity per year over the 14-year implementation period. A financial model compares those costs against existing baseline funding, and produces financial targets for donors and new funding generated within Bhutan to cover the financial gap.

- Lastly, a Bhutan for Life transition fund will be established to hold Bhutan for Life donor funds. This transition fund will be entirely spent down over the 14 years, and the Royal Government of Bhutan will increase its spending, in part by creating new funding sources within Bhutan, until it fully assumes the costs of conservation.

In accordance with the PFP approach, the Bhutan for Life transition fund will be launched only when (1) the total fundraising commitment target has been reached, and (2) all key legal and financial conditions necessary to secure the deal (the closing conditions) are in place.

A board consisting of donors, government and other partners will oversee the transition fund and disburse funds each year, as long as pre-determined disbursement conditions—including achievement of milestones, increasing Royal Government of Bhutan financial contributions, and financial transparency—continue to be met. This ensures that all financial needs to cover activities are committed from the start, and creates financial incentives to minimize the risk of partners not meeting their obligations throughout implementation.

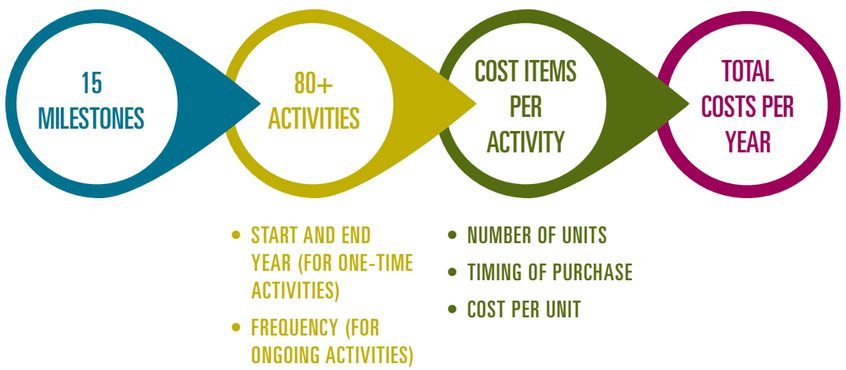
[4] To date, three PFP initiatives have reached agreements and started implementation: ARPA for Life in Brazil's Amazon, Forever Costa Rica, and Canada's Great Bear Rainforest. Bhutan for Life, along with Peru and Colombia, comprise the three PFPs currently in development.

Project finance for permanence brings together private and public investors to fund ambitious, measurable, and long-term conservation impacts that benefit the whole planet.

COST ASSUMPTIONS

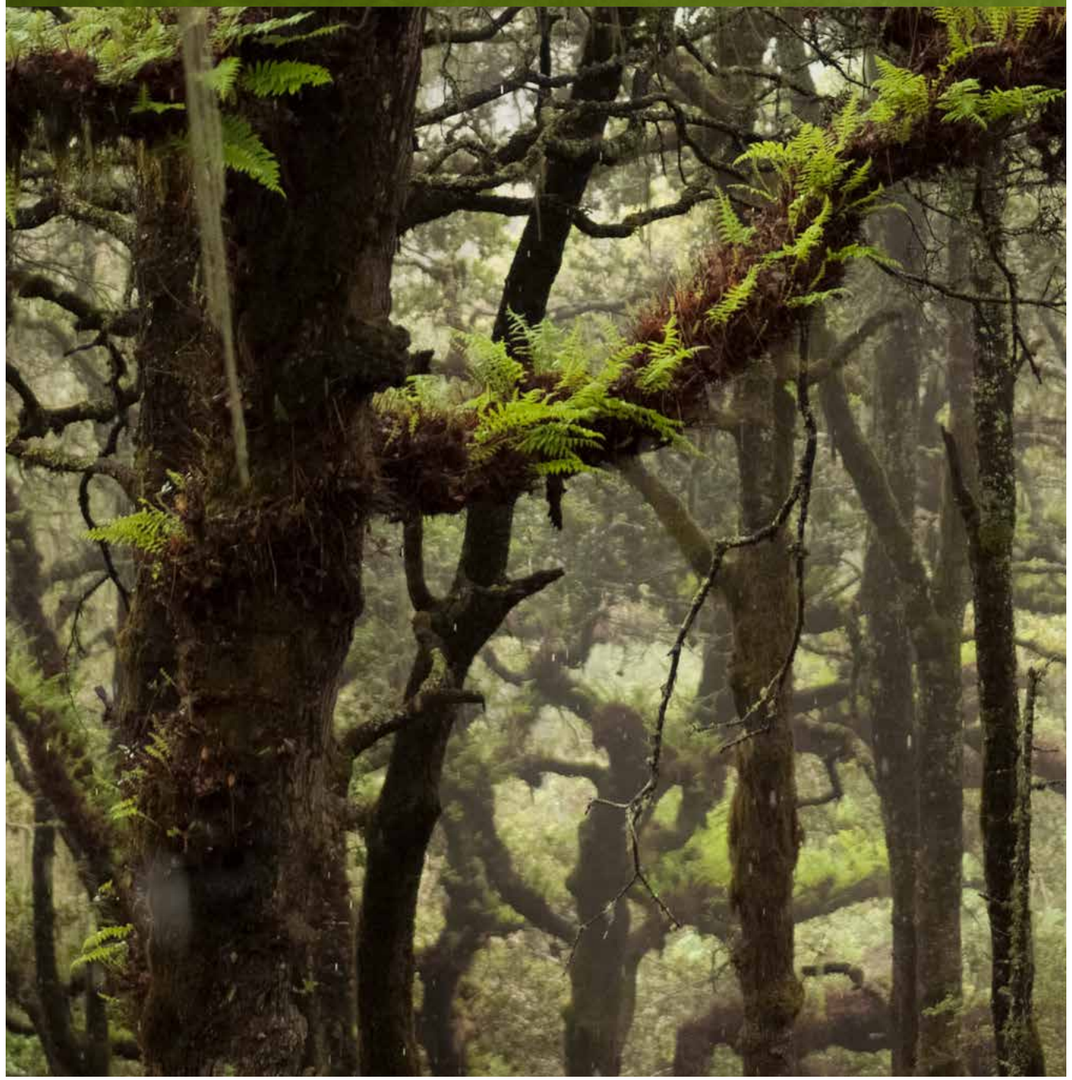
Cost estimates for Bhutan for Life were produced by a team of protected area managers and conservation and finance experts from the Royal Government of Bhutan and WWF through a highly detailed, consultative, and iterative process. The overarching assumptions for the cost analysis include:

- As the on-the-ground implementer, the Royal Government of Bhutan is responsible for determining BFL conservation milestones and activities, in consultation with WWF and other experts (after implementation starts, adjustments to milestones and activities will require transition fund board approval).
- The BFL implementation period will be 14 years (2017-2030), which was deemed a reasonable amount of time for the government to increase in-country sustained funding for its park system to the level needed (at a rate similar to Bhutan's projected GDP growth).
- Cost estimates represent levels of conservation management necessary to fully and effectively achieve all 15 BFL milestones within the 14 years.
- Total cost estimates include staff to manage the protected area network (at both the individual park and central level); however, all staff will be funded by the Royal Government of Bhutan, and donor funds will only support non-staff costs.
- Cost estimates will be updated annually for changes to inflation and exchange rates throughout implementation, and every 2-3 years (subject to approval by donors) for adjustments to conservation activities or timing (e.g., due to changing threats).
- Cost estimates include maintenance and replacement of vehicles and equipment, one-time infrastructure construction (for park headquarters, guard posts, etc.) and maintenance of existing and new infrastructure, but do not include replacement costs for infrastructure after its useful life.

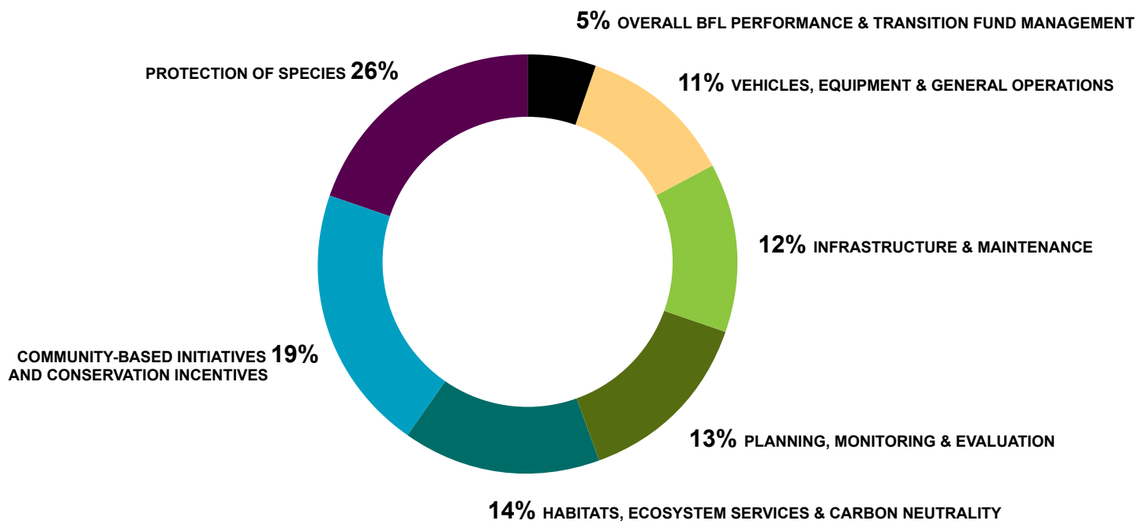


$40M
BHUTAN FOR LIFE FUND

The Royal Government of Bhutan and WWF seek partners from the private sector, public agencies, and the philanthropic community to capitalize the Bhutan for Life Fund, a $40 million sinking fund that will permanently protect Bhutan's 5-million-acre network of protected areas and deliver measurable impacts for wildlife, climate mitigation and resilience, forest and river conservation, and the livelihoods and wellbeing of Bhutan's people.



% OF NON-STAFF COSTS BY CATEGORY



NON-STAFF COSTS

Total 14-year costs that donors and the Royal Government of Bhutan will jointly fund (which exclude staff) are in order from largest to smallest by category in the table below. The table lists specific milestones each category encompasses, and describes principal activities and investments. Also included are costs for overall BFL performance monitoring and transition fund management, which donors will primarily fund.

NON-STAFF COST DETAIL (2016 USD)

COST CATEGORY	PRINCIPAL ACTIVITIES/INVESTMENTS	TOTAL 14-YEAR COST (USD)
PROTECTION OF SPECIES (MILESTONES 1-3)	Species surveys and vulnerability assessments, development of Zero Poaching Framework, national and transboundary enforcement capacity building and coordination, SMART patrolling and equipment (GPS, camera traps, etc.)	**$ 17,024,800**
COMMUNITY-BASED INITIATIVES AND CONSERVATION INCENTIVES (MILESTONES 10-13)	Human wildlife conflict mitigation, community-based ecotourism policy promotion, capacity building and ecotourism infrastructure (e.g., trails), local enterprise development (tourism, non-wood forest products, etc.), community forest management, sustainable agriculture/grazing, green energy (biogas, solar, etc.), climate vulnerability assessments, climate adaptation, waste management, citizen science and volunteer programs, conservation awareness and education, community engagement in protected area planning and decision-making	**$ 12,246,185**
HABITATS, ECOSYSTEM SERVICES & CARBON NEUTRALITY (MILESTONES 4-9)	Mapping, climate impact analysis, tracking habitat loss, fragmentation and degradation, management and restoration of grasslands, wetlands and watersheds, forest fire prevention and management, invasive species control, climate-resilient construction, valuation of ecosystem services, scenario planning, policy proposals, weather monitoring equipment and maintenance	**$ 8,879,000**
PLANNING, MONITORING & EVALUATION (MILESTONES 14-15)	Demarcation, participatory zoning, management plans, information management and reporting, program and activity monitoring, management effectiveness tracking, evaluations, capacity and training assessments	**$ 8,642,470**
INFRASTRUCTURE & MAINTENANCE (MILESTONE 15)	Protected area headquarters, range office compounds, staff quarters, guard posts, guest houses, visitor interpretation centers	**$ 7,897,821**
VEHICLES, EQUIPMENT & GENERAL OPERATIONS (MILESTONE 15)	4-wheel drive vehicles, motorcycles, small trucks, field equipment (binoculars, boots, rain gear, sleeping bags, sleeping mats, etc.), office equipment (computers, printers, furniture, audio-visual equipment, scanners, photocopiers), maintenance, utilities, supplies, etc.	**$ 6,926,777**
OVERALL BFL PERFORMANCE & TRANSITION FUND MANAGEMENT	Overall BFL operational and financial performance monitoring, donor coordination, and fund management expenditures (approximately 10-15% of transition fund payouts; costs and terms will fluctuate slightly before the single closing, so this amount is only a proxy that will be refined)	**$ 3,400,000**
TOTAL NON-STAFF COSTS		**$ 65,017,052**

FUNDING MODEL

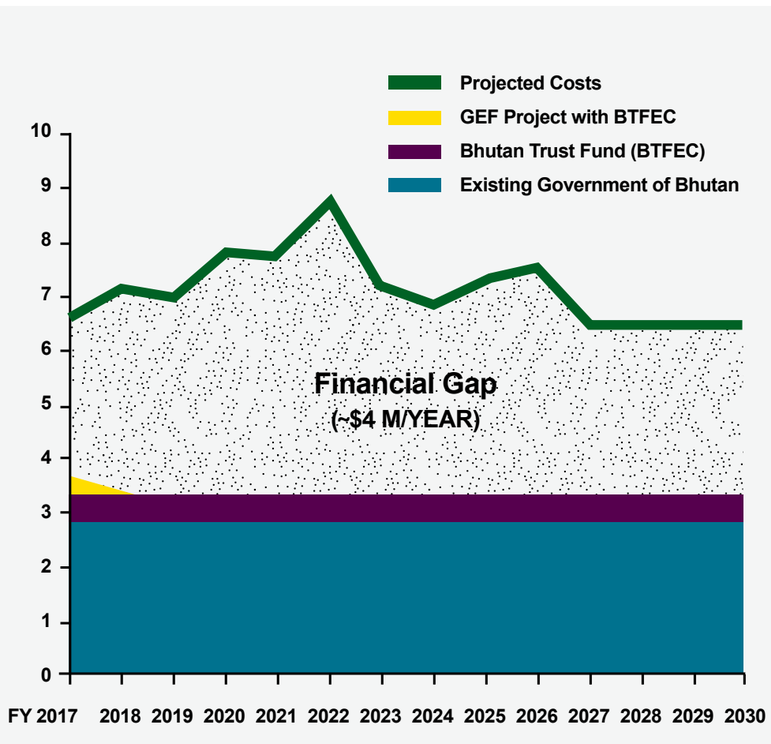
BASELINE FUNDING AND FINANCIAL GAP

The graph below depicts the existing financial gap over the 14-year implementation period. Costs are higher in the first 10 years of implementation due to construction of critical infrastructure such as park headquarters and guard posts. Costs also temporarily increase on five-year cycles due to development of park management plans (including biodiversity and socioeconomic surveys that inform them), planning for sustainable forest management practices within parks, and purchase of equipment for patrolling and community-driven prevention of human-wildlife conflict. However, total annual costs ultimately level off at approximately $7 million per year.

Baseline funding includes:

- $2.9 million/year from the Royal Government of Bhutan's central budget (based on the Ministry of Finance's FY2016 allocation to the parks agency).
- $0.5 million/year from investment returns generated by the Bhutan Trust Fund for Environmental Conservation (BTFEC) endowment.
- A one-time inflow of $0.2 million in FY2017 from the existing BTFEC Global Environment Facility project.

Existing recurring funding above is expected in perpetuity (and therefore counts as baseline), but all future recurring funding (baseline and new) will be formally committed as part of the single closing.

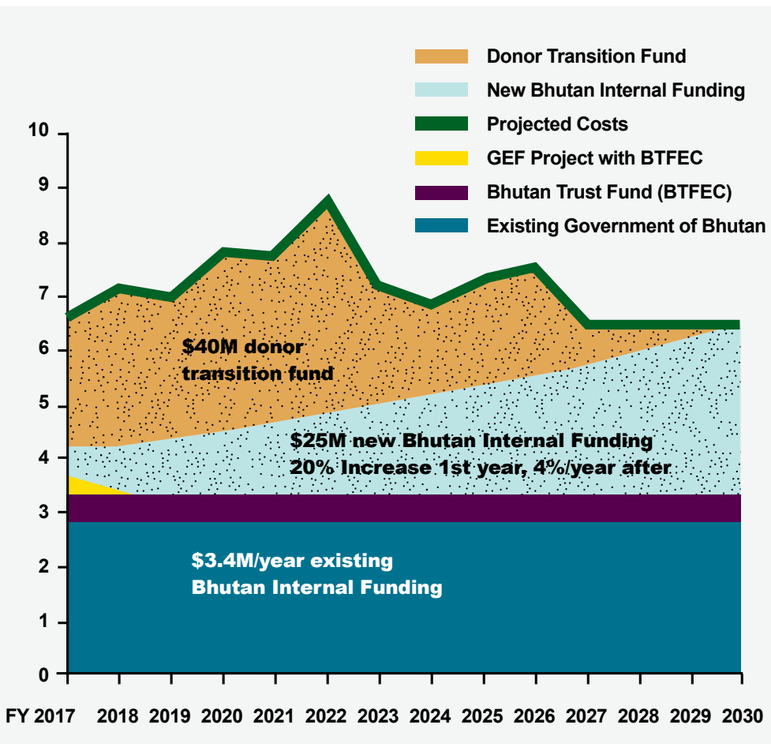


DONOR TRANSITION FUND AND NEW BHUTAN INTERNAL FUNDING

To fully cover the financial gap, Bhutan for Life will confirm the following new sources of funding as part of the single closing:

- $40 million in donations for a transition fund, which will be entirely spent down over the 14-year implementation period.
- In exchange, the Royal Government of Bhutan must develop or secure $25 million in new internal funding to cover a steadily increasing share of costs as the country's economy develops, and as the donor transition fund gets depleted. The model assumes a one-time budget increase of 20% in the first year, and an annual real increase of approximately 4% thereafter until 2030. This would allow internal funding to expand at an average rate that is slightly lower than expected growth for Bhutan's economy as a whole. The purpose of the 20% increase in year one is to demonstrate the government's credibility early on.

Thus, the new funding that Bhutan for Life will generate—$40 million in donations and $25 million in new Bhutan internal funding—will match total non-staff costs of $65 million over the 14-year period (see Appendix II for non-staff cost details). As time passes, costs and funding estimates will fluctuate slightly based on economic and other variables. The financial model will therefore be updated as needed until closing, and regularly during implementation as required by the deal.



MONITORING AND EVALUATION

The Bhutan for Life transition fund will be governed by a Board of Trustees, with balanced representation of all parties. Two members will be appointed by the Royal Government of Bhutan and the remaining will be reserved for non-government members, one of which shall be WWF and the others shall be representatives appointed by the transition fund donors. A clear set of roles and responsibilities for the Board of Trustees will be defined and agreed. Amongst others, the roles and responsibilities of the Board of Trustee will include:

- Review of annual financial performance and progress
- Authority to approve or withhold funding disbursements
- Compliance with anti-corruption mechanisms
- Provision of financial safeguards
- Compliance with disbursement conditions

The disbursement conditions will include the establishment of comprehensive management plans for each of Bhutan's protected areas, biodiversity monitoring in each protected area, no net loss of protected area, Royal Government of Bhutan budget allocations as specified in the Bhutan for Life financial model, technical and financial reports submitted by each protected area, staffing levels that meet agreed-upon standards, and the timely achievement of Bhutan for Life conservation milestones and activities.

Progress will be closely monitored on the ground by the Royal Government of Bhutan, WWF, and third party organizations. Every five years, protected areas and biological corridor effectiveness will be evaluated using the Management Effectiveness Tracking Tool (METT+) – one of the most widely used systems to assess protected area management effectiveness around the world. The methodology is a rapid assessment based on a scorecard that includes all six elements of management identified by the International Union for the Conservation of Nature. METT+ has been adapted specifically for the Bhutan context. In addition to these regular assessments, the Bhutan for Life initiative will undergo a periodic review of progress and results in 2020, a midterm evaluation in 2025, and a final evaluation in 2030.

RISKS

Major concerns, mitigation strategies and risk levels are listed below. Overall Bhutan for Life's risks are considered moderate, inasmuch as the program aims to upgrade the management of Bhutan's already-existing protected areas. Hence, we do not anticipate large-scale, significant, or irreversible adverse impacts associated with this program.

FINANCIAL RISKS

Exchange rate fluctuations: Bhutan has a tradition of free currency exchange that we expect to continue in the future. Following international fiduciary standards, the BFL transition fund will maintain its funds in a dollar denominated account. ***Risk level: Low.***

Under-funding: BFL's multi-party, single closing approach ensures the security of donor funding. Royal Government of Bhutan funding has the strong commitment of the heads of government, and will be tracked annually by the BFL program. ***Risk level: Moderate.***

Under expenditure: Disbursement will be subject to close monitoring of on-the-ground progress. The program duration (14 years) allows the rolling over of some activities without jeopardizing final on-time results. ***Risk level: Moderate.***

Inflation and cost overruns: Higher than expected inflation and cost overruns: BFL has added a contingency to cost estimates, and will adhere to sound financial management of non-disbursed donor funds. ***Risk level: Moderate.***

OPERATIONAL RISKS

Under-delivery or delay regarding targets: This is mitigated by strong capacity-building and training components that are built into BFL. ***Risk level: Moderate.***

Unexpected outcomes: The annual monitoring that BFL requires will help the initiative adjust as needed using an adaptive management approach. ***Risk level: Low.***

ENVIRONMENTAL RISKS

Faster than anticipated environmental change: An Environment Assessment will be carried out and necessary mitigation measures will be prepared. The project is expected to have positive environmental impacts. ***Risk level: Moderate.***

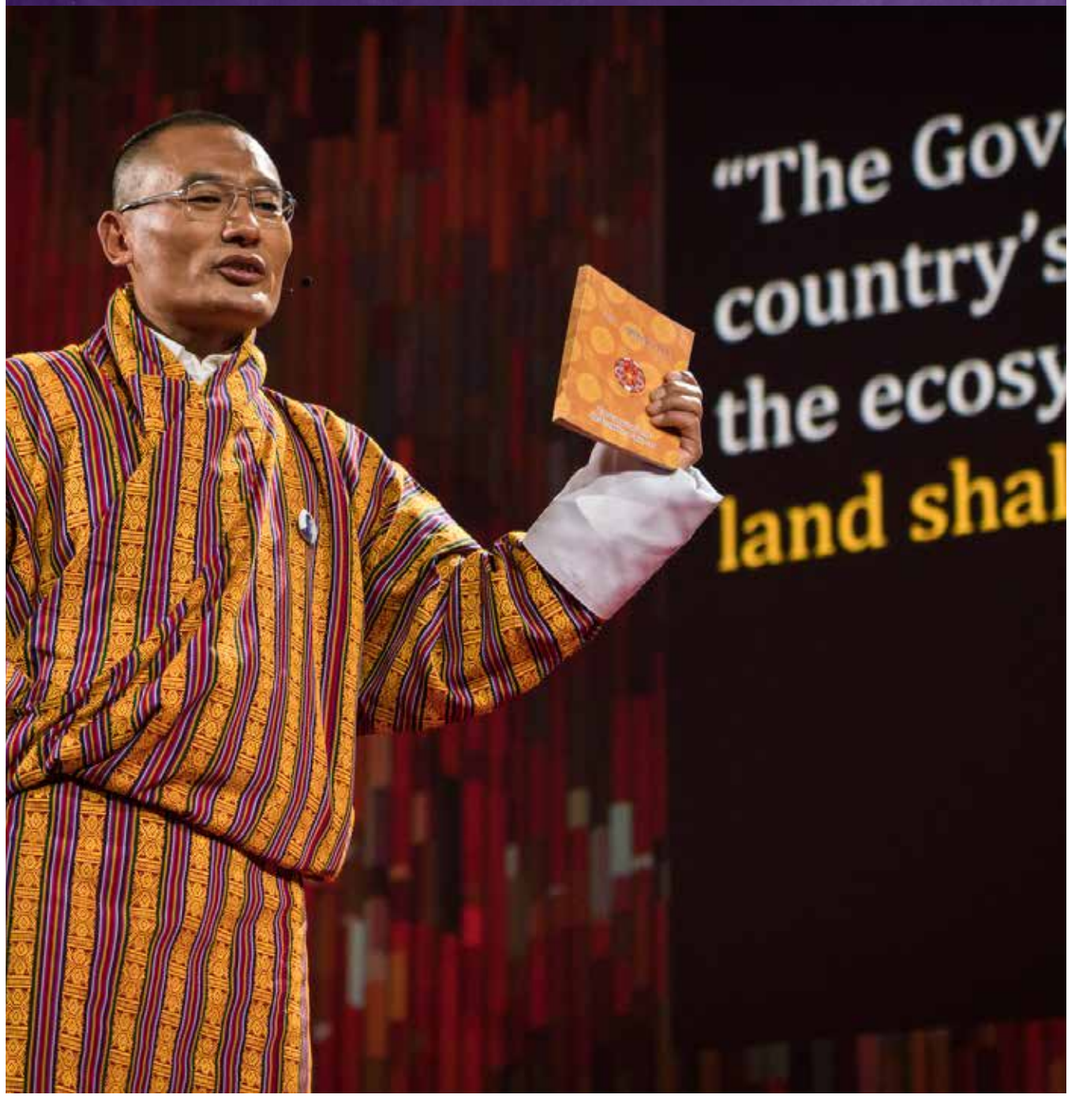
Extreme events: The effects of any extreme events will be monitored closely as part of BFL, and related activities will be adjusted as necessary. ***Risk level: Moderate.***

SOCIAL RISKS

Individual or community conflict with protected area management: Strong communication, participatory and transparent consultation, and protected areas enforcement including Free Prior Informed Consent (FPIC) will be carried out. ***Risk level: Low.***

Gender equity issues due to limited consultation, poor program design, or lack of pro-active measures to promote gender equity: A Gender Assessment will be prepared to ensure that the project design takes into account gender considerations and economic empowerment of women. In many rural areas of Bhutan, communities follow a matrilineal organization, and women are very active in community activities. ***Risk level: Low.***

Bhutan for Life stems from the Royal Government of Bhutan's long-standing commitment to conservation, which is enshrined in the constitution, and thereby helps to mitigate the inherent risks.



WHY BHUTAN FOR LIFE NOW?

BHUTAN IS A SMALL COUNTRY FULL OF HEART AND READY TO INSPIRE THE WHOLE WORLD

Bhutan's youth are growing up in a country at a crossroads. Its centuries-old Buddhist culture and traditional rural lifestyles are changing as this once-isolated kingdom opens up to the world, invites new development, and faces the challenges of poverty and increasing resource needs. Much of Bhutan's future will depend on how it manages its natural resources, its single-most important economic asset.

Few other countries on Earth share the depth of Bhutan's commitment to conservation. Bhutan for Life celebrates this bold commitment, and asks others around the world to invest in making it a reality. The country is at a critical juncture and needs our help. Together, we can create a system of permanent protection that will benefit Bhutan's forests, rivers, wildlife, and people in perpetuity and set an inspiring model for the whole world.

TAKE PART

By investing in Bhutan for Life, you will help enshrine the country's long tradition of protecting its rugged mountain wilderness for the wellbeing of people and animals. Bhutan is a place unlike any other, and the permanent protection of its forests will impact generations to come—both within Bhutan and around the world.

APPENDICES

APPENDIX I – BHUTAN FOR LIFE
NON-STAFF COSTS BY YEAR (2016 USD)

Costs that donors and the Royal Government of Bhutan will jointly fund (which exclude staff) are in order from largest to smallest by category in the accompanying table. Also included are costs for overall BFL performance monitoring and transition fund management, which donors will primarily fund.

Cost Category	FY2017 (Year 1)	FY2018 (Year 2)	FY2019 (Year 3)	FY2020 (Year 4)	FY2021 (Year 5)	FY2022 (Year 6)
Protection of species	994,500	1,008,500	1,020,800	1,715,500	1,635,800	1,031,500
Community-based initiatives and conservation incentives	317,550	1,776,375	1,123,125	1,359,625	1,167,865	1,561,105
Habitats, ecosystem services & carbon neutrality	751,500	465,000	766,500	462,700	517,700	905,700
Planning, monitoring & evaluation	1,395,190	583,800	462,800	441,500	415,800	1,199,090
Infrastructure & maintenance	624,710	642,257	659,805	677,352	694,899	712,447
Vehicles, equipment & general operations	700,376	501,150	506,150	473,150	402,150	474,376
Overall BFL performance & transition fund management	242,857	242,857	242,857	242,857	242,857	242,857
TOTAL	**5,026,683**	**5,219,939**	**4,782,037**	**5,372,684**	**5,077,071**	**6,127,074**

FY2023 (Year 7)	FY2024 (Year 8)	FY2025 (Year 9)	FY2026 (Year 10)	FY2027 (Year 11)	FY2028 (Year 12)	FY2029 (Year 13)	FY2030 (Year 14)	Total 14 year cost	% of total 14 year cost
989,800	873,500	1,663,800	1,557,500	1,068,800	908,500	954,800	1,601,500	17,024,800	26%
869,595	824,335	470,575	796,815	345,055	582,055	457,055	595,055	12,246,185	19%
687,460	654,460	610,960	600,960	1,008,460	438,200	571,200	438,200	8,879,000	14%
533,300	354,500	393,300	419,500	1,183,140	457,250	366,050	437,250	8,642,470	13%
729,994	747,541	765,088	782,636	215,273	215,273	215,273	215,273	7,897,821	12%
468,150	468,150	468,150	468,150	592,376	468,150	468,150	468,150	6,926,777	11%
242,857	242,857	242,857	242,857	242,857	242,857	242,857	242,857	3,400,000	5%
4,521,156	**4,165,343**	**4,614,731**	**4,868,418**	**4,655,961**	**3,312,285**	**3,275,385**	**3,998,285**	**65,017,052**	**100%**

APPENDIX II – BHUTAN FOR LIFE STAFFING PLAN

Given that sufficient numbers of qualified professional, administrative and operational staff must be in place to implement park activities, it was essential to develop a plan to steadily increase personnel in the early years of BFL implementation. The following chart demonstrates existing and necessary full-time staff per year for each protected area, the biological corridors, and central management. Implementation of the staffing plan will start in 2017, until the protected area network achieves full staffing in 2021. Staff costs were calculated based on average salary and benefit figures for staff at the professional, administrative, and operational levels. The Royal Government of Bhutan will cover the cost of implementing the staffing plan, not donors.

BFL Staffing Plan

Protected Area/Entity	Existing Full-time Staff	Necessary Full-time Staff (existing + new)				
	2016	2017	2018	2019	2020	2021
Bumdeling Wildlife Sanctuary	30	33	37	40	44	48
Jigme Dorji National Park	72	80	88	96	104	113
Jigme Singye Wangchuck National Park	35	39	43	46	50	53
Jomotshangkha Wildlife Sanctuary	0	16	25	31	36	39
Phibsoo Wildlife Sanctuary	12	19	24	29	35	40
Royal Manas National Park	96	99	101	104	107	109
Sakteng Wildlife Sanctuary	34	42	49	57	65	72
Thrumshingla National Park	37	38	38	39	40	40
Jigme Khesar Strict Nature Reserve	14	18	22	25	28	30
Wangchuck Centennial Park	33	37	42	47	52	55
Royal Botanical Park	17	20	24	25	27	28
Biological Corridors	0	34	40	46	52	60
Central Management (non-PA specific)	19	19	23	28	33	35
TOTAL	**399**	**494**	**556**	**613**	**673**	**722**

BHUTAN FOR LIFE
CONSERVATION MILESTONES & ENABLING INTERVENTIONS

THEME 1: SANCTUARIES FOR DIVERSITY AND PERSISTENCE OF LIFE

GOAL	MILESTONE	ACTIVITIES
Maintain stable and thriving populations of key species contributing towards national and global species goals ***SDG GOAL 13*** *Take urgent action to combat climate change and its impacts* ***SDG GOAL 15*** *Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss* ***Bhutan INDC Mitigation Strategy 1*** *Sustainable forest management and conservation of biodiversity to ensure sustained environmental services* **Bhutan INDC Adaptation Strategy 4** *Strengthen resilience to climate change hazards*	**BFL Milestone 1. By 2022, populations of tigers and snow leopards - two flagship species that represent major ecosystems - are increased (tigers by at least 20% over 2015 levels)** *SDG Target 15.5 : Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species*	Activity 1.1: Every five years, conduct population estimates for tigers (next in 2020) and snow leopards (next in 2021) Activity 1.2: Every five years, conduct prey-based assessments for tigers (next in 2020) and snow leopards (next in 2021) Activity 1.3: Every two years (next in 2017) for tigers and snow leopards, assess dispersal, territory, home range size, and (every ten years, next in 2017) climate vulnerability using habitat modeling, and assess viable populations in relation to area and prey Activity 1.4: Every five years, develop climate-smart species conservation plans for tigers (next in 2021) and snow leopards (next in 2017)
	BFL Milestone 2. By 2022, information on the conservation status of ten other high-profile, lesser known, endangered or endemic flora and fauna species established, and five climate-smart species conservation plans developed (in addition to those for tigers and snow leopards) *SDG Target 15.5 : Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species*	Activity 2.1: From 2017 to 2021 (at the rate of two surveys per year), design and conduct surveys for ten other high-profile, lesser known, endangered or endemic flora and fauna species, groups, or families of species Activity 2.2: From 2018 to 2021, document and list conservation status of ten other high-profile, lesser known, endangered or endemic flora and fauna species, and update species list Activity 2.3: From 2018 to 2023, develop climate-smart species conservation plans for five other high-profile, lesser known, endangered or endemic flora and fauna species
	BFL Milestone 3. By 2018, Zero Poaching Framework and SMART/effective patrolling instituted in all PAs/BCs to prevent, combat and monitor poaching, wildlife trade, and other illegal activities. *SDG Target 15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products* *SDG Target 15.c : Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities*	Activity 3.1: Train (every two years starting 2017) enforcement agencies including customs, postal, police, and Green Bench under the judiciary system Activity 3.2: Every year (starting in 2018), implement inter-agency cooperation mechanism across enforcement and partner agencies Activity 3.3: Every year (starting in 2019), strengthen and expand informant network and communication systems Activity 3.4: Every year (starting in 2017), strengthen bilateral cooperation and information-sharing to combat transboundary and regional wildlife trade Activity 3.5: y 2018, develop Zero Poaching Framework for Bhutan (and update every 5 years) Activity 3.6: Train (every two years, starting in 2019) and equip (every five years, next in 2020) park staff on detection, effective anti-poaching operations, and crime scene investigation Activity 3.7: Every year (starting in 2017), implement SMART patrolling in all PAs/BCs Activity 3.8: In 2017, conduct technology feasibility assessment, and each year (starting in 2018) ensure appropriate technology to combat poaching and other illegal activities in PAs is in place
	BFL Milestone 4. By 2022, key high biodiversity and climate resilience value habitats (and areas that connect them) are under improved management. *SDG Target 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries* *SDG Target 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally* *SDG Target 15.1 : By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements* *SDG Target 15.4 : By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development* *SDG Target 15.5 : Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species*	Activity 4.1: By 2018, conduct nationwide mapping and analysis, and designate high biodiversity habitats, degraded lands, and climate refugia Activity 4.2: y 2019, conduct functionality studies of BCs, including their future feasibility under climate change, and delineate them Activity 4.3: Every three years (starting in 2017), conduct inventory of invasive species in PAs/BCs, and every year (starting in 2018) control their spread Activity 4.4: Every two years, implement climate-smart restoration to enhance quality and resilience of lowland grasslands (next in 2018) and alpine meadows (next in 2017) Activity 4.5: Every year (starting in 2017), manage salt licks, snags and waterholes, and manage and enhance climate-resilience of wetlands and RAMSAR sites, including enrichment planting (using climate information wherever relevant) Activity 4.6: Institute climate-smart mechanisms (training every two years starting in 2017, and equipment every five years starting in 2017) to monitor and respond to forest fires Activity 4.7: Every year for smaller rivers (starting in 2017), and every five years for big rivers (starting in 2017), manage river banks and floodplains to provide climate-resilient habitat for wildlife and human well-being Activity 4.8: Every three years (starting in 2019), track the rate and extent of habitat loss from habitat fragmentation and degradation due to climate change and other anthropogenic causes

	SDG Target 15.8 : By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species *Bhutan INDC action under Mitigation Strategy 1:* • *Sustainable management of forest management units (FMUs), protected areas, community forests, forest areas outside FMUs, and private forests* • *Enhancing forest information and monitoring infrastructure through national forest inventories and carbon stock assessments* *Bhutan INDC action under Adaptation Strategy 4 :* • *Enhancing preparedness and response to climate change induced disasters at the national and local levels* • *Forest fire risk assessment and management*	Activity 4.9: By 2017, develop green and climate-smart design and construction principles, and every 3 years (starting in 2018), apply them to all infrastructure in and around PAs

THEME 2: PURVEYORS OF SUSTAINABLE ECOSYSTEM GOODS AND SERVICES

GOAL	MILESTONE	ACTIVITIES
PA Systems provide sustained ecosystem services for socio-economic and ecological well being **SDG GOAL 6** *Ensure access to water and sanitation for all* **SDG GOAL 13** *Take urgent action to combat climate change and its impacts* **SDG GOAL 15** *Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss*	**BFL Milestone 5. By 2022, at least one high conservation, economic and culturally valued stretch of river linked to a PA is designated as free-flowing and effectively managed for conservation and climate-resilience** SDG Target 6.6 : *By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes* Bhutan INDC action under Adaptation Strategy 1 • *Water resources monitoring, assessment, and mapping*	Activity 5.1: By 2018, conduct necessary hydrological and climate biological, sociocultural, and economic assessments (considering freshwater species distributions, migratory paths of freshwater fish, riverine habitats, climate change impacts, and social and cultural values associated with river systems) Activity 5.2: By 2019, conduct multi-stakeholder consultations within the catchment of the proposed free-flowing river Activity 5.3: By 2021, evaluate and identify protection and management mechanisms for the free-flowing river that will provide the greatest conservation and climate resilience benefits Activity 5.4: Every 3 years (starting in 2021), build capacity of individuals and organizations who will be implementing management mechanisms for the free-flowing river Activity 5.5: Every year (starting in 2022), implement climate-smart protection and management mechanisms
Bhutan INDC Adaptation Strategy 1 *Increase resilience to the impacts of climate change on water security through Integrated Water Resource Management (IWRM) approaches* **Bhutan INDC Adaptation Strategy 4** *Strengthen resilience to climate change hazards* **Bhutan INDC Mitigation Strategy 5** *Promote clean renewable energy generation* **Bhutan INDC Adaptation Strategy 8** *Enhance climate information services for vulnerability and adaptation assessment and planning* **Bhutan INDC Adaptation Strategy 9** *Promote clean renewable and climate resilient energy generation*		for the free-flowing river (including stakeholder consultations)
	BFL Milestone 6. By 2023, watershed conditions in ten critical catchments within the protected area network (one per PA) are improved for climate resilience, wildlife and socio-economic development SDG Target 6.1 : *By 2030, achieve universal and equitable access to safe and affordable drinking water for all* SDG Target 6.4 : *By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity* SDG Target 6.5 : *By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate* SDG Target 6.6 : *By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes* SDG Target 15.1 : *By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements* Bhutan INDC action under Mitigation Strategy 5 • *Pursue sustainable and clean hydropower development with support from CDM or other climate market mechanisms to reduce emissions within Bhutan and the region by exporting surplus electricity* Bhutan INDC action under Adaptation Strategy 1 • *Water resources monitoring, assessment, and mapping* • *Adoption and diffusion of appropriate technologies for water harvesting and efficient use* • *Climate proofing water distribution systems* • *Integrated watershed and wetland management* Bhutan INDC action under Adaptation Strategy 9	Activity 6.1: By 2019, identify and prioritize ten critical watersheds within PAs for drinking water, irrigation, and contribution to hydropower generation using the national river basin and climate change assessments, and other tools (focusing on quality, quantity, and timing of flows) Activity 6.2: By 2020, evaluate and identify protection and management mechanisms for ten critical watersheds that will provide the greatest conservation, socio-economic, and climate resilience benefits Activity 6.3: From 2021 to 2024 (three watersheds for each of the first three years, and one in 2024), implement climate-smart protection and management mechanisms for ten critical watersheds (including stakeholder consultations) Activity 6.4: Every ten years (next in 2018), build capacity of individuals and organizations who will be implementing climate-smart protection and management mechanisms for ten critical watersheds Activity 6.5: From 2022 to 2030, establish foundation for payment for ecosystem services (PES) schemes (e.g. park entry fees, water) in the protected areas.

	• *Protecting catchment areas for hydropower through watershed and sustainable land management approaches* • *Diversifying energy supply mix through promotion of renewable energy (solar, wind, small hydro, biomass) other than large hydro and creating investment opportunities*	
	Milestone 7. By 2023, National Five Year Plans and all PA/BC management plans incorporate natural capital valuation, key ecosystem services provided by PAs/BCs, and salient climate change risks and mitigation/adaptation strategies SDG Target 13.2 : *Integrate climate change measures into national policies, strategies and planning* SDG Target 15.9 : *By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts* Bhutan INDC action under Adaptation Strategy 4 • *Enhancing preparedness and response to climate change induced disasters at the national and local levels* Bhutan INDC action under Adaptation Strategy 8 • *Development of climate change scenarios for Bhutan with appropriate resolution for mountainous situation*	Activity 7.1: By 2018, model climate change scenarios, and predict impacts of climate change on Bhutan's biodiversity, freshwater resources and economy Activity 7.2: By 2021, conduct and update valuation of key ecosystem services and scenario planning (climate and development) in all PAs/BCs (one assessment per PA, and a single assessment across the BCs) Activity 7.3: In 2022, incorporate findings of the natural capital valuation, key ecosystem services, and climate change assessments into the 13th National Five Year Plan (for 2023-2028), and into the respective PA and BC plans Activity 7.4: Every two years (starting in 2022), build awareness and capacity of the government, academia, and research institutions to use the tools and findings (associated with the natural capital valuation, ecosystem services, and climate change assessments) for decision-making Activity 7.5: Every five years (starting in 2022), review and propose amendments on relevant existing policies based on findings of key ecosystem services valuation

THEME 3: RESERVOIRS FOR CARBON AND REGULATORS OF CLIMATE

GOAL	MILESTONE	ACTIVITIES
Forest and vegetative cover within Protected Area System contribute to remain carbon neutral and effectively buffer the impacts of climate change	**BFL Milestone 8.** From 2018 onwards, forest quality and extent (at 2.7 million acres) maintained within the protected area network, thereby storing 243 million tons of carbon dioxide equivalents SDG Target 13.2 : *Integrate climate change measures into national policies, strategies and planning* SDG Target 15.2 : *By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded*	Activity 8.1: Every five years (from 2017 onwards), conduct biodiversity inventory surveys, and every ten years (next in 2023), conduct the National Forestry Inventory in PAs and BCs (includes strengthening and updating information management and monitoring systems to detect forest cover changes, climate change and ecological

SDG GOAL 13 *Take urgent action to combat climate change and its impacts* **SDG GOAL 15** *Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss* **Bhutan INDC Mitigation Strategy 1** *Sustainable forest management and conservation of biodiversity to ensure sustained environmental services*	*forests and substantially increase afforestation and reforestation globally* Bhutan INDC action under Mitigation Strategy 1 • *Sustainable management of forest management units (FMUs), protected areas, community forests, forest areas outside FMUs, and private forests* • *Enhancing forest information and monitoring infrastructure through national forest inventories and carbon stock assessments*	responses of forests and other systems to its impacts, and land cover mapping over time) Activity 8.2: Every five years (starting in 2017), incorporate sustainable and climate-resilient forest management practices (community forest management, rural timber suppliers, NWFPs, grazing) in PAs/BCs (see milestone 13 for related activities)
	BFL Milestone 9. By 2020, degraded lands within the PA network are brought under climate-smart reforestation mechanisms to enhance the carbon stock (above and below ground) SDG Target 15.2 : *By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally* SDG Target 15.3 : *By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world* Bhutan INDC action under Mitigation Strategy 1 • *Forest fire management and rehabilitation of degraded and barren forest lands*	Activity 9.1: Every ten years (starting in 2017), field-truth degraded land areas within the PA network (done in conjunction with Activity 8.2) Activity 9.2: Every year (starting in 2020), implement climate-smart restoration in the mapped land areas

THEME 4 CENTERS FOR ECONOMIC OPPORTUNITIES AND COMMUNITY WELLBEING

GOAL	MILESTONE	ACTIVITIES
Socio-economic wellbeing of communities within PA system enhanced **Communities within PA system continue to live in harmony with nature** **SDG GOAL 1** *End poverty in all its forms everywhere* **SDG GOAL 2** *End hunger, achieve food security and*	**BFL Milestone 10. By 2020, 80% of all households within PAs benefit from reduced human wildlife conflict as a result of adoption of appropriate policies, technologies and systems** *SDG Target 15.5 : Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species*	Activity 10.1: Every five years (next in 2017), conduct nationwide research studies to increase understanding of the causes of human wildlife conflict for specific PAs/BCs and the effectiveness of various interventions, and assess and map HWC hotspots Activity 10.2: Every five years (next in 2017), update the Human Wildlife Conflict Mitigation Strategy and propose amendments for relevant policies Activity 10.3: From 2018 to 2022, install appropriate physical barriers in human wildlife conflict hotspots within PAs/BCs and buffer zones Activity 10.4: By 2018, implement cost-effective and innovative human wildlife conflict mitigation

improved nutrition and promote sustainable agriculture **SDG GOAL 7** *Ensure access to affordable, reliable, sustainable and modern energy for all* **SDG GOAL 8** *Promote inclusive and sustainable economic growth, employment and decent work for all* **SDG GOAL 10** *Reduce inequality within and among countries* **SDG GOAL 12** *Enable sustainable consumption and production patterns* **SDG GOAL 15** *Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss* **Bhutan INDC Mitigation Strategy 4** *Promote a green and self-reliant economy towards carbon neutral and sustainable development* **Bhutan INDC Mitigation Strategy 7** *Promote climate smart agriculture to contribute towards achieving food and nutrition security* **Bhutan INDC Mitigation Strategy 8** *Energy demand side management by promoting energy efficiency in appliances, buildings and industrial processes and technologies*		mechanisms such as alternative crops, habitat enrichment, and biological barriers within PAs/BCs and buffer zones Activity 10.5: Build capacity for (every two years; next in 2018) and equip (every four years; next in 2018) Gewog Environment Conservation Committees (GECCs) to combat human wildlife conflict Activity 10.6: Every five years (next in 2019), strengthen and expand community-based crop and livestock insurance schemes for human wildlife conflict in PAs/BCs and buffer zones
	BFL Milestone 11. By 2025, 80% of households within PAs have access to nature-based employment and income-generating opportunities SDG Target 8.3 : *Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services* SDG Target 8.5 : *By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value* SDG Target 8.9 : *By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products* SDG Target 10.1 : *By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average* SDG Target 12.2 : *By 2030, achieve the sustainable management and efficient use of natural resources* Bhutan INDC action under Mitigation Strategy 4 • *Promote investment in new industries that are at higher levels in the value chain, and green industries and services*	Activity 11.1: Every five years (next in 2017), develop ecotourism strategy and recommend policies that promote nature-based tourism and enterprises in the PAs, and buy-in from tour operators Activity 11.2: By 2018, create ecotourism and nature-based business models for all PAs based on sound market assessments, conservation gains, planning, and multi-stakeholder engagement Activity 11.3: From 2020 to 2025, implement ten ecotourism enterprises in partnership with the private sector and local communities Activity 11.4: From 2020 to 2026, design and develop eco-tourism infrastructure (treks and trails) in six PAs, and expand such infrastructure in the other four PAs Activity 11.5: From 2019 to 2023 (at the rate of six implemented per year), implement 30 climate-resilient nature-based local enterprises in PAs/BCs (focusing on unique selling points of individual PAs/BCs) Activity 11.6: From 2017 to 2021, build capacity of local communities on entrepreneurial skills, marketing, and financial management Activity 11.7: By 2017, conduct commercial viability, climate-resilience, and sustainability assessment of NWFPs inside PAs/BCs Activity 11.8: Every five years (starting in 2018), implement sustainable harvesting and local processing of selected commercially important NWFPs
	BFL Milestone 12. From 2023 onwards, all communities living within PAs use traditional knowledge, best available science, and technologies to increase their climate and disaster resilience	Activity 12.1: Every 10 years (starting in 2018), conduct community-based Climate Vulnerability and Capacity Assessment (CVCA) and surveys of human

Bhutan INDC Mitigation Strategy 9 *Integration of low emission strategies in urban and rural settlements through green buildings, sustainable construction methods and climate smart cities* **Bhutan INDC Mitigation Strategy 10** *Minimize GHG emission through application of zero waste concept and sustainable waste management practices* **Bhutan INDC Adaptation Strategy 2** *Promote climate resilient agriculture to contribute towards achieving food and nutrition security* **Bhutan INDC Adaptation Strategy 4** *Strengthen resilience to climate change hazards* **Bhutan INDC Adaptation Strategy 8** *Enhance climate information services for vulnerability and adaptation assessment and planning* **Bhutan INDC Adaptation Strategy 9** *Promote clean renewable and climate resilient energy generation* **Bhutan INDC Adaptation Strategy 10** *Integrate climate resilient and low emission strategies in urban and rural settlements*	SDG Target 1.5 : *By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters* SDG Target 2.4 : *By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality* SDG Target 7.1 : *By 2030, ensure universal access to affordable, reliable and modern energy services* SDG Target 13.1 : *Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries* SDG Target 13.3 : *Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning* SDG Target 13.b : *Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities* Bhutan INDC action under Mitigation Strategy 7 • *Organic farming and conservation agriculture* • *Development and promotion of sustainable agricultural practices* • *Integration of sustainable soil and land management technologies and approaches* Bhutan INDC action under Adaptation Strategy 2 • *Promotion of sustainable soil and land management technologies and approaches* • *Developing and intruding climate resilient crop varieties and conservation of plant genetic resources* Bhutan INDC action under Adaptation Strategy 4 • *Enhancing preparedness and response to climate change induced disasters at the national and local levels*	responses to climate change, and develop adaptation plans for communities in all PAs/BCs Activity 12.2: Document (every four years; next in 2017), revive where necessary and promote (every four years; next in 2021) continued use of traditional/indigenous systems related to conservation and climate resilience Activity 12.3: Every ten years (next in 2018), develop, raise awareness, and build capacity to implement community-based climate adaptation plans and green recovery and reconstruction (This relates to Activity 6.3) Activity 12.4: From 2018 to 2023 (for five villages in 2018, and six villages per year from 2019 to 2023), based on CVCA results, implement ecosystem-based adaptation and climate-smart, organic agriculture approaches and technologies, in priority demonstration sites in critical watersheds (representing 10% of the population living within PAs/BCs) (This relates to Activity 6.3) Activity 12.5: From 2018 to 2023 (for five villages in 2018, and six villages per year from 2019 to 2023), based on CVCA results, design and implement stormwater management, disaster risk reduction, preparedness, and response measures in priority demonstration sites in critical watersheds (representing 10% of the population living within PAs/BCs) (This relates to Activity 6.3) Activity 12.6: From 2018 to 2022 (affecting 2% of the population living within PAs/BCs each year), identify priority sites for design, and implement rural alternative energies such as biogas and solar technologies for 10% of the population living within PAs/BCs

	Bhutan INDC action under Adaptation Strategy 8 • *Improvement of hydro meteorological network and weather and flood forecasting to adequate levels of temporal and spatial scales* • *Development of climate change scenarios for Bhutan with appropriate resolution for mountainous situation* Bhutan INDC action under Adaptation Strategy 9 • *Diversifying energy supply mix through promotion of renewable energy (solar, wind, small hydro, biomass) other than large hydro and creating investment opportunities*	
	BFL Milestone 13. By 2024, all communities in PAs value, support, and engage in conservation initiatives including waste management SDG Target 12.2 : *By 2030, achieve the sustainable management and efficient use of natural resources* SDG Target 12.5 : *By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse* SDG Target 12.8 : *By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature* Bhutan INDC action under Mitigation Strategy 10 • *Enhancement of the three R principles including the conversion of waste to resources* • *Improving the current system and infrastructure for waste management* Bhutan INDC action under Adaptation Strategy 10 • *Environmental management and safeguards of development activities*	Activity 13.1: Every year (starting in 2017), all PAs/BCs implement effective waste management programs based on existing regulation and waste management frameworks Activity 13.2: Every year (starting in 2018), train and mobilize youth from PA communities as citizen scientists and volunteer groups in all PAs/BCs Activity 13.3: Every four years (starting in 2019), build local stewardship of park resources and mobilize communities for sustainable and climate-resilient resource management practices (community forest management, rural timber suppliers, grazing) in PAs/BCs Activity 13.4: Every year (starting in 2017), conduct conservation awareness and education programs in all PAs/BCs Activity 13.5: Every year (starting in 2017), involve and engage local communities in the planning and decision-making of PAs Activity 13.6: Every year (starting in 2017), provide local employment opportunities to local communities in activities related to park management (informants, local guides, cooks, campsite managers)

THEME 5 CENTER FOR EFFECTIVE MANAGEMENT AND EFFICIENT SERVICES

GOAL	MILESTONE	ACTIVITIES
Organizational, institutional and resource capacity strengthened for effective management of PAS	**BFL Milestone 14. The PA network is clearly demarcated (by 2022), has climate-smart management plans (by 2018), and has a system to track management effectiveness (by 2018)**	Activity 14.1: By 2022, physically demarcate all PAs/BCs, and provide ongoing maintenance Activity 14.2: Every ten years (next in 2017), carry out participatory zoning (including revisions) for each PA/BC

SDG GOAL 13 *Take urgent action to combat climate change and its impacts* **SDG GOAL 15** *Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss* **SDG GOAL 16** *Promote just, peaceful and inclusive societies* **Bhutan INDC Mitigation Strategy 1** *Sustainable forest management and conservation of biodiversity to ensure sustained environmental services*	SDG Target 13.2 : *Integrate climate change measures into national policies, strategies and planning* SDG Target 16.6 : *Develop effective, accountable and transparent institutions at all levels* Bhutan INDC action under Mitigation Strategy 1 • *Sustainable management of forest management units (FMUs), protected areas, community forests, forest areas outside FMUs, and private forests* • *Enhancing forest information and monitoring infrastructure through national forest inventories and carbon stock assessments*	Activity 14.3: Every five years (starting in 2018, and synching with National Five Year Plan cycles), develop climate-smart PA and BC management plans Activity 14.4: Every two years (starting in 2017), strengthen existing information management systems for improved data collection and standardized reporting Activity 14.5: Every year (next in 2017), conduct monitoring of PA programs and activities Activity 14.6: Every five years (next in 2017), evaluate PA/BC management effectiveness using Bhutan METT+ approach Activity 14.7: Conduct a periodic 3-year review (first in 2020), a midterm evaluation (2025), and a final evaluation (2030) for Bhutan for Life
	BFL Milestone 15. By 2020, PAs/BCs are equipped with adequate and competent staff, and by 2026, all PAs/BCs are equipped with essential equipment and infrastructure SDG Target 15.b : *Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation* **Bhutan INDC action under Mitigation Strategy 1** • *Sustainable management of forest management units (FMUs), protected areas, community forests, forest areas outside FMUs, and private forests*	Activity 15.1: Every five years (starting in 2016), conduct and institute competency-based human resources needs and training needs assessments Activity 15.2: Every year (starting in 2017), carry out capacity development programs based on the training needs assessment Activity 15.3: Every year (starting in 2017), implement staffing plan in all PAs/BCs (and achieve full staffing in all PAs/BCs by 2021) Activity 15.4: Every year (starting in 2017), implement infrastructure plan (including maintenance) in all PAs/BCs (and achieve full infrastructure in all PAs/BCs by 2026) Activity 15.5: Every year (starting in 2017), procure vehicles and equipment (including maintenance) for all PAs/BCs (and achieve full vehicles and equipment in all PAs/BCs by 2023)

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