



GLOBAL ENVIRONMENT FACILITY
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SGP Country Programme Strategy for OP6

Country: Bhutan



*Empowered lives.
Resilient nations.*



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SGP The GEF
Small Grants
Programme

SGP Country Programme Strategy for OP6 Country: Bhutan



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Table of Contents

1. Background	1
1.1. GEF-Small Grants Programme in Bhutan	1
1.2. National Accomplishment of SGP country programme, with specific focus on OP5	2
1.2.1. Biodiversity	3
1.2.2. Sustainable Forest Management	5
1.2.3. Climate Change	6
1.2.4. Land degradation	7
1.2.5. Chemical and Waste	8
1.2.6. Water and wetland	8
1.2.7. Capacity building and Knowledge Exchange	9
1.3. Overall Situation Analysis for the SGP country programme in OP 6	10
1.3.1. Biodiversity conservation and threats, and contribution to global ecosystem services	10
1.3.2. Major partnerships and potential sources of co-financing	12
1.4. Experiences from the past for effective project implementation	14
2. SGP country programme niche for OP6	17
2.1. Dates of ratification of the relevant Rio Conventions and relevant national planning frameworks	17
2.2. Global SGP Strategic Initiatives for GEF-6	18



2.3. SGP country programme niche vis-à-vis global strategic initiatives and national development/environment priorities	19
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3. GEF-SGP Operational Phase 6 strategy 31

3.1. Cross-cutting grant-making strategy 32

3.1.1. Innovative climate smart agro-ecology	32
3.1.2. Energy Access Co-benefits	33
3.1.3. CSO- Government Dialogue Platform	34
3.1.4. Social Inclusion (gender, youth and persons living with disabilities)	34
3.1.5. Contribution to Global Knowledge Management Platform	35
3.1.6. Opportunities to meaningfully engage CBOs and CSOs	35

3.2. Landscape-based grant-making strategy 36

3.2.1. Selection of landscape	36
3.2.2. Endorsement of the landscape by the NSC	37
3.2.3. Description of Landscape for SGP OP6	38
3.2.4. Baseline Assessment Methodology	40
3.2.5. Results of the Baseline Assessment	40
3.2.6. Overall SEPL Performance of Lower Manas Basin Landscape	50
3.2.7. Major Challenges of Lower Manas Basin Landscape	51
3.2.8. Lower Manas Basin Landscape Strategy	53
3.2.9. Intended Outcomes, indicators and typology of projects	55

3.3. Grant-maker+ strategy 56

3.3.1. CSO-Government Dialogue Platform	57
3.3.2. Policy influence	57

3.3.3. Promoting social inclusion	57
3.3.4. Knowledge management plan	58
3.3.5. Communications Strategy	59
4. Expected results framework	61
5. Monitoring and evaluation plan	67
6. Resource mobilisation plan	71
7. Risk management plan	73
8. National steering committee endorsement	75
Reference	76

Acronyms and abbreviations

ADB	Asian Development Bank
BBP	Bhutan Biogas Project
BT FEC	Bhutan Trust Fund for Environmental Conservation
BDBL	Bhutan Development Bank Ltd.
CPMT	Central Programme Management Team
CSO	Civil Society Organization
CSOA	Civil Society Organization Authority
CBO	Community-based Organization
CPS	Country Programme Strategy
CF	Community Forest
DRE	Department of Renewable Energy
DoL	Department of Livestock
FGD	Focus Group Discussion
GDG	Gewog Development Grant
FYP	Five Year Plan
GNH	Gross National Happiness
GNHC	Gross National Happiness Commission
IWRM	Integrated Water Resource Management
GEF	Global Environment Facility
JICA	Japan International Cooperation Agency
KRAs	Key Result Areas
LCMP	Land Cover Mapping Project
LECB	Low Emission Capacity Building
LDCF	Least Developed Countries Fund
LPG	Liquid Petroleum Gas
MoAF	Ministry of Agriculture and Forests
NAMA	Nationally Appropriate Mitigation Action
NAPA	National Adaptation Programme of Action
NBSAP	National Biodiversity Strategies and Action Plan
NSC	National Steering Committee
NWFPs	Non-Wood Forest Products
NGO	Non-Governmental Organization

OP	Operational Phase
REAP	Rural Economic Advancement Programme
REDD	Reducing Emission from Deforestation and Forest Degradation
RGoB	Royal Government of Bhutan
RNR	Renewable Natural Resources
RSPN	Royal Society for Protection of Nature
SNV	Netherlands Development Organization
SGP	Small Grants Programme
SJI	Samdrupjongkhar Initiative
STAR	System for Transparent Allocation of Resources
TK	Traditional Knowledge
UNDP	United Nations Development Programme
BYDF	Bhutan Youth Development Fund
WMD	Watershed Management Division
WWF	World Wildlife Fund



1. Background

The Small Grants Programme (SGP) was launched in 1992 as a corporate programme of the Global Environment Facility (GEF) with the explicit aim of developing community-led and community-owned strategies and technologies for reducing threats to the global environment through local action and solutions. It is funded by GEF and implemented through the United Nations Development Programme (UNDP) on behalf of the GEF partnership, and is executed by the United Nations Office for Project Services (UNOPS). Since its inception in 1992, SGP has supported over 19,770 community-based and Civil Society Organization (CSO) implemented projects in 132 countries. Currently it is present in 126 countries. Activities in each participating country are guided by a Country Programme Strategy (CPS), developed in line with global strategic initiatives and national environmental priorities through a consultative process. The country team comprise a SGP national coordinator and a programme assistant; technical direction at the national level is provided by an independent National Steering Committees (NSC) formed of representatives from Government, CSO, Non-Governmental Organization (NGO) and UNDP.

At the global level, the programme is supported by a small team at UNDP headquarters in New York, known as the Central Programme Management Team (CPMT). CPMT has a total of nine staff and is led by the SGP Global Manager; the team provides supervision and technical support to programme countries.

The SGP awards small grants, up to a maximum of \$50,000; where in most cases, grants range from US \$25,000 to \$ 35,000 to community based organizations (CBOs), CSOs and NGOs to implement projects that bring local and global environmental benefits.

SGP follows GEF Operational Phases (OP), the current CPS lays out strategic directions for the GEF-SGP OP6 (2015 to 2018) for Bhutan in line with global SGP OP6 programme goal to “effectively support the creation of global environmental benefits and safeguarding of the global environment through community and local solutions that complement and add value to national and global level action.”

1.1. GEF-Small Grants Programme in Bhutan

SGP was launched in Bhutan in October 1998. Since its inception, implemented a total of 138 projects (78 projects from OP I to OP IV between 1998 to 2010; and 69 projects in OP5, from 2011 to 2014) in partnership with various CBOs, CSOs and NGOs in the GEF focal areas of biodiversity conservation, climate change, water and land degradation. The average grant size ranged from US\$20,000.00 to US\$ 40,000.00, with project duration of one to three years depending on the size and nature of the projects.

SGP is recognized by the government as one of the key partners in environmental conservation and rural development. SGP projects have provided immediate solutions to local communities

to address both environmental sustainability and livelihood opportunities. SGP in Bhutan enjoys full support and ownership of the country. The government has allocated US\$ 0.8 million in OP5 and 0.5 million in OP6 from the country STAR allocation.

1.2. National Accomplishment of SGP country programme, with specific focus on OP5

SGP in Bhutan has grown from a programme of two projects in 1998 to now delivering on average about 18 projects a year. The projects supported through SGP are in line with the national priorities of both the 10th and 11th Five-Year development plans of Bhutan. Projects in OP5 were spread over 19 of the total 20 administrative districts, in particular reaching the rural and vulnerable communities of the country.

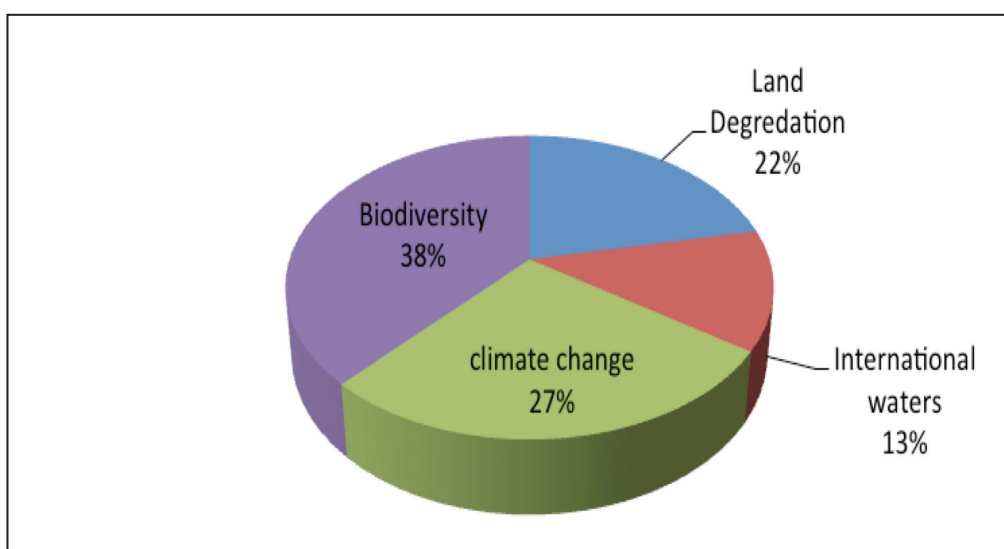


Figure 1.1: Distribution of projects of OP5 by GEF focal areas

In terms of grant allocation and delivery it has grown from US\$ 0.05 million in 1998 to 2.19 million in OP5. The significance of SGP projects has been leveraging similar amount in co-financing in cash and in-kind by the project partners, enhancing ownership and sustainability of the projects.

In OP5, in addition to regular SGP programme, SGP Bhutan functioned as the delivery mechanism of "Community Development and Knowledge Management for the *Satoyama Initiative*" (COMDEKS) - a global effort, to empower communities to manage landscapes sustainably with the vision to realizing "societies in harmony with nature". Bhutan joined the second phase of COMDEKS in 2013 and implemented nine projects in "Restoring and managing Landscapes in Gamri Watershed", Tashigang with a financial support of US\$ 0.36 million.

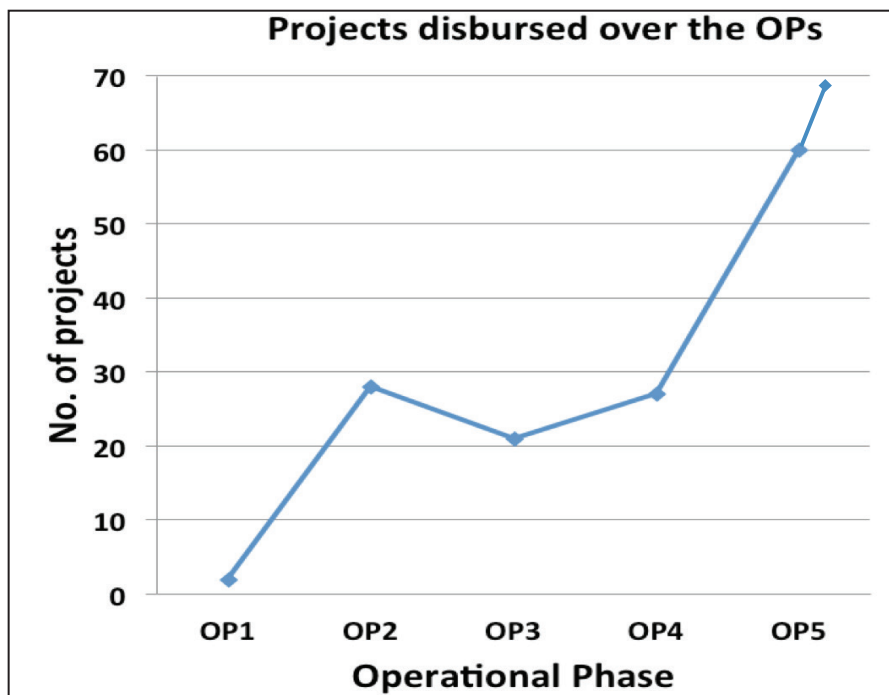


Figure 1.2: Projects Disbursed over the OPs

1.2.1. Biodiversity

Contributing to the Aichi Target 12 (By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained), SGP worked on conservation of White-bellied heron (*Ardea insignis*), traditional cattle breed, Nublang (*Bos indicus*) and Sapha - a traditional breed of pig (*Sus scrofa*).

In collaboration with the Royal Society for Protection of Nature (RSPN), established local support groups and carried out awareness and education campaigns on the conservation of the critically endangered White-bellied heron (*Ardea insignis*). The White-bellied heron is among the “50 rarest bird species” according to BirdLife International with an estimated population of less than 200 herons worldwide. To support its conservation, RSPN carried out nine awareness raising meetings in seven communities and created 11 fishponds to improve their feeding grounds. An annual census conducted in early 2015 recorded 30 White-bellied Herons and five nests with eleven chicks¹.

Supported Nublang conservation group in strengthening conservation of genetically unique traditional cattle breed, Nublang (*Bos indicus*) at Sombaykha, Haa. Nublang cattle is genetically unique breed of cattle and highly adapted to Bhutan’s terrains. It is believed to have originated in Sombaykha, Haa. They are also found outside Bhutan but in very small numbers in Sikkim

1 Ref: <http://www.rspnbhutan.org/programmes/endangered-species/white-bellied-heron.html>

and Darjeeling, India. The population of purebred Nublang in the country is estimated to be less than 60,000. The support has improved animal hygiene and shed sanitation, initiated productivity improvement through selective breeding, and reduced depredation of Nublang calves by wildlife.



White-bellied Heron (Ardea insignis) is among the “50 rarest bird species” according to BirdLife International with an estimated population of less than 200 herons worldwide

Promoted conservation of Sapha - a traditional breed of pig (*Sus scrofa*) in partnership with Gomdar Sapha conservation group, National Biodiversity Centre and Dzongkhag Livestock Sector, Samdrupjongkhar. Sapha is a small body sized pig with bulging belly, small and erect ears. They are mainly distributed in Tashigang, Pemagatshel, Samdrupjongkhar, Dagana and Chukha districts. Less than 50 percent of pig population (19,191) in the country are traditional pig breeds (Sapha, Dompha and Machey). The population of traditional pig has declined by 45 percent during the period 2007-2012². Interventions focused on conservation and sustainable utilization of Sapha breed through awareness programmes, breed improvement and distribution, and improved marketing for income generation and sustainability.

Further, interventions were made on mitigation of human wildlife conflict through supporting rural communities with solar powered electric fencing to reduce retaliatory killing of wildlife and address rural poverty. Solar fencing installed by Gewog Environmental Conservation Tshogpa (GECT) of Samrang, Samdrupjongkhar was one of the few successful schemes that reduced crop depredation and damage to properties caused by elephants. Data from district agriculture indicated increased in production by 100 per cent: rice production increased from

13.6 to 22.5 metric ton a year, and reported no destruction to the community properties (year before the installation of the fence, 10 houses were destroyed)³. Similar support was provided to communities of Yenangbrangsa under Samkhar Gewog and Thongrong of Phongmey Gewog, Tashigang.



Upstream of Pachhu, on the way to Jomolhari

1.2.2. Sustainable Forest Management

In partnership with Dzongkhag Forest Office, Tsirang established the Dangraygang Community Forest (CF) benefitting 66 households. The CF covers over 585 acres, and it is dominated by broad-leaved species. The key objectives of the establishment of the CF include: protect forest and water resources of the local communities; improve degraded and barren areas through plantation; and sustainable utilization of the forest resources for household needs and income generation.

SGP provided technical assistance and funding support to Tshendendra CF, Wangdue Phodrang; Wangphucholing CF, Tashigang and Samdrupcholing CF, Chhukha in promoting its sustainability and income generation through sustainable use of Non-wood forest products (NWFPs). The CFs cover area of over 2050 acres.

Plantation of over 85000 of various tree species and bamboos have been carried out at 23 locations, mainly on barren and slide prone areas, improving the health of environment and reducing land erosion.

³ Ref: As reported from the district agriculture office of Samdrupjongkhar

SGP in Bhutan brought in innovation to improve the traditional water mills that are used by rural communities to grind buck wheat, wheat and other grains. Traditionally, water mills are constructed with wooden runners and chutes, and wooden 'turbines' and the technology uses water energy to rotate the turbine and drive the grinding stone. Wooden materials require constant maintenance, and for the turbine and water channel, villagers use matured trees and needs replacement almost every few years. SGP and Traditional Water Mill User Groups of Bumthang with technical support from Agriculture Machinery Centre, wooden turbine were redesigned using steel. The improved design resulted in increased efficiency of 75%, besides saving trees for replacement of wooden turbine. The group rehabilitated 30 numbers of traditional water mills with improved design and technology benefiting 652 members (300 women & 352 men). The redesigned steel turbines are now promoted in other areas of Haa and Bumthang by different agencies.

1.2.3. Climate Change

Bhutan's fuelwood consumption of about 1.2 tons per person a year is ranked one of the highest in the world⁴. About 70% of this is used by institutions and households for cooking and heating. SGP in partnership with the Department of Livestock (DoL), MoAF initiated the pilot biogas project in Samtse and established 24 biogas plants at Hangay village, with the first biogas plant lit on 5 December 2010. Subsequently, 50 biogas plants were installed from 2011 to 2012 in Wangdue Phodrang, Mongar, Samdrupjongkhar and Tashigang.

With the successful commissioning of pilot biogas through SGP, the initiative was scaled-up through Bhutan Biogas Project (BBP) - a joint programme of Asian Development Bank (ADB), Department of Renewable Energy (DRE), DoL, Netherlands Development Organization (SNV) and Bhutan Development Bank Ltd. (BDBL) in 13 districts and established over 2,172 biogas plants⁵. Collectively it has resulted in saving of over 5600 tons of fuelwood and emission reduction of 9500 tons of CO₂ a year⁶.

To reduce substantial fuelwood consumption for mass cooking and heating in schools, community centers and monastic institutes, SGP supported installation of improved tilt cook stoves/electric stoves in 25 community centers and institutions; and solar heating system in eight monasteries located at high altitudes and watersheds. On average, this resulted in saving of approximately 1400 tons of fuelwood and emission reduction of about 2300 tons of CO₂ into the atmosphere a year. This translates to saving over 800 full grown trees a year, which otherwise would be harvested for fuelwood.

In addition, supplied improved household heat/cook stoves to 267 families living in high altitudes of Merak and Sakteng, Tashigang; and Naro and Dagala in Thimphu, saving about 120 tons of fuelwood and emission reduction of approximately 200 tons of CO₂. It has also

4 Ref: Assessment of Fuelwood Consumption and Baseline Health Impact Study in Bhutan 2015, Department of Renewable Energy, MoEA, Thimphu.

5 Ref: <http://www.snvworld-org.i2.own.net/node/8700/>

6 Ref: <http://www.snvworld-org.i2.own.net/sites/www.snvworld.org/files/images/factsheet-sector-re-biogas-final.pdf> and <http://www.paperonweb.com/A1110.htm>

improved health and sanitation, particularly benefiting women and children.

SGP, together with Tarayana Foundation, piloted the first gravity goods ropeway in Bhutan providing an alternative options for an environment-friendly, sustainable and affordable transportation for remote rural communities. A 980 meter gravity goods-ropeway was established at Thikha benefiting more than 400 people of Changju Chiwog.



Landslide management at Yangmalashing, Pemagatshel

1.2.4. Land degradation

Over 700 acres of agriculture land benefitting 285 families/households was brought under sustainable management. The land management activities were clubbed with income generating activities, namely, mustard and vegetable production, and cardamom plantation for rural income generation and poverty alleviation. For instance, 50 farmers of Dorona, Dagana earned about \$ 30,000 from sale of cardamom in 2015. Napier hedgerows developed for land management has immensely benefitted farmers through increased fodder availability and reduced pressure from grazing in the surrounding environment.

In addition, over 900 acres of degraded pastureland and barren areas were brought under management through plantation, building of check-dams and run-off rain water management.

1.2.5. Chemical and Waste

In an effort to reduce urban waste and create opportunities from sustainable waste management, SGP provided a grant to Bhutan Youth Development Fund (BYDF) to recycle paper waste by manufacturing egg trays. The unit recycles over 100 tons of paper waste per year, thereby reducing paper wastes going to landfills, polluting water bodies and air. This has also contributed to the practice of waste segregation in the core areas of Thimphu. As a result, 165 tons of CO₂ emission have been offset from open burning of waste. Currently the unit produces about 3,500 to 4,000 egg trays, earning on average income of Nu. 11200 (approx. US\$ 180) per day. The annual targeted production is 1.3 million egg trays which will generate about Nu. 3.64 million (Approx. US\$ 56,000 a year). It provides employment to seven youth recovering from drug and alcohol use. The income generated would also support BYDF to run and sustain drug education, prevention and rehabilitation programme besides reducing import of egg trays by 70% from outside.

Help Shoe Bhutan, instituted shoes clubs in 15 high and middle secondary schools in remote areas of Bhutan, and trained 30 teachers, club coordinators and 647 students in the art and skills of recycling shoes. In 10 years, the clubs in 15 schools would recycle approximately 144,000 pairs of shoes.

SGP supported adoption of waste segregation and recycling practices in nine monasteries and institutions. For instance, Samdrup Jongkhar Initiative (SJI) has established five segregation stations, a material recovery and a composting facility. In Bhutan, the waste management system mostly emphasized on “cleanliness” concept by providing dustbins and cleaning campaigns but not much on principle of integrated waste management elements such as generation and separation; collection; transfer and transport; and treatment and disposal. SJI conducted numerous awareness workshops as part of the zero waste capacity building exercise. The segregation stations installed in the Chokyi Gyatso institute has inspired a group of Dewathang youths to come up with segregation bins in the Dewathang municipal area.

1.2.6. Water and Wetland

Bhutan is endowed with abundant water resources, however climate change is likely to increase uncertainty of water availability. The updated NAPA 2012 prioritized water resources as a sector most likely to be severely affected by climate change, with far reaching implications relating to drought, floods, access to water and water quality. Majority of the communities depend on spring water sources, which are drying up. On the other hand its demand is growing with increase in population and competition for food production and other use. One of the major interventions in OP5 had been on protection and sustainable management of community watersheds and resources. A total of 133 community water resources have been protected and about 100 water users’ groups formed. Communities reported increased discharge volume of water and improved drinking water sources. SGP also helped local governments and communities to rehabilitate four lakes.

SGP in partnership with community based organizations, watershed management division (WMD) of MoAF and RSPN is working on the conservation of Peling Tsho (wetland) at Dechenling, Pemagatshel and Buli wetland, Zhemgang. Peling Tsho is about 175 acres and serve as the main source of portable water for over 200 households. It is also a home to diversity of primitive plant species, orchids and animals (mainly fish and amphibians). Buli wetland and the lake is associated with strong local myth, legends and culture. It is rich in flora and fauna, and the source of fresh water to the local community.



Management of Pelingtsho (wetland), Dechenling, Pemagatshel.

1.2.7. Capacity building and Knowledge Exchange

SGP Bhutan organized five annual review and experience sharing workshops amongst the grantees and technical partners. It was participated by 180 partners.

Developed capacity of 12 extension workers and community members on spring conservation and reviving of drying water sources through a study visit to Spring-shed Development Initiative implemented by Rural Management and Development Department of Sikkim, India.

SGP was one of the key partners in the 14th International Society of Ethnobiology Congress held in Bhutan in 2014 where eight grantee partners collaborated with participants from 57 countries. Eight knowledge-fair stalls were put-up to showcase local products and disseminate

knowledge and experiences on “living in harmony with nature and culture”. SGP organized a technical session on “SGP, local communities and Access and Benefit Sharing”.

Observed world day to combat desertification and land degradation in technical partnership with National Soil Service Centre at Bidung in 2014 and at Thongrong, Tashigang in 2015. These events were attended by over 500 participants and education and awareness on sustainable management of agriculture land were imparted.



Pristine broadleaf mixed with conifer forest, below Thangthangkha

1.3. Overall Situation Analysis for the SGP country programming in OP6

1.3.1. Biodiversity conservation and threats, and contribution to global ecosystem services

Bhutan is a small, landlocked country with an area of 38,394 sq.km situated on the southern slope of the Eastern Himalayas, bordering China to its north and India to its south, east and west. Straddling the two major Indo Malayan and Palaeartic biogeographic realms, Bhutan is part of the Eastern Himalayan region which contains parts of three global biodiversity hotspots, 60 eco-regions, 330 Important Bird Areas, 53 Important Plant Areas, and a large

number of wetlands including 29 Ramsar sites (NBSAP, 2014)

Bhutan's current status of conservation and biodiversity is a result of the far-sighted vision and leadership of the Kings and its rich tradition of living in harmony with nature throughout the centuries. This has been further strengthened through the formal adoption of the development philosophy of Gross National Happiness (GNH), which categorically states environmental conservation as one of the four pillars of Gross National Happiness. It has 70.46% under forest cover (LCMP 2010) and 51.44 percent of the total land under protected areas and biological corridors (NBSAP 2014). Bhutan is ranked as one of the top ten countries with highest species density. *Inter alia*, it hosts more than 5600 species of plants out of which 94 percent are native and about 126 species known to be endemic to the country. More than 200 species of mammals are recorded of which 27 are globally threatened species. Also, Bhutan is recognized as a globally important bird area with 700 species, of which, 18 are globally threatened (NBSAP 2014).

Recognizing the long-term benefit for the planet, Bhutan remains committed to conservation and sustainable use of biodiversity. It has committed to maintain 60% of its total area under forest cover at all times by enshrining this in the Constitution of the Kingdom. It has reaffirmed to remain carbon neutral and pursue low emission development to achieve the ambitious global targets of climate change post 2020 in COP 21. Currently, Bhutan emits 2.2 million tons of carbon dioxide equivalent (CO₂e) against the sequestration by forests of about 6.3 million tons. Further, it offsets about 4.4 million tons of CO₂e through exports of hydroelectricity to India. By 2025, it is expected to offset emissions up to 22.4 million tons of CO₂e through export of surplus clean hydroelectricity to the region.

In a study by Kubiszewski *et al.*, 2013 it is estimated that Bhutan approximately contributes US\$ 15.5 billion per year as ecosystem services, of which 53% are global benefits.

Nevertheless, like any other country it is faced with numerous challenges with increase in population, fast pace socio-economic development, and growing demand for natural resources. The following are some of the key environmental pressures highlighted in the NBSAP 2014:

- Over extraction of timber and fuelwood
- Forest fire
- Over grazing
- Human wildlife conflict
- Land degradation and unsustainable agriculture practices
- Pollution
- Climate change
- Invasive alien species
- Poverty

1.3.2. Major partnerships and potential sources of co-financing

- **Bhutan for Life (BFL):** is a 'Project Finance for Permanence' mechanism focuses on securing long-term financial sustainability for the Protected Area management in Bhutan. The initiative aims to mobilize in a single agreement all the governmental, financial and other commitments needed to develop Bhutan's network of PAs and maintain it forever. BFL consist a detailed 'conservation milestones' which are centered on five major 'mission themes' to ensure ecological sustainability, social benefits through ecosystem services and economic opportunities, and good governance through effective protected area management⁷. BFL's funding goal is between US\$ 35 – 45 million
- **Bhutan Trust Fund for Environmental Conservation (BT FEC):** The third strategic plan (2015 to 2020) of BT FEC focuses on implementing community based projects with emphasis on supporting community-based organization and civil society organization to strengthen their role in managing natural resources. The BT FEC allocates between US\$ 1.5 to 1.8 million annually to support conservation projects. Third Strategy Plan focuses on "collaborating with other institutions to maximize conservation benefits of BT FEC funding". This presents an opportunity for SGP-Bhutan to collaborate with BT FEC in scaling-up pilot projects initiated by SGP.
- **UNDP-GEF projects:** UNDP is the implementing partner for GEF-6 cycle in Bhutan and has currently developed an integrated GEF-LDCF project on "Enhancing Sustainability and Climate Resilience of Forest and Agricultural Landscape and Community livelihoods" for US\$ 13.967 million. The project aims to operationalize an integrated landscape approach through strengthening of biological corridors, sustainable forest and agricultural systems, and building climate resilience of community livelihoods. The project is currently in the preparation phase and implementation is planned from 2017. SGP model presents a good opportunity for the GEF-LDCF project to collaborate and adopt for pilots/scaling-up within the selected landscape.
- **Rural Economic Advancement Programme (REAP):** is a government flagship programme in the 11th FYP targeting extreme poverty in rural areas by identifying the poorest and remote villages through sustainable livelihood interventions. REAP interventions are formulated based on socio-economic surveys of the village carried out by GNHC and Dzongkhags where 109 poorest villages have been identified across all 20 Dzongkhags. The implementation is delegated to NGO/CSO and local governments. As the linkage between sustainable management and utilization of natural resources and poverty reduction is well established, SGP should focus its

⁷ Bhutan for Life: Concept Note, DoFPS/MoAF/RGoB, March 2015

thematic support in the REAP villages to build complementarity with the targeted poverty intervention and leverage co-financing. As of 2015, the government has allocated BTN 150 million (US\$ 2.30 million) for 75 REAP villages⁸.

- **The Green Climate Fund (GCF):** Bhutan is in the process of developing its first GCF project proposal on “Enhancing climate resilient agriculture and food security in Bhutan” with a total proposed grant amount of US\$ 62 million for 6 years starting 2016/17 through UNDP as the implementing entity. The project will cover 8 Dzongkhags and aims to bring about transformational change through outputs: i) Improve climate-resilience and enhanced productivity of agriculture sector, ii) Climate-resilient infrastructure to support market access, and iii) Enhanced market analysis and skills development to improve agriculture livelihoods. SGP’s model of intervention linking CC, Biodiversity and SLM with livelihoods presents high opportunity for replication and scaling-up through GCF’s support in the 8 Dzongkhags. SGP should focus on sharing its knowledge and best practices with implementing partners of the project including LGs and communities.
- **REDD+ Readiness project (2014 – 2018):** is being implemented by Watershed Management Division (WMD) to ensure sustainable management and enhancement of forest by developing REDD+ readiness strategy for Bhutan and piloting REDD+ schemes in community forests. The project is supported by World Bank through the Forest Carbon Partnership Facility with a grant of US\$ 3.8 million. SGP’s CC mitigation work through the community forestry programme can draw lessons and collaborate on joint pilot programmes for communities to derive benefits and increase awareness on REDD+ mechanisms.
- **Local Governments:** with the new democratic set-up of government in the country since 2008, there has been increased fiscal and administrative decentralization granted to the LGs by the central government. In the 11th FYP, central government has allocated annual capital grant of BTN 11.563 billion (US\$ 183.540 million) to LGs i.e. 24% of the total budget, in addition to a discretionary Gewog development grant of BTN 2.00 million (US\$ 32k) every year for each Gewog. This presents an opportunity for SGP to leverage co-financing and replicate successful sustainable development models of SGP interventions at the community level by LG through their own resources.
- **National Environment Commission (NEC):** is a high level multi-sectoral body that coordinates and makes decisions related to protection, conservation and improvement of the natural environment. The commission is mandated to develop, review and revise environmental policies, legislations, plans and programmes. The secretariat serves as the focal point in the country for two international environmental conventions – UN Framework Convention on Climate Change (UNFCCC) and UN

Convention on Biological Diversity (UNCBD). The secretariat also coordinates the implementation of National Adaptation Programme of Action (NAPA II) project on “Addressing the risks of climate induced disasters through enhanced national and local capacity for effective actions” from 2014-2018. In addition, NECS is also implementing Low Emission Capacity Building Programme (LECB) that supports public and private sector capacities for scaling up mitigation action by developing Low Emission Development Strategies (LEDs) and Nationally Appropriate Mitigation Actions (NAMAs) for key sectors with high GHG emission namely Industries and Waste. SGP can collaborate on technical support with NEC on CCA and CCM linking upstream policy with down-stream implementation.

- Other development and private partners that SGP can collaborate in OP6 are: World Wildlife Fund-Bhutan Programme, Bhutan Foundation, Japan International Cooperation Agency (JICA), HELVETAS, Bio-Bhutan, Civil Society Organization (CSO) Authority, and SNV Netherlands.

1.4. Experiences from the past for effective project implementation

CSO Authority was established in 2009, and as of today there are 47 registered CSOs constituting 35 public benefit organization and 12 mutual benefit organizations. CBOs in the



Rufous-necked Hornbill (Aceros nipalensis) categorised under vulnerable bird species by the IUCN.

country occur in the form of Non-wood Forest Product Groups, Cooperatives, Community Forests Groups, Water Users Groups, and a number of other informal farmers' groups. Comparatively, CBO base in the country is relatively small and with limited technical capacity, particularly on environment and biodiversity. In OP5, SGP country team played a crucial role in supporting the CBOs from proposal development, project implementation to monitoring and reporting. Such backstopping played a major role in the high success rate of the field projects. SGP country team should continue to provide strong supportive role to the CBOs and CSOs in OP6 as well.

SGP has skillfully leveraged on the existing network of Renewable Natural Resources (RNR) extension staff present in the districts and sub-districts. Forestry, Livestock and Agriculture staff in the field were instrumental in providing technical support to majority of CBOs in the project design and implementation. The relationship and linkage should be continued and strengthened. Such engagement is also important for transfer of knowledge and skills from the local staff to CBOs.

LGs were meaningfully engaged and taken onboard. For few projects LGs provided a portion of Gewog Development Grant (GDG) as co-financing to SGP projects besides other administrative and advisory support. This has also improved the accountability and transparency of reporting and resource utilization by the CBOs.

In the technical areas, SGP strengthened technical partnerships with agencies namely: National Soil Service Centre, National Biodiversity Centre, Wildlife Conservation Division, Watershed Management Division, Nature Recreation and Education Division, Social Forestry Division, Agriculture Machinery Centre, Department of Livestock and Department of Renewable Energy. These agencies played a pivotal role in the successful implementation of projects in the field. They provided *pro bono*, in most cases free technical services.

For OP-6, SGP should build on to the successful lessons from OP5 and continue to strengthen its existing partnership through new innovative ideas to tackle emerging challenges facing Bhutan and its vulnerable communities. In addition, SGP should look for new partners in the country such as CSO Authority of Bhutan, Asian Development Bank (ADB), World Bank, SNV Netherlands Development Organization, Japan International Cooperation Agency (JICA), World Wildlife Fund-Bhutan Programme, Bhutan Trust Fund for Environment Conservation, and Bhutan Foundation.



2. SGP country programme niche for OP6

2.1. Dates of ratification of the relevant Rio Conventions and relevant national planning frameworks

Table 2.1: List of relevant convention and national/regional plans or programmes

Rio Conventions + national planning frameworks	Date of ratification/ completion
UN Convention on Biological Diversity (CBD)	August 1995
CBD National Biodiversity Strategy and Action Plan (NBSAP)	October 2014
Nagoya Protocol on Access and Benefit-Sharing (ABS)	September 2013
UN Framework Convention on Climate Change (UNFCCC)	August 1995
UNFCCC National Communications (1st, 2nd)	November 2011
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	August 2002
Communication of Intended Nationally Determined Contributions (INDC)	September 2015
Kyoto Protocol to the UN Framework Convention on Climate Change	August 2002
UN Convention to Combat Desertification (UNCCD)	August 2003
UNCCD National Action Programmes (NAP)	January 2014
NAPA II	April 2014
GEF-6 Project Identification Form Endorsed	July 2015
RAMSAR convention on Wetlands	January 2012
South Asian Wildlife Enforcement Network (SAWEN)	January 2010
Vienna Convention for the Protection of the Ozone Layer	April 2004
Montreal Protocol on Substances that Deplete Ozone Layer	April 2004
The Cartagena Protocol on Biosafety to the UN Convention on Biological Diversity	September 2002
International Plant Protection Convention	June 1994
Bhutan's NCSA for Global Environmental Management and Action Plan	December 2005
UN Convention on the Law of Sea	December 1982

2.2. Global SGP Strategic Initiatives for GEF-6

The SGP's overall goal for GEF-6 is to: *"Effectively support the creation of global environmental benefits and the safeguarding of the global environment through community and local solutions that complement and add value to national and global level action"*. It proposes four strategic initiatives as multi-focal platforms for the implementation of its micro-projects at the country level in addition to the six GEF Focal Areas - Biodiversity, Climate Change, Land Degradation, Sustainable Forest Management, International Water, and Chemicals:

a) Community Landscape and Seascape Conservation

SGP will identify important ecosystems and use a landscape and seascape (CLSC) approach for their protection and sustainable use. With this initiative, SGP will implement a truly multi-focal approach involving communities in buffer zones and corridors thus providing connectivity for complex landscape mosaics.

b) Climate Smart Innovative Agro-ecology

SGP's niche will be in the production buffer zones of its identified critical ecosystems, also in forest corridors in danger of fragmentation, often remote and unaddressed by other traditional donors. Small grants in this initiative will be applied in synergy with the GEF-6 SLM for Climate-Smart Agriculture programme.

c) Low-Carbon Energy Access Co-benefits

SGP will contribute to satisfying global demand for energy services for people without access to electricity and those that still rely on traditional biomass for cooking. SGP will focus on providing bottom-up energy solutions that are low-cost and provide high potential for carbon emissions reductions. SGP will align its efforts with the larger framework of Sustainable Energy for All (SE4ALL) to facilitate mainstreaming and scaling up.

d) Local to Global Chemicals Management Coalitions

Focus SGP's support on communities in the forefront of chemical threats either as users or consumers. Activities will include support for innovative, affordable and practical solutions to chemicals management in joint efforts with SGP's established partners such as the International POPs Elimination Network (IPEN), as well as new partnerships including with government agencies, research institutions, the private sector, and international agencies.

2.3. SGP country programme niche vis-à-vis global strategic initiatives and national development/environment priorities

The overarching objective of the 11th Five Year Development Plan (2013 to 2018) of Bhutan is “Self-reliance and Inclusive Green Socio-Economic Development”. To achieve the objective, it has identified 16 National Key Result Areas (NKRAs) (refer Table 2.2) based on the four pillars of the national development philosophy of Gross National Happiness: Sustainable and Equitable Socio-economic Development, Preservation and Promotion of Culture, Conservation and Sustainable Utilization and Management of Environment and Promotion of Good Governance.

Table 2.2: National Key Result Areas

GNH Pillars	National Key Result Areas
Sustainable and Equitable Socio-Economic Development	1. Sustained Economic Growth
	2. Poverty Reduced & MDG Plus achieved
	3. Food secure and sustained
	4. Employment
Preservation and Promotion of Culture	5. Strengthened Bhutanese Identity, social cohesion and harmony
	6. Indigenous wisdom, arts and crafts promoted for sustainable livelihood
Conservation and Sustainable Utilization and Management of Environment	7. Carbon neutral/Green & climate resilient development
	8. Sustainable utilization and management of Natural Resource
	9. Water Security
	10. Improved disaster resilience and management mainstreamed
Promotion of Good Governance	11. Improved public service delivery
	12. Democracy and Governance strengthened
	13. Gender friendly environment for women’s participation
	14. Corruption Reduced
	15. Safe Society
	16. Needs of Vulnerable Group addressed

Table 2.3 and 2.4 provide SGP niche areas and its contribution/alignment to GEF-6 corporate results, UNDP CO strategic programming, national priorities, Sustainable Development Goals and 2020 National Biodiversity Targets.

Table 2.3: SGP contribution to GEF-6 corporate results and UNDP CO strategic programming

1. SGP OP6 strategic initiatives	2. GEF-6 corporate results by focal area	3. SGP Country Programme niche relevant to national priorities	4. Complementation between the SGP Country Programme UNDP CO strategic programming
Community landscape conservation	<i>Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society</i>	<ul style="list-style-type: none"> Conservation of lower Manas basin, endowed with high biodiversity through reducing Human-Wildlife Conflict, heavy dependence of local communities on natural resources and promoting sustainable livelihood opportunities. 	<ul style="list-style-type: none"> UNDP/GEF will focus on operationalizing an integrated landscape approach through strengthening of biological corridors, sustainable forest and agricultural systems, and building climate resilience of community livelihoods in 3 Biological corridors, 2 Protected areas covering 10 Dzongkhags.

1. SGP OP6 strategic initiatives	2. GEF-6 corporate results by focal area	3. SGP Country Programme niche relevant to national priorities	4. Complementation between the SGP Country Programme UNDP CO strategic programming
Innovative climate-smart agro-ecology;	<i>Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)</i>	<ul style="list-style-type: none"> ▪ Promote SLM/ IWRM and rangelands management ▪ Promote adoption of effective CSA technologies, drip irrigation, rain water harvesting, etc. ▪ Protection of agricultural land/ lakes and other ecosystems against invasive alien species ▪ Adaptation to CC related disasters and calamities ▪ Mitigation of Human-Wildlife Conflict 	<ul style="list-style-type: none"> ▪ UNDP will partner with WWF to develop a safe system to address human-wildlife conflict. ▪ UNDP is developing a large scale project for GCF funding on "Enhancing Climate Resilient Agriculture and Food Security in Bhutan" in 8 districts. ▪ UNDP is working with rural communities to address water stress through locally sustainable solutions in 4 districts.
			<ul style="list-style-type: none"> ▪ UNDP is developing ABS mechanisms and legislations for fair and equitable sharing of benefits arising from the use of Bhutan's rich biological resources through a PPP model.

1. SGP OP6 strategic initiatives	2. GEF-6 corporate results by focal area	3. SGP Country Programme niche relevant to national priorities	4. Complementation between the SGP Country Programme UNDP CO strategic programming
Energy access co-benefits	<i>Support to transformational shifts towards a low-emission and resilient development path</i>	<ul style="list-style-type: none"> ▪ Support research and development of innovative cook and heat stoves, and other renewable technologies ▪ Promote renewable and green technologies in heating and cooking ▪ Reduce heavy dependence on fuelwood in institutions and community centers ▪ Promote renewable energy sources 	<ul style="list-style-type: none"> ▪ UNDP/GEF is developing National Appropriate Mitigation Actions on Waste and Industry; and Low Emission Development Strategy on Transport. ▪ The sustainable rural biomass energy is helping rural communities to adopt improved cook/fodder stove technology in addition to building technical capacity of non-formal education learners; ▪ Support to REDD+ and Readiness Strategy. ▪ UNDP's new area of support through low emission capacity building programme focuses on intelligent transport system for Thimphu Municipality; and developing a proposal on sustainable urban transport system for Bhutan.

1. SGP OP6 strategic initiatives	2. GEF-6 corporate results by focal area	3. SGP Country Programme niche relevant to national priorities	4. Complementation between the SGP Country Programme UNDP CO strategic programming
CSO-Government dialogue platforms	<i>Enhance capacity of civil society to contribute to implementation of MEAs (multilateral environmental agreements) and national and sub-national policy, planning and legal frameworks</i>	<ul style="list-style-type: none"> ▪ Support formation of CSO consortium ▪ Institute CSO-government dialogue platform ▪ Support capacity building of CSOs and CBOs 	<ul style="list-style-type: none"> ▪ UNDP's inclusive governance support focuses on access to justice, civic engagement and accountability;
Social inclusion (gender, youth, indigenous peoples)	<i>GEF Gender Mainstreaming Policy and Gender Equality Action Plan and GEF Principles for Engagement with Indigenous Peoples</i>	<ul style="list-style-type: none"> ▪ Gender empowerment and mainstreaming in all projects ▪ Support projects related to youth employment, gender and people living with disability 	<ul style="list-style-type: none"> ▪ Women's participation and empowerment to participate in politics and governance; ▪ Prevent gender-based violence against girls and women; ▪ Gender mainstreaming is mandatory for all programmes and projects designed and implemented by UNDP ▪ Engages with government to addressing youth unemployment issues through policy interventions and income generation activities.

1. SGP OP6 strategic initiatives	2. GEF-6 corporate results by focal area	3. SGP Country Programme niche relevant to national priorities	4. Complementation between the SGP Country Programme UNDP CO strategic programming
Contribution to global knowledge management platforms	Contribute to GEF KM efforts	<ul style="list-style-type: none"> ▪ Farmer to farmer/South-South exchange programmes ▪ Documentation and dissemination of best practices and lessons ▪ Organize knowledge fairs and celebration of important national and international environment events 	<ul style="list-style-type: none"> ▪ UNDP will focus on supporting south-south and triangular cooperation in implementing/ localizing SDGs in Bhutan across different levels of government – sectors, parliamentarians, private partners, LGs and communities through awareness/ sensitization programmes, data, mainstreaming and policy support to integrate in 11th and 12th FYP.

Table 2.4: SGP Contribution to National Priorities, SDGs, and NBSAP 2020 Targets

SGP Strategic Initiatives	SGP Niche areas	Relevant NKRAs	Relevant SDGs	Relevant NBSAP 2020 Targets
Community landscape conservation -Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Conservation of lower Manas basin, endowed with high biodiversity through reducing Human-Wildlife Conflict, heavy dependence of local communities on natural resources and promoting sustainable livelihood opportunities.	<p>1. Sustained Economic Growth</p> <p>2. Poverty Reduced & MDG Plus achieved</p> <p>3. Food secure and sustained</p> <p>7. Carbon neutral/Green & climate resilient development</p> <p>8. Sustainable utilization and management of Natural Resource</p> <p>9. Water Security</p> <p>10. Improved disaster resilience and management mainstreamed</p>	<p>1. End poverty in all its forms everywhere.</p> <p>2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.</p> <p>6. Ensure availability and sustainable management of water and sanitation for all.</p> <p>12. Ensure sustainable consumption and production pattern.</p> <p>13. Take urgent action to combat climate change and its impacts</p> <p>15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>	<p>7. Areas under agriculture and forestry, including rangeland are managed through adoption of sustainable management practices, ensuring conservation of biodiversity</p> <p>10. Potential impacts of climate change on vulnerable ecosystems are identified and adaptation measures strengthened.</p> <p>11. The current Protected Area System is maintained with enhanced management effectiveness and financial sustainability.</p> <p>13. Genetic diversity of key cultivated plants and domesticated animals, including that of crop wild relatives are documented and conserved.</p> <p>15. Priority degraded ecosystems and habitats are identified and rehabilitated through a landscape approach.</p>

SGP Strategic Initiatives	SGP Niche areas	Relevant NKRAS	Relevant SDGs	Relevant NBSAP 2020 Targets
Innovative climate-smart agro-ecology	<ul style="list-style-type: none"> ■ Promote SLMP/IWRM and rangelands management. ■ Promote adoption of effective CSA technologies, drip irrigation, rain water harvesting, etc. ■ Protection of agricultural land/lakes and other ecosystems against invasive species. ■ Adaptation to CC related disasters and calamities. ■ Mitigation of Human-Wildlife Conflict 	<ol style="list-style-type: none"> 1. Sustained Economic Growth 2. Poverty Reduced & MDG Plus achieved 3. Food secure and sustained 7. Carbon neutral/Green & climate resilient development 8. Sustainable utilization and management of Natural Resource 9. Water Security 10. Improved disaster resilience and management mainstreamed 	<ol style="list-style-type: none"> 1. End poverty in all its forms everywhere. 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture. 6. Ensure availability and sustainable management of water and sanitation for all. 12. Ensure sustainable consumption and production pattern. 13. Take urgent action to combat climate change and its impacts 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. 	<ol style="list-style-type: none"> 7. Areas under agriculture and forestry, including rangeland are managed through adoption of sustainable management practices, ensuring conservation of biodiversity. 9. Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment. 10. Potential impacts of climate change on vulnerable ecosystems are identified and adaptation measures strengthened. 13. Genetic diversity of key cultivated plants and domesticated animals, including that of crop wild relatives are documented and conserved. 14. Key ecosystems and ecosystem services are identified, assessed and safeguarded for human wellbeing.

SGP Strategic Initiatives	SGP Niche areas	Relevant NKRA's	Relevant SDGs	Relevant NBSAP 2020 Targets
Energy access co-benefits	<ul style="list-style-type: none">■ Support research and development of innovative cook and heat stoves, and other renewable technologies■ Promote renewable and green technologies in heating and cooking■ Reduce heavy dependence on fuelwood in institutions and community centers■ Promote Pico and micro hydro schemes for off-grid electrification	<p>7. Carbon neutral/Green & climate resilient development</p> <p>8. Sustainable utilization and management of Natural Resources</p>	<p>7. Ensure access to affordable, reliable, sustainable, and modern energy for all.</p> <p>13. Take urgent action to combat climate change and its impacts</p>	<p>4. Relevant stakeholders adopt the principles of sustainable production and consumption of natural resources and have kept the impacts of use of natural resources well within safe ecological limits.</p> <p>8. Pollution from different sources, including from use of fertilizers and agro-chemicals affecting biodiversity and ecosystem functions are maintained within the national environmental standards.</p> <p>14. Key ecosystems and ecosystem services are identified, assessed and safeguarded for human wellbeing.</p>

SGP Strategic Initiatives	SGP Niche areas	Relevant NKRAs	Relevant SDGs	Relevant NBSAP 2020 Targets
CSO-Government dialogue platforms	<ul style="list-style-type: none"> Support formation of CSO consortium Institute CSO-government dialogue platform Support capacity building of CSOs and CBOs 		16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	<p>2. National capacity is established for valuation of biodiversity and ecosystem services to integrate into national development planning and policy-making process and national accounting system, as appropriate.</p> <p>4. Relevant stakeholders adopt the principles of sustainable production and consumption of natural resources and have kept the impacts of use of natural resources well within safe ecological limits.</p>
Social inclusion (gender, youth, indigenous peoples)	<ul style="list-style-type: none"> Gender empowerment and mainstreaming in all projects Support projects related to youth employment, gender and people living with disabilities 	<p>13. Gender friendly environment for women's participation</p> <p>16. Needs of vulnerable group addressed</p>	5. Achieve gender equality and empower all women and girls.	18: By 2020, TK and Customary Practices of communities, relevant to biodiversity conservation and sustainable use are documented and used, and where appropriate revived and protected.

SGP Strategic Initiatives	SGP Niche areas	Relevant NKRA	Relevant SDGs	Relevant NBSAP 2020 Targets
Contribution to global knowledge management platforms	<ul style="list-style-type: none"> ▪ Farmer to farmer/South-South exchange programme ▪ Documentation and dissemination of best practices and lessons ▪ Organize knowledge fairs and celebration of important national and international environment events 			<p>1. At least 60 per cent of the population is aware of values of biodiversity and steps they can take to conserve and use it sustainably.</p> <p>19. Science-based knowledge and technologies related to biodiversity are generated, improved, made accessible and applied, where appropriate.</p>



3. GEF-SGP Operational Phase 6 strategy

In order to contribute to achieving the overall objective of “creation of global environmental benefits and the safeguarding of the global environment through community and local solutions that complement and add value to national and global level”, in OP6 SGP Bhutan will focus on two strategic approaches for grant making as detailed below:

Grant Making Modalities

- a) Cross-cutting grant-making outside the landscape but contributing to the overall SGP OP6 strategic initiatives.
- b) Landscape approach to promote strategic programming by clustering small grants projects to achieve greater impact that could lead to synergies and possibility of scaling up. The grant making will support and coordinate concrete action at the grass-root level with funding for local community-led projects within the identified landscape area.

The estimated resources available for SGP OP6 is US 0.4 million from CORE and US 0.5 million from the country’s STAR Allocation.

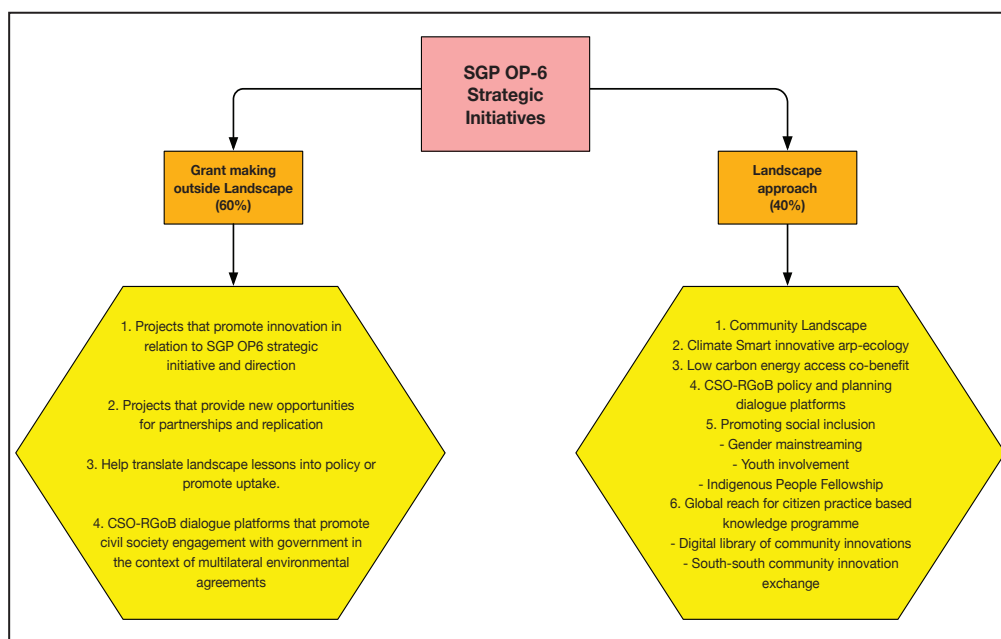


Figure 3.1: SGP Operational Phase 6 Grant Making Modality

Priority strategic initiatives for OP6:

- a) Community landscape conservation
- b) Climate smart innovative agro-ecology
- c) Low carbon energy access co-benefits
- d) CSO-Government policy and planning dialogue platforms
- e) Promoting social inclusion
- f) Global reach for citizen practice based knowledge programme

Resource allocation for cross-cutting grant making and landscape approach will be in the ratio of 60:40, which was endorsed during the fourth NSC meeting of SGP-OP6.

3.1. Cross-cutting grant-making strategy

Strategy for cross-cutting grant-making is based on existing and emerging biodiversity issues, national priorities, and opportunities identified during the consultation meetings and workshop, and guided by the overall SGP strategic initiatives.

3.1.1. Innovative climate smart agro-ecology

Only 2.93 per cent of the country's area is cultivable agricultural land (LCMP, 2010) against 69 per cent of the population depending on agriculture. In addition, 31 per cent of farming is on land with more than 50 per cent slope. Its steep topography, coupled by agriculture farming on steep terrain without adequate soil and water conservation measures makes land degradation a serious concern for farming communities in Bhutan.

Farmers are largely small holders, marginal and practice self-sustaining, integrated and subsistence agricultural production system. The average land holding is three acres on which farmers grow a variety of crops under different farming practices and rear livestock to meet their household food security. Despite small farm size, farmers grow many types of crops and varieties where farm level agro-biodiversity is the cornerstone for sustainable agricultural development, food security and poverty alleviation.

Agriculture is entirely dependent on the monsoon and even a slight variations in the onset and retreat of the monsoon affect agricultural activities and impact crop production. According to the Sector Adaptation Plan of Action (SAPA) of MoAF for climate change, Bhutan is projected to experience a peak warming of about 3.5°C by the 2050s with the overall significant increase in precipitation but with an appreciable change in the spatial pattern of winter and summer monsoon precipitation. Given this backdrop, the agriculture sector and the farming communities are at greater risk of the likely impacts of climate change.

Strategies:

- Strategy 1:** Sustainable management of rangelands, agricultural landscapes and other production systems.
- Strategy 2:** Promote innovation and adoption of climate smart agro-ecology technologies, enhancing communities' preparedness and adaption to CC impact and disasters.
- Strategy 3:** Protection and conservation of watersheds/lakes/water resources and promotion of Integrated Water Resources Management
- Strategy 4:** Conservation of agro-biodiversity and farmers' capacity building and empowerment
- Strategy 5:** Mitigation of human-wildlife conflict and their impact on biodiversity and rural poverty

3.1.2. Energy Access Co-benefits

Bhutan's per capita fuelwood consumption is one of the highest in the world at 1.2 tons. The primary source of energy used by the households in both rural and urban areas is electricity (69%) followed by fuelwood (21%) and LPG (10%)⁹. However, the rural areas top the fuelwood usage with 94 percent against the urban's mere 6 per cent. The highest annual per capita consumption is primarily due to usage of fuelwood for heating spaces followed by cooking fodder in the rural areas.

Huge extraction of wood for fuel and timber for construction has adverse implication on the health of the environment and biodiversity. Considering per capita fuelwood consumption of 1.2 tons, approximately 1.98 tons per capita of CO₂e is released in the atmosphere.

Strategies:

- Strategy 1:** Promote renewable energy sources for heating and cooking
- Strategy 2:** Support research and development of improved technology of cooking and heating stoves, and other renewable technologies
- Strategy 3:** Reduce heavy dependence on fuelwood in institutions and community centers through adoption of efficient heat/cook stoves and renewable technologies

⁹ Ref: Assessment of Fuelwood Consumption and Baseline Health Impact Study in Bhutan 2015, Department of Renewable Energy, MoEA, Thimphu.

3.1.3. CSO-Government Dialogue Platform

The development of CSOs and CBOs are at a nascent stage, with only 47 registered CSOs of which, 35 are Public Benefit Organizations and 12 Mutual Benefit Organizations. Among these registered CSOs only handful of them are involved with environmental management, biodiversity conservation, livelihood issues, gender and youth. The other challenge is the low literacy rate of CBOs and limited technical capacity to address biodiversity issues.

In OP6, SGP should expand its support to the growing number of community cooperatives, such as milk cooperatives and vegetable cooperatives to collectively address local environmental issues.

Strategies:

Strategy 1: Strengthen CSO/CBO network and formation of CSO consortium

Strategy 2: Institute CSO-Government platform for regular dialogue

Strategy 3: Capacity building in environmental conservation, MEAs, SDGs, etc.

3.1.4. Social Inclusion (gender, youth and persons living with disabilities)

The Bhutan Gender Equality Diagnostics of Selected Sectors (2014), show that there are gender gaps in areas such as education, employment, and representation in decision making and gender based violence in both the urban and rural settings. However, women empowerment and gender equality is an integral part of RGoB's 11th Five-Year Plan. This is further supported by the adoption of Domestic Violence Prevention Act in 2013. Statistics indicate the labour force participation of male at 71% and female at 54.8%; unemployment rate of 1.9 for male and 3.5 female; and agriculture and forestry employs 26.8% male and 29.9% of female¹⁰. Of the 4174 members of farmers' group registered with DAMC 2199 are male & 1975 female; and of the 1441 members of cooperatives registered with DAMC, 784 are male and 657 female respectively.¹¹ The figure clearly indicates the need for more attention on gender equality to promote equitable and inclusive development at the grassroots.

Despite slight improvement in youth unemployment from 9.6% in 2013 to 9.4% in 2014, this still remains a big challenge for Bhutan with increased youth entering job market every year. Some of the support measures undertaken by the government to create jobs for the youth include: Guaranteed Employment Programme to implement overseas employment, direct employment and youth employment schemes.

¹⁰ Statistical Yearbook of Bhutan 2015, National Statistical Bureau, October 2015

¹¹ Department of Agriculture Marketing and Cooperatives, MoAF 2013.

Strategies:

Strategy 1: Promote gender empowerment and mainstreaming in all projects.

Strategy 2: Provide special considerations to support projects related to youth employment, gender and people living with disabilities by establishing strong linkage between livelihoods and environmental issues.

3.1.5. Contribution to Global Knowledge Management Platform

Reliable monitoring and organizational learning are critical components of an adaptive management method. The current programme phase should draw lessons from past successes and failures so as to continuously adapt and keep abreast of the changing circumstances of our development focus and environmental issues. This will require proper documentation of information, lessons, approaches and techniques/technologies adopted by SGP in addressing environmental issues affecting our local communities for cross fertilization of knowledge and lessons.

Strategies:

Strategy 1: Conduct evaluation of SGP projects

Strategy 2: Promote farmer to farmer /south-south knowledge and experience sharing programmes

Strategy 3: Organize/participate in knowledge fairs, expos and national events

Strategy 4: Observe and celebrate national and international environmental events.

Strategy 5: Documentation and dissemination of best practice and lessons from the field through stories, articles and documentaries

3.1.6. Opportunities to meaningfully engage CBOs and CSOs

SGP is one of the only few windows that provide funding opportunities to CBOs and CSOs. CBOs and CSOs regard SGP as a key partner in their development and initiatives that promote environmental sustainability and create livelihood opportunities for the grassroots communities.

Growth of CBOs and CSOs is a recent phenomenon and a major role SGP can play is building their capacity in environment management, proposal development and project implementation. Capacity need assessment of CSOs is being conducted and based on the outcome of the assessment, SGP can partner with relevant agencies in supporting the implementation of the recommendation.

Relating to the environmental priorities and MEAs in Table 5.1, CSOs and CBOs can be engaged in creating awareness on biodiversity and its values, implementing and co-implementing projects that focuses on diversifying livelihood and alleviate poverty, support carbon neutral and climate resilient development, promote sustainable utilization of wood and non-wood forest produce, adopt sustainable land management practices, adopt/promote integrated waste management practices, and address youth and gender issues.

3.2. Landscape-based OP6 grant-making strategy

3.2.1. Selection of landscape

Desktop and literature review: Number of projects and programmes are implemented in Bhutan using landscape approach, including Community Development and Knowledge Management (COMDEKS) of *Satoyama Initiative* at Gamri Watershed, Tashigang by SGP. Other projects implemented using landscape approach are: Trans-boundary Manas Conservation Area by World Wildlife Fund (WWF); Conservation of Eastern Himalaya Landscape through WWF-Living Himalaya Initiatives; Conservation of High Altitude Northern Area Landscape by Bhutan Trust Fund for Environmental Conservation (BT FEC) supported through GEF-OP5 STAR allocation; Watershed and River Basin management by Bhutan Water Partnership (BhWP) and Watershed Management Division.

All these organizations have used different entry point¹² in implementing projects within the purview of landscape approach. However, majority of the organizations have adopted watershed and river basin management as the entry point for landscape approach.

It was clear from the desktop literature review that the most plausible entry point for selecting the target landscape was to use the watershed and river basin criteria. Considering also that the only nationally identified critical ecosystem for Bhutan at landscape level are the four major river basins.

Meeting with key stakeholders, subject specialist and experts: Bilateral meetings and consultations were conducted with government, NGOs, CSOs, donors and development partners, and INGOs, and relevant experts and specialists. Majority of stakeholders suggested to take watershed/river basin management and poverty as the main criteria for selection of the landscape for SGP OP6. This was mainly considering:

- Bhutan's dependency on hydropower and agriculture; and transboundary benefit of river basin conservation to the global environment.
- Rural poverty incidence is still high at 16.7 per cent, and majority depend on natural resources for their livelihood, often resulting in depletion of these resources.

¹² A common ground that allow for multi-stakeholder engagement and collaboration

Stakeholders' consultation workshop: Based on the literature review and recommendations from the bilateral meetings/consultations, four target landscapes were identified using river basin and poverty incidence, and existing watershed management plans:

- a) Khomachu Basin Landscape, covering all the eight Gewogs of Lhuntse Dzongkhag
- b) Lower Manas Basin Landscape, covering five Gewogs: Bardo, Phangkhar, Goshing, Bjoka and Ngangla of Zhemgang Dzongkhag.
- c) Baychhu Watershed, covering three Gewogs: Kashi, Nyisho and Phangyuel of Wangdue Phodrang Dzongkhag.
- d) Kholongchu Watershed, covering four Gewogs: Bumdeling, Khamdang, Tongmizangsa and Yangtse of Trashiyangtse Dzongkhag.

The above four landscapes were presented and deliberated during the national stakeholders' workshop held on 27 October 2015, which was participated by 20 participants (6 from government agencies, 9 from CSOs, 1 from INGOs, 2 from donor agencies and other 2 from international organizations). The participants also carried out a landscape prioritization exercise. **Lower Manas Basin** received the highest score and was recommended as the potential landscape for SGP OP6.

3.2.2. Endorsement of the landscape by the NSC

The outcome of the National Stakeholders' consultation workshop, bilateral meetings and literature review was presented to the second National Steering Committee Meeting held on 06 November 2015, the meeting unanimously endorsed **Lower Manas Basin** as the candidate Landscape for SGP OP6 recognizing the following:

- Poverty incidence in the five Gewogs of Zhemgang: Bardo, Phangkhar, Goshing, Bjoka and Ngangla were significantly higher compared to the Gewogs of Lhuntse and Pemagatshel. The poverty incidence in the above Gewogs is 60% and above.
- Transboundary and global ecological benefit from the river basin conservation.
- The area is home to important wildlife species such as tiger, Golden Langur, Rufous necked hornbill, Great hornbill, Beautiful nuthatch, Asian small-clawed otter, Asiatic water buffalo, etc.
- The landscape provides connectivity of the north to south ecological zones - connecting the Jigme Singye Wangchuck National Park, Phrumsengla National Park and the Royal Manas National Park.

3.2.3. Description of Landscape for SGP OP6

Lower Manas Basin Landscape covers five Gewogs of Zhemgang: Bardo, Phangkhar, Goshing, Bjoka and Ngangla. It is located at latitude 27° 05' N and longitude 90° 51' E covering roughly covering 912 sq.km. The total population of the landscape is 11,266 and the Gewogs have one of the highest incidence of poverty. The economic mainstay of the people is agriculture and livestock farming.

Manas is the biggest river basin consisting of four sub-basins, namely, Mangdechhu, Chamkharchhu, Kurichhu and Drangmechhu. The Manas River and its tributaries are home to three species of rare migratory game fish: the deep-bodied mahseer (*Tor tor*), golden mahseer (*Tor putitora*), and chocolate mahseer or Katle (*Acrossocheilus hexangonolepis*). The Manas River drains into Brahmaputra River in India, which finally empties into the Bay of Bengal.



Manas river basin. It is one of the biggest river basins consisting of four sub-basins.

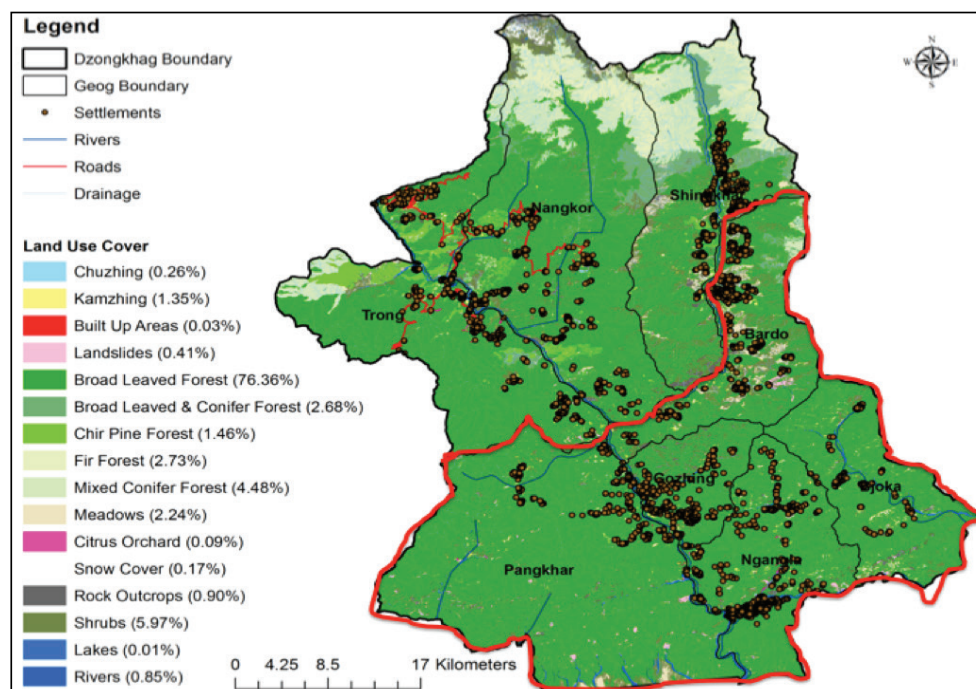


Figure 3.2: Lower Manas Basin Landscape

Majority of the landscape falls under Royal Manas National Park (RMNP), Bhutan's oldest national park established in 1966. It is considered as the conservation showpiece of Bhutan and a genetic depository for valuable plants. RMNP directly borders the World Heritage Site Manas National Park in Assam, India, to the south. The Park is home to Bengal tigers, elephants, gaur (*Bos gaurus*), as well as rare golden langur (*Presbytis geei*), pygmy hog (*Sus salvanius*), hispid hare (*Caprolagus hispidus*), and Ganges river dolphin (*Platanista*). It is also the only Bhutanese park inhabited by the one-horned rhinoceros (*Rhinoceros unicornis*) and wild water buffalo (*Bubalus arnee*). It is home to Hundreds of species of birds — including four species of hornbills – *rufous-necked*, *wreathed*, *pied* and *great Indian*.

Table 3.1: Distribution of area by agro-ecological zone (sq.km) for Lower Manas Basin Landscape

Gewog	Total	Wet Subtropical 100-600	Humid Subtropical 600-1200	Dry Subtropical 1200-1800	Warm Temperate 1800-2600	Cool Temperate 2600-3600
Bardo	210	12	56	52	69	20
Goshing	99	23	3	51	22	0
Bjoka	195	35	13	91	56	0
Ngangla	216	69	4	98	44	0
Phangkhar	537	121	29	246	141	0

Source: Bhutan RNR Statistics 2015

3.2.4. Baseline Assessment Methodology

A landscape-wide baseline assessment was conducted from 13-28 November 2015 in these five Gewogs: Bardo, Goshing, Bjoka, Ngangla and Phangkhar (detailed methodology in Annex I). The main tool used for the assessment was Socio-Ecological Production Landscapes (SEPLS) Performance of *Satoyama Initiative*. The toolkit looks at how the knowledge in traditional land use systems is interacting to shape the complex mosaics of different land use types that contribute to both human wellbeing and biodiversity. Then the SEPLS indicators are expressed on Likert in scale of 1 – 5.

The primary data was collected through a) Focus group discussion, b) Resource Mapping, c) SEPLS stakeholder's workshop, and d) Key Informant Interviews (KII). A total of seven focus group discussion; six SEPLS scoring exercises; 25 key informant interviews; and six resource mapping exercises were conducted. Main participants included farmers and local elected representatives from each Chiwogs. Further, consultation meetings were held with local government officials, RNR staff at Dzongkhag, Dungkhag and Gewog level and also with local CBOs and Cooperatives. In the process of data collection and consultation, more than 200 respondents were involved from the landscape area.



Bjoka Gewog SEPLs and Stakeholder Participants

3.2.5. Results of the Baseline Assessment

The five Gewogs of Lower Manas Basin is categorized into three groups: a) Bardo and Goshing Gerogs located upstream, b) Ngangla and Phangkhar Gewogs located down stream of Mangdechu sub-basin and c) Bjoka Gewog.

3.2.5.1. Bardo and Goshing Gewog

Bardo Gewog:

Bardo Gewog has five Chiwogs (Langdurbi, Digala, Khomshar, Phulabi and Bardo) with 334 household and population of 4000. It has the poverty rate of 61%. The Gewog has a geographical area of 210 sq.km with 75% of its total area under forest cover.

Agriculture and livestock farming is the main stay of the communities of the Gewog. They principally grow paddy, maize, wheat and buckwheat. Communities also collect various non-wood forest products (NWFP) from forests such as cane shoots, mushrooms, bamboo shoots, edible ferns, tubers and medicinal herbs. The total number of cattle of Bardo Gewog is 2826. Bardo communities also celebrate many local festivals, which are related to Bonism, such as *Kath*, *Sakharam*, *Ahou*, *Bahu*, *Karphu*, *Yue*, etc.

Bardo has eight irrigation schemes with a total length of 27.5 km. The electricity coverage is only 16% but the mobile coverage is 100%. There are 14 community and private owned monasteries; two numbers of basic health unit; one out reach clinic; one RNR center; one agriculture extension center; and four community schools with 355 students.

The major agro-environmental issue faced by Bardo Gewog is human wildlife conflict followed by agricultural land remaining fallow, decline in cultivation of traditional crops and seed degeneration.

Goshing Gewog:

Goshing has a population of 2800 and is one of the farthest and least developed Gewogs. It has a total of 204 households. It comprises of five Chiwogs - Lichibi, Limapong, Budhashi, Mewangang and Lamtang. The total area is about 99 sq.km with 78% of the Gewog under forest cover. The Gewog has poverty rate of 61%. The population practice subsistence farming and are mostly dependent on agriculture and livestock rearing. They principally grow mandarin, cardamom, ginger and various cash crops to supplement their income. However, maize remains the principal staple crop cultivated for self-consumption. The total number of cattle for Goshing Gewog is 617. Additionally, communities also collect various non-wood forest products (NWFP) from forests such as cane shoots, mushrooms, bamboo shoots, edible ferns, tubers and medicinal herbs.

A farm road has been constructed in 2013 connecting the Gewog center and major villages. Electricity coverage is 84% and mobile network coverage of 98%. There are three community-owned monasteries, one RNR center, four out-reach clinics, 11.7 km of Gewog center road, 9.5 km farm road and two community schools with 260 students.

Goshing Gewog:

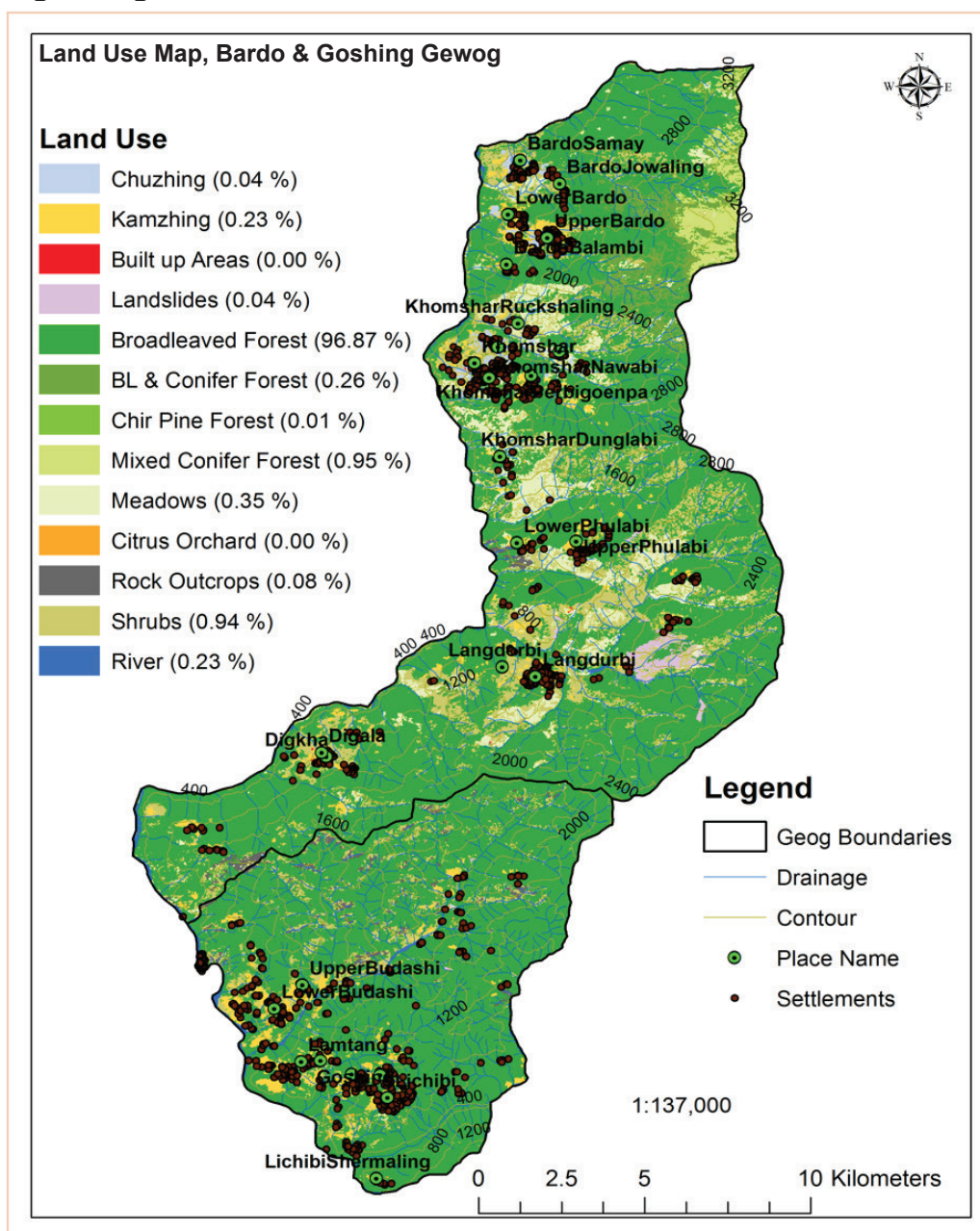


Figure 3.3: Bardo and Goshing Gewog Land Use Map

Goshing also reported crop depredation by wild animal as the top most environmental issue, followed by agriculture land remaining fallow, drinking and irrigation water shortage, invasive alien species and decline in cultivation of traditional crops.

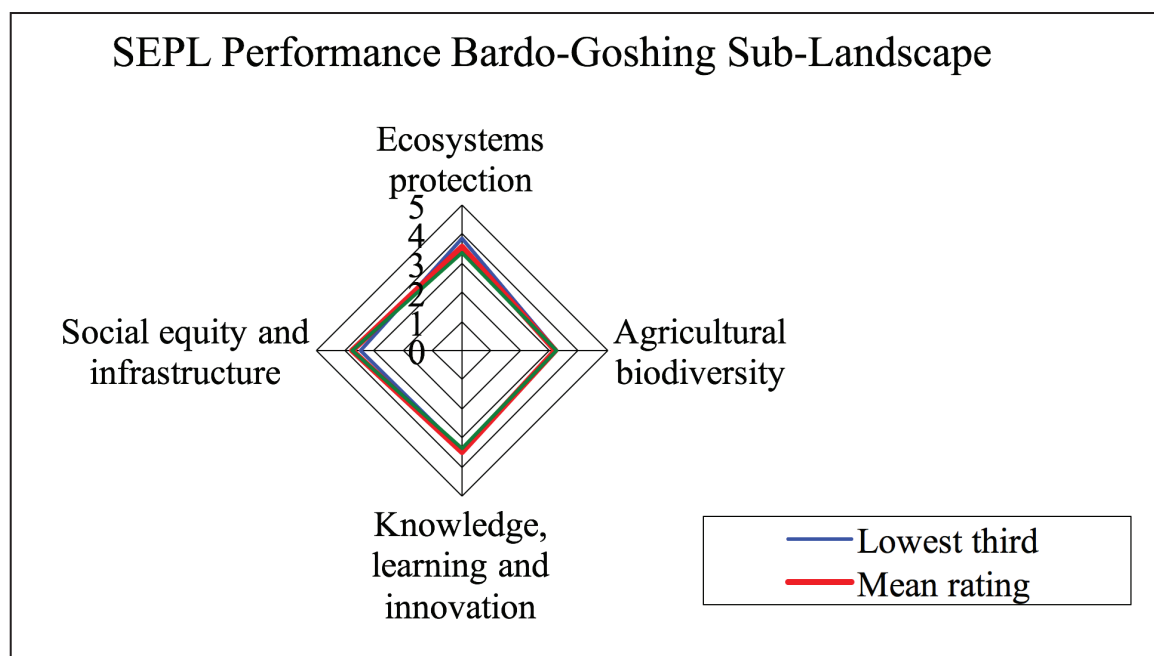


Figure 3.4: SEPL performance scoring result of Bardo-Goshing Sub-Landscape

	Ecosystems protection	Agricultural biodiversity	Knowledge, learning and innovation	Social equity and infrastructure
Lowest third	3.84	3.25	3.42	3.48
Mean rating	3.55	3.21	3.49	3.75
Highest third	3.34	3.25	3.38	3.77
Standard dev.	0.50	0.41	0.28	0.38

Table 3.2: SEPL performance of Bardo-Goshing Sub-Landscape

Figure 3.4 and Table 3.2 show the scoring result of Bardo and Goshing Gewogs. From the four indicators - ecosystem protection and social equity and infrastructure have the highest scores with the mean score of 3.55 and 3.75 respectively. Whereas, knowledge, learning and innovation and agriculture biodiversity have scored comparatively lower with mean score of 3.49 and 3.21 respectively.



Goshing Gewog

3.2.5.2. Bjoka Gewog

Bjoka is located at about 31 Kms from Panbang and there are 138 households spread across five Chiwogs (Bjoka Trong, Kamati, Dali, Barpong and Chapdenpa) with a total population of 949 people. Bjoka is the only Gewog in Zhemgang where both Khengkha and Sharshop kha are spoken. Bjoka Gewog has a total area of 196 sq.km and about 87 percent is under forest cover.

Bjoka Gewog has a poverty rate of 62%. Unlike other Gewogs, a substantial portion of their income is generated through the sale of *Ringshu* and cane products. Nonetheless, agriculture and livestock rearing remains the primary occupation, with a cattle population of 767. Farmers cultivate maize and other cereals such as finger millet, foxtail millet, buckwheat and wheat. Communities also grow cash crops such as mandarin, ginger and potato to generate additional household income.

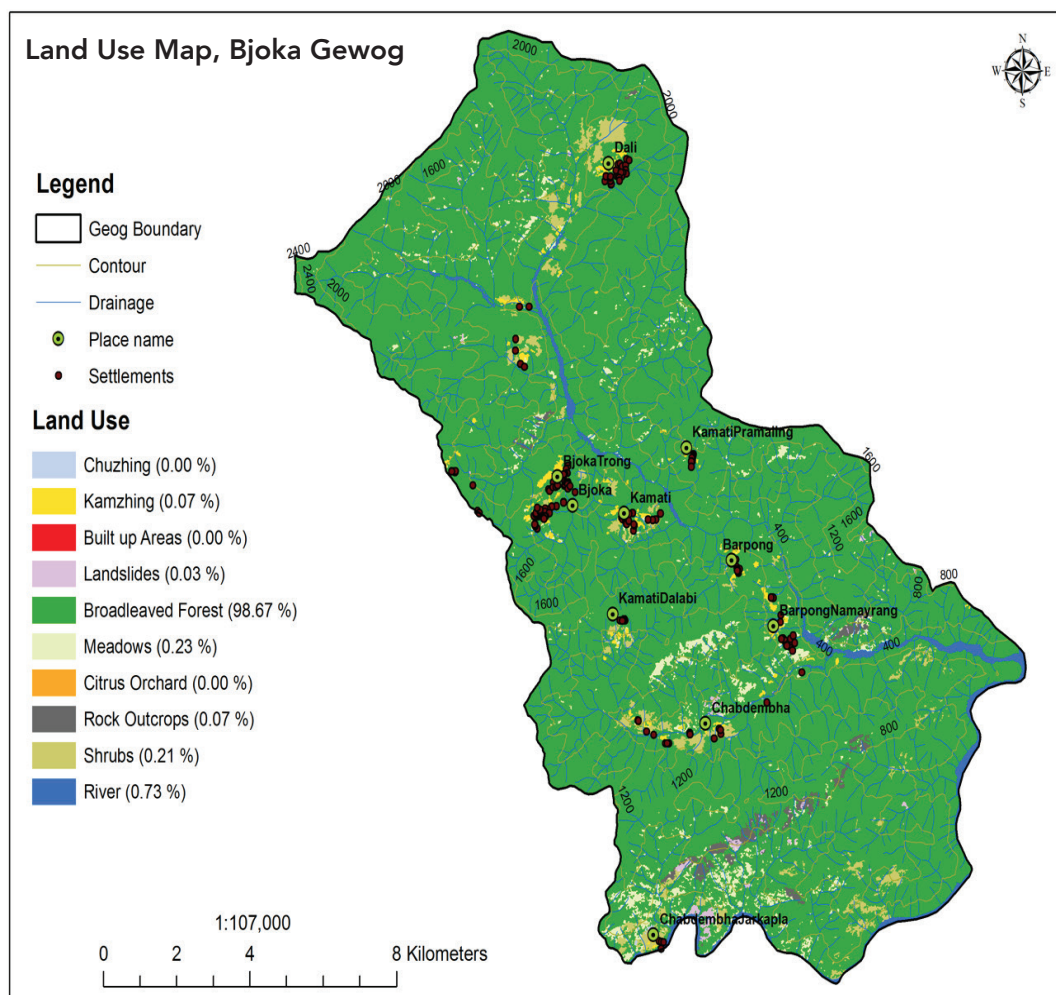


Figure 3.5: Bjoka Gewog Land Use Map

The Bjoka Gewog has electricity coverage of 99.77 percent, 95 percent mobile coverage and seven community owned monasteries. The Zarkabla irrigation channel is about 2.44 km in length, and the Gewog also has one RNR center and territorial forest office, two basic health units, two outreach clinics and two community schools with 173 students. The Bjoka *Tsarzo Gongphel Tshogpa* is a registered cooperative with Department of Agriculture Marketing and Cooperatives.

The biggest threat to environment is the unsustainable harvesting of NWFPs. The availability of NWFPs such as bamboo, cane and ringshu in the wild has drastically reduced. Other agro-environmental challenges include crop depredation, drinking and irrigation water shortage, solid waste management, decline in cultivation of traditional crops and degeneration of crop seeds.

Figure 3.6 and Table 3.3 show the SEPL performance scoring result of Bjoka Gewog. From the four indicators - agricultural biodiversity and ecosystem protection have the lowest scores with the mean score of 2.77 and 3.06 respectively. This could be attributed to the recent developmental activities taking place in Bjoka Gewog such as farm road construction and grid electrification. On the other hand, social equity and infrastructure, and knowledge, learning and innovation have scored comparatively higher with mean score of 3.45 and 3.50 respectively. As per respondent's opinion, the reasons for such high scores are because of their strong social capital leading to innovation and learning within and amongst the communities. In addition, respondents also said that there is strong oral transmission of traditional knowledge, custom, and values across generations.

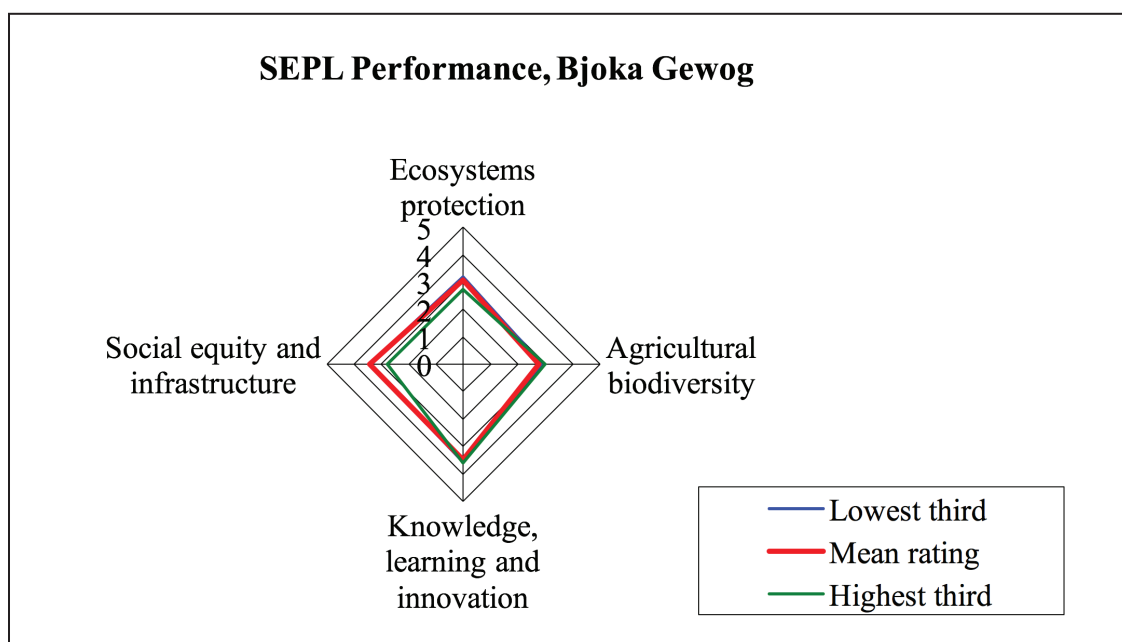


Figure 3.6: SEPL performance scoring result of Bjoka Gewog

Table 3.3: SEPL performance of Bjoka Gewog

	Ecosystems protection	Agricultural biodiversity	Knowledge, learning and innovation	Social equity and infrastructure
Lowest third	3.19	2.88	3.57	3.41
Mean rating	3.06	2.77	3.50	3.45
Highest third	2.75	3.00	3.62	2.80
Standard dev.	0.36	0.39	0.27	0.33

3.2.5.3. Ngangla and Phangkhar Gewog

Ngangla Gewog:

Ngangla Gewog is the administrative center of Panbang Dungkhag with a population of about 2000 and it is now connected by Gomphu-Panbang highway. There are five Chiwogs namely, Kagtong, Ngangla Trong, Ribati, Marngduet, Panbang-Somthang. About 78% of Ngangla Gewog's total area is under forest cover with a geographic area of 312 sq.km. Ngangla Gewog is also economically poor and the poverty rate stands at 61.17%. Agriculture and livestock rearing are the main source of livelihood and farmers cultivate variety of cereals and vegetables. Maize and paddy are the main food crops though cereals such as finger millet, foxtail millet, buckwheat and wheat are also grown as secondary crops. Additionally, communities grow cash crops such as mandarin, ginger and potato to generate income. The total number of cattle for Ngangla is 890. Recently tourism is seeing a gradual growth with regional tourists and international tourists visiting the area for river rafting and bird watching.

It has 100% electricity and mobile coverage with four government and community-owned monasteries. The Gewog has 11 irrigation schemes, one RNR center, one agriculture extension center, one livestock center, RMNP office, territorial forest office, two basic health units, four outreach clinics, three community schools and one middle secondary school with 972 students. The Gewog is connected with 8.1 km of farm road and 16.1 km of feeder road.

Agro-environmental challenges of Ngangla Gewog include human wildlife conflict, solid waste management, spread of invasive alien species, unsustainable collection of NWFPs, land remaining fallow, crop seed degeneration, decline in cultivation of traditional crops and shortage of drinking and irrigation water.

Phangkhar Gewog:

Phangkhar Gewog is located 89 kms south of Zhemgang Dzongkhag with a population of 1367 and 169 households. There are five Chiwogs, Rongchula Tadijong, Mamong, Trong-Pantang, Shalingtoed-Tashibi and Chagngar Zam. The entire Gewog falls under RMNP with forest cover of about 88%. The Gewog has one of the highest poverty incidence in the country at 64.14%. The communities mainly depend on agriculture and livestock farming. The total number of cattle for Phangkhar is around 836. They grow mandarin, cardamom, ginger and various fruits as cash crops. Maize remains the principal staple crop cultivated for self-consumption. Further, communities also collect various NWFPs such as cane shoots, mushrooms, bamboo shoots, edible ferns, tubers and medicinal plants.

The Gewog has 100 percent mobile and electricity coverage with three community-owned monasteries and three irrigation schemes covering 6.92 km. It has one RNR center, one agriculture extension center, one livestock extension center, a national park office, a territorial forest office, three basic health unit, three outreach clinic and three community primary schools with 225 students. This Gewog is connected by main Gomphu – Panbang highway and 12 km of farm road.

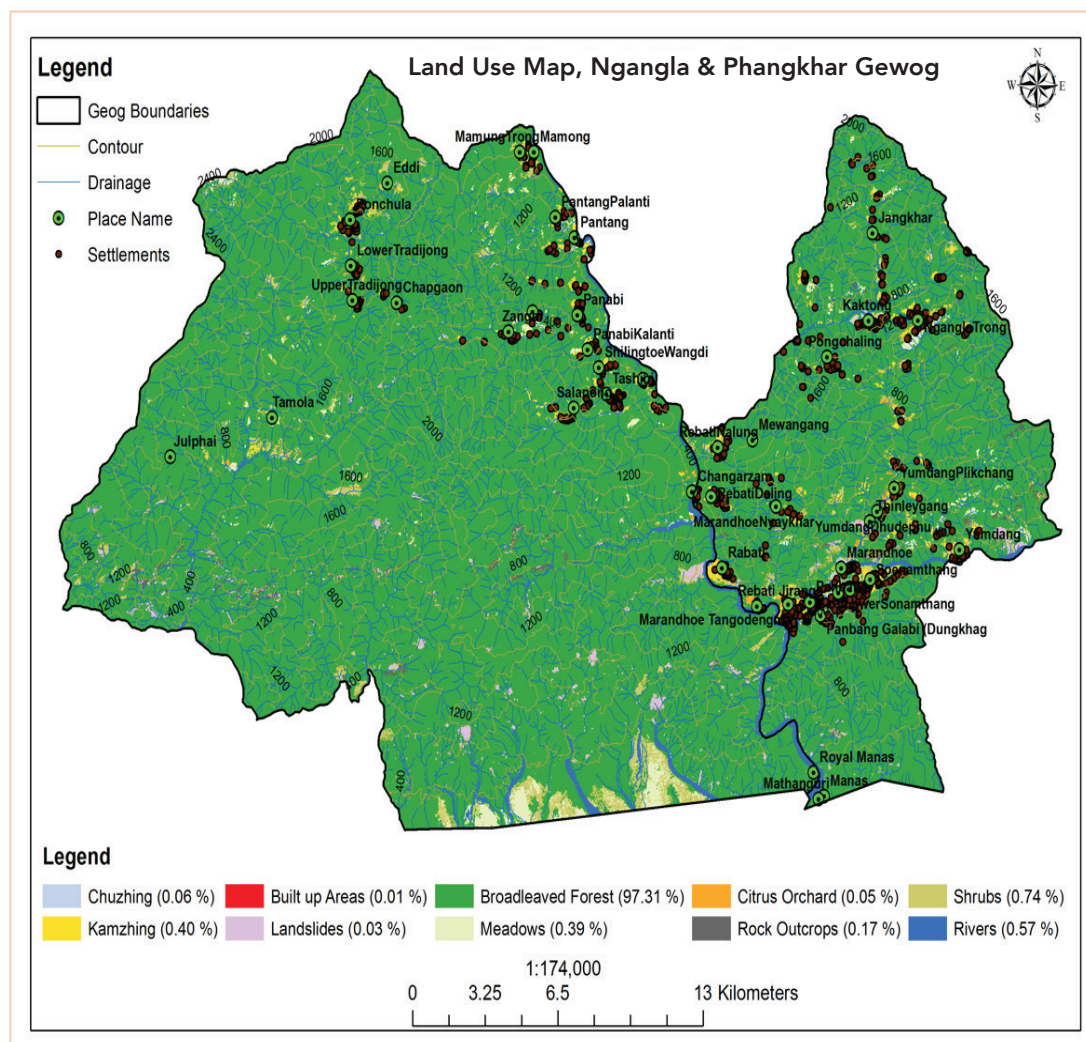


Figure 3.7: Ngangla and Phangkhar Gewog Land Use Map

Similar to all other four Gewogs, Phangkhar also reported human wildlife conflict as a major environmental challenge. And other agro-environmental challenges are citrus greening, land remaining fallow, spread of invasive alien species, seed degeneration, decline in cultivation of traditional crops, shortage of drinking and irrigation water and unsustainable collection of NWFPs.



Eco-lodges in Phangkhar Gewog

Figure 3.8 and Table 3.4 show the SEPL performance scoring result of Ngangla and Phangkhar. From the four indicators - agricultural biodiversity, and social equity and infrastructure have the highest scores with the mean score of 3.72 and 3.90 respectively. On the other hand, knowledge, learning and innovation, and eco-system protection have scored comparatively lower with mean score of 3.58 and 3.69 respectively.

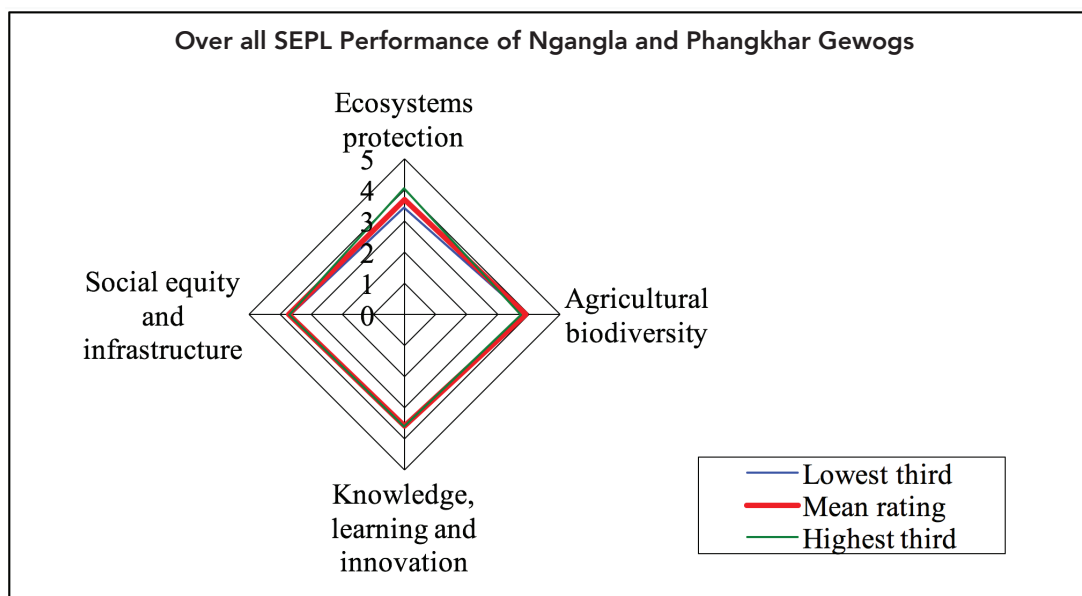


Figure 3.8: SEPL performance scoring result of Ngangla and Phangkhar Sub-Landscape

Table 3.4: SEPL performance of Ngangla and Phangkhar

	Ecosystems protection	Agricultural biodiversity	Knowledge, learning and innovation	Social equity and infrastructure
Lowest third	3.44	3.88	3.56	3.67
Mean rating	3.69	3.90	3.58	3.72
Highest third	4.06	3.75	3.59	3.71
Standard dev.	0.44	0.48	0.22	0.22

3.2.6. Overall SEPL Performance of Lower Manas Basin Landscape

The overall SEPL performance of the Lower Manas Basin is sound with the average mean rating of 3.51 (Figures 3.9 and Table 3.5). The mean rating for social equity and infrastructure is highest with 3.68 followed by knowledge, learning and innovation at 3.53 and ecosystem protection at 3.48. The lowest mean rating is for agriculture biodiversity at 3.36. High score for social equity and infrastructure can be attributed to the enormous investment made by the government in public infrastructure in all the gewogs such as farm roads, communication services, health and education facilities, etc. The rating is lowest for the agricultural biodiversity, as the farmers across the landscape reported on the loss of traditional crops and seed degeneration.

Although the result of SEPLs indicate a positive trend, GEF-SGP's planned intervention in the landscape is very appropriate and well-timed. With the landscape opening up to various development programs, mainly, hydropower, satellite towns and roads; the area is anticipated to see enormous pressure on ecosystems services, and natural resources. Interventions from the GEF-SGP in ensuring sustainable management and utilization of the resources in the landscape will be crucial to sustain the diverse ecosystems and ecosystem services, and rich biodiversity of the Lower Manas Basin.

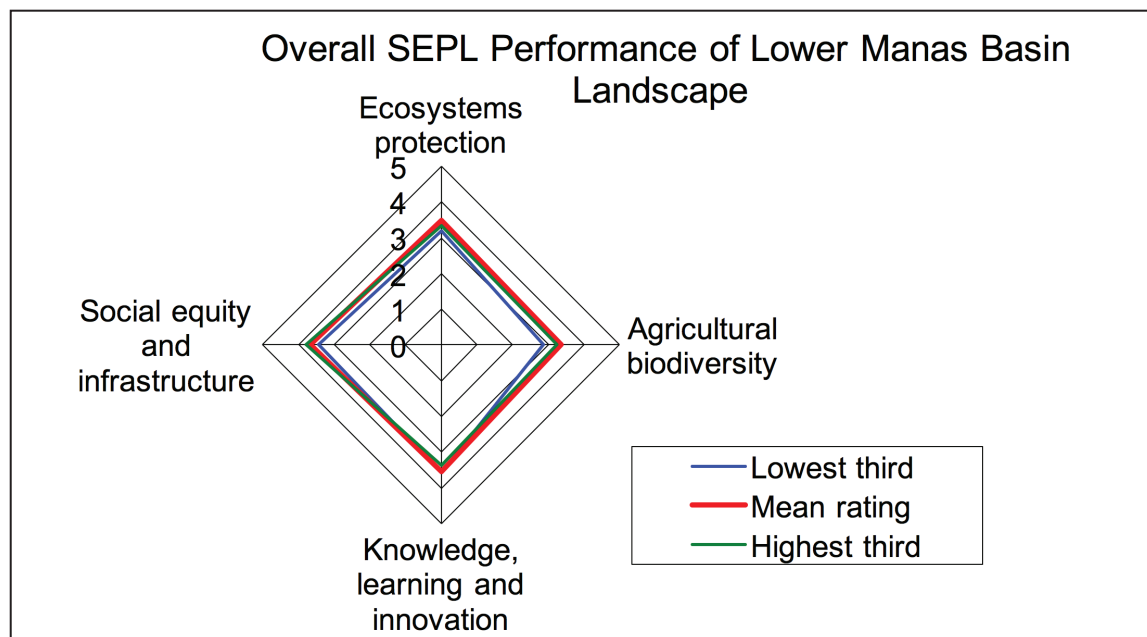


Figure 3.9: SEPL performance scoring result of Lower Manas River Basin Landscape

Table 3.5: SEPL performance of Lower Manas River Basin Landscape

	Ecosystems protection	Agricultural biodiversity	Knowledge, learning and innovation	Social equity and infrastructure
Lowest third	3.19	2.88	3.58	3.44
Mean rating	3.48	3.36	3.53	3.68
Highest third	3.34	3.25	3.38	3.77
Standard dev.	0.50	0.62	0.25	0.31

3.2.7. Major Challenges of Lower Manas Basin Landscape

The baseline assessment conducted (detail report in Annexure I) in the lower Manas basin showed that the major environmental and agro-ecological issues and challenges are human wildlife conflict (crop depredation), unsustainable collection of non-wood forest products (bamboo and *ringshu* - *Neomirocalamus* and *ropogonifolius*), crop seed degeneration, decline in cultivation of traditional crops, shortage of drinking and irrigation water, increasing fallow lands, citrus greening disease, solid waste management, and agricultural land being invaded by invasive alien species. Below are the key environmental and agro-ecological issues that are prevalent across the lower Manas basin landscape:

Human wildlife conflicts: Communities across five Gewogs highlighted human-wildlife conflict issue especially in terms of wild animals damaging the crops. The wild animals mentioned were wild pigs, porcupine, ungulates and primates against crops such as maize, rice potato, and wheat. Historically too, communities of Zhemgang have reportedly faced HWC issues a couple of decade ago. Van Aaken (1997 in NCD, 2008) found that in the mid-1990s, due to crop damage, 23% of the farmers in Zhemgang Dzongkhag stopped rice cultivation. Further 39% of the farmers abandoned dry land agriculture and 71% stopped traditional *tseri* cultivation.

Crop seed degeneration and decline in cultivation of traditional crops: RNR staff expressed the issue of crop seed degeneration especially on cereal crops and this has also been a long-standing production challenge. The degeneration was observed due to successive use of seeds, which led to reduction in yield or quality caused by an accumulation of pathogens and pests in the planting materials. The concern was on the inadequacy of seeds provided by the government and the lack of systematic seed storage and management. Majority of the communities across five Gewogs and government officials raised their concern on the declining trend of cultivation of traditional crops especially cereals. These cereals include buckwheat, wheat, millets and number of traditional rice varieties. The decline is primarily because of the availability of high-yielding variety of other cereals and also due to ready and cheap availability of rice imported from India. To certain extent, some farmers also co-related the issue to HWC and declining population in their locality.

Shortage of drinking and irrigation water: Shortages in drinking water at household level was also common to most Gewogs. Some officials argue that it is more of a delivery and conveyance issue rather than actual shortage or lack of water *per se*. However, in most cases the shortage of irrigation water especially for paddy was caused by poor management and maintenance of the irrigation channel including drying of water sources

Non-Wood Forest Products (NWFPs): The issue of unsustainable collection of NWFP especially *Ringshu*, cane shoots and bamboo shoots resonated across these Gewogs. Ngangla and Phangkhar Gewogs mentioned about the large collection of bamboo shoots, whereas Bjoka and Ngangla Gewogs highlighted the increasing and unsustainable harvest of *Ringshu* and cane shoots. While exhaustion of these NWFPs was not the key concern, communities felt that the trend of collection was both alarming and incremental in absence of any management plans.

Forest harvesting for fuelwood: Bhutan's per capita fuelwood consumption estimated at 1.2 tonnes is amongst the highest in the world. With an estimated population of 720,679, Bhutan's total annual fuelwood consumption works out to be in the order of 937,000 tonnes. Though the population at the landscape did not raise any concerns related to the issue, the team observed large quantity of fuelwood stacked at every household. Even with easy access to electricity, population still heavily depend on fuelwood, mainly for fodder cooking, mass cooking in community gathering centers, monasteries and schools. This is going to have a direct bearing on the health of the surrounding environment besides its impact on climate change.



Fuelwood Collection in Khomshar Gewog

Invasive Alien Species: The issue of invasive species was in particular reference to an exotic invasive species reported by local communities of four Gewogs. The species, *Mikania micrantha*, which is labeled as one of the 14 invasive species by National Biodiversity Center (2009) is locally known to invade cropland and forest. Another locally known species called “Nga-log pa” was also reported to be a nuisance invasive species, though it was not as widespread as *Mikania micrantha*. Though the local communities and officials have reported it as an issue, the extent of its geographical coverage, impacts on native species (vegetation and cropland) needs to be scientifically validated.

Fallow Land: As highlighted under HWC section, crop damage by wild animals has been one of the major causes of leaving the croplands and paddy fields fallow. Shortage of irrigation water and maintenance cost of irrigation canals have also been the main reasons for leaving wetlands fallow. Some communities also expressed shortage of farm laborers as key reason to leaving cultivable land fallow.

3.2.8. Lower Manas Basin Landscape Strategy

Overall Objective

Sustaining agro-ecological services of Lower Manas Basin by sustainably managing natural resources, reducing threats to biodiversity and improving livelihoods of the communities.



Specific Objectives:

1. Enhance conservation, management and sustainable use of agro-biodiversity.
2. Conservation and sustainable utilization of natural resources within safe ecological threshold.
3. Strengthen community capacity and promote sharing of experiences and knowledge.

3.2.9. Intended outcomes, indicators and typology of projects

Based on the above critical agro-environmental issues and challenges identified through the baseline assessment, the following OP 6 strategic initiatives are prioritized:

SGP OP6 Strategic Initiative: Innovative climate smart agro-ecology

Outcome 1: Local agro-biodiversity sustainably managed/conserved, and resilience of communities to changing climatic conditions enhanced.

Typology of projects:

- Conservation of local agro-biodiversity through establishment of community seed banks, enhancing local capacity in seed selection and improvement, and product diversification.
- Promote IWRM, sustainable land management practices and efficient irrigation approaches.
- Reduce human-wildlife conflict and retaliatory killing of wild animals, and depredation of crops.
- Sustainable management and utilization of NWFPs including rehabilitation of depleting resources, mainly bamboo and cane.
- Watershed management and conservation of important flora and fauna.
- Implementation of control measures for high risk invasive alien species.
- Sustainable community based eco-tourism and environmental education

SGP OP6 Strategic Initiative: Energy access co-benefits

Outcome 2: Improved access to alternative source of energy and cleaner technologies to reduce GHG emission, drudgery and promote health benefits of the communities.

Typology of projects:

- Promote energy efficient and cleaner technologies and machineries to reduce timber and fuelwood consumption and pollution.
- Promote alternative source of energy for cooking and heating (Biogas, biomass, improved cook stove technology, etc.);

SGP OP6 Strategic Initiative: Contribution to global knowledge management platforms**Outcome 3: Local knowledge on agro-biodiversity and biodiversity conservation and use documented and disseminated to contribute to global knowledge platforms.****Typology of projects:**

- Documentation of traditional knowledge on biodiversity and agro-biodiversity conservation and use that exists within the landscape with prior informed consent of the community.
- Capacity building of CSOs, CBOs and cooperatives on SLM, IWRM and environment conservation.
- Production of documentary on landscape, community lifestyle, traditional practices, unique cultures and TK related to biodiversity conservation and use, etc.
- Organize knowledge fairs and south-south exchange programmes.
- Documentation and dissemination of best practices and lessons learned through publications, news articles and poster presentations

3.3. Grant-maker+ strategy

CSOs and CBOs are playing a very important role in supporting the RGoB and development partners in achieving its national goals and development objectives with limited funding and institutional capacity. Therefore it is highly recommended that the members of technical advisory group (TAG) and NSC support the capacity of CSOs and CBOs in the process of formulating projects, initiating, supporting implementation, monitoring and evaluation. It is also recommended to use the broad representation of CSOs & CBOs to build network, collaboration and partnership to take forward the SGP-Bhutan grant making. With a pro-active support from the NSC and TAG members, the following outcomes are expected:

3.3.1. CSO-Government dialogue platform

The CSO participation has been well recognized to have or inculcate ownership of development process, democratic governance and the quality and relevance of official development programmes. This has been recognized in the 11th FY plan and also reflected in the National Report for the United Nations Conference on Sustainable Development (2012), where, RGoB has explicitly mentioned developing institutional arrangements for engagement and partnership with the CSO for synergy and broadening outreach in achieving sustainable development¹³. Therefore, SGP-Bhutan will strive to:

- Identify few core group of environmental/relevant CSOs that will set up the CSO platform to engage in dialogue with RGOB;
- Strategically support building of skills' and institutional capacity of core group of environmental CSOs;
- Support the institutionalization of CSO forum and encourage regular meeting of the CSO members; and
- Support development of strategies/plans for CSO to meaningfully engage with the RGoB.

3.3.2. Policy influence

In addition to CSO-Government Dialogue Platform initiative, SGP Bhutan will strive to engage NSC members to inform and influence policy as a part of its role as "Grant-maker+" by linking community initiative with the national/sectoral policy and strategies. The chair of NSC is represented by GNHC, with a major stake in providing policy direction to translate Bhutan's GNH development philosophy into reality. Similarly, there are also members from donor agencies, INGOs, CBOs who are well positioned to contribute SGP experiences and lessons in the broader context of development initiatives. The NC, NSC and TAG members will need to collaborate with CSO consortium to organize workshops, events, knowledge fair and invite key stakeholders, local leaders, politicians, important government players and focal points of international conventions (UNFCCC, CBD, UNCCD etc.). The NC of SGP-Bhutan will have to proactively build partnership with important RGoB agencies and share the outcomes and lessons for SGP grant making.

3.3.3. Promoting social inclusion

Given that women play an important role in natural resource management and agricultural production in Bhutan, SGP country programme's plans and strategies will have to be more gender sensitive and inclusive by taking the following approaches:

¹³ Bhutan: In Pursuit of Sustainable Development, National Report to UNCSD 2012. pp. 27)

- Support and strengthen mechanisms and practical measures to ensure engagement of women, particularly from poor and marginalized groups in project planning and implementation. Key focus should be on ensuring women the access to, and control over resources and decision-making process;
- Support and enhance women's groups and mandatory participation of women (at least 40-50% representation) in CBOs to develop projects and programmes that meet their needs and priorities;
- Support projects that focus on addressing gender and youth related issues, including people living with disabilities and vulnerable groups;
- Support CBOs that engage youth and early school leavers that create meaningful engagement and employment opportunities (e.g. through vegetable farming, farm produce marketing etc.)
- Ensure there is a minimum level of gender analysis in the project proposal; representation of women as member in the executive committee of farmer's group and CBOs; and project personnel of CSOs lead by youth and women.

3.3.4. *Knowledge management plan*

The main objective of knowledge management for SGP-Bhutan will be to ensure that information are appropriately captured, interpreted, shared and disseminated. Building on lessons and experiences of SGP's knowledge management, the following approaches are recommended:

- At global level, tap into the existing GEF/SGP network to share information, lessons and experience;
- Create online forum (including social media) to discuss, deliberate and share information and lessons with all stakeholders;
- Encourage grantee partners to participate in national events (e.g. world environment day, social forestry day, etc.) to showcase their project outcomes and share lessons;
- Develop annual newsletter, documentary and annual reports for wider dissemination;
- Convene annual stakeholder conference to share SGP- grant making and also where possible, participate in Forestry and Park conferences; and
- Organize community member/grantee partner study tours within and outside the country.

While implementing the above interventions, it is important to note that there is no "one size fits all" approach. Thus, the knowledge management activities will have to be adapted depending on the target audience.

3.3.5. *Communications Strategy*

The key stakeholders and CSOs have been identified both at the national and at the landscape level. Thus, SGP-Bhutan should develop information brochure and distribute to these identified stakeholders, and communicate through press release, call for proposal, posters, documentary, photo stories, website, internet, radio, television and print media. SGP country team should make presentation about the SGP grant making during forestry conference, park conference and other important events such as meeting of Dzongkhag planning officers for the 12th FYP, Dzongkhag Environment Officers' forum, LG Council meeting (Dzongkhag Tshodu & Gewog Tshode), etc. SGP-Bhutan can convene a semi-annual stakeholder's meeting to discuss possibilities of collaboration, partnership and co-funding of projects.



4. Expected results framework

The overall responsibility for monitoring and evaluation of the OP6 programme will be with SGP-Bhutan, with policy and technical guidance from NSC and TAG members. A monitoring matrix to track the programme has been developed (Table 4.1). Project outcomes and outputs will be monitored periodically and data collated using data submitted by the grantee partners. Likewise, SGP-Bhutan will keep track of agreed indicators on a regular basis as specified in the table below.

The indicators and targets identified in the CPS will include some indicators that contribute to the global portfolio level indicators of SGP OP6¹⁴ as identified in the OP6 CEO Endorsement Document's Results Framework, besides the ones that will be specific to the national or landscape context (that may be identified through a detailed baseline assessment process).¹⁵



Royal Manas National Park, country's oldest protected area.

¹⁴ For more information refer to the SGP OP6 CEO Endorsement Document, Annex A "Project Results Framework".

¹⁵ Specific indicators and targets relevant to grant-making in selected landscape/seascape areas of focus should be identified through the baseline assessment process, which will identify typologies of community projects in the landscape or seascape relevant to country priorities and the selected SGP OP6 strategic outcomes.

Table 4.1: Consistency with SGP OP6 global programme components

OP6 project components	CPS targets	Activities	Indicators	Means of verification
Component 1: Community Landscape Conservation: 1.1 SGP country programmes improve conservation and sustainable use, and management of important terrestrial ecosystems through implementation of community based landscape approaches in approximately 50 countries	Enhance conservation, management and sustainable use of local agro-biodiversity in five Gewogs of lower Manas basin covering a total area of 1257 sqkm.	<ul style="list-style-type: none"> Conserving local agro-biodiversity by establishing seed banks Enhancing local capacity in seed selection, seed improvement and diversification of products Implement IWRM, SLMP and efficient irrigation approaches HWC 	<ul style="list-style-type: none"> Number of community seed banks in place and operational; No. of Gewogs/ communities with IWRM plan in place and operational; Incidence of crop loss as reported by farmers compared to the baseline study; Acreage of land brought under cultivation (to find out whether fallow land has reduced through SGP's intervention) 	<ul style="list-style-type: none"> Individual project reporting by SGP country teams Baseline assessment comparison variables (use of conceptual models and partner data as appropriate)
	Conservation and sustainable utilization of natural resources well within safe ecological threshold put in place in five Gewogs by 2018	<ul style="list-style-type: none"> Rehabilitation of depleting and sustainable management and utilization of NWFPs Conservation of important floral and faunal species Important watershed management Invasive alien species management through appropriate control measures Reduce timber and fuelwood consumption to promote reduction in pollution and GHG emission 	<ul style="list-style-type: none"> No. of community forestry groups established and functional/Hectares of areas brought under cane and bamboo plantation; No. of watersheds under mgt plan and operational; Measures to control IAS in place and its effectiveness as measured by feedback from farmers; Number of clean technologies introduced and adopted by communities; No. of hh/women headed hh with access to alternative energy; 	<ul style="list-style-type: none"> Annual Monitoring Report (AMR) Country Programme Strategy Review

	Strengthen local capacity and promote sharing of experience and knowledge	<ul style="list-style-type: none"> ■ Build capacity of CSOs, CBOs and Cooperatives on SLM, IWRM and environment management ■ Produce documentary on landscape ■ Organize knowledge fair and south-south exchange programmes ■ Document and disseminate best practices and lessons 	<ul style="list-style-type: none"> ■ No. of farmers/ (women) trained on SLM & IWRM technologies; ■ No. of CSOs/CBOs engaged through SGP's support; ■ No. and type of knowledge products developed yearly/ during OP6. 	
<p>Component 2: Climate Smart Innovative Agro-ecology:</p> <p>2.1 Agro-ecology practices incorporating measures to reduce CO₂ emissions and enhancing resilience to climate change tried and tested in protected area buffer zones and forest corridors and disseminated widely in at least 30 priority countries</p>	<ul style="list-style-type: none"> ■ Sustainable management of rangelands, agricultural landscapes and other production systems. ■ Promote innovation and adoption of Climate Smart agro-ecology technologies, ■ Protection of watersheds, lakes, water sources ■ Conservation of agro-biodiversity and empowering farmers 	<ul style="list-style-type: none"> ■ Two projects for SLMP/IWRM ■ Two projects on conservation of cereals ■ CSA technologies identified and implemented in five Gewogs ■ Management interventions to protect critical watersheds in five Gewogs 	<ul style="list-style-type: none"> ■ Acreage of cultivable land brought under SLM practices; ■ IWRM of Manas sub-river basin in place and operational; ■ No./type of agro-biodiversity species under conservation and sustainable use; ■ No./type of clean technologies introduced and adopted by communities; ■ Incidence of crop loss reported by farmers as compared to baseline assessment. 	<ul style="list-style-type: none"> ■ Through field visit and reports ■ M&E reporting

	<ul style="list-style-type: none"> ■ Mitigation of human-wildlife conflict 			<ul style="list-style-type: none"> ■ No. of Gewogs with watershed mgt plan in place and operational. 	
<p>Component 3: Low Carbon Energy Access Co-benefits:</p> <p>3.1 Low carbon community energy access solutions successfully deployed in 50 countries with alignment and integration of these approaches within larger frameworks such as SE4ALL initiated in at least 12 countries</p>	<ul style="list-style-type: none"> ■ Research and development of innovative cook and heat stoves, and other renewable technologies ■ Reduce heavy dependence on fuelwood ■ Promote Renewable Energy Sources 	<ul style="list-style-type: none"> ■ One research and development conducted on fuel reducing technologies ■ Dependency on fuelwood reduced for five Gewogs ■ Develop 1 – 2 off grid hydro schemes 	<ul style="list-style-type: none"> ■ No./type of RE introduced and adopted by communities; ■ No. of hh/ (women headed hh) with access to alternative energy options for cooking and heating. 	<ul style="list-style-type: none"> ■ Through field visit and reports ■ M&E reporting 	
<p>Component 4: CSO-Government Policy and Planning Dialogue Platforms (Grant-makers+):</p> <p>4.1 SGP supports establishment of “CSO-Government Policy and Planning Dialogue Platforms”, leveraging existing and potential partnerships, in at least 50 countries</p>	<ul style="list-style-type: none"> ■ Formation of CSO consortium to have collective voice ■ Institution of CSO-Government platform ■ Build Capacity for environment conservation, MEAs, SDGs, etc. 	<ul style="list-style-type: none"> ■ Strengthen CSO/CBO network and formation of CSO consortium ■ Constituting CSO consortium ■ One capacity building project 	<ul style="list-style-type: none"> ■ CSO consortium in place and operational as measured by the no. of policy and planning dialogues initiated with RGoB; ■ No. of CSOs actively engaged with SGP in OP6. ■ No. of new partnerships (government, CSOs, CBOs) established during SGP OP6. 	<ul style="list-style-type: none"> ■ Individual project reporting by SGP country teams ■ SGP Global Database ■ Annual Monitoring Report (AMR) ■ Country Programme Strategy Review 	

<p>Component 5: Promoting Social Inclusion (Grant-makers+):</p>	<ul style="list-style-type: none"> Gender empowerment and mainstreaming in all projects Support projects related to youth employment, gender and differently abled people 	<ul style="list-style-type: none"> Mainstreaming and empowerment of gender in all projects Three projects that support gender, youth and people living with disabilities 	<ul style="list-style-type: none"> No. of approved project proposals focusing on gender equality/youth issue and supporting differently-abled people; No. of women representation as executive committee in farmer's group; CBOs that are formed within the landscape; No. of women (women headed household) benefitting from OP6 project initiatives. 	<ul style="list-style-type: none"> Individual project reporting by SGP country teams SGP Global Database Annual Monitoring Report (AMR) Country Programme Strategy Review
<p>Component 6: Global Reach for Citizen Practice-Based Knowledge programme (Grant-makers+):</p>	<ul style="list-style-type: none"> Farmer to farmer /south – south knowledge and experience sharing Organize and participate in knowledge fairs, expos and national events Observe and celebrate national and international environmental events, Document and disseminate best practice and lessons 	<ul style="list-style-type: none"> Farmer to Farmer & South-South knowledge sharing Organizing or participating in knowledge fairs, expos and national events Celebrating national & international events Documentation and dissemination of best practices and lessons 	<ul style="list-style-type: none"> No. of south-south learning between and amongst CSOs/ CBOs/ Farmers' group initiated; No./type of knowledge products developed and disseminated yearly or during OP6; 	<ul style="list-style-type: none"> SGP Global Database Annual Monitoring Report (AMR) Country Programme Strategy Review



5. Monitoring and evaluation plan

SGP-Bhutan team will be responsible for overall monitoring and evaluation (M&E) of the programme with policy and technical guidance of NSC and TAG members. M&E will follow the monitoring matrix (Table 5.1) to track progress of project activities, output and outcomes. M&E is a continuous process and has to be well integrated into project proposals and tracked at regular interval by documenting information, data and reports from the field. Indicators will have to be tracked and reported during the Annual Country Reports (ACR).

Considering the increase in project portfolio, which has to be managed by two SGP staff members, provisions are made to engage NSC and TAG members with M&E responsibility. Grantees will be required to submit technical and financial progress report half yearly/annually as agreed in the grant agreement. To validate progress in the field, SGP country team will conduct at least three monitoring visits to the project sites during the project period. As part of an adaptive management, annual review meetings will be conducted for all the projects where grantee partners will be required to present the project implementation progress, lessons and experience. This measure promotes knowledge transfer and innovative solutions to address implementation challenges.

The local stakeholders (extension officers and CSO members) and grantee partners will be involved during the initial stage of planning the M&E process. The grantee partners will define project objective(s) with clear short-term and long-term outcomes. Based on the expected outcomes of the project, the grantee partners will help define the objectives of the M&E, including the different stages of project monitoring. Based on the objectives, the stakeholders and community will also define a common set of indicators to help identify and track progress during project implementation and, define tools to collect data. The quantitative method of data collection will include surveys, interviews and observation, and the qualitative method will focus on participatory learning methods using visual, interviewing and focus group discussion. The frequency of monitoring will be determined during the planning stage by the grantee partners and in consultation with NC. Information from the monitoring will be compiled and documented by the community in the form of a report, pictures and/or video clips. However, the community can seek assistance whenever required from the local stakeholder for documenting and reporting of the project progress.

SGP-Bhutan will ensure timely submission of progress reports and M&E are conducted as stipulated in the framework (Table 4.1). Based on the M&E matrix (Table 5.1) and the agreed outcomes of the project with the grantee partners, NC will ensure that information collected are analysed and reviewed against set targets and indicators to check if it is on or off-track. Appropriate mitigation and management measures have to be put in place during the course of project implementation. SGP country team will also need to focus on the contribution of projects and programme to the global strategic outcomes. The findings of the evaluation can be shared with community, donor, policy makers and the media for transparency and accountability of the grant.

Table 5.1: M&E Plan at the Country Programme Level

M&E Activity	Purpose	Responsible parties	Budget source	Timing
Country Programme Strategy elaboration	Framework for identification of community projects and identification of target Landscape and typology of projects based on the baseline assessment	NC, NSC, country stakeholders, grantee	Covered under preparatory grant	January 2016
Annual Country Programme Strategy Review	Learning; adaptive management, and project progress documentation	NC, NSC, TAG CPMT	Covered under country programme operating costs	Reviews will be conducted on annual basis to ensure CPS is on track in achieving its outcomes and targets, and to take decisions on any revisions or adaptive management needs
NSC Meetings for ongoing review of project results and analysis	Assess effectiveness of projects, portfolios, approaches, learning, adaptive management	NC, NSC, UNDP	Covered under country programme operating costs	Minimum twice per year, one dedicated to M&E and adaptive management at end of grant year

Annual Country Report (ACR)	Enable efficient reporting to NSC	NC presenting to NSC	Covered under country programme operating costs	Once per year in June
Annual Monitoring Report (AMR) Survey (based on ACR)	Enable efficient reporting to CPMT and GEF; presentation of results to donor	NC submission to CPMT	Covered under country programme operating costs	Once per year in July
Strategic Country Portfolio Review	Learning; adaptive management for strategic development of Country Programme	NSC	Covered under country programme operating costs	Once per operational phase



6. Resource mobilisation plan

As described in the earlier sections, there are several RGoB institutions, donors, and development partners working in similar field as SGP-Bhutan. Most of the projects that have been identified for SGP support are based on the programme niche, thus, the probability of sourcing co-funding is very high. However, SGP Bhutan will need to build strong partnership with agencies like, Watershed Management Division, Wildlife Conservation Division, Bhutan Trust Fund for Environmental Conservation, World Wildlife Fund, Bhutan Foundation, Bhutan for Life initiative, Helvetas – Swiss, SNV-Netherlands and GEF 6 implementing agencies. Making a focused, long-term partnership with these agencies to mainly mobilize additional resources. Nonetheless, there are also other stakeholders that could provide in-kind co-funding and they should not be left out in terms of building collaboration and cooperation.

In the 11th Five Year Plan (2013-2018) around \$16.83 million has been allocated for biodiversity related activity and additionally, BTFEC provides \$1.5 million and WWF around \$1.6 annually and this does not include funds available from GEF 6 and other sources.

Thus, to enhance cash financing at all levels, based on the Strategic initiatives of OP6 and identified interventions, NC will need to make partners aware of SGP's conceptual framework and OP6 strategy to identify synergies and complementarity for additional source of co-financing. SGP-Bhutan should convene an annual coordination meeting of relevant agencies to draw cooperation and support for co-financing in cash for projects that are in alignment with their funding objectives. The value addition of working with SGP-Bhutan will be its vast experience in working with the CBOs and CSOs and implementing community based projects for many years in Bhutan.

Within the project, some of the innovative financing could be sourced through Payment of Ecosystem Services (PES), Reducing Emission from Deforestation and Forest Degradation, and fees from eco-tourism and eco-lodge.

At the community level, Bhutan Development Bank Limited (BDBL) provides agricultural loan and most of the communities have availed loan to increase agricultural production (cash crops/dairy products) and market access. Several cooperatives formed at the community level have taken loans from BDBL. From the non-grant cost perspective, developing partnership with BDBL will be symbiotic.

Given the limited capacity of the CBOs and even few of the CSOs, they will require assistance in developing proposals. As an innovative approach it will be useful if each NSC and TAG members adopt supporting development of one or two project proposals. Their support can continue from project design to implementation until completion.

The in-kind contribution will include - community labour contribution, local materials, Gewog development grant, use of community facilities (land or space), technical support provided by the stakeholders (technical support and other support provided by the extension officer, CSO staff and experts).



7. Risk management plan

The overall risk is rated as low during preparation and implementation. The project design is focused on providing support to CSOs and CBOs, and SGP-Bhutan has more than 17 years of grant making experience. Implementation at the ground level involves beneficiary participation and the current OP6 grant making has the capacity to take corrective measures based on lessons learned from the past project implementation. The project risks are related to the overall operational environment in the Bhutan, slow fund flows and financial reporting from the beneficiary. These risks will be minimized throughout project implementation by SGP-Bhutan and facilitated through continuous follow-up on all implementation aspects with grantees by conducting implementation support visits and regular communications. It is important as well to keep expectations in line with the operational realities in the country.

In the context of the social and environmental risks, the OP6 grant making will strive to improve the sustainability of the livelihoods of the grassroots communities dependent on the natural resources. The potential adverse and irreversible impacts are expected to be insignificant. The grant making will not displace or trigger involuntary resettlements. The possible adverse environmental impacts on human population and ecologically sensitive areas are expected to be very limited. However, the overall impacts of the projects will be positive due to the projects goal of ensuring community landscape conservation and improving rural livelihoods.

Bhutan like any other country is exposed to the risks of impacts of climate change and the associated disaster risks including risks from natural disasters such as earthquake. According to the Second National Communication, Bhutan is highly susceptible to impacts of climate change due to the fragile mountainous ecosystem, settlements along the valley, and economic activity that are climate sensitive such as water resources, agriculture, biodiversity, forest and hydropower sector.

Project stakeholder risks: the project has strong support at the national level (i.e. the Gross National Happiness Commission) and at the implementing agency level (i.e. SGP-Bhutan). However, support from other key stakeholders may require SGP-Bhutan to play a more proactive role in engaging them and garnering their support.


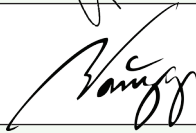






Key Implementing agency risks: The key implementing agency, i.e. SGP-Bhutan has more than 17 years of experience in grant making for environment and biodiversity conservation, oversight and monitoring. However, with only two staff managing the portfolio, the need to involve NSC and TAG members are critical.

Table 7.1: Description of risks identified in OP6

Describe identified risk	Degree of risk (low, medium, high)	Probability of risk (low, medium, high)	Risk mitigation measure foreseen
Project Stakeholder Risk	Low	Low	Build formal partnership and conduct annual coordination meeting to inform the stakeholders and gain their cooperation.
Implementing Agency Risk	Low	Low	Involve NSC and TAG members
Social and Environmental Risks	Low	Low	Pre assessment of Social and Environmental implications of project
Climate Risk	High	High	Climate Smart Agriculture, NAPA I and I, NAP 2014, LEDS, LECB

Most of the risks identified are low except for the impacts of climate change. As a risk mitigation measure, since most of the grantees will be communities and CSOs, during project design, special attention will have to be given to identify appropriate climate smart technologies. For other risks, the risks can be minimized through monitoring of project implementation by the NC and policy/technical advice of NSC and TAG members. During implementation phase, other risks may emerge for which appropriate mitigation measures will have to be put in place depending on risk level.

8. National Steering Committee endorsement

NSC members involved in OP6 CPS development, review and endorsement	Signatures
Mr. Wangchuk Namgay (Chairperson)	
Ms. Niamh Collier-Smith	
Mr. Mewang Gyeltshen	
Dr. Kuenga Namgay	
Mr. Dorji Tashi	
Mr. Kinga Wangdi	
Ms. Nagdrel Lhamo	
Ms. Sonam Deki	
Ms. Roma Pradhan	
Ms. Phuntsho Choden	
Ms. Nima Lhamo	

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