ROYAL GOVERNMENT OF BHUTAN

Strategic Environmental and Social Assessment (SESA) of Bhutan's National REDD+ Strategy and Action Plan (NRS)

July 2018

Abbreviations

CF	Community Forest
CFMG	Community Forest Management Group
DoFPS	Department of Forest Parks and Services
EA	Environmental Assessment
EDP	Economic Development Policy 2017
ER-PIN	Emission Reductions Program Idea Note
ESMF	Environmental and Social Management Framework
FCPF	Forest Carbon Partnership Facility
FGRM	Feedback and Grievance Mechanism
FMU	Forest Management Units
FNCA	Forest and Nature Conservation Act
FNCRR	Forest and Nature Conservation Rules and Regulations
GNH	Gross National Happiness
GRM	Grievance Redress Mechanism
MOAF	Ministry of Agriculture and Forests
NRDCL	Natural Resources Development Corporation Ltd
NRS	National REDD+ Strategy and Action Plan
NWFP	Non-Wood Forest Products
OP	Operational Policy
PAM	Policy and measure
PSMP	Power System Master Plan
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RPP	Readiness Preparation Proposal
RGoB	Royal Government of Bhutan
R-Package	REDD+ Readiness Package
SESA	Strategic Environmental and Social Assessment
SIS	Safeguard Information System
SRF	State Reserve Forest
SRTA	Subsidized Rural Timber Allotment
UNFCCC	United Nations Framework Convention on Climate Change

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1. Introduction

1.1. Context

In recognition of the role of forests to mitigate and adapt to global climate change, Parties to the United Nations Framework Convention on Climate Change (UNFCCC) developed a policy initiative to contribute to the reduction of global carbon emissions from deforestation and degradation and enhance their resilience by providing financial incentives in the form of 'results-based payments', to developing countries that successfully slow or reverse forest loss. This initiative is known as Reducing Emissions from Deforestation and Forest Degradation (REDD), and sustainable management of forests, conservation, and enhancement of forest carbon stock (+). The UNFCCC Conference of the Parties (COP) outlined five REDD+ activities that developing countries can implement to be eligible to receive these payments:[1]

- Reducing emissions from deforestation;
- Reducing emissions from forest degradation;
- Sustainable management of forests;
- Conservation of forest carbon stocks; and
- Enhancement of forest carbon stocks

After several years of negotiations and discussions at the international level, the UNFCCC COP adopted the 'Warsaw Framework for REDD+' at its 19th meeting in December 2013.[2] This officially anchored REDD+ to the UNFCCC regime. The Warsaw Framework builds on previous COP decisions and clarifies and consolidates the requirements and methodological guidance countries must meet in order to access results-based finance. According to the Warsaw Framework, developing country Parties aiming to receive results-based finance for REDD+ must:

- Ensure that the anthropogenic forest-related emissions by sources and removals resulting from the implementation of REDD+ activities are fully measured, reported and verified (MRV) in accordance with UNFCCC guidance;[3]
- Have in place:[4]
    a. A national strategy or action plan (a link to which is shared on the UNFCCC REDD+ Web Portal);
    b. A national forest reference emission level and/or forest reference level, or if appropriate, as an interim measure, subnational forest reference emission levels and/or forest reference level (that has undergone a UNFCCC-coordinated technical assessment process);
    c. A robust and transparent national forest monitoring system for the monitoring and reporting of REDD+ activities; and
    d. A system for providing information on how the safeguards are being addressed and respected (SIS);
- Ensure that REDD+ activities, regardless of the source and type of funding, are implemented in a manner consistent with the UNFCCC REDD+ safeguards;[5] and

[1] UNFCCC Decision 1/CP.16 paragraph 70
[2] UNFCCC Decisions 9/CP.19; 10/CP.19; 11/CP.19; 12/CP.19; 13/CP.19; 14CP.19 and 15/CP.19
[3] UNFCCC Decision 1/CP.16 paragraph 73
[4] UNFCCC Decision 1/CP.16 paragraph 71
[5] UNFCCC Decision 2/CP.17 paragraph 63

- Provide the most recent summary of information on how all the UNFCCC REDD+ safeguards have been addressed and respected before they receive results-based payments.[6]

REDD+ is based on a three-phased approach, which includes: Readiness (Phase I), implementation (Phase II) and results-based actions (Phase III).[7] However, due to the significant time-frame between REDD+'s initial conception and introduction as a UNFCCC negotiation topic at COP 13 in Bali[8] and its finalisation at COP 19 in Warsaw, several multilateral institutions and bilateral agreements were established to fund initial REDD+ readiness activities, including the World Bank's Forest Carbon Partnership Facility (FCPF) , which was set up in 2010 "to assist eligible REDD Countries in their efforts to achieve Emission Reductions from deforestation and/or forest degradation by providing them with financial and technical assistance in building their capacity to benefit from possible future systems of positive incentives for REDD."[9]

As a participating country to the FCPF, the Royal Government of Bhutan (RGoB) has so far received US$3.8 million from the FCPF to support its REDD+ Readiness activities detailed in its Readiness Preparation Proposal (R-PP),[10] with an additional grant of US$4.8 million agreed in February 2018.[11] This means that in order to meet its contractual agreement with the FCPF and benefit from the international REDD+ mechanism under the UNFCCC, Bhutan must meet both UNFCCC and FCPF requirements, which include requirements on safeguards.

1.2. FCPF Safeguard requirements

Once sufficient progress has been made in the implementation of their R-PPs, countries may apply to the Carbon Fund by submitting an Emission Reductions Program Idea Note (ER PIN), as a step towards the completion of an Emission Reduction Programme (ER Programme) and then ultimately, results-based payments.[12] Countries are also expected to submit a Readiness Package, a document that summarises its Readiness process and outcomes from development of activities outlined in their R-PPs (including safeguards).[13]

The FCPF safeguard requirements under Readiness and Carbon Fund, have two dimensions: substantive, and procedural.

[6] UNFCCC Decision 9/CP.19 paragraph 4
[7] UNFCCC Decision 1/CP.16 paragraph 73
[8] UNFCCC Decision 2/CP.13
[9] The other stated objectives of the FCPF are: To pilot a performance-based payment system for Emission Reductions generated from REDD activities, with a view to ensuring equitable benefit sharing and promoting future large scale positive incentives for REDD; to test ways to sustain or enhance livelihoods of local communities and to conserve biodiversity; and To disseminate broadly the knowledge gained in the development of the Facility and implementation of Readiness Preparation Proposals and Emission Reductions Programs. FCPF, (2010) Charter Establishing the FCPF. The International Bank for Reconstruction and Development (IBRD). Available: http://www.forestcarbonpartnership.org/sites/forestcarbonpartnership.org/files/Documents/PDF/Sep2010/FCPF_Charter-August_2010_clean.pdf
[10] Royal Government of Bhutan (2017) Mid-term review and request for additional funding. Thimphu, Bhutan. Available: https://www.forestcarbonpartnership.org/sites/fcp/files/2017/Jan/Bhutan%20FCPF%20Grant%20Mid-Term%20Review%2026%20Jan%202017%20PDF%20version.pdf
[11] World Bank Forest Carbon Partnership Facility (2018) Second Grant Agreement for the Kingdom of Bhutan's REDD+ Readiness Preparation Support. Available: https://www.forestcarbonpartnership.org/sites/fcp/files/2018/March/Bhutan%20Additional%20Funding%20Grant%20Agreement%20Signed%20Feb%209%202018.pdf
[12] Ibid
[13] Forest Carbon Partnership Facility Carbon Fund (2012) Process Guidelines for the Carbon Fund of the Forest Carbon Partnership Facility. FMT Note CF-2012-1-Rev p.2 : http://www.forestcarbonpartnership.org/sites/fcp/files/Documents/tagged/FMT%20Note%20CF-2012-1%20CF%20Process%20guidelines%20rev%20after%20CF4%20-%20final.pdf

Substantive Requirements

Readiness Fund
Countries receiving FCPF funding for readiness preparation through the World Bank are required to ensure compliance with the FCPF Readiness Fund's common approach to environmental and social safeguards for multiple delivery partners (Common Approach).[14] According to the Common Approach, participating countries are expected to achieve "substantial equivalence" to the "material elements" of the World Bank's environmental and social safeguard policies and procedures applicable to the FCPF Readiness Fund.[15]

Carbon Fund
Countries seeking to obtain payments from the Carbon Fund must ensure that their ER Programme is consistent with the Methodological Framework (CF MF),[16] which states that in order to qualify for results-based payments all ER Programmes will not only need to meet all applicable World Bank policies, (which is no different from the Readiness Fund requirements) but also promote and support the Cancun Safeguards.[17]

Procedural Requirements

Readiness Fund
The Readiness Fund has two procedural safeguard requirements, namely the:

- Strategic Environmental and Social Assessment (SESA) and
- Environmental and Social Management Framework (ESMF).

The SESA stems from environmental assessment (EA) requirements of the World Bank.[18] It is intended to be an inclusive process whereby the REDD+ country, with the participation of all potentially affected stakeholders, seeks to "identify likely impacts and risks, as well as opportunities," among different strategic REDD+ options. During the SESA process these impacts are assessed and weighed by the various stakeholders. Activities that form part of the SESA include:[19]

- Identifying and prioritising the drivers of deforestation and degradation. This assessment also includes looking at how issues such as land tenure and access to forest resources are dealt with in Bhutan;
- Analysing the legal, policy and institutional "aspects" of REDD+ readiness;
- Assessing the environmental and social issues linked to the strategic options or Policies and Measures (PAMS) contained in the NRS; and
- Establishing outreach, communication and consultative mechanisms with relevant stakeholders throughout the process.

All REDD+ countries must produce an ESMF as a direct output of the SESA process.[20] The ESMF lays out principles, rules, guidelines and procedures for assessing issues and impacts associated with

[14] UN REDD FCPF (2012) R-PP Template Annexes Version 6, for Country Use p. 44
[15] FCPF (2011) Readiness Fund Common Approach to Environmental and Social Safeguards for Multiple Delivery Partners. https://www.forestcarbonpartnership.org/sites/forestcarbonpartnership.org/files/Documents/PDF/Nov2011/FCPF%20Readiness%20Fund%20Common%20Approach%20_Final_%2010-Aug-2011_Revised.pdf
[16] Which outlines the requirements that must be met by ER Programmes in order to qualify for results-based payments from the Carbon Fund. Forest Carbon Partnership Facility (2013) Carbon Fund Methodological Framework. Available: https://www.forestcarbonpartnership.org/sites/fcp/files/2014/January/FCPF%20Carbon%20Fund%20Meth%20Framework%20-%20Final%20Dec%2020%202013%20posted%20January%202014.pdf
[17] FCPF Carbon Fund Methodological Framework.
[18] See OP 4.01 – Environmental Assessment, para. 7; and Annex A, para. 10.
[19] Ibid
[20] R-PP Template, Component 2d, p. 44.

planned REDD+ activities that may occur in the future but are not presently known or are uncertain.[21] It largely provides a framework for REDD+ countries to address environmental and social issues in their REDD+ Strategy as it is implemented.

The ESMF is completed and presented, to the extent possible, as part of the REDD+ country's Readiness Package (R-Package). The FCPF Common Approach states that "REDD+ readiness activities in the FCPF context entail no investment projects on the ground. They mostly consist of strategic planning and preparation," [22] which means that If REDD+ project-type interventions are not yet clearly identified at the R-Package stage, the ESMF produced as part of the R-Package could still be fairly general establishing principles "while leaving more specific measures to be finalized once the investments are clearly identified."[23]

1.3. Objectives of the REDD+ safeguards process in Bhutan

The purpose of developing the REDD+ Safeguard framework is to guide in meeting the multiple international safeguard requirements and ensure the social and ecological sustainability of REDD+ in Bhutan by:

- Identifying and assessing the possible social and environmental impacts that may arise from the implementation of NRS, and more specifically, the PAMS that are contained in the NRS.
- Identifying the World Bank Operational Policies that are triggered by the proposed PAMS.
- Developing an Environmental and Social Management Framework (ESMF) to address, mitigate and minimise the identified potential negative impacts arising from proposed PAMS, and to enhance any identified positive impacts arising from proposed PAMS. This framework will be designed in a way that meets both FCPF safeguard requirements, as well as the Cancun safeguards[24] and will draw on Bhutan's existing legal framework and institutions to achieve this.
- Designing a Safeguard Information System (SIS) that will enable the collection, compilation, analysis and provision of information to demonstrate that the PAMS contained in the NRS have been implemented in a manner consistent with the safeguards. This will include information on the implementation of the ESMF.
- Providing inputs and guidance on the design of Bhutan's Feedback Grievance Redress Mechanism (FGRM).

Bhutan's intention is to comply with obligations linked to FCPF readiness funding, and future REDD+ implementation funds from different donors, where multiple sets of requirements will need to be complied with, including safeguards. RGoB will strive to carry out the SESA and develop the ESMF and SIS in a manner that will contribute to meeting these multiple requirements in a coordinated, efficient and cost-effective manner.

[21] Common Approach, p. 47, para. 23.
[22] Forest Carbon Partnership Facility (FCPF) (2011) Readiness Fund Common Approach to Environmental and Social Safeguards for Multiple Delivery Partners
[23] Ibid
[24] While the World Bank SESA involves the identification of the 'applicable' safeguards (see explanation in section below), the Cancun Agreements make it clear that REDD+ countries must ensure that REDD+ is consistent with all seven Cancun safeguards throughout its implementation. See UNFCCC Decision 1/CP.16 Appendix II, Decision 2./CP.17 paragraph 63

1.4. Objective and structure of the SESA document

The objective of this document is to present the results of the SESA process, which was carried out through a mixture of desk-based study, stakeholder interviews, and consultation workshops[25] as well as to provide a picture of the broader social and environmental context of Bhutan's forest sector from a historical perspective. This SESA document therefore includes synthesised information on:

- Historical, social and environmental issues in the forest sector in Bhutan (**section 2**), which includes:
    - The land and forest land tenure system in Bhutan
    - The key drivers of deforestation in Bhutan
- The Proposed PAMS (as of June 2018) to tackle the drivers of deforestation and forest degradation as contained in the NRS (**section 3**)
- The potential social and environmental risks associated with the PAMS proposed in the NRS (**section 4**)
- The potential benefits associated with the PAMS proposed in the NRS (**section 4**)
- The World Bank Operational Policies (OPs) that are 'triggered' as a result of the risks identified (**section 4**)
- The link between the SESA and the ESMF and initial thoughts on how existing governance arrangements can be harnessed for an effective ESMF (**section 5**)

[25] For a detailed explanation of the methods and process followed for the SESA see section 5 of this report

2. Historical social and environmental aspects in Bhutan's forestry sector: an overview

2.1. Evolution of land and forest land tenure in Bhutan

There are different interpretations[26] on the land use system prior to 1960 in Bhutan. Prior to 1953, customary law regulated land use in Bhutan (Ura, 1995) and lands were regarded as common property unless explicitly claimed as private land. Similarly, forests were also deemed common property whose use was dictated by the village customs and traditions. Following the formation of the National Assembly in 1953, a 'Supreme Law' for Bhutan *(Thrimshung Chenmo)* was drafted, which entered into force in 1959.[27] This law established a national land register (*Thram*) and mandated the registration of all household and community land, including agricultural, and forest land owned and used by households.[28] The majority of households owned traditional small plots of forest[29], known as "sokshings", usually around 1 ha in area located adjacent to villages, and heavily managed to maximize leaf litter production and fuelwood. Given the major importance of agriculture output for subsistence practices of rural villages, sokshing were crucial elements in the livelihood systems of rural Bhutanese, and consistent management practices and strong institutional arrangements have evolved for their governance.

Traditionally, the rights of ownership for household sokshings were complete, including access, withdrawal, management, exclusion, and alienation. Ownership rights allowed households to manage sokshing forests so that livelihoods were maximized, while at the same time adhering to local social customs that prohibited unjustifiable cutting. Traditional institutions to resolve sokshing-related conflicts, although loose and informal, generally rested on the principle of face-to-face confrontation, with resolution based on utilization of strong social networks. Research suggests that ownership rights were clearly recognized and respected by all members of the community[30].

The long-held traditional approach to management of both land and forest began to change in the 1950s, and fundamentally shifted as a consequence of the Forest Act of 1969. The Forest Act of 1969 instigated a fundamental change in forest rights and accessibility by transferring ownership of forests and forest produce, whether in reserved forest or on private land, to the government, [31] including over those important subsistence forest plots where people with sokshings saw their property rights reduced to appropriation. The Act designated all forests as 'government reserve forest', and brought them under the purview and management authority of the central government. The Act also required local people to obtain a permit from the Department of Forest to extract trees and non-wood forest

[26] While many western researchers claimed that since the 17th century, Bhutan's tenure system was feudal, Tashi Wangchuk argues that Bhutan was not truly feudal in the Western European sense, as property rights over rural land were held in private by the peasantry, with only approximately 5000 serf families representing less than 10% of the total population. The vast majority of peasants owned private lands or sharecropped for wealthier families and monasteries. All serfdom were abolished by His Majesty the Third King Jigme Dorji Wangchuck as part of his progressive reforms. See Aris, Michael. (1979). Bhutan: The Early History of a Himalayan Kingdom. Aris & Phillips Ltd., Warminister; Pommaret, Francoise. (1984). Bhutan: A Kingdom in the Eastern Himalayas. Serindia Publications. Rose, Leo. (1977). The Politics of Bhutan. Cornell University Press, Tashi Wangchuk (2000), Change in the land use system in bhutan: Ecology, history, culture, and power; Lham Dorji (1998,) Wangchuck dynasty: 100 Years of Enlightened Monarchy in Bhutan

[27] Richard Whitecross (2013,) The Thrimzhung Chenmo and the emergence of the contemporary Bhutanese legal system

[28] Lam Dorji, Edward I. Webb and Ganesh p. Shivakoti (2006,) Forest property rights under nationalized forest management in Bhutan

[29] Webb, E. and Dorji, L. (undated), The Evolution of Forest-Related Institutions in Bhutan.

[30] Dorji, L., Webb, E., and Shivakoti, G. (2006), Forest property rights under nationalized forest management in Bhutan. *Environmental Conservation*, June. Giesch, C. (2000) Evolution of the forest uses and their impact on the forest structure with regard to sustainability in central Bhutan. Ph.D. thesis 13678, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland.

[31] Giesch, C. (2000) Evolution of the forest uses and their impact on the forest structure with regard to sustainability in central Bhutan. Ph.D. thesis 13678, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland.

products (NWFP).[32]In 1979, the Land Act was established to further regulate tenure rights over agricultural land[33].

With the passage of time and the changing priorities and demand on the forest resources, the Forest Act, 1969 was considered inadequate to deal with the increasing complexities. In 1995, the National Assembly repealed the Forest Act replacing it with the Forest and Nature Conservation Act (FNCA), further delineating users' rights and requirements to government reserve forests. It allowed peoples participation in forest management (social forestry), revising the definition of forests,[34] declaring all forests in Bhutan as government reserve forests,[35] with the possibility of acquiring leases with the authorisation of, and following the rules developed by the then MoA.[36]

Households and legal entities obtained the right to lease forest land for uses such as commercial agriculture, mining or other industrial activities subject to a management plan and environmental clearance as per the Environmental Assessment Act. [37] In addition, permits/licenses can be obtained for the use of forest products and grazing rights.[38] Specific rules on leasing reserve forest were developed by the MoA.[39] Lessees are required to adhere to a lease agreement[40] and technical guidelines on management of reserve forests land were prepared by the MoA.[41]

The FNCA also recognised Community Forests (CF) ,[42] where groups of at least five households willing to establish, control and manage a forest area as CF can form a Community Forest Management Group (CFMG) and develop a management plan for the area to be approved by the Department of Forest on the recommendation of the Chief Forestry Officer.[43] Communities received strong support from Dzongkhag forestry sectors in drafting CF management plans.

Major land reforms occurred in 2007 with the entry into force of the new Land Act, which allowed the Government to acquire a registered land for public interests[44] for which either substitute land or cash must be provided as compensation[45], as determined by the Property Assessment and Valuation Agency.[46] The process of nationalization that followed the passing of the 2007 Land Act deleted records of sokshing and tsamdro (pastures) from private and community land registers.

The gradual nationalization of forests in Bhutan mirrors policy developments in many developing countries. However, the Drivers of Deforestation and Forest Degradation study[47] concluded that "issues related to forest land tenure such as customary land rights and land tenure in general were

[32] Bhutan Forest Conservation Act 1969 Chapter III section 11

[33] outlines the rules for acquisition, registration and inheritance of land and abolished in-kind payments of tax

[34] The definition of `forest' under the new act is: "any land and water body, whether or not under vegetative cover, in which no person has acquired a permanent and transferable right of use and occupancy, whether such land is located inside or outside the forest boundary pillars, and includes land registered in a person's name as Tsamdo (grazing land) or Sokshing (woodlot for collection of leaf litter)". FNCA (1995) Section 3

[35] FNCA 1995 of Bhutan section 8

[36] FNCA 1995 Section 15

[37] Sections 5 and 15(a) of the Forest and Nature Conservation Act 1995 and Rules and Regulations for Lease of State Reserve Forests and Government Land 2012 Annex C

[38] FNCA section 6 and section 30

[39] Land Act of Bhutan 2007 Section 184 and expanded on in the Rules and Regulations for Lease of State Reserve Forests and Government Land 2012

[40] Section 15 FNCA

[41] Rules and Regulations for Lease of State Reserve Forests and Government Land 2009 Annex C

[42] FNCA Chapter 4

[43] The management plans need to contain maps of the boundary and various compartments, management objectives, descriptions of forest types and species, an assessment of the forest condition and an inventory of the forest areas. Rules and Regulations for Lease of State Reserve Forests and Government Land 2009

[44] Section 142 Land Act 2007

[45] Section 143 Land Act 2007

[46] Section 151 Land Act 2007

[47] Watershed Management Division, Department of Forests and Park Services, Ministry of Agriculture and Forests (2017) Drivers of Deforestation and Forest Degradation in Bhutan

not identified in the expert interviews as a key underlying driver. This indicates that customary rights holders in Bhutan can access forests for their needs to the extent that forests continue to support livelihoods and local uses" and that "addressing changes to tenure arrangements to support REDD+ objectives and goals is therefore not a priority."

2.2. Importance of forests for rural livelihoods and concerns over the sustainability of timber production

Research undertaken by Rahut, Behera and Ali,[48] indicates that rural households in Bhutan with forestry related activities have a higher income and are less prone to poverty than those who do not use forest resources. However, the increase in income due to forestry activities is in general limited, although this increase may be substantial for the poorest households, representing up to 25% of their income[49]. The majority of rural people in Bhutan depend on forests for their livelihood[50]. In some villages in the country, forests are also a main source of cash income from the selling of NWFPs. The Social Forestry and Extension Division (2019) stated that as of June 2018, 144 NWFPs management groups have been formed for sustainable management and utilization. The formation of management group has enabled communities to earn higher income.[51]

Although rural households with forest related activities have higher incomes, they also have a high dependence on wood for fuel. There are no plantations dedicated to fuel wood production in Bhutan, with some regions experiencing a surplus of fuel wood, while others have a deficit. Despite many people using stoves for heating and cooking, the use of energy efficient stoves is not widespread.[52]

Until the late 1970s, timber production in Bhutan involved various private operators and local timber was largely procured through customary arrangements, with some oversight by civil authorities. This resulted in a poor management of timber, with methods of production criticized for their environmental impact. In order to address this, all logging operations were nationalised in 1979 and private timber companies suspended.[53]

Currently, the production of timber is more tightly controlled, commercial timber production is almost exclusively based on a cable logging system (which minimizes forest degradation) and timber is only produced for national demand. There has been a strong demand for conifer timber species due to economic growth and the expansion of the construction industry in the main urban centres and rural areas.

The increasing demand for timber has been faced with the reality that forested areas deemed suitable for quality timber production in Bhutan is relatively low. Approximately 17% of forested land can potentially be used for commercial timber production, with a further 2% falling under community forests.[54] The DoFPS estimates that total demand is now close to what can be produced on a sustainable basis, and the shortfall between supply and demand is likely to grow. This shortfall varies

[48] Dil Bahadur Rahut,Bhagirath Behera &Akhter Ali (2016), Do forest resources help increase rural household income and alleviate rural poverty? Empirical evidence from Bhutan. *Forest, Trees and Livelihoods*. Vol. 25, issue 3.

[49] Dil Bahadur Rahut,Bhagirath Behera &Akhter Ali (2016), Do forest resources help increase rural household income and alleviate rural poverty? Empirical evidence from Bhutan. *Forest, Trees and Livelihoods*. Vol. 25, issue 3.

[50] Social Forestry Division, 2006. Concept Note on Community Forest Based NWFP, DoF, MoA

[51] With about Nu.9.97 million generated through NWFPs management in 14 Dzongkhags, and an average income of Nu.3,234.06 per NWFP group member households.

[52] Watershed Management Division, Department of Forests and Park Services, Ministry of Agriculture and Forests (2017) Drivers of Deforestation and Forest Degradation in Bhutan

[53] Ministry of Agriculture and Forests Royal Government of Bhutan (2015) Corruption Risk Assessment for REDD+

[54] Ministry of Agriculture and Forests Royal Government of Bhutan (2015) Corruption Risk Assessment for REDD+, p.15

from district to district with backlogs of allocated timber (especially broadleaf) existing in some provinces. [55]

2.3. The Subsidised Rural Timber Allotment

Allocation of timber for rural communities was practiced informally prior to the 1960s through local civic authorities and customary arrangements. With the enactment of the first Forest Act in 1969, allocation of timber was then governed through a more formal system managed by the forest department. The original aim of the subsidized Rural House Building Timber (RHBT) scheme was to assist with proper rural housing and farm infrastructure development. The rural timber allocation process then went through periodic changes, including a temporary suspension in the 1990s[56], and currently, the government grants every rural household (outside the main urban centres) a specific amount of sawn or unprocessed timber every 25 years for the construction and maintenance of their households. In addition, subsidized rural timber is allocated for other purposes such as building of fences, livestock enclosures, cultural products, religious ceremonies and firewood. It can also be requested for non-residential purposes, including renovation and construction of monasteries in rural areas.[57] The allocation of subsidized timber supply is based on quantities specified in the Forest and Nature Conservation Rules and Regulations (FNCRR) 2017, with minimal royalties imposed.[58]

The recent Drivers of Deforestation and Forest Degradation study[59] states that subsidized rural timber allotment constitutes 72% of the 161,008m^3 of timber harvested annually and was ranked number one driver of forest degradation (WMD 2017)[60]. The report further states that illegal timber trading based on subsidized timber has been lucrative, and that the allotment system based on entitlement may not be sustainable.

An alternative approach that potentially deals with both reduced lack of incentive for conservation brought about by nationalization, and the potential long-term unsustainability of the RHBT is the community forestry.

2.4. Community forestry

Following the years of nationalised forests and central government control over forests (post 1969), the government came to realise that sustainable forest management could only be achieved with the local people: “People’s participation is key to conservation and the utilisation of forest resources”, stated a royal decree in 1979. This was the year His Majesty the 4th King Jigme Singye Wangchuck created the Social Forestry programme which culminated in the first community forest in Bhutan in 1997.

Community Forestry (CF) has led to an important shift in forest management in Bhutan. As part of the participatory forest program, it has involved local communities in forest management and decision-making process[61]. It was given further impetus in the 9th five-year plan (2002–2007) which defined community forestry as a broad development strategy that can embrace diverse forms of local decision

[55] Ibid

[56] p.13, Ministry of Agriculture and Forests Royal Government of Bhutan (2015) Corruption Risk Assessment for REDD+

[57] Ministry of Agriculture and Forests Royal Government of Bhutan (2015) Corruption Risk Assessment for REDD+

[58] FNCRR (2017), para. 332.

[59] Ministry of Agriculture and Forests (2017), Drivers of Deforestation and Forest Degradation in Bhutan. Department of Forest and Park Services, Ministry of Agriculture and Forests, Royal Government of Bhutan.

[60] Ministry of Agriculture and Forests (2017), Drivers of Deforestation and Forest Degradation in Bhutan. Department of Forest and Park Services, Ministry of Agriculture and Forests, Royal Government of Bhutan.

[61] Forest Facts and Figures, MoA, 2018

making in all sorts of forestry matters that affect people's lives. Since 2007, it has gained strong momentum both in quantitative as well as qualitative terms.

After a slow start, CF developed rapidly once communities recognised the opportunity in meeting their natural resources requirement and generate revenue for livelihood and community development. CF has resulted in increased "ownership" over forests and in easy and secure access to forest products for local communities. Apart from the production of timber from the Natural Resources Development Corporation Ltd (NRDCL) and rural timber supply, further timber production is now achieved by CF. Part of the justification for supporting community forestry in Bhutan is to complement or replace subsidized rural timber system with timber produced for members of CFs within the forests that they manage.

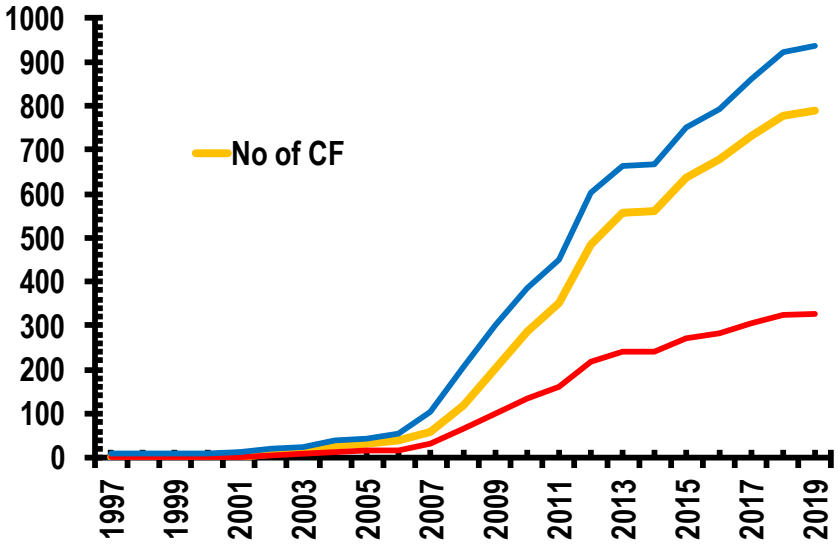
As of 30th June 2018, 750 CFs have been approved and the total forest area managed under CFs is 85,883.923 hectares (which corresponds to about 3.1% of the overall forest area). There are 31,085 rural households (HH) registered as CFMG members which corresponds to about 37.2% of the rural HH (household) population of the country. Currently, 194 Geogs (95%) are managing CFs and 11 Geogs (5%) do not have CFs in the country.

The formation of community forestry management group (CFMG) has enabled communities to earn income. These groups are responsible for planning, managing, and improving their community forests. Increasingly, CFMGs take decisions on the use of natural resources, actively manage their forests and market forest products. The establishment of CFs is now demand-led and fuelled by the high interest of rural communities to take over responsibility for the management of their surrounding forests. A growing number of CFMG generate income from the sale of timber and non-timber forest products. About Nu.9.97 million has been generated through NWFPs management in 14 Dzongkhags with an average income of Nu.3,234.06 per NWFP group member households

Figure 1: Development of Community Forestry[62]

[62] SFED 2019

1. Development & Current Status of Community Forests



- Till April 2018, there are **789** CFs approved and handed over to Community Forest Management Group (CFMG)
- Total forest area handed over is **93633.591** hectare, which is about **3.4%** of total forest land cover area
- There are **32,669** rural households registered as CFMG member, which is about **39.1%** of rural HH of the country

Source: SFED 2019

3. Overview of REDD+ in Bhutan and the scope of the proposed NRS

3.1. REDD+ in Bhutan

Bhutan has a unique position, as a developing country with a very high forest cover and a history of very limited deforestation and forest degradation. A long and consistent societal and governmental commitment to environmental preservation, based upon Buddhist principles and reflected in the guiding development vision of Gross National Happiness (GNH) has resulted in the inclusion in the country's Constitution a pledge to conserve at least 60% of its landscapes with forest cover. With about 71% of its total land area under forest cover, and rich forest biodiversity, the Kingdom of Bhutan is recognized as a leader in environmental stewardship. Bhutan's decision to pursue REDD+ and to develop a REDD+ National Strategy & Action Plan is part of the country's on-going commitment to high-quality management of national forests. At UNFCCC COP 15, the Royal Government of Bhutan pledged to remain carbon neutral to continue to follow and be guided by a strong sense of conservation ethics, not produce GHG in excess of what can be sequestered but also to serve as a carbon sequestration tank for the world in general.[63] This commitment is reiterated in Bhutan's first Nationally Determined Contribution to the Paris Agreement.[64]

At the national level, REDD+ has been integrated into Bhutan's 11th Five Year Plan in the form of three programmes implemented by the Ministry of Forests and Agriculture's Department of Forests & Park Services (DoFPS). These programmes are: sustainable management of State Reserve Forests (SRF); sustainable management of forest landscapes and conservation of biodiversity; and, integrated watershed management. Bhutan became an observer nation to the UN-REDD programme in April 2010, as an expression of its interest in involvement with the REDD+ mechanism development and seeking opportunities to prepare itself for the future opportunities. Between 2012 and 2015, Bhutan received targeted support from UNREDD in REDD+ readiness development

Following the submission of its final R-PP in January 2014 the Royal Government of Bhutan (RGoB) received a readiness grant of US$3.8 million (signed in March 2015) from the FCPF to implement its REDD+ Readiness Proposal (RPP), with a further $4.8 million agreed in February 2018. The support provided by the FCPF includes for the preparation of a NRS, which is the subject of the present SESA.

3.2. The Development of Bhutan's National REDD+ Strategy & Action Plan (NRS)

At the time of preparation of this SESA report (June 2018), the NRS is currently under development. For this purpose of the SESA, the most updated version of the NRS was used for consultations with Stakeholders (section 3.3 outlines the Strategy Options and PAMS used in SESA consultations).

The NRS will be finalised prior to the development of the Environmental and Social Management Framework (ESMF) which will therefore reflect any updates made to the NRS and impacts identified during the SESA process.

[63] Jigmi Y. Tinely (2009) Declaration of the kingdom of Bhutan – Land of Gross National Happiness to Save our Planet. https://unfccc.int/files/meetings/cop_15/copenhagen_accord/application/pdf/bhutancphaccord_add2.pdf
[64] http://www4.unfccc.int/ndcregistry/PublishedDocuments/Bhutan%20First/Bhutan-INDC-20150930.pdf

3.3. Proposed REDD+ Strategy Options and PAMS

Strategy Options (as of June 2018)

Strategy Option	Description
1. Strengthening forest management practices	To support the existing framework, policies and regulations for forest management, this option focuses on strengthening resource management monitoring, law-enforcement, and governance and build capacity for effective management.
2. Promote climate smart plantations for mitigation and adaptation	The increase in demand for timber will continue to create pressure on the forests, as well as planned deforestation from drivers such as infrastructure development. The development of plantations offers an opportunity to increase sequestration and mitigate emissions from these activities and help alleviate timber demand. Combined efforts for the development of plantations in degraded areas will ensure forest restoration at the landscape level. The demand for firewood is considerable and contributes to forest degradation of natural forests. Promoting alternative sources for fire wood supply such as plantations of fast growing and multipurpose species, can help to reduce forest degradation. Further assessment and demonstration of technologies for efficient firewood use is necessary to reduce demand and hence pressure on natural forests.
3. Strengthening land use planning, regulatory & policy implementation and monitoring	The existing legislation has provisions to address the environmental impacts from various infrastructure projects, however broader impacts affecting forest environmental services are not included or adequately addressed. The implementation of remediation measures would require a stricter monitoring and enforcement regime to achieve the forest restoration.
4. Contributing to national economic development and growth through supporting rural livelihoods	Rural communities depend on agriculture activities, livestock management and forest resources for their livelihoods. Improving efficiency and diversification will improve sector productivity therefore increasing alternative income and reducing pressure on forest. Exploring more opportunities from PES schemes will encourage broader participation in natural resources management and enhance livelihoods through re-investment in local communities.

Summary Description of Policies and Measures under each Strategy Option (as of June 2018)

#	PAM title	PAM description	Drivers
1. Strengthening forest management practices			

1	**Strengthening sustainable forest resources management and conservation of biodiversity beyond Pas**	The objective of this PaM is to improve sustainable forest management and conservation of biodiversity to ensure sustained environmental services through: 1. Development and implementation of local forest management plans, watershed management plans, FMU plans, etc 2. Strengthening national forest monitoring system to monitor forest cover changes and carbon stock 3. Institutional capacity building 4. Strengthening stakeholder participation in forest management 5. Improve community forest management 6. Determine the sustainable levels of timber allocation based on the forest resource capacity and availability, as well as demand	Timber harvesting, firewood
2	**Promote diversification and efficiency in the wood value chain**	The objective of this PaM is to promote value chain diversification and improve efficients through: 1. Improvement of upstream and downstream technology to improve sector cost effectiveness and efficiency. This includes finding options to improve harvesting and wood processing to increase recovery rates. 2. Identifying and assessing alternative lesser known timber species to reduce pressure on high value timber species 3. Promoting product diversification and value adding to increase returns from high value timber species. Study to promote demand for lesser known species. This will involve setting up pilot projects to promote value adding at different points in the value chain 4. Capacity building of forestry staff in NRDCL, timber and wood value chain. CFMGs and licensed timber harvesting operators. 5. Promoting renewable energy as an alternative to firewood for cooking and heating purposes. 6. It is proposed that an initial assessment would investigate the value chain for timber in Bhutan, through all the stages, from timber harvest, initial processing in the forest, transport, primary and secondary processing, and trading points (domestic and export). The assessment will aim to identify the issues in timber extraction and utilization. The findings of this assessment will be used to prepare proposals to address areas that require improvement and will be tested as pilot projects.	Timber harvesting, firewood
3	**Strengthen Forest fire management**	This PaM aims to reduce the risk of forest fires through: 1. Increasing resources for firefighting, building capacity and awareness for forest fire prevention 2. Community based forest fire management and establishing early warning systems 3. Increased outreach and engagement with different stakeholders 4. Post fire management including monitoring trends in burn severity using satellite images 5. Research and policy recommendation of using prescribed/controlled burning as a management tool. 6. Looking into traditional management practices that minimize fire incidences and exploring ways to reduce fuel load	Forest fire
2. Promote climate smart plantations for mitigation and adaptation			
4	**Plantation development and restoration of degraded areas for increased carbon stock, biodiversity conservation and sustainable supply of wood products (timber and firewood)**	This PaM aims to support DoFPS, GBCL, NRDCL, etc. with technical expertise, capacity development, monitoring in developing a plantation program through: 1. Identification of areas suitable for different types of plantation including undertaking soil quality assessment in different ecological zones 2. Identifying suitable species for different ecological zones 3. Promoting and establishing forest nurseries 4. Establish plantations for various purposes	Timber harvesting, firewood usage, forest fires and hydropower

		5. Encouraging private plantations to meet some of the existing demand for timber products.	
3. Strengthening land use planning, regulatory & policy implementation and monitoring			
5	**Harmonizing land use planning (cross sectoral integrated land use planning)**	The objective of this PaM is to support the national land zoning process which will harmonize land use planning. This will be achieved through 1. Supporting the national land zoning and geo-spatial management program 2. Supporting the development and updating of technical guidelines based on zoning to inform allotment decisions. 3. Support the development of an Information management system that enables data sharing across government agencies 4. Promote inter-sectoral coordination and land use planning to improve policy and regulatory enforcement for sustainable land management 5. Harmonization of policies	Hydropower projects, Power transmission lines and associated access roads
6	**Support & strengthen environmental impact assessment and compliance monitoring system and coordination**	The objective of this PaM is to improve assessment of EIA for infrastructure projects through: 1. Strengthen institutional technical capacity and coordination for efficient EIA assessment 2. Strengthen information sharing between relevant agencies 3. Prepare guidelines to ensure infrastructure projects include climate proofing designs for durability and minimizing erosion. 4. Ensure thorough monitoring and enforcement of rules and regulations 5. Assessing options for implementing policy provisions for offsetting or compensation for forest clearance and disturbances from large infrastructure projects such as hydropower, transmission lines and roads	Hydropower projects, Power transmission lines and associated access roads
4. Contributing to national economic development and growth through supporting rural livelihoods			
7	**Sustainable management of NWFPs (domestication and cultivation) and promote enterprise development**	The objective of this PaM is to enhance community livelihoods through: 1. Capacity building for the management of NWFPs and enterprise development. The capacity building would include the development of guidelines for resource assessment, management and harvesting. 2. Facilitating establishment of small and medium enterprise for income generation linked to existing finance scheme such as Priority Sector Lending and One-Geog-One-Product	Timber harvesting
8	**Encourage & promote income generation from ecosystem services in key sectors**	The objective of this PaM is to improve community livelihoods through: 1. Identifying REDD+ co-benefits that can generate alternative income 2. Assessing and demonstrating more opportunities for income generation from Payment for Environmental Services (PES) schemes to incentivize forest and biodiversity conservation 3. Assessing and demonstrating opportunities for income generation from Ecotourism which could include development of nature-based enterprises such as ecotourism, wildlife observation etc.	Agriculture & Livestock

9	**Climate smart livestock farming practices**	The objective of this PaM is to promote climate smart livestock farming practices through: 1. Investing in climate smart technologies that improve livestock productivity, improved pasture systems, stall feeding 2. Supporting and promoting energy generation from biogas production with stall feeding 3. Agro-forestry or agro-silvo pastoral systems for fodder production to reduce and control free range livestock grazing	Livestock
10	**Climate smart agriculture practices**	The objective of this PaM is to promote climate smart agriculture systems that improve per unit productivity and will include: 1. Assessment of opportunity and support scaling up organic farming, promotion of enterprises, composting systems, vertical gardens and special products 2. Development and promotion of sustainable agricultural practices including investment in low impact (erosion & forest degradation) irrigation systems 3.Integration of sustainable soil and land management technologies and approaches.	Agriculture & Livestock

4. Strategic Environmental and Social Assessment (SESA) of Bhutan's NRS

4.1. SESA methodology and design process

As required by the FCPF, a SESA is designed to specifically be undertaken in a participatory manner. Building on the existing participation process and consultations implemented in relation to REDD+ in Bhutan since 2010[65], the SESA was conceived in Bhutan through a combination of desk-based assessments and stakeholder consultations.

The objective of the SESA is to identify, assess and prioritise the possible social and environmental impacts that may arise from the implementation of Bhutan's NRS, and more specifically, the proposed Policies and Measures (PAMS).

The following process and method was implemented in Bhutan to develop the SESA:

Step 1: Initial capacity building was held with TWG members and a larger group of stakeholders including Dzongkhag representatives and NGOs (Annex 1 for workshop agenda and participant list). The objective of these two meetings were to present the overall project as well as the objectives, methods and consultation process for the SESA.

Step 2: Once a draft NRS document was ready and available, the identification of potential positive and negative social and environmental impacts of the proposed REDD+ PAMS was undertaken. This was done to help inform and prepare for the regional consultations.

Step 3: Two regional consultations for SESA was carried out. One regional workshop was held for the Eastern region in Phuentsholing, and one workshop for the Central and Western regions was held in Paro. The objective of these regional workshops was:

- To identify and prioritise potential social and environmental impacts (negative and positive) that may arise from the implementation of the proposed NRS options/PAMS[66];
- To identify potential conflicts and grievances that may arise from the implementation of the proposed NRS options/PAMS; and
- To identify potential mitigation measures to address the negative impacts which were identified

Stakeholders were divided into groups and results were compiled by workshop facilitators through a reporting template (Annex 1).

Step 5: Once all the consultations were held, the results from the reporting templates of each workshop were compiled, which were reviewed and assessed, and integrated into the SESA draft document

[65] R-PP p42

[66] It is important to note that during the workshop in Phuntsholing, only a draft of the REDD+ Strategy was available, therefore the REDD+ Options and PAMS were not exactly the same as in the Paro workshop (by when they had been more clearly defined.

Step 6: Additionally, based on existing documentation and studies (R-PP, Drivers of deforestation Study, Corruption Study, NRS, additional FCPF documentation, etc) the key context sections of the SESA document were prepared

Step 7: The draft SESA document was presented to the TWG for feedback and inputs. A workshop was organised in June 2018 in Thimphu to review and finalise the results.

Step 8: Final SESA document was prepared taking into account the stakeholder inputs made during the June workshop and final draft was ready in July, 2018.

4.2 SESA results: Identified potential social and environmental impacts

PAM 1: Strengthening sustainable forest resources management and conservation of biodiversity beyond Protected Area

Positive impacts		**Negative impacts**	
Environmental	*Social*	*Environmental*	*Social*
• Improved forest protection and conservation • Enhancement of wildlife habitat and biodiversity outside of Pas • Proper planning, use of technology, and methods can improve the sustainability of the supply of available natural resources • Reduce soil erosion and land degradation • Better forest and watershed management through science-based approaches (Forest management plans, watershed management plans) can increase the speed at which the water supply recharges, thus improving water supply for multiple needs (for drinking, irrigation/agriculture, power generation through hydroelectricity) • Increase carbon sequestration	• Better inclusion of local stakeholders and communities in forest management will increase sense of shared stewardship of the local natural resources (forest products, watershed that supports agriculture) and therefore improve sustainability of management. • Better managed forests and watersheds lead to improved livelihoods and increased availability of benefits (monetary and non-monetary) for forest communities (CF groups with improved management and decision-making capacity, more available NWFPs, increased employment due to participation in forest management in CFs, improved social harmony due to fewer unemployed people) and the local population as a whole (better agricultural yields due to more resilient ecosystems) • Better local understanding of Forest Rules and Regulations, ability to	• Risks of introduction of exotic species (if management plan not respected) • Possible large destruction in case of fire outbreaks (due to fuel accumulation)	• Increase of human wildlife conflict due to increasingly managed forests • Accumulation of waste from other activities in the forest such as ecotourism heritage forests etc. • Risk of elite capture of benefits within community groups • Potential in 'black market' selling of timber and NWFP (from CF) due to lack of effective enforcement

	engage with government in developing management plans, better quality public participation. • Protection of cultural and heritage sites • Improved health and psychological well-being (because of improved environment and livelihoods) •		

Summary of key impacts for PAM 1:

The environmental and social implications of strengthening sustainable forest resources management and conservation of biodiversity beyond protected areas would on the whole appear to be positive. Bhutan already has more than 51% of its land under a protected area system. Other areas of forest that could be amenable to strengthened forest management include land defined as Forest Management Units, Working Schemes, Local Forest Management areas, Community Forests, and areas demarcated under watershed management plans and wetland management plans.

Better management of forests and watersheds, including through science-based planning and improved technologies would help improve the sustainability of the supply of available natural resources, reduce soil erosion and land degradation and increase the speed at which the water supply recharges, thus improving water supply for multiple needs (for drinking, irrigation/agriculture, power generation through hydroelectricity)

Key positive social impacts could include improved livelihoods due to more available NWFP, increased employment due to participation in forest management in Community Forests, as well as from better agricultural yields due to improved replenishment rate of the watershed. Furthermore, Forest communities could be empowered through improved management and decision-making capacity for CFs, leading to improved social harmony within communities.

However, the risks of this PaM include more severe forest fires in the event of an outbreak due to the increase in combustible matter in the managed forest areas (NWFP and timber). Failure to properly follow proposed management plans could also lead to the introduction of exotic species to the area, though the risks of this occurring was considered to be low. Potential negative social impacts include intensification of human wildlife conflict due to increasingly managed forests, possible elite capture of benefits within community groups and the proliferation of 'black market' selling of timber and NWFP due to lack of effective enforcement.

PAM 2: Promote diversification and efficiency in the wood value chain

Positive impacts		**Negative impacts**	
Environmental	*Social*	*Environmental*	*Social*
• Minimize pressure on preferred species through promotion of less preferred species • Increase timber recovery through use of advanced conversion technologies • Increase timber quality and durability through proper seasoning and treatment • More efficient use of timber may lead to smaller volumes of cut. • Wood waste should decrease, and production using secondary raw materials such as stubble, leaves, needles, resin, and tree tops should expand.	• Enhancement of income through product diversification • Employment opportunities will increase (in harvesting and wood processing) • Increased choice of products for consumers • Collaboration and linkages between wood processing, logging sector and forest users will improve. • Enhancement of capacities of actors in the wood value chain	• Increased illegal activities • Improved harvesting technology may open up previously inaccessible forest	• Loss of Indigenous knowledge as modern technologies slowly replace traditional practices • High investment cost, therefore smaller producers may be negatively affected due to lack of initial start-up capital

Summary of key impacts for PAM 2:

The positive and negative implications of promoting diversification and efficiency in the wood value chain appear to be relatively evenly balanced. Clearly, the introduction of modern processing technology should result in more efficient use of timber. Waste should therefore decrease, and could result in an expanded use of currently underutilized secondary raw materials such as stubble, leaves, resin, needles, and tree tops. The expansion of product types should result in more jobs for local people, in both harvesting and wood processing.

On the negative side, however, depending on the initial capital investment costs of acquiring new technology, the successful implementation of this PaM may negatively affect small producers if special measures are not planned to protect the most vulnerable. The proliferation of modern technology may also lead to traditional practices no longer being followed (which depending on the practice, may or may not be seen as a negative).

PAM 3: Strengthen forest fire management

Positive impacts		**Negative impacts**	
Environmental	*Social*	*Environmental*	*Social*
• Reduced forest fire risk • Reduced biodiversity loss/ ensured species persistence • Increased carbon stock/ forest cover. • Composition (age, species, growth) of forest will improve • Reduced risk of drying of water sources • Reduced soil erosion and landslide • Ensure healthy regeneration through intervention of controlled burning • Ensure forest stand dynamics through intervention of controlled burning (research studies can be done) • Improved wildlife habitat through intervention of controlled burning practices • Reduction of invasive/exotic weed species	• Enhanced people's knowledge on impact of forest fire • Reduced property loss and ensured safety • Improved community coordination and participation • Better fire management can lead to improved forest quality, which can in turn enhance livelihoods • Reduced human-wildlife conflict due to adequate food availability in the forests • Reduced risk of SRF land encroachment (if forest is quite good, people will not encroach). If open areas are created, encroachments will increase) • Can reduce risk of out of control fires which damage property or lead to loss of life	• Increased risk of forest pest and diseases due to controlled burning practices • Increased leaf litter (ground cover) and affected regeneration • Increased risk of extermination of endemic species and fire sensitive species • Exposed burnt land to overgrazing and colonisation by exotic species	• Limited quality and quantity of palatable species for livestock (due to controlled burns) • Increased cost implications through excessive use of resources (human and financial) • May have negative impact on poorer peoples' livelihoods, (e.g. those who set fires for hunting/ deadwood)

Summary of key impacts PAM 3:

If forest fire management is strengthened, there could be a number of positive outcomes. The composition of forests should improve, as lack of disturbance will result in a natural balance of age, species, and growth rates. Positive social implications would include new local jobs for fire managers, and a reduction in the risk of out of control fires which are threats to life and property. While the positive aspects of improved fire management are undeniable, there are possible negative implications. For example, it is possible that burnt land could be exposed to colonization by exotic species, and in communities where livelihoods are perhaps in part based on setting fires to enable hunting and deadwood collection, strengthened management could lead to increased conflict within communities, or may have negative impact on poorer peoples' livelihoods (, (e.g. those who set fires for hunting/ deadwood).

PAM 4: Plantation development and restoration of degraded areas for increased carbon stock, biodiversity conservation and sustainable supply of wood products (timber and firewood)

Positive impacts		**Negative impacts**	
Environmental	*Social*	*Environmental*	*Social*

• Reduced pressure on natural stock due to increased plantations and private forest • Improved quality and quantity of forest stands through effective application of silvicultural practices and alternative sources (private and plantation in degraded areas) • Promotion of native species, resulting in enhanced eco-system services. • Enriched wildlife habitat (food, water and cover) and increased wild animal population • Minimized land degradation • Improved water catchment areas	• Increased choice of timber species (high value and fast growing species) • Increased accessibility for sustainable use of timber and fuel wood • Increased contribution to GDP from forestry sector (through increase in timber products) • Increased income opportunities for local communities. • Optimized use of non-arable land for private forest development • Ensured protection of water sources	• Increased risk of mono-culture • Replacement of native species and reduced natural habitat for wildlife • Increased risk of forest pest and diseases outbreak • Displacement of existing land uses to other natural areas.	• Increased incidences of human-wildlife conflict (because plantation will improve wildlife habitat) • Increased incidences of human-wildlife conflict (other hand, increased habitat or wild animals through plantation may reduce HWC) • Reduced food self-sufficiency with probable conversion of agriculture land into private forest (reduce biodiversity) • Increased illegal logging • Competition for use of land. • Crowding out of existing local forest users. • Increased the risk of cost implication (human and financial)

Summary of key impacts PAM 4:

The Drivers study suggests that between 4,000ha and 6,000ha is "deforested" on an annual basis. When combined with already degraded and barren land, there is clearly considerable potential for plantation development and forest restoration.

Positive environmental impacts from plantation development and restoration include reduced pressure on standing native forests, and the promotion of native species, which could result in an enhancement of ecosystem services. Social benefits could include improved income opportunities for local communities, leading to improved living standards. Community forestry has expanded significantly over the last 10 years or so, and there could be good economic value for communities to invest in valuable timber production in the warm, humid broadleaf forests.

On the other hand, if not managed properly, environmental problems could eventuate if invasive species are introduced, or if existing land uses on degraded/barren land is displaced to other areas of natural forest. Possible social issues could include competition for the use of land, and the "crowding out" of existing local forest users.

PAM 5: Harmonizing land use planning (cross sectoral integrated land use planning)

Positive impacts		**Negative impacts**	
Environmental	*Social*	*Environmental*	*Social*
• Proper land categorization will help to delineate land uses in an area • Efficient and effective utilization of resources (science based/rational land management) • Minimize destruction to forests and environment • Improve quality and quantity of water resources (see PaM 1 for detail) • Enhancement of biodiversity conservation and forest eco-system services.	• Reduce land disputes though proper planning • Guide to future infrastructure development • Reduce human wildlife conflicts (HWC). All scattered settlements will be relocated to reduce HWC) • Lowering of cost for infrastructure development • More potential for fairer sharing of benefits. • Enhanced institutional capacity of relevant institutions at Dzongkhag and Geog levels for improved forest governance. • Improved law enforcement • Reduction in contradictory laws	• Increased size of settlements may result in pollution of water and air • Could lead to fragmented wildlife habitat (due to increased infrastructure, change of allocated land use)	• Reduced ability of local communities to influence forest planning.

Summary of key impacts PAM 5:

The Drivers study concludes that decision-making on urban development and infrastructure expansion is occurring in an ad hoc, piecemeal fashion, in the absence of a long-term national spatial planning policy. Hundreds of decisions are made on developments at the project level, but there is a lack of policy, decision criteria, and spatially-explicit master plans to guide decisions. It appears that there are no clear mechanisms for harmonizing the many sector plans of different line Ministries.

From the point of view of environmental concerns, harmonized land use planning could lead to enhanced biodiversity and forest conservation. Stronger institutional capacity at the Dzongkhag and Geog levels could also result in better forest governance, and a fairer sharing of benefits. Depending on how integrated land use planning is introduced, there is a possibility of negative outcomes. For example, if new planning policy attempts to balance environmental, social, and economic goals, there is a possibility that environmental considerations will lose out when inevitable tradeoffs decisions need to be made. In addition, new land use planning policy at the national level may result in a reduced ability of local communities to influence forest planning.

PAM 6: Support & Strengthen environmental impact assessment and compliance monitoring system and coordination

Positive impacts		**Negative impacts**	
Environmental	*Social*	*Environmental*	*Social*
• Stronger understanding of current environmental status which helps in future conservation plan • Improved ability to target key environmental impacts. • Minimize harm and pollution of air, water and land • Improve biodiversity conservation • Prevent or control illegal activities • Improvement in monitoring of environmental performance. • Improvement in environmental management of projects.	• Facilitate stakeholder coordination linkages, and participation • Inform community and obtain prior consent • Convince stakeholders on the project prospective though EIA report • Avoid unnecessary cost escalation • Ensure health and safety • Improve service delivery		• Difficulties in stakeholder engagement and participation • Project proposals declined despite huge investment (loss for investors) • Escalating cost estimation due to inclusion of environmental safeguards • Delay in the process of project approvals.

Summary of key impacts PAM 6:

Bhutan has had an environmental approvals system in place at least since the promulgation of the Environmental Assessment Act 2000. The Act stipulates the requirements for conducting environmental assessments and obtaining environmental clearances. It is supported by regulations, sector guidelines, and codes of practice intended to guide its implementation. The Act makes Environmental Clearance (EC) from relevant Competent Authorities a pre-requisite for a project, and the EC sets out environmental terms for the project. Environmental impact assessment (EIA) is required for a wide range of economic activities, including forestry. It is therefore likely that REDD+ PAMS that result in new forestation, will require environmental clearance before approval.

Strengthening the EIA system should improve the government's overall ability to target key environmental impacts. It should also result in better environmental monitoring of projects, which should then encourage proponents to improve their overall environmental management. The only possible

negative outcome from strengthening EIA could be that it delays the process of project approvals. However, international experience suggests that when project developers do a good job of environmental design during the EIA process, there is less chance of environmental and social problems after projects have been implemented.

PAM 7: Sustainable management of NWFPs (domestication and cultivation) and promote enterprise development

Positive impacts		**Negative impacts**	
Environmental	*Social*	*Environmental*	*Social*

• Improved conservation of species and genetic diversity maintained • Increased productivity and utilization of fallow land • Reduced pressure on natural stock • Utilization of non-forested SRF land • Conservation of soil and water • Wildlife habitat and food resources maintained • Lower pressure on timber products • Better guidelines for extraction of NWFPs could prioritize environmental management •	• Livelihoods can be improved: through sale of NWFP and employment opportunities for local population • More time for other income activities • Community empowerment: decision making, entrepreneurship and marketing of NWFP. Encourages small scale rural enterprise • Community participation in conservation and management • Enhance community cohesion through group formation and consequent minimizing of conflicts • Gender participation can be promoted as it involves activities for all ages and sex • Traditional knowledge preserved through use of NWFP in local medicines and other uses • Reduced rural-urban migration by way of active engagement in farms • Fairer distribution of benefits from forests.	• Possibility of Introduction of exotic species • Increased resource exploitation due to improved capacity, which can lead to overexploitation or increased negative impacts on resources. • Hybridization of species (GMO) • Over harvesting from wild as they fetch a higher price • Can encourage monoculture of high priced species • Chances of pest and disease outbreaks with domestication • Replacement of agriculture crops/native species • Pollution/waste due to increasing commercial activities • Land encroachment • Human-wildlife conflict • Habitat fragmentation through temporary barrier – electric fencing	• Conflict of interest – between gender, between age group • Divert interest from mainstream agriculture (shift to more lucrative activities) • Lack of space for livestock farming • Dependency on easy access to development facilities (e.g. Highlanders increased dependency on Cordyceps for better income) • Dependency on market competition and price fluctuation • Mass production and poor quality of products • Expansion of NWFP harvesting may benefit large operators (who will capture most resources) and harm small collectors

Summary of key impacts PAM 7:

Traditional use of forests and NWFPs are important for livelihoods in Bhutan. The promotion of NWFP enterprises could result in increased livelihood opportunities for local people, and a fairer distribution of benefits from forests. In addition, better guidelines for the extraction of NWFPs could prioritize environmental management.

On the other hand, if guidelines are not produced, and the expansion of NWFP enterprises happens in an unregulated fashion, then this could result in increased access and harvesting in pristine forest. In addition, expansion of NWFP harvesting could benefit large operators at the expense of the traditional small-scale character of the sector. Participants have also identified that human-wildlife conflict incidences might increase.

PAM 8: Encourage & promote income generation from ecosystem services in key sectors

Positive impacts		**Negative impacts**	
Environmental	*Social*	*Environmental*	*Social*
• Improved water supply/quality (PaM 1) and soil stability • Increased wildlife population • Less harvesting of trees for timber (because of payments for maintaining trees standing), Increase in forest cover • More diligent protection of forests • Documentation of biodiversity and publication	• Investment in local areas will increase, encouraging growth in livelihoods, services, infrastructure, employment • Community participation and engagement • Diversification of community income sources. PES and Ecotourism, Capacity development of local people (chefs, guides) • Reduce rural-urban migration • Access to markets for local products • Change of mindset towards conservation	• Solid waste pollution • Disturbance to wildlife • Environmental pollution along trails and tracks due to tourists • Risk of illegal trading of exotic species due to increased public exposure to exotic species • Illegal collection of specimen rocks, plants could be collected, patent the species	• Increase human-wildlife conflict • Surplus products (eg. Too many Homestays leading to failure) and underutilization • Elite capture of business leading to intra-community conflicts • Restricted access to resources (might protect for tourists and drive local people from these resources) • Inequality in access to resources and benefit sharing among communities • Risk of community displacement/resettlement or land grabbing (through corruption) • Increased competition for land (for agriculture, for hotels etc.)

Summary of key impacts PAM 8:

As indicated in the Drivers study, Payments for Ecosystem Services (PES) is enabled by the National Forest Policy. Bhutan also has some experience with benefit sharing under PES schemes. A PES Feasibility Study was undertaken by FAO in 2009 and identified certain positive conditions for PES implementation. A National Framework for PES and Field Guides have been developed, and Bhutan is looking to refine an assessment of ecosystem service valuation.

In theory, encouraging PES could result in better forest protection, and increased financing for environmental conservation. A strong incentive for forest protection could result in communities wishing to protect land and water resources over other land uses. On the other hand, improving ecosystem-based livelihoods such as eco-tourism may increase local pollution due to the waste generated by tourists, potentially fuel demand for exotic local species, increase human-wildlife conflict and fuel intra-community conflicts due to elite capture of benefits, leaving the most vulnerable excluded.

PAM 9: Climate smart livestock farming practices

Positive impacts		**Negative impacts**	
Environmental	*Social*	*Environmental*	*Social*
• Reduce grazing pressure on SRF • Help increase natural regeneration by reducing free grazing • Reduce firewood consumption through implementation of biogas • Minimise greenhouse gas emission by reducing livestock population • Higher land productivity and soil enrichment.	• Reduce man power requirement through use of technologies and machinery • Uplift living standard by generating income • Improve health and hygiene of the communities • Reduce Rural urban migration through community engagement and creating employment opportunities	• Less seed dispersal due to lack of free ranching livestock • Encourage single stand vegetation growth • Promote Invasive species (through pasture development/feeds & fodder). Import of feeds/fodders (for livestock) may lead to introduction of exotic grass species (eg: congress grass) • It will promote use of chemical fertilizer as there will be limited farmyard manure.	• Loss of traditional system of farming • Loss of native livestock species • Exclusion of illiterate farmers (leading to lack technological expertise) • Less raw materials for biogas • less production of farm yard manure • Land fragmentation/displacement of small scale farms. • Shortages of farmyard manure at household level

Summary of key impacts PAM 9:

According to the Drivers study, available statistics indicate a decline in cattle population. Coupled with predicted increase in the use of improved breeds, which have been reported to graze less in the forests, the overall impact of livestock grazing on forest degradation is predicted to decrease. The population of free grazing cattle and yaks has been diminishing gradually over the past decade.

Overall, these trends along with the promotion of climate smart livestock farming practices suggest a decline in the pressure on land from grazing, reduced emissions from livestock and higher land productivity. In terms of social outcomes, these practices could provide opportunities for generating income, and help reduce rural-urban migration. Possible negative impacts include shortages in farmyard manure, leading to increased use of chemical fertilisers, exclusion of vulnerable/illiterate farmers and displacement of small scale farms.

PAM 10: Climate smart agriculture practices

Positive impacts		**Negative impacts**	
Environmental	*Social*	*Environmental*	*Social*
• Smart use of limited land and resource which will have positive impact on environment • Reduce use of chemical fertilizers • Encourage sustainable management of water resources including rain water harvesting • Reduction of continued expansion of agriculture into forest lands. • Contribution to the integrity of high conservation value forests and reduction in degradation. • Improvement in biodiversity as specific areas change ecological habitats. • Reduction in erosion, runoff and siltation and improvement in water quality in sub-watersheds.	• Improvement in income generation opportunities (Can earn high income from organic farm products) • Employment opportunities • Varieties of products (Crop Rotation) • Farmers gain technical knowledge through capacity development • Mitigate human-wildlife conflict • Avoid water user conflict	• May cause degradation due to infrastructure development such as damage to irrigation channels, soil erosions, wildlife etc. • Restriction to wildlife movement due to electric fencing and other structures • Micro habitat destruction due to construction of basic amenities	• Labour intensive and low production. (organic/conventional vs mechanized farming: low volume high price and vice versa) • High inputs (cost) on organic way of farming • Lack of capacity to take up smart agriculture farming • Conventional farmers will not be able to adopt/compete smart farming system

Summary of key impacts PAM 10:

The Drivers study indicates that agriculture is an important driver of deforestation, and will likely have increasing prominence in the future. This is because agriculture is the most important sector in the economy, and employs 60% of the population. The available options for improved agricultural production are challenged by Bhutan's geography. Farmers cultivate on up to 38% slopes, and their landholdings are limited, as most farmers have less than one acre. Land degradation and surface erosion are serious potential problems. As can be seen from recent development in Thimphu and other large towns, urban expansion places pressures to expand on flat paddy areas. This displaces agricultural production to other areas, such as forests and stepper slopes. The Drivers study indicates that forest area lost due to conversion to agriculture during the 2000 to 2015 period was around 4,000ha.

On the other hand, it is possible that a carefully designed programme of climate smart agriculture could contribute to the integrity of high conservation value forests, and thereby reduce degradation and expansion of agriculture into forest lands. Positive impacts could include improved water and biodiversity management and quality. Climate smart practices could also be a catalyst to increase smallholder yields and generate income opportunities for farmers. Possible negative impacts of implementing this PAM could include degradation from infrastructure or fencing, or a lack of willingness or capacity of farmers to take up smart agriculture farming.

5. Conclusion: link between the SESA and future ESMF, SIS and FGRM documents

The aim of the SESA was to identify with key stakeholders the potential environmental and social concerns relating to the implementation of the proposed NRS in Bhutan, in line with the FCPF requirements to comply with World Bank operational policies and the UNFCCC Cancun safeguards. In this regard, the seven Cancun Safeguards are expected to apply throughout the implementation of the proposed NRS. In addition, the development and implementation of the NRS must take into account the findings of the SESA, in terms of ensuring the identified potential social and environmental risks are considered and mitigated.

As a result of the SESA process, the way forward would now be to prepare an ESMF, with the aim of avoiding, mitigating and minimizing any potential risk that may arise from the implementation of the proposed NRS.

5.1. Link between SESA and ESMF

The SESA stems from environmental assessment (EA) requirements of the World Bank.[67] It is intended to be an inclusive process whereby the REDD+ country, with the participation of all potentially affected stakeholders, seeks to "identify likely impacts and risks, as well as opportunities," among different strategic REDD+ options. During the SESA process these impacts, risks and opportunities are assessed and weighed by the various stakeholders. The purpose of the SESA, from a World Bank perspective is to identify risks of a proposed intervention so as to identify the relevant Operational Policies that are triggered, and develop a risk management framework. In the case of REDD+, this is the ESMF.[68]

Furthermore, in light of Bhutan's objective to design a safeguard framework that meets FCPF requirements while also allowing for the possibility of benefitting from future results-based payments such as the Green Climate Fund (GCF), the UNFCCC (Cancun) safeguard requirements must also be met.

The traditional scope of the ESMF (i.e. to develop the frameworks required by the triggered Operational Policies) will be broadened to outline a framework to deal with the multiple governance issues covered by the Cancun safeguards (transparency, participation, access to justice etc.). The proposed ESMF will identify the relevant laws in Bhutan that will enable enforcement of the safeguards building on the legal assessment carried out prior to the SESA. In addition to identifying the substance and procedures of the safeguard relevant legal obligations in Bhutan, the ESMF will also define the institutional arrangements for its implementation. That is, identifying and outlining the institutional actors that should be responsible for the oversight and enforcement of the ESMF.

The proposed ESMF for Bhutan will therefore aim to clarify:

- What safeguard obligations need to be complied with during REDD+ implementation to meet RGoB's objectives (i.e the safeguard relevant obligations identified in Bhutan's PLRs + the relevant World Bank OPs triggered by the SESA)

[67] See OP 4.01 – Environmental Assessment, para. 7; and Annex A, para. 10.
[68] F (2011) Readiness Fund Common Approach to Environmental and Social Safeguards for Multiple Delivery Partners. https://www.forestcarbonpartnership.org/sites/forestcarbonpartnership.org/files/Documents/PDF/Nov2011/FCPF%20Readiness%20Fund%20Common%20Approach%20_Final_%2010-Aug-2011_Revised.pdf

- What World Bank Frameworks need to be developed in the ESMF to manage the risks identified in the SESA (thus complying with the FCPF procedural requirements)

- Who will be responsible for making sure they are complied with, including:

    - **Screening/analysing project proposals** (management plans) to make sure the procedural requirements contained in the laws have been followed, such as information sharing, responding to requests for information, transparent procurement, participation, environmental assessment etc.
    - **Overseeing the implementation** of these projects/management plans to make sure that the substantive requirements contained in the laws have been followed, such as, analysing the financial reporting (both project implementation and distribution of benefits), participatory management, respecting environmental/Biodiversity protection measures.
    - **Enforcing instances of non-compliance** (for example: suspending a planned intervention if the management plan is not being implemented correctly or if there are inconsistencies in financial reporting; investigating accusations of corruption).
    - **Dealing with disputes** (FGRM will deal with this and will be developed as part of a parallel process).
    - **Monitoring & Evaluation:** gathering information and compiling reports on the implementation of the safeguards (see the link between the ESMF and the Safeguard Information System below).

5.2 Link between the SESA and FGRM

The SESA process can serve as a basis for identifying potential conflicts and grievances that may arise during the implementation of the NRS. The identification of environmental and social impacts/risks of REDD+ PAMs in Bhutan can provide a general idea of potential tensions, conflicts and grievances that may arise during the implementation of REDD+ PAMs. These will serve as a starting point for the design of the FGRM which will be designed to received, hear and address grievances related to REDD+ activities.

5.3 Link between the ESMF and SIS

The proposed ESMF will summarise:

- The substantive safeguard obligations; and
- The institutional roles and responsibilities linked to oversight and enforcement of safeguards

Traditionally, the ESMF is expected to include monitoring and reporting provisions, though guidance on the precise nature and scope of such arrangements are not provided in the FCPF documents. Given the multiple objectives of Bhutan's safeguard framework and the UNFCCC requirement to develop a Safeguard Information System (SIS), a separate SIS design document is being developed, outlining the blueprint for establishing Bhutan's SIS in a way that meets both UNFCCC and FCPF reporting requirements. The SIS design document will aim to clarify:

- The **scope and objectives** of the SIS (That the Cancun safeguards will be applied to the REDD+ interventions contained in the NRS, with the intention of meeting FCPF and UNFCCC, GCF safeguard requirements)
- The **interpretation of the Cancun safeguards** in accordance with national circumstances

- **The types of information** that can be gathered and provided to demonstrate that the Cancun safeguards have been addressed and respected (these will be in the form of initial process and outcome indicators that can be used to develop safeguard reports)
- **The key functions** that the SIS will carry out (collection, aggregation, analysis and dissemination of information)
- **The existing relevant sources of information** for the SIS (this means institutions that already gather information that is relevant
- **The institutional arrangements for the SIS:** this mean identifying the institution that will be mandated to carry out each function, as well as stating the specific arrangements that will be needed (information sharing agreements, MOUs) to ensure that the identified institution can carry out its function in practice.

Due to the multiple functions that will need to be carried out by the entities responsible for implementing the ESMF and SIS (safeguard oversight and enforcement, collection, aggregation, analysis and dissemination of information) it will be key to determine the appropriate balance between harnessing existing institutions and establishing novel REDD+ arrangements.

Annexes

Annex 1: SESA workshops and participation

Annex 2: SESA process presentations

Annex 3: SESA process participants