



**Government of Nepal
Ministry of Forests and Soil Conservation
Babarmahal, Kathmandu**



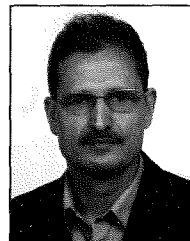
Forestry Sector Strategy

(2016 - 25)



Government of Nepal
Ministry of Forests and Soil Conservation

Ref. No.



FOREWORD

Forest resource is of vital importance and has played a major role in the livelihood of the people. Sustainable forest management, biodiversity conservation along with integrated watershed management for national prosperity has been the vision of the Ministry of Forests and Soil Conservation (MoFSC). The Master Plan for Forestry Sector 1989 has come to an end in 2011. Further, Forest Policy 2015 has been formulated on the basis of past learning, present needs and future potential of the forest resources. In order to implement the policy, the Forestry Sector Strategy (2016-2025) has been developed in the spirit of the multi-stakeholder approach.

The Forestry Sector Strategy has envisioned eight strategic pillars and identified seven key thematic areas to achieve the vision of MoFSC. With the implementation of the strategy, five major outcomes will be achieved viz; sustainable production and supply of forest products, improvement of biodiversity conservation, watershed and ecosystem services, increased contribution to national economy, inclusive and accountable forestry sector institutions and organizations, and climate resilient society and ecosystem.

Effective implementation of the strategy depends on close and meaningful coordination among the key stakeholders including government institutions, civil societies and local communities. The Ministry is committed to lead this noble endeavor. I believe "together we can accomplish".

I would like to duly acknowledge the support of all our development partners in preparing Forestry Sector Strategy document.

I would like to thank Mr. Udaya Chandra Thakur, Secretary MoFSC for coordinating the process of preparing the strategy.

Agni Prasad Sapkota
Minister

July 11, 2016



Government of Nepal
Ministry of Forests and Soil Conservation

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Acknowledgement

The Forestry Sector Strategy (FSS) is a key milestone in the forestry sector of Nepal, formulated to guide the future development of Nepal's forestry sector for the coming ten years. It is based on the framework of the Forest Policy 2015, past learnings from the implementation of the Master Plan for the Forestry Sector, which came to an end in 2011, visualizing the future political and socio-economic scenario of Nepal, and the generation of a theory of change. This document is presented in four parts – an introduction describing the development of the Strategy; a second section presenting the vision for Nepal's forestry sector; a third part defining what will be done to achieve the vision through a focus on the actions and approaches across seven key thematic areas; and a fourth part presenting the delivery mechanism to achieve the vision, goals and milestones described in part three. The annexes document supporting papers.

The FSS aims to deliver five major outcomes ranging from sustainable production and supply of forest products; improvement of biodiversity; watersheds and ecosystem services; increased contribution to national economic development; and inclusive and accountable forestry sector institutions and organizations to develop a climate-resilient society and forest ecosystems.

Several organizations and individuals, including Government agencies, NGOs, members of local user groups, civil society organizations, and individual experts contributed in different ways to this strategy. I appreciate the efforts and inputs of those involved in the review and preparation of the Strategy namely Dr Keshav Kanel, Dr Dhruba Acharya, Dr Bishwa Nath Oli, Dr Bimala Rai Paudyal, Dr Bharat Kumar Pokharel, Dr Abhoy Kumar Das, Dr Akhileshwar Lal Karna, Dr Sindhu Dhungana, Mr Bishal Ghimire, Mr Vijay Subedi and others.

I would also like to thank Mr Krishna Prasad Acharya, Joint Secretary MOFSC for coordinating the process, and for his dedication and sincere efforts in finalizing this document; and also Mr Peter Branney for contributing to enrich the technical quality of this document.

The support from the Multi Stakeholder Forestry Programme, especially the National Program Coordinators Dr. Ram Prasad Lamsal, Mr. Dhananjaya Poudyal and Mr. Sudhir Kumar Koirala from the MSFP Programme Coordinator's Office, as well as MSFP staff - Team Leaders Mr. Ramu Subedi and Richard Allen, Donor Focal Point Mr Antti Ryttonen, and Outcome Manager Bishwas Rana, all of whom provided valuable feedback, is also highly appreciated.

I would like to thank all the key stakeholders including FNCCI, FECOFUN, ACOFUN, NGO Federation, NAVIN, NEFUG, NFA, HIMAWANTI, COFSUN, NEFIN, DANAR and others - for their consultations, inputs and constructive feedback in the process of preparing this strategy.

Successful completion of this work would not have been possible without the support and cooperation of several senior officials at this Ministry and its Departments. I would like to express my sincere appreciation to all of them.

Finally I would like to express my sincere appreciation to the Development Partners of the Multi Stakeholder Forestry Programme - DFID, SDC and the Finnish Government - for their financial support in the preparation of the Strategy.

Mr. Uday Chandra Thakur
Secretary

July 8, 2016

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ABBREVIATIONS AND ACRONYMS

ACOFUN	Association of Collaborative Forest Management User Groups of Nepal
AEC	Agro-Enterprise Centre
AEPC	Alternative Energy Promotion Centre
ANSAB	Asia Network for Sustainable Agriculture and Bio-Resources
BZMC	Buffer Zone Management Committee
BZMG	Buffer Zone Management Group
CA	
CBO	Community-based Organisation
CBS	Central Bureau of Statistics
CF	Community Forest
CFMG	Collaborative Forest Management Group
CFUG	Community Forest Users Group
COFSUN	Community-based Forestry Supporters' Network
CSO	Civil Society Organisation
CTEVT	Council for Technical Education and Vocational Training
DANAR	Dalit Alliance for Natural Resources
DDC	District Development Committee
DDG	Deputy Director General
DFDC	District Forest Development Committee
DFID	Department for International Development (UK Government)
DFO	District Forest Officer
DFRS	Department of Forest Research and Survey
DFSP	District Forest Sector Plan
DG	Director General
DNPWC	Department of National Parks and Wildlife Conservation
DoF	Department of Forests
DPR	Department of Plant Resources
DSCWM	Department of Soil Conservation and Watershed Management
EIA	Environmental Impact Assessment
EPA	Environment Protection Act
FAO	Food and Agriculture Organisation (of the United Nations)
FECOFUN	Federation of Community Forestry User Groups of Nepal
FenFIT	Federation of Forest Based Industry and Trade, Nepal
FEPFOS-Nepal	Federation of Private Forest Stakeholders Nepal
FEWUN	Forest Environment Workers' Union Nepal
FLEG-T	Forest Law Enforcement, Governance and Trade
FNCCI	Federation of Nepalese Chambers of Commerce
FPDB	Forest Products Development Board
FSCC	Forestry Sector Coordination Committee
FSS	Forestry Sector Strategy
GACF	Global Alliance for Community Forestry
GDP	Gross Domestic Product
GESI	Gender Equity and Social Inclusion

GFP	Gender Focal Point
GGN	Green Growth Nepal
GIS	Geographical Information System
GoN	Government of Nepal
Ha	Hectare
HIMAWANTI-Nepal	Himalayan Grassroots Women's Natural Resources Management Association Nepal
HPPCL	Herbs Production and Processing Company Limited
HR	Human Resources
HRD	Human Resources Development
HRM	Human Resources Management
ICIMOD	International Centre for Integrated Mountain Development
IoF	Institute of Forestry
IT	Information Technology
IUCN	International Union for Conservation of Nature
IWM	Integrated Watershed Management
KAFCOL	Kathmandu Forestry College
LAPA	Local Adaptation Plan of Action
LHFG	Leasehold Forest Users Group
M	Million
M&E	Monitoring and Evaluation
m ³	Cubic metre
MAP	Medicinal and Aromatic Plant
MFSC	Ministry of Forests and Soil Conservation
MIS	Management Information System
MoF	Ministry of Finance
MPFS	Master Plan for the Forestry Sector
MSFP	Multi-stakeholder Forestry Programme
NAFAN	National Forum for Advocacy Nepal
NAPA	National Adaptation Program of Action
NEFIN	Nepal Federation of Indigenous Nationalities
NEFUG	Nepalese Federation of Forest Resource User Group
NEHHPA	Nepal Herbs and Herbal Products Association
NFA	Nepal Foresters Association
NFC	Nepal Fuel-wood Corporation
NFF	National Forestry Forum
NGO	Non-Governmental Organisation
NR	Nepali Rupee
NTCC	National Tiger Conservation Committee
NTFP	Non-Timber Forest Product
NTNC	Nepal Trust for Nature Conservation
NWCCC	Nepalese Wood Craft Child Craft
OSIS	Open Source Information System
OWL	Other Wood Land

PA	Protected Area
PES	Payment for Ecosystem Services
PLM	Public Land Management
PPP	Public–Private Partnership
RCF	
REDD+	Reducing Emissions from Deforestation and Degradation
RTC	Regional Training Centre
SCAP	Species Conservation Action Plan
SDC	Swiss Development Cooperation
SWC	Soil and Watershed Conservation
TCN	Timber Corporation of Nepal
TEPC	Trade and Export Promotion Centre
UC	
UG	
VAT	Value Added Tax
VDC	Village Development Committee
WCCB	Wildlife Crime Control Bureau
WWF	World-Wide Fund for Nature

EXECUTIVE SUMMARY

The Forestry Sector Strategy (FSS) is formulated to guide the future development of Nepal's forestry sector for the coming ten years. It is based on the framework of the Forest Policy 2015, past learning from the implementation of the Master Plan for the Forestry Sector, which came to an end in 2011, visualising the future political and socio-economic scenario of Nepal, and the generation of theory of change. The theory describes the steps and their linkages that will lead to the planned outcomes.

It is presented in four parts with introduction as an entry point for the development of the Strategy. The second part presents the vision for Nepal's forestry sector. The third part describes what will be done to achieve the vision by focussing on the actions and approaches across the seven key thematic areas. The fourth part presents the delivery mechanism to achieve the vision, goals and milestones described in part three. The final part comprises annexes supporting the strategy. The FSS identifies eight strategic pillars which are integral to all seven key thematic areas. These pillars are:

- i. Sustainably managed resources and ecosystem services*
- ii. Conducive policy process and operational environment*
- iii. Responsive and transparent organisations and partnerships*
- iv. Improved governance and effective service delivery*
- v. Security of resource use by the community*
- vi. Private sector engagement and economic development*
- vii. Gender equality, social inclusion and poverty reduction*
- viii. Climate change mitigation and resilience*

The vision and goals are:

Vision: *Sustainable management of forest ecosystems, biodiversity and watersheds fully optimised for national prosperity.*

Goal: *Forest, biodiversity, plant resources, wildlife, watersheds and other ecosystems are protected, sustainably managed and made climate-resilient through an inclusive, decentralised, competitive and well-governed forestry sector providing equitable employment, incomes and livelihoods opportunities.*

The FSS aims to deliver five major outcomes ranging from sustainable production and supply of forest products; improvement of biodiversity, watersheds and ecosystem services; increased contribution to national economic development; inclusive and accountable forestry sector institutions and organizations to climate-resilient society and forest ecosystems. Milestones have been set to monitor progress in achieving the outcomes of the FSS. A mid-term review of FSS is proposed to assess the achievements and take necessary corrective steps in implementation. The FSS identifies seven key thematic areas which form the core area of the strategy. They are:

- 1. Managing Nepal's forests*
- 2. Managing ecosystems and conserving biodiversity*

3. *Responding to climate change*
4. *Managing watersheds*
5. *Promoting enterprise and economic development*
6. *Enhancing capacities, institutions and partnerships*
7. *Managing and using forestry sector information*

Each theme is further segregated into programme areas to stress the strategic direction that will be taken to achieve the intended goal and objectives. The pillars, milestones, outcomes, strategies and actions are linked to each other. The strategies related to each theme are described in detail in part three.

Part four of the FSS describes the mechanisms by which the strategies described in part three will be implemented. This part termed as 'delivering the vision' comprises principles, institutional roles and responsibilities, and implementation methods. The relationship between the eight pillars and approaches taken to implement the strategies is also presented in this part. Finally, the annexes present the roles, functions and responsibilities of different actors, priority programmes and strategic interventions in different ecological zones and monitoring framework.

GLOSSARY

Community forest	A forest managed by a community forest user group as defined by the Forest Act 1993 and Forest Regulations 1995
Community-based forest management	A set of forest management modalities that involve local people in planning, implementation and benefit-sharing (including community forest management, pro-poor leasehold forest management, collaborative forest management, buffer zone management, public land management and urban forestry)
Deforestation	Transfer of forest to other land uses, causing loss of forest
Degraded forest	Defined as forest with <20% canopy cover
Ecosystem services	The benefits that arise from healthy functioning ecosystems such as soil conservation, water conservation, biodiversity, carbon sequestration, flood control, climate amelioration, aesthetic beauty and others
Forest	An ecosystem characterised by a more or less dense and extensive tree cover. It often consists of stands of trees varying in characteristics such as species composition, structure, age class, and associated processes, and commonly including meadows, stream, fish and wildlife.
Forest degradation	A reduction in the capacity of forest to produce goods and services
Forest management modality	The ownership, institutional and legal arrangements which determine how a particular forest is governed. In Nepal there are 4 possible modalities (i) community-based forest management (which is further categorised into six types - see definition above); (ii) private forest management (iii) government forest management and (iv) religious forest management
Forest products	The physical products that can be yielded and used from forests such as timber, fuel-wood, NTFPs/MAPs, fodder and food and others
Forest services	Ecosystem services from forests such as forest products, biodiversity, soil and water conservation, aesthetic and recreational values, cultural use, climate amelioration and other environmental services
Forestry	Broadly defined to include livelihoods, social aspects, environmental services, forestry policies and institutions, and economic considerations. In addition to traditional aspects of forest management, production, health and protection, forestry considers the broad landscape of trees outside forests, including urban forestry and agro-forestry (including trees on farm land). Forestry includes the management of wildlife, protected areas, and

	watersheds. Forestry considers the impacts of other sectors on the forest, as well as the impact of the forest on other sectors.
Integrated watershed management	A multi-resource management planning process that seeks to balance healthy ecological, economic, and cultural/social conditions within a watershed.
Intensively managed forest	Forest that is being managed in line with the principles of Sustainable Forest Management and according to the provisions of an agreed management plan and is yielding multiple use or diverse forest products and/or forest services
Landscape	A land-area mosaic of interacting ecosystems, land uses and social and economic groupings.
Partnership	A cooperative relationship between people, groups or organisations who agree to share responsibility for achieving some specific goal and where their respective roles and responsibilities are clearly defined
Socially disadvantaged group	A group of people who are subjected to racial, ethnic or religious prejudice because of their identity as members of the group without regard to their individual qualities and whose livelihoods are adversely affected as a result

PART 1 INTRODUCTION

1.1 BACKGROUND AND CONTEXT

The Master Plan for the Forestry Sector (MPFS) (1989), which guided Nepal's forestry development for almost twenty-five years, ended in 2011. Recognising the importance of a forestry policy, the Government of Nepal (GoN) formulated Forest Policy in 2015. This strategy provides strategic directions and guidance over the next decade.

Nepal has undergone significant political, social and economic changes since the MPFS was formulated in 1988. These changes, accompanied by global changes, have influenced the way forestry is practised in Nepal. The Forest Act 1993 and Forest Regulations 1995 enlarged the scope of community forest governance and made forest tenure reforms, while amendments to the National Parks and Wildlife Conservation Act 1973 changed the paradigm of conservation by creating opportunities for local communities to involve in the management of conservation areas and buffer zones. The political changes of 1990 and the subsequent liberalisation of the economy increased the involvement of civil society, non-government organisations (NGOs) and the private sector in the forestry sector as implementers of operations and as service providers, as well as for supporting forest-based enterprises. These changes have yet to be matched by new regulatory and fiscal policies on the sector.

Forest ecosystems and watersheds provide multiple goods and services for people's livelihoods and welfare. They provide fuel-wood as an energy source, timber and poles for building construction and furnishing materials, Non-Timber Forest Products/Medicinal and Aromatic Plants (NTFPs/MAPs) as essential ingredients for human health and income, fodder for livestock and water for drinking, irrigation and hydropower purposes. Forests are also sources and sinks for carbon emissions, and they regulate the hydrological balance conserving water and reducing soil erosion. They are also linked to culture and recreation and are major destinations for eco-tourism. Nepal's forests and watersheds also support the ecological functions and services needed for the promotion of other sectors and harbour rich and diverse flora and fauna.

The Strategy has been developed based on (i) The Constitution of Nepal, (ii) Forest Policy 2015 (iii) a review of MPFS, (iv) extensive consultations with relevant stakeholders at different levels and in different geographical areas, and (v) visualisation of the future and (vi) theory of change.

1.2 SITUATION ANALYSIS

There have been many positive gains from the implementation of the MPFS and the associated and legislative reforms over the past two decades. A recently conducted review of the MPFS has identified some of the most significant achievements as:

- Forest governance reforms have led to gradual restoration of forests and controlled deforestation in the degraded landscape in the Middle Hills.
- Protected area coverage has reached 23.3%.

- MAPs constitute a major share in Nepal's exports.
- Forest of Nepal, if managed intensively, can produce surplus timber even for export.
- Plywood manufacture has expanded significantly.
- Bottom-up planning has helped to design programmes and activities based on the aspirations of the local people.
- Climate change has been recognised as a critical issue and measures to adapt to and mitigate climate change impacts are being initiated, including ecosystem-based adaptation.
- Populations of some of endangered wildlife species (tiger, rhinoceros, wild buffalo) are increasing and poaching of rhinoceroses appears to be under control.

Notwithstanding these achievements, the MPFS has failed to address several issues currently plaguing Nepal's forestry sector, including:

- Deforestation, forest encroachment and watershed degradation are still continuing, especially in the Tarai and Chure.
- Supply of forest products from productive forest management is less than their potential and does not yet meet the country's requirements.
- Despite having 39% forest cover, Nepal still imports timber.
- Despite its potential, the contribution of the forestry sector to income generation, employment and economic development is small and has not increased significantly.
- There is a lack of a favourable operational environment to scale up sustainable forest management and increase forest product supplies.
- The private sector is hesitant to engage and invest in forestry operations and value addition.
- Climate change impacts have already been realised in Nepal, but the role of forest ecosystems and watersheds in adaptation and mitigation has not yet been well recognized. Forests need to be climate-proofed to enhance their climate resilience.
- Forest encroachment is still continuing; the growing demand for forest land use change for non-forestry purposes, illegal trade in timber and wildlife and wildlife parts have not been fully controlled.
- Gender and social inclusion in forestry sector governance and decision-making at all levels has not fully taken place.

Following the devastating earthquake of April 2015, the Post-Disaster Need Assessment (PDNA) 2015 states that the damage and loss to the environment and forests of Nepal are mainly of three types: (i) destruction of forests, including Protected Areas (PAs); (ii) destruction of previously installed environmentally-friendly technologies; and (iii) destruction of office buildings, furniture, equipment and other assets of government institutions and community based natural resource management institutions. The report also proposes a reconstruction and recovery programme for the environment and forestry sector to increase the resilience of ecosystems, the environment and vulnerable communities to future anthropogenic and natural shocks from earthquakes and climate change by enhancing their management, and working with other sectors to promote sound development and reduce unsustainable impacts in order to build back better, safer and greener.

1.3 REVIEW OF THE MASTER PLAN FOR THE FOREST SECTOR

The performance of the forestry sector during the duration of the MPFS was comprehensively reviewed¹ during 2013-14.

Amongst the six primary development programmes, the Community and Private Forestry Programme had significant impact and largely achieved its aims. It contributed to halting forest loss and degradation, especially in the Middle Hills, and enhanced the livelihoods of a large number of rural people. But community forestry had limited impact on rural employment and the local economy, and community forests are generally under-utilised. Effective forest utilisation and growth of forest-based enterprises could not be achieved due to a number of reasons. The National and Leasehold Forestry Programme also made little progress. Leasehold forestry evolved into Pro-Poor Leasehold Forestry, which was a successful approach, but other components, including lease of national forest for commercial management by private operators and implementation of sustainable forest management by state agencies, did not take place. Collaborative Forest Management, which was developed as a potential approach to tackle deforestation and degradation, has not yet become fully effective, and Nepal's wood production still lacks investment by the private sector. At the same time there are threats to unmanaged national forests from illicit felling, infrastructure development and urban expansion, as well as open access for grazing and encroachment.

The Programme for Wood-based Industries achieved very little. A huge gap still exists between the demand and the supply for wood, and the market-led economic liberalisation policies for timber and other wood products were not effectively pursued. Consequently, the assured supply of forest products that was needed for sustaining and enhancing Nepal's forest-based industry does not yet exist, although raw materials are now increasingly being supplied from community and private forests. The Medicinal and Aromatic Plants and Other Minor Forest Products Programme had only limited success, although there is now much greater awareness, interest and grass roots experience of enterprises based on these products and many rural communities and households are involved in some way or the other. But the sub-sector is characterised by unsupportive and restrictive regulations, taxes and procedures, coupled with inadequate phyto-sanitary and testing facilities to support international trade, which has adversely affected the establishment and management of such enterprises. NTFPs/MAPs-based enterprises remain small and fragile, with only limited private investment and with few products reaching international markets. Beneficiaries tend to be middle-men and traders rather than rural households.

¹ Master Plan for the Forestry Sector, Nepal: 1988-2011. Review of Implementation and Achievements with Lessons and Options for the Future. March 2014.

There was moderate success with the Soil Conservation and Watershed Management Programme, which had some important impacts in specific localities. Physical achievements of this programme were, however, relatively insignificant compared with the actual requirements for soil and watershed conservation across the country, especially as these are now being exacerbated by the recent earthquake, climate change, rural road construction and haphazard collection of building materials from river courses. Policies on watershed conservation are lacking and there is weak coordination between the MFSC and other agencies such as local government, community groups and other ministries. The Conservation of Ecosystems and Genetic Resources Programme was relatively successful and there is now a network of PAs, covering 23.3% of the country's land area, contributing to conservation of ecosystems and biodiversity. Populations of several species such as tiger, rhinoceros and wild buffalo have increased. Conservation policies moved away from 'people exclusionary' and 'species focused' towards 'people-centric' and landscape approaches. Buffer zone management has enabled local people to benefit from PAs. In popular national parks, visitor number and revenue have increased significantly. Ongoing issues include a shortage of specialised research whilst increased visitor number, combined with infrastructure development, has had adverse effects at certain locations, and human-wildlife conflicts have increased. Effective controlling of illegal trade and wildlife poaching needs additional efforts from all stakeholders.

Of the six supportive programmes of MPFS, the Forest Policy and Legal Reform Programme proved to be highly critical to the success of others. Without such reforms in various programme areas it was not possible to implement the programmes successfully. The Forest Sector Policy 1989, which was included in the MPFS, and the Forest Act 1993 and associated Forestry Regulations 1995 are considered as having been among the most influential, innovative and far-sighted elements of the MPFS. The policy directions set by the MPFS and the subsequent legal reforms made significant contributions to shaping the direction of Nepal's forestry sector and the institutions operating within it. Important challenges in the policy and enabling environment that still remain include:

- Need for deregulation to support more effective harvesting, utilisation and transport of forest products.
- Need for transparency and consistency in the application of royalties and taxes to ensure that legitimate sources of government revenue are maintained.
- Weak coordination and synergy of policies across different sectors
- Unclear policies affecting forest land use and forest management modalities
- Inconsistency in roles and responsibilities *vis* the Forest Act (1993) and the Local Self-Governance Act (1999)
- Lack of policy discourse platform and limited stakeholder engagement in policy processes at different levels.
- Weak dissemination and implementation of policies and regulations.

1.4 FOREST SECTOR STRATEGY DEVELOPMENT

A. Consultation

Extensive and intensive consultations were held during the process of Forestry Sector Strategy (FSS) development to solicit the views and ensure the contributions of stakeholders on the future directions to be undertaken by the forestry sector. Consultations were held at different levels and at different geographic locations to capture the diversity of opinions and voices of different groups.

B. Visualising the future

There are distinct changes occurring in Nepal's forestry sector and in the external forces that influence it. These were discussed and considered during the FSS consultation process on the understanding that the FSS primarily needs to meet the needs of the future and the future vision rather than simply responding to the present situation. Some of the most important driving forces influencing the forestry sector that are expected over the coming years were identified as being:

- State restructuring, federalism and decentralisation
- A demographic shift from the hills towards the Tarai and urban areas (internal migration), coupled with a gradual loss of economically active people from rural areas
- An increasing role for forestry in climate change and other ecosystem services
- Changes in Nepal's economic structure - moving towards a cash/market economy and emerging economic frontiers
- Expansion of physical infrastructure (roads, communications technology, urbanisation, hydropower, etc.)
- Changes in energy sources and use patterns with less dependency on fuel-wood
- Political focus on the promotion of economic prosperity
- Diversification of forest management modalities
- Shift in products away from unprocessed timber to composites and reconstituted wood
- Biodiversity hotspots, forest and wildlife habitat fragmentation
- Increasing consumer demand for green products and for certification and legal verification systems
- Evolving forestry governance architecture with new forms of partnership emerging.

1.5 Theory of Change

As part of the FSS development process a theory of change was derived. This describes the logical steps and their linkages that will lead to the planned outcomes of the FSS. It is a working hypothesis that can be tested over time in response to monitoring of future driving forces and achievement of the identified milestones (part 2.5). Mapping the theory of change in this way helps to identify the approaches and types of actions that need to be taken to achieve the vision (Figure 1).

STRUCTURE OF THE FOREST SECTOR STRATEGY The FSS has been developed with a logical structure starting with Part 1, this introduction. Part 2 describes the direction the forestry sector is expected to take over the next decade and includes a description of its 8 strategic pillars – these being the foundations on which the strategy is based. Part 2 then continues with a description of the forestry sector vision, its strategic goals and the expected outcomes of implementing this strategy, including milestones that can be regularly reviewed and monitored to assess progress. Next, Part 3 describes what will be done to achieve this vision by outlining the broad actions and approaches across the seven key thematic areas. Part 4 describes the mechanisms, systems, institutions and structures that will be used to deliver this vision and finally, Part 5 contains annexes, which provide more detailed information to support the strategy.

Figure 1 Theory of Change Underpinning Nepal's Forestry Sector Strategy



PART 2 A VISION FOR NEPAL'S FORESTRY SECTOR

2.1 VISION

Sustainable management of forest ecosystems, biodiversity and watersheds fully optimised for national prosperity.

2.2 GOAL

Forest, biodiversity, plants resources, wildlife, watersheds and other ecosystems are protected, sustainably managed, and climate resilient through an inclusive, decentralised, competitive and well-governed forestry sector providing equitable employment, incomes and livelihoods opportunities.

2.3 OUTCOMES

In order to achieve the goal, the FSS will deliver five major outcomes:

1. Forest productivity and sustainable supplies of products and services enhanced
2. Biodiversity, watersheds and ecosystem services improved
3. Forestry sector organisations and institutions devolved, competitive, accountable and inclusive
4. Climate resilient capacity of society and forest ecosystems enhanced
5. Livelihoods and forestry sector contribution to national economic development improved

Outcome 1: Forest productivity and sustainable supplies of products and services enhanced

To achieve this outcome:

- Increase the forest area being managed in a sustainable and productive manner;
- Promote wise and efficient use of forest products;
- Expand forest, tree and NTFP/MAP cultivation both inside and outside forest areas;
- Promote community-based forestry, strengthen the use rights of the community and enhance the capacity of the community in forest management, conservation and utilisation;
- Ensure transparent, predictable and stable supplies of forest products and services;
- Improve the harvesting technology for forest products and promote 'green' products;
- Develop tools and techniques to reduce the incidence and damage incurred by forest fire, pests and diseases; and
- Strengthen forest planning through improved research and knowledge generation.

Outcome 2: Biodiversity, watersheds and ecosystem services improved

To achieve this outcome:

- Promote landscape approaches and conservation corridors to manage, restore, conserve and improve habitats, strengthening biodiversity at ecosystems, species and genetic level;
- Promote scientific, socio-economic, recreational and cultural values of biodiversity;
- Adopt people-centric approaches for management of floral and faunal diversity;
- Control wildlife poaching and illegal trade in wild animals and plants and reduce human-wildlife conflicts;
- Conserve biodiversity hotspots and rehabilitate degraded and fragile ecosystems;
- Promote safety and food security by enhancing and restoring land productivity and water quality;
- Promote integrated watershed management by strengthening upstream and downstream linkages, integrity of wetland and rangeland resources; and
- Promote research and studies on watersheds, ecology and wildlife biology.

Outcome 3: Forestry sector organisations and institutions devolved, competitive, accountable and inclusive

To achieve this outcome:

- Reform and create a more enabling policy and operational environment;
- Make forestry institutions competitive, decentralised, people-centric and downwardly accountable;
- Enhance the transparency, accountability and rule of law in all management regimes;
- Define the role and functions of forestry institutions, increase the participation, competency and leadership of women, indigenous nationalities, and other poor and socially excluded groups and individuals in forestry sector institutions;
- Strengthen the capability of forestry organisations of all types;
- Enhance partnerships, collaboration and coordination between sectoral agencies, academic institutions, civil society, the private sector and communities;
- Improve the public availability of good quality forestry information at all levels; and
- Establish National Forestry Forum (NFF).

Outcome 4: Climate resilience capacity of society and forest ecosystems enhanced

To achieve this outcome:

- Support the adaptive capacity of local communities and forest ecosystems;
- Promote ecosystem-based and community-based resilience measures;
- Establish forest carbon trade or payment mechanisms by linking forests, biodiversity and watershed conservation and management;
- Develop and strengthen mechanisms for payment for ecosystem services (PES); and
- Promote biomass-based renewable energy.

Outcome 5: Livelihoods and forestry sector contribution to national economic development improved

To achieve this outcome:

- Diversify and optimise the utilisation of forest products and services;
- Encourage and promote competitiveness in supply and value-addition of forest products and services;
- Promote community-based and private forest enterprises for livelihoods improvement and wealth creation, especially for the poorest of the poor;
- Promote forest-based job creation and incomes in all areas of the sector;
- Increase the role of the private sector to encourage investment in cultivating forestry crops (including trees and NTFP/MAPs), in forestry operations, including service delivery, and forest-based enterprises and eco-tourism.

2.4 MILESTONES

Milestone will be used to monitor progress in achieving the outcomes of the FSS and will be regularly monitored. A mid-term review of the FSS (after five years) will be carried out to assess the implementation status and make necessary corrections in the approaches, if necessary.

Where we are in 2015	Where we will be by 2025
Forest Management	
Forest (forest and shrub-land) covers 39.6% of Nepal's land area²	- Forests (forest and shrub-land) cover at least 40% of Nepal's land area - All forest areas of Nepal covered by forest management plans that are up to date, being implemented and publicly available - About 50% of Tarai and Inner Tarai forests and at least 25% of middle hills and mountain forests being sustainably/scientifically managed
Forests under community-based management (all modalities) cover about 39.7% of Nepal's forest area	Forests under community-based management comprise at least 60% of Nepal's forest area
Community forests cover about 1.7 m hectares (ha) (29% of Nepal's forest area)	Community forests cover 2.3 million ha (40% of Nepal's forest area)
Collaborative forests cover about 0.9% of Nepal's forest area	Collaborative forests cover 4.0% of Nepal's forest area
Leasehold forests cover about 0.7% of Nepal's forest area	Leasehold forests cover 1.5% of Nepal's forest area
Private forests cover an area of about 54,900 ha	Private forests cover 200,000 ha

Updated figures on Nepal's forest area and growing stock will be provided by the National Forest Resource Assessment programme and will be available shortly.

Ecosystems and Biodiversity	
Protected areas comprise 23.3% of Nepal's land area	- Protected areas are conserved and sustainably managed - Landscape approach is strengthened - Community conserved areas are identified, protected and sustainably managed
Buffer zones in place in 12 national parks and reserves	Buffer zones in place for all national parks and hunting reserves
Populations of tigers, rhinoceroses and wild buffalos are 198, 645 and 259 respectively	- Populations of tigers, rhinoceroses and wild buffalos maintained at 250, 700 and 400 respectively - Carrying capacity assessed, five endangered species translocated
No commercial farming of common wild animal species	At least five common wild animal species being commercially farmed
One central zoo in Kathmandu	Additional zoo in Kathmandu
Zero poaching of rhino in 2011, 2013 and 2014	Zero poaching of rhino maintained and that for other key species scaled up
11 botanical gardens	20 botanical gardens established with better coverage in all physiographic regions.
Two volumes of flora of Nepal published	All 10 volumes of flora of Nepal published.
Climate Change	
Current Nepal's forest carbon stock is 177.26 t/ha	Nepal's forest carbon stock enhanced by at least 5%.
Mean annual deforestation rates in the Tarai and Chure forests are about 0.44% and 0.18% respectively.	Mean annual deforestation rate is reduced to 0.05%.
Climate change resilience/adaptation development initiated	- Forest carbon trade/payment mechanism in operation - At least 200,000 ha areas are protected through implementation of adaptation plan - Community/Ecosystem-based adaptation approach mainstreamed

Enterprise and Economic Development	
Forestry sector contribution to GDP is yet to be quantified	Forestry sector contribution to GDP is quantified
Forestry sector generates approximately 200,000 full-time equivalent jobs annually	Forestry sector generates at least 1.2 million full-time equivalent jobs annually
About 0.3 million m³ of timber commercially supplied to the domestic market annually, additional supply also includes import	1 million m³ of timber commercially supplied to the domestic market annually, timber imports reduced to zero
Annual export value of NTFPs/MAPs is about NRs 6 billion	Annual export value of NTFPs/MAPs is at least NRs 12 billion
Laboratory not yet accredited	NPRL and three regional laboratories accredited
Watershed Management	
Watershed health and vitality of 50 districts is classified as: 13 very poor; 6 poor; 7 marginal; and 25 fairly good	Watershed health and vitality of at least 20 districts upgraded to a higher condition category
Three basin management plans, 405 sub-watershed management plans, 1,287 community development plans prepared	At least 175 land use development and management plan and prepared and implemented at different levels
Disaster risk reduction and natural hazard management in 3,104 sites	Natural hazards risk reduced to 2,000
Classification, planning and management of prioritised wetlands initiated	- Wetlands of Nepal are inventoried - Prioritised wetlands, including Ramsar sites, are protected and sustainably managed
Capacities, Institutions and Partnerships	
Low representation of women, <i>dalits</i>, ethnic and indigenous peoples in leadership positions on key decision-making forums	Representation of women, <i>dalits</i>, ethnic and indigenous people in leadership positions on key decision-making forums is proportionate to their population
Forestry sector plans, decisions, budgets and other relevant information are inaccessible to the public	Forestry sector plans, decisions, budgets and other relevant information made publicly available through web sites and other means
Forestry council does not exist	Forestry council established and fully functional

• Forestry Sector Coordination Committee is non-functional	• NFF established and effective
• Separate mechanism to finance forestry sector development does not exist	• Appropriate financing mechanism established
• Forestry sector laws, policies and plans are formulated without enough evidence	• Forest sector laws, policies and plans harmonised and prepared through evidence-based and consultative decision-making processes
Forestry Information/Research Systems	
• Mean annual increment averages 6 m³/ha in the Tarai and 3 m³/ha in hills and mountains	• Mean annual increment averages 8 m³/ha in the Tarai and 5 m³/ha in hills and mountains
• Stock of Nepal's forests is in declining trend	• Growing stock increased by at least 15%
• Database/Information and Management System (MIS) is weak and not integrated with the M&E functions of the Ministry of Forests	• A comprehensive MIS is established and is fully integrated with M&E needs at different levels in the Ministry of Forests
• Research, development and technology extension	• At least 50 researched documents produced and disseminated
• Digitization of 10,000 specimens • Strategic collection of 84% specimens completed	• 150,000 specimens digitized • Collection of specimens completed



PART 3 ACHIEVING THE VISION - 7 KEY THEMATIC AREAS

3.1 EIGHT STRATEGIC PILLARS

The vision for Nepal's forestry sector is underpinned by eight strategic pillars, which provide the foundation for the strategy. Past experience has shown that these pillars must be integral to all the key thematic areas making up the Forestry Sector Strategy.

The following eight strategic pillars constitute the foundation of this strategy:

1. Sustainably managed resources and ecosystem services
2. Conducive policy process and operational environment
3. Responsive and transparent organisations and partnerships
4. Improved governance and effective service delivery
5. Security of resource use of the community
6. Private sector engagement and economic development
7. Gender equality, social inclusion and poverty reduction
8. Climate change mitigation and resilience

Part 4.3 of FSS shows how these eight pillars have been used to help define the main approaches that will be used to implement the actions required in all seven key thematic areas of the strategy.

3.2 KEY THEMATIC AREAS

To achieve the vision of the FSS and outcomes, actions will be taken in seven key thematic areas:

1. Managing Nepal's forests
2. Managing ecosystems and conserving biodiversity
3. Responding to climate change
4. Managing watersheds
5. Promoting enterprise and economic development
6. Enhancing capacities, institutions and partnerships
7. Managing and using forestry sector information

Each key thematic area is described in the following section, showing its purpose and explaining why it forms part of the strategy. An indicative list of the approaches and actions to be taken over the next ten years follows for each key thematic area. These approaches and actions will be promoted and supported under the FSS.

3.2.1 MANAGING FORESTS

Thematic Purpose

Sustainably manage and improve the productivity of Nepal's forests to enhance their contribution to local livelihoods and to national economy.

Justification

Nepal lost 0.57 million ha of forest between 1964 and 1991, with this rate of loss continuing particularly in the Tarai where the annual deforestation rate was 0.44% between 2000/01 and 2010/11. The annual deforestation in Churia region was 0.18% between 1995/96 and 2010/11. The forest resource assessment showed that forest occupies a total of 5.96 million ha, which is 40.36% of the total area of the country. Other Wooded Land (OWL) covers 0.65 million ha (4.38%). Forest and OWL together represent 44.74% of the total area of the country.

Forests, trees and forested ecosystems have potential to supply multiple products, services and benefits. Forest resources in Nepal are, however, often under-utilised. For example, an average potential productivity of wood biomass is 6 m³/ha in the Tarai and 3 m³/ha in the hills/mountains. Very little of this potential productivity is systematically harvested or sustainably utilised. Over the past three decades community-based forest management, including community forestry, collaborative forestry and other modalities, has been developed and promoted to harness the productive potential of forests– with a focus on local people's benefit. Private forests tend to be more productively managed, but forest areas are small and scattered. There is significant potential to increase tree cover and forest product production from private land to contribute to meeting the growing forest product needs of the country. Intensive forest management under all the different forest management modalities is needed to realise these benefits. Experience has shown that, this requires involvement, engagement and partnership between communities, households, private sector, including investors, and government.

Community-managed forests make up a large proportion of accessible forest in Nepal. This includes community, pro-poor leasehold and collaborative managed forests and also conservation areas, buffer zones and protection forests. In all these situations, local communities are the key stakeholders in forest management and forest conservation and are the primary beneficiaries. Ways will be sought to enable communities to benefit more from intensive and sustainable forest management through the provision and sale of forest products and environmental services with particular focus on women, poor and other socially discriminated groups as beneficiaries.

Private forest comprises all trees and forests growing in private land and also includes leasehold forests leased by private institutions for commercial raw material production (normally tree plantations). The category also includes the cultivation of NTFPs/MAPs on private land and institutional leasehold land. Ways will be sought to increase productive and sustainable management of all kinds of private forest resources and to use the resulting products for economic development.

Forests falling in national parks and reserves are considered separately and are included in Key Thematic Area 2, Managing Ecosystems and Conserving Biodiversity. This entails a more restricted approach to forest management, specifically biodiversity conservation mainly implemented by the responsible state agency, Department of National Parks and Wildlife Conservation, but in partnership with others as appropriate. Strengthening use rights to communities, adoption of better and more appropriate silvicultural systems, establishing a more predictable rule of law and ensuring both legitimacy and legality in its implementation will stimulate more active forest management and enhance wood and NTFP/MAP supplies.

Priority Actions

The following strategies and actions will be applied for all forest management modalities:

A. All Forest Management Modalities

- Stabilise the overall level of forest cover in Nepal at minimum of 40% of the land area
- Promote and continue to support a diverse range of forest management modalities reflecting Nepal's socio-economic, cultural and environmental diversity
- Prepare and implement District Forest Sector Plans (DFSPs) in line with national forestry sector land-use planning policies using multi-stakeholder, decentralised and bottom-up processes to identify and agree areas for different forest management modalities at local level.
- Prepare, update and implement forest management plans for all forest areas under all forest management modalities.
- Develop and revise operational guidelines for all forest management modalities based on adaptive learning.
- Promote and secure the supply of plantation materials to meet national needs.
- Continue the Forest Decade Programme 2071–80.
- Clarify the role and authority of the five major actors, viz. federal government, state government, local government, community and private sector, in forest management, harvesting/production, marketing revenue sharing and taxation.
- Reorient the role of government in forest management towards a more facilitating and enabling focusing on establishing and supporting partnerships, monitoring, coordinating and setting out transparent and enabling policies.
- Review the present royalty system on timber and put into place a revised system based on market prices for timber and international best practice.
- Revise the application of environmental legislation, especially EIAs, for forest management planning to create an incentive structure for sustainable forest management by different stakeholders.
- Align with prevailing best practices and learning on sustainable forest management.

B. Community-based Forest Management

The following strategies and actions will be implemented for all modalities of community-based forest management:

- Promote all modalities of community-based forest management in national development planning as a priority sub-sector for Nepal, reflecting its important contribution to poverty reduction and its potential to enhance people's livelihoods and contribute to economic development.
- Expand the scale of community-based forest management to the extent possible, preferably to 60%, to reflect its importance and in recognition of the pride that the country has in the achievements made so far.
- Recognise community-based forest management as an entry point for integrated land-use contributing to food security, bio-energy, watershed and biodiversity conservation, climate resilience, eco-tourism and community development.
- Empower and safeguard use rights for forest user groups of all kinds to access, manage, sustainably harvest, use and sell forest goods and services.
- Promote systems for Payment for Ecosystem Services (PES) that enable all modalities of community-based forest management to benefit from production and sustainable use of environmental services such as watershed conservation, biodiversity and forest carbon.
- Ensure that community-based forest management becomes a key complement of REDD+.
- Strengthen traditional and customary use practices in community-based forest management under all modalities.
- Provide a common and consistent support structure for all modalities of community-based forest management that covers: administration through the government institutional structure, financial support and provision of technical and social services.
- Ensure proportional inclusion and representation of economically poor and marginalised groups of people at all levels of leadership and decision-making processes in community-based forest management.
- Promote gender equity, inclusive development and social and economic uplift of the poor, women, *dalits*, *janajatis*, *adibasi* and other marginalised groups of people.
- Promote the establishment of pro-poor revolving funds at group level by leveraging funds from other district-based public agencies such as District Development Committees (DDCs) and Village Development Committees (VDCs).
- Continue to support the establishment and functioning of networks and associations.
- Strengthen governance mechanism of local forestry groups of all kinds.

Within the broad category of community-based forest management there are several different modalities that are applicable under different forest management and socio-economic situations. All these modalities will continue to be supported with the following strategies and approaches for each:

a. Community forest management

Use rights and accountability

- Expand community forestry using participatory land use planning;
- Safeguard and strengthen the autonomous status of Community Forest Users Groups

(CFUGs) as provided for by the legal provisions of the Forestry Act and Forestry Regulations;

- Recognise and include traditional and customary users and distant forest users in community forestry, particularly at high altitudes and in the Tarai;
- Review and revise the Forestry Act 1993 and Forestry Regulations 1995 to make CFUGs (executive committee and general assembly) accountable for all forest operations and forest offences/non-compliance with CFUG rules in community forests; and
- Establish a monitoring system, possibly involving local government, to ensure CFUGs and their representative bodies are well-governed and comply with the legal framework.

Regulatory and fiscal policy

- Simplify permit systems for harvest, transport and sale of forest products from community forests, including sales outside the community;
- Remove VAT from the sales of products from community forests;
- Support and encourage CFUGs to invest their own funds in forest management/improvement and in livelihoods promotion, especially for poor and marginalised people; and
- Establish a system of fair compensation for community forests converted to other uses.

Intensive forest management

- Support intensification of community forest management through:
 - Classification of CFUGs based on their productive potential and support needs;
 - Provision of local-level technical services to CFUGs, e.g. trained local persons;
 - Demonstrations and capacity development; and
 - Linking CFUGs with markets to stimulate commercial, yet sustainable, management of community forests.

Capacity development

- Strengthen the organisational and leadership capacity of CFUGs, focusing on gender equality and social inclusion; and
- Enhance the technical and social development capacity of forestry service providers in both government and civil society for supporting intensive/sustainable/scientific forest management, livelihoods enhancement and social inclusion.

Gender equality, social inclusion and transparency

- Establish and support sub-groups within CFUGs for women, *dalits*, *janajatis*, *adivasis*, specific forest users, etc and provide capacity development support for them;
- Establish representative GESI (Gender Equality and Social Inclusion) forums at national and sub-national levels comprising gender focal points from different organisations to highlight issues, share experiences and empower marginalised groups;

- Encourage and support CFUGs to create cash incomes and job opportunities for poor and marginalised households; and
- Enhance capacity to reduce weak governance and strengthen transparency.

Income, employment and enterprise

- Encourage community–private partnerships for investment in forest-based enterprises at community level, including for ecotourism;
- Support CFUGs and their networks to engage in commercial activities through mechanisms such as micro-credit/revolving funds, enterprises, income generation and land allocation;
- Promote private sector service providers to disseminate market information and other support for CFUGs to access markets for commercial products from their community forests; and
- Explore and pilot the use of Information Technology (IT) and social media to provide information on the market for forest products from community forests.

Monitoring, knowledge management

- Identify a system of self-assessment indicators for monitoring CFUG performance, finance, governance, etc; and
- Document and disseminate lessons of community forest management performance, process and best practices to inform a wider audience, both national and international.

b. Collaborative forest management

- Expand collaborative forest management in the Tarai and inner Tarai in blocks of national forests, based on participatory land-use planning and identification of potential areas from DFSPs;
- Undertake a comprehensive review with a view to reforming the collaborative forest management modality, covering:
 - Decentralised and inclusive institutional structure,
 - Managerial and financial autonomy,
 - Transparent and accountable decision making,
 - Equitable benefit sharing within the CFMG,
 - Benefit sharing from collaborative forest management between government (central and local) and local people, and
 - Technical aspects of forest management planning, yield regulation and regeneration; and
- Identify investment opportunities for private sector partnerships with CFMGs to enhance sustainable and productive forest management and marketing and processing of forest products, especially timber.

c. Pro-poor leasehold forest management

- Expand pro-poor leasehold forestry based on participatory land-use planning, e.g. DFSPs to identify potential areas;
- Classify LFUGs into: (i) those that are institutionally robust but need minor support; (ii) those that are institutionally strong but require additional inputs; and (iii) those that are institutionally non-functional and may need revoking. Consolidate and strengthen the first two categories with well-defined support mechanisms and services. Explore options for the third category, including the possibility of embedding with adjacent other modalities of community-based forestry; and
- Pilot and test models for scaling-up and clustering LFUGs based around specific production models and integrating these with farming systems and value chains.

d. Public land management

- Assess the availability of potential public land suitable for forestry purposes in the Tarai and inner Tarai and expand the area coverage accordingly based on participatory land use planning and identification of potential areas through DFSPs;
- Review the existing practices, legal status and provisions for public land which could be used for forestry purposes and build appropriate structures and legal frameworks to ensure rights on resources; and
- Strengthen the provision of services and inputs for public land management groups with seeds/seedlings, seed money and technology, etc through local government, non-governmental organisations (NGOs) and development partners.

e. Urban forestry

- Initiate and develop a new participatory urban forestry programme for identified municipalities in close association with municipality administrations and relevant local stakeholders, including from the private sector;
- Promote urban forestry as partnership approach with the private sector (through corporate responsibility), local *tole* groups, cultural and religious institutions and other voluntary organisations with an appropriate role for each;
- Establish a national urban forestry support unit involving government, local government/municipality and, possibly, the private sector, e.g. through outsourcing, to facilitate and promote urban forestry nationally;
- Integrate urban forestry and urban forestry plans as an integral component of urban planning by municipalities through legal provisions and through bylaws on creation of open space, tree planting for amenity, recreational facilities and safety; and
- Raise awareness amongst urban dwellers on the significance and benefits of urban forestry.

f. Religious and cultural forest management

- Strengthen the identification and legal status of religious and culturally valued sites to safeguard their preservation;
- Collaborate with religious and cultural institutions in partnership with the private sector to deliver support for biodiversity conservation and enhancement of the spiritual values of these sites; and
- Support RCF institutions with culturally and religiously valued planting materials and technical services.

g. Buffer zone forestry

- Extend buffer zones to all remaining national parks and reserves, e.g. Shivapuri–Nagarjun National Park, Dhorpatan Hunting Reserve and others, and increase buffer zone activities in all existing buffer zones;
- Incorporate the provisions of different community-based forest management modalities into buffer zone forest management, including legal provisions, e.g. rights to harvest, utilise and sell surplus forest products, and capacity development;
- Reform the legal framework (acts, regulations) applying to buffer zones to simplify processes and strengthen rights of users and forestry groups, including provision of authority to collect and sell drift-wood gathered outside core protected areas and use other forest products;
- Strengthen the institutional, technical and leadership capacity and capability of Buffer Zone Management Committees (BZMCs), UCs, UGs and other stakeholders, including private sector;
- Clarify the roles and authority of different institutions to govern and support buffer zones and forestry groups in buffer zones with emphasis on good governance, better representation of poor and disadvantaged groups and improved benefit-sharing mechanisms; and
- Establish a national PA management fund by integrating the present biodiversity fund and wildlife relief fund. Use this for transferring resources to low-earning buffer zones and for providing immediate wildlife relief/compensation and other activities.

h. Conservation area management

- Review and consolidate existing rules on conservation areas and develop these into a formal legal framework, ensuring a transparent process, use rights and equitable benefit-sharing and forest product use provisions;
- Expedite and strengthen community councils to manage conservation areas and transfer this responsibility to them in a phased manner;
- Mainstream environmental and social safeguards in conservation area management;
- Develop leadership and managerial capacity and capability of CA institutions

(councils/management committees, UC, UGs, sub-committees) and other stakeholders; and

- Incorporate the provisions of wise use of surplus forest products and harvest of over-populated common wildlife species in the management plans of CAs, including sale of products beyond CAs.

i. Protection forest management

- Develop a new modality for protected forests, including all necessary legal provisions and participatory models of conservation and forest management, taking into consideration existing forest management modalities and experiences with these;
- Identify areas that will benefit from application of protected forests to conserve their ecological functions, biodiversity, water resources and links to watershed management;
- Promote and develop community-based approaches and develop integrated site-specific conservation practices for protection forests with defined roles and responsibilities of key stakeholders and benefit-sharing mechanisms and by ensuring the rights of indigenous and local communities;
- Develop local incentive mechanisms for conserving protection forests such as sustainable micro-enterprises and other off-farm and off-forest income-generating activities; and
- Promote community-based PES mechanisms within and between protected forest areas to address climate change impacts and upstream and downstream linkages.

C. Private Forest Management

The strategic approach for private sector forest management will be to promote and expand private involvement and investment in the production of forest products from public and private land to enhance sustainable supplies of forest products and services, to enhance rural incomes, create 'green' jobs and to contribute to national economic development and inclusive growth. The following strategies and actions will be implemented for private sector forest management across all regions of Nepal:

Regulatory and fiscal policies

- Review and revise the Forest Act and Regulations in light of the strategy to enhance private sector involvement in forest management:
 - To enable management of existing, natural forests (not only degraded or bare land) under leasehold arrangements for sustainable commercial production;
 - To make annual rental fees (for leasehold forestry) compatible with incentives for sustainable wood and NTFP/MAP production; and
 - To simplify and streamline permit systems for forest product harvesting, logging, transport, processing and marketing for private, leasehold and all other forest management modalities; and

- Exempt forest products originating from private land from VAT.

Support for private forestry

- Engage, promote and facilitate private sector production and marketing of seedlings of trees and NTFP/MAPs. Support the establishment of private–farmer partnerships for guaranteed buyback systems for on-farm trees and other forest products;
- Strengthen programmes to stimulate public awareness of the economic and social benefits of private forestry and commercial leasehold forestry;
- Establish institutional mechanisms to provide certification of origin and certification of sustainable and legal harvest; and
- Facilitate tree insurance, provide subsidies, tax break and improve market access to private forestry.

Knowledge and technology

- Generate and provide new knowledge, information and technologies on farming of high value NTFP/MAPs and fast-growing tree species, including information on growth and yield, and financial/economic returns;
- Develop and disseminate appropriate harvesting, grading, storing, initial processing and packaging methods and techniques; and
- Establish and operate marketing information system on prices of various forest products at strategic locations for wider stakeholders.

Institutionalisation

- Facilitate the promotion of private forest owners and managers in establishing and widening their networks of cooperatives and associations;
- Include private forest owners and managers as members in the multi-stakeholder forestry forums at different levels; and
- Support the establishment of partnerships between the private sector, communities and local government and national forestry agencies for stimulating intensive forest management and increased forest productivity.

D. Government-Managed Forest

The strategic approach for government forest management is to gradually bring such areas into different forest management modalities, as appropriate, to improve their quality and productivity. Transfer of government forests into other appropriate community-based, commercial leasehold forests or other modalities will be planned in a transparent and systematic manner using participatory land-use planning at a broad landscape level (DFSPs at district level) and in accordance with national land-use plans and laws.

Tarai and Inner Tarai

Tarai and Inner Tarai forests are characterised by their potential high productivity, relatively easy access, high value products and susceptibility to illegal logging. The forest management strategy for Tarai and Inner Tarai forests will be to:

- Bring forests under all forest management modalities under intensive management (resulting in high productivity and increased supplies of forest products from sustainable forest management planning) including from community-based forest management, private forest management and government forest management as identified by DFSPs;
- Establish public-private partnerships for intensive management of government-managed forests;
- Develop community collaboration mechanism (irrespective of district boundary) in the management of forests in all regimes, including in protection forests, institutional leasehold forests, forests managed under public-private partnership and government-managed forests;
- Promote and expand private forestry (farm forestry and agro-forestry) on non-forest land and expand public land forestry on community or non-forested land;
- Facilitate and support forestry enterprises and industries and their access to legal supplies of raw materials;
- Develop technical forestry practices for reclaiming and managing flood plains and stabilising river banks within and outside forest areas using assisted natural regeneration and other appropriate interventions;
- Make information publicly available on annual production and supply of forest products available to facilitate the development of forest-based enterprises that require guaranteed supplies of raw material and to foster a competitive market for these;
- Identify means for speeding the sale of harvested forest products from forests under all forest management modalities to reduce losses due to deterioration; and
- Enhance professionalism, transparency, technical proficiency and competitiveness in harvesting and logging of forest products through simplified licensing mechanisms for private sector operators.

Chure

The Chure is characterised by its fragile soils, unstable geology and vulnerability to flash floods, soil erosion and drought. In this zone forests play a particularly important role in soil and water conservation. The strategy for managing government-managed forests in the Chure is to:

- Develop and implement forest management plans primarily focusing on conservation of Chure landscape through integrated soil and watershed management and promotion of forest cover and species that have soil-binding properties and economic value such as grasses and NTFPs and using known technologies;
- Identify opportunities for PES and linking upstream/downstream land and water users

and develop these into specific programmes to be supported;

- Develop and demonstrate integrated land use models for each regime (e.g Slope Agriculture Land Technology with focus on NTFP/MAPs), including private land that balances livelihoods needs and watershed integrity along with upstream and downstream linkages;
- Scale up the tested land use models with appropriate incentive packages (compensation to adopting new land use models, PES, etc.); and
- Identify and delineate appropriate sites for quarrying stones, boulders and sand with adequate socio-economic and environmental safeguards.

Middle Hills

The strategy for the middle hills is for all forest areas to be transferred to community-based forest management modalities as appropriate, which will result in sustainably managed forests meeting local forest product and socio-economic needs, including cash incomes and jobs. The strategy for government forest management is to:

- Identify government-managed forest areas through participatory land-use planning and identify appropriate forest management modalities for this, including incorporation into existing community-based management areas.

High Mountains

High mountain forests are less accessible for forest management purposes and local populations are often sparse. Productive potential for timber is often limited by poor road access, although these forests are rich in biodiversity and NTFPs/MAPs and have considerable potential for eco-tourism. The strategy for forest management of government forests and pasturelands in high mountain areas is for less intensive management focusing on biodiversity conservation, wildlife, including wildlife farming, NTFPs/MAPs and eco-tourism in partnership with local communities and with private partnerships for tourism promotion and for NTFP/MAP marketing and development.

- Identify and manage high altitude landscapes and forests through participatory approach, wherever feasible, adopting province/local-level planning, including cross-border coordination and forest and develop plans for preferred management modality;
- Develop low intensity forest management plans focusing on forest conservation for biodiversity, pastureland, NTFP/MAP management and cultivation and eco-tourism;
- Revisit wood export policy of the government and explore the options of utilizing a large volume of dead wood lying on the forest cover, including export of wood;
- Develop High Mountain-specific community-based forestry/pastureland (apart from existing community forestry, conservation area and buffer zone), considering the specific context of High Mountain (inaccessibility, harsh climate, transhumance lifestyle, socio-economic conditions and livelihoods of local communities, population density, vulnerability to climate change, watershed and biodiversity values);
- Additionally, support the existing community-based forest management groups in these

areas to incorporate transhumance practices that ensure grazers' rights and traditions of access to pasture and forest products;

- Where appropriate, support extensive managed forest/pasture landscapes based on local knowledge and practices;
- Identify areas for potential partnership with private entrepreneurs and/or civil society organisations for eco-tourism development through a commercial leasehold forest management modality, especially where adjacent to trekking routes, national parks/buffer zones and other tourism destinations;
- Develop, demonstrate and scale up *in-situ* and *ex-situ* farming technology of high value MAPs and other NTFPs; and
- Restructure and strengthen the existing organizational structure of the forestry sector conducive to High Mountain areas with special incentive and motivation packages of career development and promotion.

3.2.2 MANAGING ECOSYSTEMS AND CONSERVING BIODIVERSITY

Thematic Purpose

Conserve and sustainably manage Nepal's diverse flora, fauna and ecosystems and promote their scientific, socio-economic, recreational and cultural values.

Justification

Nepal is a global biodiversity hotspot. Under various international treaties and obligations, Nepal is committed to conserving its rich biodiversity resources. The country's wildlife and ecosystems have become major international tourist attractions and generate significant revenue while in many areas local people still rely on local plant and animal resources for their subsistence livelihoods.

Currently 23.3% of the area of Nepal is set aside for protected area systems. This includes national parks (10,853 km²), wildlife reserves (979 km²) and hunting reserves (1,325 km²) with conservation area and buffer zones making up another 15,425 km² and 5,602 km² respectively. Not only do these PAs conserve a large number of species and ecosystems, but they also have value for recreation, tourism and the local economy.

People-centred and community-based approaches linking conservation with the development and livelihoods of local people have had positive effects over the past two decades, with some successful conservation impacts on flagship species such as tiger and rhinoceroses and a reduction in human-wildlife conflicts. There have also been some successful translocation programmes for rhinoceroses and blackbucks, which have enhanced these conservation efforts. Apart from its network of protected areas for *in-situ* conservation, Nepal has eleven botanical gardens, breeding centres for elephants, vultures and *gharial*, a central zoo and some small community-initiated zoos. These contribute to *ex-situ* conservation of plants and animals and also serve as resources for scientific study, conservation education and recreation.

Conservation in Nepal still suffers from major challenges. Many threatened plant species and middle-hills ecosystems are poorly represented in current protected area network, and botanical gardens do not properly represent species from the high mountains and the eastern Tarai-Siwaliks. Despite some successful conservation efforts, climate change, infrastructure development and urban expansion continue to affect biodiversity and wildlife habitats and erode the integrity of the PA network. Human-wildlife conflicts still persist and compensation systems are challenging. Illegal trade and poaching of wild animals and plants remain serious threats to conservation, although they are now being tackled through joint efforts by park administration, Nepal police, Nepali Army and local community. The concentration of visitors in only a few PAs is a challenge because it has local effects on the environment and on local consumption of resources. The legal framework for PAs needs to be reformed in order to address the issues around power-sharing between government and local communities and benefit-sharing. The institutional capacities of Department of National Parks and Wildlife Conservation (DNPWC) need to be enhanced to effectively manage the PAs and to implement people-centred conservation approaches. Similarly, the capacity of the Department of Plant Resources (DPR) and Department of Forest Research and Survey (DFRS) needs to be built to

meet current research needs such as bio-prospecting, tissue culture, DNA bar coding, botanical identification, chemical analysis and pest risk assessment.

Priority Actions

A. Reforming policies and laws

- Review the legal and policy frameworks for conservation and management of biodiversity that are required to (i) conform with federal and decentralised governance; (ii) safeguard gender equity and social inclusion; (iii) streamline relations between central and local governments; (iv) strengthen a landscape-level approach to conservation; and (v) ensure delivery of Nepal's international obligations in the changed socio-political context following consultative and inclusive processes. Based on this review implement the recommended agreed actions;
- Review and update management of existing PAs on a site-by-site basis, including reviewing the strength and role of the Nepali Army, a wider role for buffer zones and strengthened involvement of local communities and local government as beneficiaries and decision-makers for PAs; and
- Clarify and, if necessary, revise policies and laws to enable wildlife farming/research and breeding commercial purposes, including captive elephant management.

B. *In-situ* conservation and management of species and ecosystems

- Strengthen effective management of current PA systems and build capacity of local communities to participate in conservation efforts.
- Explore the potential of community-conserved areas outside the current PA networks.
- Formulate and implement landscape-level strategies and plans incorporating, but not limited to, ecosystem assessment, resource inventory, habitat management, local participation and incorporation of indigenous and customary use practices.
- Prepare and implement participatory conservation plans for endangered species of wild animals, birds and reptiles, incorporating the provisions of non-commercial breeding centres, habitat conservation (including that of nesting sites and wetlands) and extensive public awareness and actions.
- Review and update the Species Conservation Action Plans (SCAP) for tiger, elephant, rhinoceroses, snow leopards and vulture and make SCAPs for other endangered fauna, e.g. black buck, wild buffalo, red panda, *Gharial* and pangolin, etc.
- Prepare and implement floral species conservation plan for rhododendron, *Bijayasal*, *Satsal*, *Dar*, *Sanan/panan*, *Champ*, *Deodar*, *Loth salla*, *Sugandha kokila*, etc.
- Explore options for conservation of other representative ecosystems of the country through management agreements, existing networks of community-based forest management areas, incentives and better use of existing PAs.
- Assess the status of invasive alien species in PAs and identify and implement appropriate

remedial and preventive measures.

- Increase awareness, collaboration and cooperation with the police, customs, agriculture and related agencies for enforcement and implementation of national quarantine, sanitary and phyto-sanitary legal provisions for preventing the entry of invasive alien species.
- Strengthen social and environmental safeguards while implementing development activities such as large-scale infrastructure, construction, hydropower, transmission lines, highways, irrigation canals, railways, etc. in areas of high biodiversity significance.
- Review and revise biodiversity monitoring systems complementing the National Biodiversity Strategy and Action Plan, including community-based biodiversity monitoring and citizen scientists.

C. *Ex-situ* conserve and management of species

- Establish and extend a network of zoos across the country utilising a range of management modalities including partnership between government, communities and private investors.
- Enhance conservation education and demonstration functions of Nepal's botanical gardens and increase the number and coverage of species across different ecological regions.
- Translocate and re-introduce endangered species based on ecological studies.
- Strengthen the capacity and the functions of wild animal breeding centres with adequate financial and human resources.
- Conduct regular botanical surveys and update the national herbarium, including a more comprehensive and publicly accessible database of Nepali plant species.

D. Reducing human-wildlife conflicts

- Develop a more innovative approach to reducing human-wildlife conflicts through local preparedness and response, public awareness-raising and education, warning systems, skilled human resources and appropriate technologies.
- Decentralise and simplify the relief provisions to compensate for wildlife damage and offer incentives to promote shifts in cropping patterns and land use in areas surrounding PAs.
- Establish and strengthen orphan/injured wild animal rehabilitation centres.
- Establish a human-wildlife management fund.

Controlling wildlife poaching and illegal wildlife trade

- Strengthen cooperation, collaboration and networking among national and international agencies/institutions to streamline efforts to combat wildlife poaching and illegal trade.
- Enact and implement CITES-related laws.
- Enhance institutional, technical and logistic capacities of various organisations and networks such as National Tiger Conservation Committee (NTCC), NWCCC, WCCB at the centre and in districts and by improving communications and knowledge sharing.

E. Increasing employment and economic prosperity

- Establish breeding centres of common wild animals for commercial farming and promote farming and cultivation of commercially valuable flora and fauna through public-private partnerships and through charitable organisations.
- Diversify and expand wildlife tourism to encompass all PAs across the country through infrastructure development, exploration of new destinations, packaging other services with eco-tourism, local capacity building, tourism services and private sector partnerships.
- Explore opportunities for enhancing local jobs and the local economy inside buffer zones and adjacent to PAs through community-private partnerships and investment.
- Support valuation and regulated payment schemes for the ecosystem services of forests, including both carbon and non-carbon benefits with wildlife/biodiversity conservation premiums.
- Support the development of floriculture and commercial flower seed production focusing on Nepal's distinctive and internationally recognised flower species in association with private sector partners and investors.
- Enact and implement Access and Benefit Sharing Arising out of the Utilization of Genetic Resources (ABS) laws

F. Research and knowledge management

- Promote research, forest monitoring, meta-research and studies on ecology, habitat/conservation, economic potentials of genetic resources (plant and animal species),
- Assess periodically the impacts of climate change on major ecosystems, plants and animals and implement adaptive measures, REDD+ related issues
- Foster multi sectoral partnership (academia, private and public sectors) to enhance knowledge on species and habitat, biodiversity conservation and sustainable livelihoods.
- Review and introduce biodiversity conservation curricula in all levels of school education.

G. Safeguarding Nepal's international agreements and obligations

- Participate in global dialogues on conservation of biodiversity and ecosystems.
- Secure financial resources for effective management of designated World Heritage and Ramsar Sites.
- Implement Nepal National Biodiversity Strategy and Action Plan (2014–2020).

3.2.3 RESPONDING TO CLIMATE CHANGE

Thematic Purpose

Strengthen the climate resilience of people, communities, forests and ecosystems and contribute to mitigate global climate change through REDD+ approaches.

Justification

Review of Nepal's progress on climate change and forestry has shown that there have been some important achievements in both adaptation and mitigation. Government of Nepal formulated its climate change policy in 2011 and the National Adaptation Program of Action (NAPA) in 2010. The policy aims to increase the resiliency of communities and ecosystems, including forests to climate change, and funds will be mainly channelled through local communities to do this. Climate affects all aspects of the forestry sector and hence actions on climate change need to be integral to all seven key thematic areas.

The forestry sector is particularly important for Nepal's response to climate change. The critical importance of forests as carbon sinks and as sources of carbon emissions when they are lost or become degraded is recognised by the REDD+ process that Nepal is currently undergoing. The Forest Carbon Partnership Facility of the World Bank is providing assistance for preparation of Nepal's REDD+ strategy and this will be an integral part of the FSS outlined here. Forests themselves also suffer from the adverse effects of climate change, including increased forest fire incidence and increased infestation with alien species. Effects of climate change on forest growth, productivity and regeneration are also likely but are as yet unclear. However, the resiliency of forest ecosystems needs to be enhanced to cope with increased temperatures, droughts and flooding in different locations.

Since forests provide important climate change-related services, especially carbon sequestration and carbon emissions reduction, PES systems form a potentially viable approach for the forestry sector that can contribute to forest conservation and local community economic development. Further piloting is required to test and demonstrate this. In addition, local forestry groups provide a strong institutional base for community-based climate-related adaptation planning and implementation. As inclusive and well-governed local institutions, community-based forest management groups of various kinds can be effective for implementing actions to enhance the climate resilience of the most vulnerable households. Their role is being increasingly recognised in NAPA and in local adaptation plans.

Priority Actions

Nepal's strategy on climate change for both adaptation and mitigation relating to the forestry sector are already documented in NAPA and in the processes of REDD+ and REDD+ strategy development. These strategic approaches will be integral to this FSS with the additional element that all approaches being used for implementation of the FSS will incorporate enhancing climate resilience of forests and of the most climate-vulnerable people who depend on them.

A. Adapting to climate change

- Increase awareness and capacity of all stakeholders, especially community-based forest management groups, to respond to climate change and increase their resiliency and that of disadvantaged households.
- Implement the forestry-related provisions of NAPA and LAPAs through the approaches indicated in the FSS, e.g. participatory, transparent, community-based and gender and socially inclusive.
- Adapt and improve forest management plans to enhance forest resilience to climate change (climate proofing forests) and to safeguard the functions of forest ecosystems, e.g. by site-based actions and locally applicable technologies to manage fires, enhance forest water storage and regulate water runoff, stabilise soils and resist invasive alien species and pests.
- Promote income diversification amongst the most vulnerable groups such as poor, women, *dalit*, indigenous and disadvantaged communities as well as household members of community-based forest management groups to enhance their resilience.
- Strengthen the capacity of local forest groups of all kinds to engage in LAPA processes and implement LAPAs.
- Assess vulnerabilities and risks of communities and ecosystems followed by ecosystem/community -based adaptation.
- Develop coping strategies to adapt to post-disaster circumstances/systems through forestry sector contribution.

B. Mitigating climate change through REDD+

- Support REDD+ strategy development and integrate its aims by focusing on poverty alleviation, economic growth and biodiversity conservation as means to address deforestation and forest degradation, ensuring that it is prepared through a consultative and transparent process.
- Integrate actions on REDD+ into forestry sector planning at all levels, i.e. site-based plans, operational plans, DFSPs and national plans.
- Adopt a nested approach for REDD + implementation covering the different physiographic regions of the country.
- Improve access of local communities to carbon benefits in an equitable and transparent way.
- Support Nepal's participation in financing mechanisms for both regulated and/or voluntary carbon markets and ensure equitable benefit sharing to support livelihoods of poor and marginalised people.
- Explore the possibility of establishing Forest Carbon Trust Fund, taking into account the

examples of other development sectors, such as agriculture.

- Carry out piloting and demonstrations to feed experience into the REDD + process.
- Pilot different PES approaches and scale up and expand their coverage based on the lessons learnt.
- Integrate systems for measuring and monitoring forest carbon and forest carbon emissions into forest resource assessment at all levels.
- Promote commercial approaches to bio-energy and other alternative energy through community-private partnerships to reduce fuelwood consumption.
- Increase the efficiency of wood using industries to reduce wood waste and make better use of forest resources.

3.2.4 MANAGING WATERSHEDS

Thematic Purpose

Improve and restore watershed resources for sustainable productivity, environmental services (soil and water conservation and aesthetic value) and climate change resilience to enhance the livelihoods and food security of the people.

Justification

Nepal is prone to high levels of soil erosion and watershed degradation due to its geology, mountain topography and monsoon climate. This results in high levels of erosion and surface run-off and high frequency of landslide. Other factors such as improper land use resulting in forest degradation and soil compaction, excessive grazing, use of unsuitable agriculture practices on steep slopes, road construction in fragile landscapes with insufficient attention to integrated conservation measures and haphazard collection of building materials from river courses, especially in the Chure and Bhabar areas, have further exacerbated these problems of land and watershed degradation. Climate change is also having a significant effect, especially due to the greater frequency of extreme climate events (high rainfall, droughts and floods) and widespread rural road construction.

The Department of Soil Conservation and Watershed Management (DSCWM) has effectively undertaken preventive and rehabilitative programmes, coupled with educational and awareness-raising programmes, to improve and restore watershed condition. These programmes have focused on land treatment to protect critical areas and to restore already damaged areas. These have resulted in some important but usually only localised impacts. For example, degraded land has been rehabilitated and gullies and landslides have been stabilised, reducing the threat to local people's life and property. Because of the physical scale of these programmes, however, physical impacts are still relatively insignificant when compared with the actual requirements for soil and watershed conservation at a national level and many areas have remained unattended and untreated. Soil conservation and watershed management services are currently provided through the DSCWM offices in fifty-six districts and cover less than 10% of the areas of these. Despite a number of issues, challenges and threats, a lot of potentials/opportunities exist. Demand for the services of DSCWM remains high in all parts of the country.

Stability and condition of watersheds affect human safety, food security and biodiversity conservation. Soil and watershed conservation actions aim to improve quality and quantity water resources for drinking, irrigation and hydropower—all of which are essential for the country's prosperity and to improve rural livelihoods.

The overall strategy for managing watersheds in Nepal is to increase the extent of action on the ground by focusing on identified hotspots/sites (as at present) and also by adopting new institutional arrangements and partnerships to extend the responsibility for watershed management from being the sole responsibility of DSCWM. Actions will also be concentrated in the vulnerable Chure region. This means establishing effective partnerships involving local government and DSCWM and also including other natural resource and non-natural resource sectors such as agriculture, environment, livestock, roads, hydropower and possibly others,

along with various types of community groups and the private sector, especially private landowners.

Priority Actions

A. Policy and legal frameworks
• Update the policy and regulatory frameworks on soil and water conservation to facilitate a new strategy of institutional partnerships for implementation and action and for new approaches, including river basin planning, vertical landscape approaches and upstream–downstream linkages. • Promote gender equality, inclusive development and social and economic uplift of poor, women, <i>dalit</i>, <i>janajati</i>, <i>adivasi</i> and other marginalised people in integrated soil and watershed plans and programmes. • Revise existing acts, regulations and guidelines. • Identification, declaration and management of important and vulnerable watersheds as protected watersheds.
B. Re-organising and capacity building
• Re-organise DSCWM to enhance its role as a coordinator and facilitator rather than as a sole implementer of soil and watershed management actions, especially at local government level. • Enhance technical capacity, leadership and communication, professionalism, working culture and mindset of DSCWM staff.
C. Planning and coordinating for integrated watershed management
• Develop a master plan for the Chure using a participatory landscape approach that enables critical sites to be identified, local communities and civil society to be actively involved and local institutional mechanisms to be used for financing and implementing site treatment and resource conservation activities, along with measures for enforcing proper excavation techniques and sites for stones, gravel and sand extraction. • Increase the coverage of soil conservation and watershed management activities across the country. • Ensure that all relevant sectoral plans at different level incorporate soil and watershed conservation components. • Strengthen coordination and collaboration for consolidated soil, water and watershed conservation and management among different stakeholders and different level. • Increase water and soil conservation through appropriate and low cost technologies, including technologies for water harvesting and water conservation and for conservation farming in different ecological zones. • Formulate and implement systems for PES methodologies for managing and financing

watershed services.

- Enhance community-based approaches to implement soil conservation and watershed management activities.

D. Conservation education and awareness

- Coordinate with development partners and government around infrastructure development projects to ensure best practice in implementation of soil and watershed conservation actions, e.g. roads, hydropower, etc.
- Increase public awareness, knowledge and capacity in soil and water conservation, land productivity improvement, land stabilisation and disaster reduction methods and practices through extension, communication and demonstration.
- Support and implement programmes focusing on disaster management, climate change adaptation and overall environmental awareness for local communities in partnership with other sectoral agencies, civil society and local government.

E. Addressing watershed degradation, desertification and natural disasters

- Enhance community capacity to adapt and cope with the stresses of natural disasters.
- Manage community-based natural disasters, land degradation and desertification.
- Manage ecological integrity and enhance community resilience.

3.2.5 PROMOTING ENTERPRISE AND ECONOMIC DEVELOPMENT

Thematic Purpose

Increase private sector involvement and investment in growing forestry crops, including NTFPs/MAPs, carrying out forestry operations, managing forest-based enterprises and industries, promoting eco-tourism and enhancing the growth of forest-based enterprises of all kinds for increased rural employment, economic growth and opportunities for poor and marginalised people to move out of poverty.

Justification

Forests (including shrub-land) have significant potential to contribute to small and medium scale industrial and economic development. Despite this, the forestry sector contribution to national and local economy has been underestimated in the System of National Accounts (NSA) for a number of reasons. The MPFS attempted to stimulate growth of the commercial forest management sector, but the expected support from the public sector to private sector was limited. Amongst the approaches for doing this, commercial leasehold forestry has not been as effective as expected by MPFS. Nowadays, there are more areas of forest under controlled management and after several decades of growth, resource availability in community forests far exceeds local subsistence requirements. This then represents an opportunity to market and utilise this surplus.

The Forest Act 1993 and the associated regulations indicate a diversity of potential productive forest management modalities for national forests that is matched by increasing growing stock in forests where protection has been successful such as community forests in the middle hills. These opportunities are, however, weakened by under-management, excessive regulation of harvesting, movement, transport and sale of forest products, which acts as a disincentive for commercial forest management. Considering the large area of forests, only small quantities of forest products are legitimately supplied to industry from managed forest and overall supplies of forest products are far less than could potentially be produced. Not only does this reduce government revenues, it also limits the expansion of the wood-using industry and the commercialisation of the forest sector with associated benefits such as cash incomes and jobs in rural areas.

Present policies and regulations tend to restrict and hinder rather than stimulate private investment in forestry. For the 5,000 plus wood-based industries registered and operating in Nepal, impractical environmental standards, dual taxation, inconsistency in the auction system, lack of private sector participation in policy-making process and lack of transparency in decision-making processes resulting in erratic and confusing regulations creates uncertainty and challenges to the growth of these industries. At the same time, a considerable level of unregulated trade and utilisation of forest products exists, partly as a consequence of the excessive regulation of the wood-using sector.

Taxation, loan regulations and land-related laws are not favourable for the establishment of small-scale private and community-based enterprises that need bank loans and tax breaks to

enable them to become established. Large-scale industries and other sectors have easier access to finance, taxation opportunities and banking facilities than smaller, locally-owned enterprises.

Priority Actions

A. Policy and legal framework

- Recognise the private sector as key partners for commercial and economic development in the forestry sector and establish formal institutional partnerships and structures to enable active private sector engagement
- Revise the fiscal and legal provisions relating to forest-based industries at all scales in Nepal, including the ceilings on land-holding for private forestry and the leasing process for government forest land for private lessees; simplify the procedures and guidelines on the regulation of the harvest, transport, processing, value addition and marketing of forest products from private forests and various other management modalities used in national forests. This includes introducing mechanisms to identify the origin of the products, e.g. whether from national forest or private land, and to ease the transportation, verification, taxation and royalty.
- Encourage financial institutions to make forestry a priority sector and to provide credit facilities and loans to private tree-growers and forestry entrepreneurs similar to those available for agriculture.
- Review and revise regulations for establishing revolving funds to improve access of small forest enterprises to start-up finance, especially those that create job opportunities and other benefits for women, poor and other disadvantaged groups.
- Expedite the process of establishment of forest authority as a unified forest products harvesting and marketing organisation.
- Strengthen measures to reduce illegal trade in forest products by reducing barriers to legality, especially administrative and procedural barriers; improved monitoring and tracking systems; certification and deregulation of price controls and market interventions by government.

B. Capacity building of partners and stakeholders

- Develop improved understanding and skills amongst government, community and civil society of business and enterprise management and of the use of new technologies for production, harvesting, processing, packaging, branding, marketing and exporting of forest products.
- Establish and deliver CTEVT-accredited training modules/courses to develop a cadre of skilled workers in various operations in the forestry sector, including harvesting, logging, saw-milling, carpentry, etc., and gradually replace untrained workers in the sector by accredited workers, giving priority to women, poor and socially disadvantaged persons.
- Enhance the safety and security of forestry workers as per the existing labour laws and raise awareness amongst communities, the private sector and other stakeholders of forest product

laws and regulations, labour laws and Nepal's national and international commitment to these.

- Make forestry business transparent and accountable to foster social image of forestry entrepreneurs and traders involved in forestry.

C. Increase and intensify the sustainable supply of forest products

- Increase the area of forest under all forest management modalities under predictable and sustainable forest management regimes. Support the development of private-community partnerships for product sales, buy-back agreements and investment in forest resources to stimulate engagement of community-based forest management groups of different kinds in commercial forestry
- Promote cultivation and domestication of indigenous and high value trees and NTFPs/MAPs on private land, including endangered species, by providing seeds, seedlings, technologies, policy support.
- Create incentives for private investors to invest in modernising their forestry operations, equipment and practices to minimise losses, improve product quality and efficiency and enable better harvesting, conversion, handling, storing and processing of different products.
- Support the development of professional service provision of all kinds by the non-government sector engaged in forestry.
- Enhance national and export markets for MAPs and NTFPs by supporting quality analysis, quality assurance and certification systems.
- Promote partnerships between forest management groups and the private sector to increase investment in eco-tourism enterprises and recreation in forests, including national parks and conservation areas.

D. Stimulate market demand for forest products

- Carry out market research to identify consumer needs and preferences for forest products of various types.
- Conduct awareness campaigns amongst the public and timber enterprises to create a better understanding and demand for legitimately sourced forest products.
- Take actions to increase the market availability and profile of products that are certified, fairly traded, bona fide and identifiable as being of local origin
- Support value-chain studies and identification of new product uses and markets (both national and international) working closely with potential investors and entrepreneurs

3.2.6 ENHANCING CAPACITIES, INSTITUTIONS AND PARTNERSHIPS

Thematic Purpose

Improve forest sector governance and make forestry sector institutions more competitive, decentralised and people-centric by improving their capacity, competency, leadership and inclusiveness (with particular emphasis on participation and leadership by women, *dalit*, *adibavi*, *janajati* and other socially-excluded groups) and by developing and supporting institutional partnerships that help to strengthen and clearly define the roles and functions of forestry sector institutions.

Justification

Forestry institutions and their human resources drive the planning, implementation and monitoring of forestry sector policies, legislation, plans and programmes. The changed socio-political context in Nepal (poverty, migration, urbanisation, change in political system, change in governance structure), the economic context (freer economy, globalisation, demands for green products, WTO membership) and the environmental context (the response to climate change), along with the emergence of an active and capable civil society, necessitate changes in forestry sector organisations and the ways they work together to enable them to be more competitive, productive, context-specific and downwardly accountable.

Under the MPFS, reorientation and re-training of forestry staff were emphasised to help them shed their traditional 'policing' roles and adopt new roles as people's partners in development. For this, the regional training centres (RTCs) were established and institutionalised. RTCs have organised many training, covering a range of topics that have contributed significantly towards attitudinal and capacity shifts in the forestry sector. A central-level Forestry Training and Extension Centre has been re-instituted with department level status to train officer-level staff across all departments under MFSC. In addition, forestry education has expanded and there are now several different institutions offering forestry-related qualifications from certificate level to PhD. Despite this progress, several issues and challenges exist. Formal forestry education curricula have not fully captured the emerging needs of the forestry sector whilst there is still a need to change the attitude and behaviour of individuals within and outside government organisations in the sector to make them more applicable to the new paradigm.

Entrenched cultural and attitudinal issues are still important constraints on forestry sector institutions and the individuals within them both inside and outside government. There are still issues relating to gender equality and social inclusion that apply equally to community-based organisations (CBOs), NGOs and government in the forestry sector.

Attempts have been made to constitute standing committees representing different stakeholders to contribute to sector governance at different levels. These have, however, not yet been properly institutionalised. A rise in the active and vocal civil society, trends towards more decentralised government at federal, provincial and local levels, expansion of CBOs and their capacity, an increased role for the private sector and greater public awareness of the need for transparency and accountability amongst government institutions have all taken place since 1990. To keep pace with these changes, multi-stakeholder platforms need to be established and

formalised and partnerships need to be developed and supported between different stakeholders, including government, to enhance their performance and to shift the way they operate. This requires significant reforms in relations between and within institutions. Under this theme, two key components for action are identified:

- a Human resource development and management
- b Institutional and partnership development

Priority Actions

A. Human Resource Development and Management

a. Attitudinal change, morale, motivation and grievance handling
• Adopt coaching, mentoring, team building, in-service training and organisational development within MFSC to alter and improve staff attitudes and organisational culture. • Develop a code of conduct for professional foresters to promote positive conversations, commitment, professionalism and improvements in foresters' public image. • Put an appropriate grievance handling mechanism in place in MFSC, covering work rules, policies, procedures, health and safety regulations, working environment, victimisation, etc. • Re-orient staff of MFSC towards people-centric approaches and update all job descriptions accordingly.
b. Forestry education
• Establish partnerships between national and international forestry organisations to update forestry curricula, improve teaching, promote research and meet the future needs of the forestry sector. • Increase the enrolment of women, <i>dalit</i>, <i>janajati</i>, <i>adivasi</i> and other socially excluded groups in forestry education. • Strengthen knowledge-sharing and partnership between university faculties, students, forestry staff, researchers and other stakeholders for forestry-based research. • Introduce community-based forestry education in school curricula and involve students and educational institutions in community-based forestry activities.
c. Skills and capacity development
• Conduct a comprehensive capacity assessment of women, <i>dalit</i>, <i>janajati</i>, <i>adivasi</i> and other socially excluded groups in the forestry sector and carry out relevant training to meet their specific capacity needs. • Raise the level of staff skills and competency at lower levels within MFSC and its departments through redefined job descriptions and staff training. Develop partnerships with private sector experts to build capacities on business administration, markets, finance, enterprise and human resources to develop these skills within MFSC and other forestry sector organisations.

- Improve training quality by RTCs through capacity assessment, training planning, delivery of training programmes, post-training evaluation and by establishing training partnerships that can bring in greater human resources, physical facilities, finance and materials.
- Formalise systems for linking performance in training with promotion, posting, transfer and job performance for MFSC staff.
- Pursue further accreditation of vocational forestry training by forming Forestry Council and working closely with the Council for Technical Education and Vocational Training (CTEVT).
- Contract-in individuals and institutions to enhance and complement competencies in specific technical areas of MFSC operation, including technical functions of DoF, DNPWC, DPR, DFRS and others.

d. Managerial and leadership competency

- Enhance leadership and management competencies in MFSC, particularly at senior and office head level, by creating partnerships with the Nepal Administrative Staff College and other international and national management institutions and donors

e. Human resource management and human resource development systems

- Formulate and implement HR operational guidelines for MFSC covering recruitment, appointment, terms and conditions, code of conduct, induction, transfer, performance appraisal, career path, career planning, counselling, training and development, promotion and grievance handling and other best practice aspects of human resource management (HRM)
- Increase the emphasis on people management in MFSC by promoting performance-related learning and career development and establish HRM as a core function of MFSC
- Put in place a comprehensive human resource information system database for MFSC with personal information, career information (on postings, transfers, development, promotion), and performance appraisal information.
- Develop a feedback system in staff performance appraisal to help improve work performance.
- Develop a culture of appreciation and public recognition of good work of MFSC staff to attract and retain competent human resources.
- Prepare MFSC staff at all levels for changes in responsibilities, scope and jurisdiction associated with the restructuring of state.

f. Recruitment, placement, promotion and transfer systems

- Use job profiling and personnel profiling to select the right person for the right job during recruitment/placement or transfer of staff in MFSC
- Increase the recruitment of women, disabled people and other disadvantaged groups during

placement, promotion and transfer in MFSC

- Improve the systems for orientation and induction of new staff in MFSC.
- Increase the use of planning, consultation, predictability in staff transfers in MFSC, including creating opportunities for internal applications for posting
- Put in place a transparent placement, transfer and promotion system that takes into account innovativeness, productiveness and ability to manage higher-level roles and responsibilities.

B. Institutions and Partnerships

a. Forestry sector institutional reform

- Re-structure all MFSC departments in the light of the new constitution.
- Strengthen the service orientation, responsiveness, downward accountability and delegation of authority in MFSC and its departments by revising ToR of all staff, by introducing new HR systems, delegating authority and restructuring of staff.
- Give greater opportunity for the establishment of formal partnerships between different organisations in the forestry sector by re-defining the roles, responsibilities and functions of MFSC (from centre to district level) and by creating greater opportunities for NGOs, CBOs and the private sector to deliver forestry services of all kinds.
- Prepare guidelines and set out modalities for public–community–private partnerships in different areas of the forestry sector.
- Create greater opportunities for greater participation, representation and voice of women, poor and other disadvantaged people in forestry sector decision-making processes, including policy formulation, at all levels.
- Increase the proportional representation of women, *dalit*, *janajati*, *adivasi* and other socially excluded groups in MFSC's structure and decision-making positions through positive discrimination.
- Critically review the function of the Timber Corporation of Nepal (TCN) and Herbs Production and Processing Company Ltd (HPPCL) and assess the relevancy, effectiveness, efficiency and sustainability of the Forest Product Development Board and improve their performance.
- Establish and strengthen an independent forestry council to support and advise government regarding forest planning, implementation, evaluation and quality assurance.
- Promote an appropriate mechanism/forum to facilitate fund generation and mobilization for forestry sector development.

b. Transparency and accountability

- Establish NFF as the main multi-stakeholder body for ensuring accountability and transparency by increasing its social inclusivity, participation and by clearly defining its

statutory role, responsibilities and powers.

- Increase public availability of forestry sector information, decisions, plans, policies, programmes and budgets, audit reports, etc. through appropriate dissemination means
- Use evidence-based decision-making processes for improving the transparency and predictability of policy-formulation and increase the level of stakeholder participation in these processes.
- Formalise the use of public audits and public accounting, especially at province and local level for forestry-related activities.

c. Policy process and enforcement

- Adopt GESI principles and take affirmative action accordingly for inclusion of women, *dalit*, *janajati*, *adibasi* and other socially excluded groups in all HRM functions, particularly of government forestry sector institutions, covering selection, appointment, performance appraisal, transfer, incentives, promotion, institutionalisation of learning and career development, along with a fair and effective grievance-handling mechanism.
- Mainstream the implementation of the GESI Strategy by all forestry sector stakeholders and in all plans and programmes by establishing a GESI unit within the HRM division of MFSC with defined roles and responsibilities (job descriptions) and by ensuring that sufficient authority and responsibility are assigned to Gender Focal Points.
- Maintain zero tolerance policy on sexual harassment and gender-based violence in every organisation in the forestry sector.
- Remove impunity for forest offences and strengthen legal compliance by enforcing equality in application of laws in the forestry sector.
- Use a comprehensive participatory framework with well-defined indicators, roles and responsibilities to monitor and assess forest governance at federal, provincial and local levels.
- Adopt the gender responsive budgeting guideline of the Ministry of Finance during planning, programming and budgeting and ensure that allocated budget is appropriately monitored and reported.
- Introduce a comprehensive programme for forest law enforcement, governance and trade to eliminate illegal harvesting and movement of forest products.

d. Coordination, collaboration and partnerships

- Promote and support partnership working across all areas of the forestry sector between government–community–private sector.
- Strengthen cross-sectoral coordination at different levels. Redefine the roles and accountability mechanisms of MFSC and its departments in relation to local and federal government in the context of the Constitution of Nepal.

3.2.7 MANAGING AND USING FORESTRY SECTOR INFORMATION

Thematic Purpose

Enhance the availability and use of quality forestry information by all forest sector institutions for policy-making, planning, monitoring, ensuring accountability and transparency, evaluation and strengthen the capacity of forestry sector institutions and citizens to generate, retrieve and utilise forestry information.

Justification

Whilst the potential of the forestry sector in Nepal to contribute to national development is significant, lack of clear data or data analysis has often prevented this potential from being convincingly shared with government, potential investors, decision-makers of all kinds and with the public. As a result, the forestry sector is often undervalued and under-represented in policy-making processes and national planning.

The forestry sector has a broader mandate and there is a need to generate and use a much wider set of information, covering socio-economic aspects, climate change, sectoral institutions, governance and environmental services, in addition to the more traditional types of forestry data. IT has made available many new tools that can be used by forestry professionals and the public to get access to and use data. This creates opportunities for creating a better informed and better networked set of institutions working in the forestry sector with consequent benefits in terms of transparency and accountability and for policies, plans and programmes to be better targeted and more closely monitored. Better use of, and access to, data in the forestry sector using new technologies and capacities has important implications for enhancing forest sector governance and improving public awareness.

Priority Actions

A. Forestry sector information

- Make forestry-related information, including data, maps and reports of all kinds more widely available to forestry sector stakeholders and the public using IT and various open source information systems and ensure that such information remains updated and securely stored.
- Continue to conduct forest resource survey and inventory periodically (update every five years) and continue to use appropriate IT to share and disseminate such data, including the ability to create datasets for specific physiographic and administrative regions.
- Broaden the information generated and stored by MFSC, especially in relation to districts and at local levels covering forest and forestry groups of all kinds, socio-economic, climate and environmental information with particular emphasis showing disaggregated socio-economic data.
- Develop the capacity of MFSC and its departments and their facilities for data storage and management to use a broad range of forestry sector information and to apply it for

purposes of national and local planning, policy development and to respond to public requests for information.

- Enhance the capability of other forestry sector institutions to generate, store and retrieve forestry-related user-friendly data and information, including information from national-level forest survey and inventory and maps.
- Establish a national forest resources information system, including fully disaggregated data, where applicable, which is regularly updated and is accessible to all kinds of forestry institutions and the public.

B. Forestry research and technology development

- Form Forest Research Committee to bring together different stakeholders for forestry research and to take the lead in determining the national forestry research priorities.
- Conduct research on all types of forest management modalities, watersheds, protected areas and biodiversity and climate change and on all socio-economic aspects of the forestry sector and make the results of this publically available.
- Strengthen the role of the DFRS and DPR as both researchers and enablers of research and technology development through a flexible funding system that allows commissioning of research by national and international partnerships with academic institutions, NGOs and the private sector.
- Establish linkages between the Forest Research Committee and the NFF to ensure the results of research are used to provide strategic direction and guide policy for the forestry sector and to ensure that sectoral needs drive the research agenda.
- Strengthen research laboratory and human resources available within government to conduct forestry-related research, including the use of outsourcing for specific research and information needs where this is more cost-effective.
- Strengthen research and information generation in the following specific areas in addition to those conventionally pursued in forestry:
 - Bio-physical, and socio-economic aspects of tree plantations
 - NTFP/MAPs cultivation
 - Agro-forestry practices
 - Climate change-related aspects
 - Forest sector economics
 - Harvesting, grading, storing, processing and packaging of forest products and their certification
 - Bio-prospecting and bio-technology
 - Market price information (for forest products)

C. Monitoring, evaluation and MIS

- Put in place a practical results-based monitoring system online with National Planning Commission (NPC) guidelines for all forestry sector programmes, including those implemented by the private sector, and orient development partners and the stakeholders concerned to comply with this.
- Incorporate the FSS/NBSAP and other sub sectoral milestones and indicators in the results-based monitoring system and use this to independently evaluate progress with FSS every five years, especially in relation to outcomes for different socio-economic groups and sexes.
- Put in place forestry MIS using technologies that generate, synthesise, store and retrieve data and information related to forestry sector organisations at district, regional and central levels.
- Design and implement an integrated MIS database for MFSC linked with all its units across the country and with links to Geographical Information System (GIS)-based special information.
- Improve the capacity of all Monitoring and Evaluation (M&E) units in MFSC at different levels in different departments.
- Develop criteria and indicators for monitoring the impact and performance of different forest management modalities, including protected areas and watersheds.

D. Communications and knowledge management

- Establish a central source for forestry research and information in Nepal, including a database and document repository of all research carried out by government, universities, NGOs and the private sector and make this widely and publically accessible through the web
- Establish partnerships between government and academic institutions, NGOs and the private sector to improve knowledge management, communication and public dissemination of information for the forestry sector.
- Strengthen the role and communications capacity of spokespersons of MFSC and its departments to build effective public relations and the image of the forestry sector.
- Review and implement recommended actions for the central forestry library with a view to better using IT, including links to national and international online databases, and to ensuring effective documentation/archiving of data and knowledge in accessible format.

PART 4 DELIVERING THE VISION

Part 3 has identified the strategies and key actions that will be implemented to achieve the goal and outcomes of the FSS. Part 4 describes the mechanisms by which these strategies and actions will be implemented. This includes: Part 4.1, the key principles that underlie their implementation; Part 4.2 the institutional responsibilities for implementing different aspects and Part 4.3 the key approaches that will be adopted, based on international good practices and past experience from Nepal.

4.1 PRINCIPLES

A. Participation

The need for participatory processes for ensuring effective and meaningful stakeholder engagement is well-established in Nepal's forestry sector for the implementation of forest management actions at grass roots level through the various community-based management modalities. It is less well established as a means for crafting policies and implementing actions for sector reform. As a broad implementation principle, participatory processes will be used for all appropriate actions required in all seven key thematic areas to ensure transparency and to incorporate the views of different stakeholder groups and to ensure their commitment to effective delivery.

B. Informing and guiding

The role of government forestry agencies in Nepal has traditionally been one of broad control over all aspects of the forestry sector, including direct implementation of forest management actions. Only a relatively limited range of management functions was devolved to other organisations in the forestry sector. There was a gradual shift in this position during MPFS implementation and forest management and other functions and responsibilities were increasingly transferred to community and civil society organisations as their capacities and skills improved. This principle will be continued and extended with government forest agencies shifting more towards a role of informing and guiding whilst many forest management functions will increasingly be handed over to community organisations and other service functions in the forestry sector will be rolled out to civil society and/or the private sector often on the basis of formal partnership agreements.

C. Regulating

A key role of government forestry agencies is to create an enabling environment that will allow achievement of the aims and outcomes. This critical regulatory role will remain a primary function of MFSC during the implementation, although there will be a shift towards greater participation of stakeholders with government agencies in crafting policies and monitoring their progress. In addition, there will be a shift towards greater levels of cross-sector coordination for achieving outcomes.

D. Clarifying roles and responsibilities

Critical to the wider involvement of different actors and stakeholders in the forestry sector following the multi-stakeholder approach is the clear definition and acceptance of roles and responsibilities by all stakeholder groups, including government, civil society, the private sector and communities. Each has a distinct and complementary role to play. Whilst implementing the FSS, clear roles for the diverse range of stakeholder groups in the forestry sector will be created, building on previous experiences and on their respective capacities and preferences.

E. Leadership by government - ownership by all stakeholders

The FSS has been prepared through a process of consultation and engagement of all stakeholders in the forestry sector and it identifies roles for multiple stakeholders in its implementation. Ownership of FSS is, therefore, by all stakeholders. At the same time it is expected that government forestry agencies, mainly MFSC and its subsidiaries, will take a leadership and coordination role to ensure that the planned strategic actions in the seven key thematic areas take place and that an enabling environment consisting of policies, regulations, guidelines and procedures is put in place to facilitate the process. Strengthening the NFF as the key multi-stakeholder body for carrying out various activities, including monitoring and evaluating progress with FSS, and for determining critical issues and direction changes, if required, will ensure ownership and accountability.

F. Working through partnership and with service providers

Partnership working is an important and distinctive principle of FSS. The partnership working approach recognises that multiple inputs and responsibilities from different stakeholders can create synergy to achieve the desired outcomes. Different types of partnership arrangements will be put in place and supported for different purposes, including for implementation and service provision. Part 4.2 identifies potential partnerships for different key thematic areas, although others may be derived in the future.

G. Cross-sectoral working and harmonisation

FSS is affected and influenced by the strategies and policies of many other sectors and, in turn, it has implications for other sectoral strategies (see Annex 5). Cross-sectoral working and harmonisation is, therefore, a critically important principle for FSS to ensure that planned strategic actions can be implemented without conflicting or contradicting those of other sectors. The NPC has overall responsibility for cross-sectoral coordination, and, within FSS, structures and processes have been put in place to ensure better cross-sectoral coordination at different levels. At district level, DFSCCs will ensure cross-sectoral working largely for local implementation of strategic actions. At central level NFF and thematic sub-committees, or working groups, will harmonise policies and strategies with different sectors and will seek to address inconsistencies and gaps.

H. Financing and creating incentives

Financial resources will be required to enable the FSS to be implemented as planned to deliver the outcomes. It is expected that these will come from the GoN, international development partners working in Nepal's forestry sector, private sector investment and contributions from a

range of stakeholder groups working in the forestry sector. For communities and the private sector, sufficient incentives will be required to participate in the strategic action. At community level these will largely come through the benefits accruing from the forest products and services produced (and including the economic benefits of creating jobs and enhancing cash incomes). For the private sector, financial incentives will also come through economic returns from investment (via partnerships), although where these are insufficient, tax incentives may be created by government as part of their role of putting in place an effective enabling environment. External financing by government and international development funding (in the form of programmes and projects) will be largely channelled through an appropriate mechanism with responsibility for directing financial resources for the forestry sector.

4.2 ROLES AND RESPONSIBILITIES

Key Thematic Area	Sub-theme	Key state actor	Potential partnerships	Cross-sectoral collaboration
1. Managing Nepal's forests	a. Community-based forest management	MFSC, DOF, DNPWC	State–community (for all modalities of community-based forest management) Community–private (for all modalities for investment, enterprise, product sales and marketing) Local government–community (for collaborative forest management) State–private for provision of support services	Ministry of Federal Affairs and Local Development, Ministry of Industry, Ministry of Commerce and Supply, Ministry of Finance Ministry of Agricultural Development, Ministry of Science, Technology and Environment
	b. Private forest management	MFSC, DOF	State–private (for commercial leasehold forestry) FNCCI	Ministry of Finance, Ministry of Commerce and Supply, Ministry of Agricultural Development
	c. Government-managed forest	MFSC, DOF, DNPWC	State–private (for forest management services)	Ministry of Science, Technology and Environment, Ministry of Agricultural Development
2. Managing ecosystems and conserving biodiversity		MFSC, DOF, DNPWC, DPR	State–private for provision of support services (all kinds including eco-tourism)	Ministry of Tourism, Ministry of Federal Affairs and Local Development,

				Ministry of Defence/Nepali Army, Ministry of Science, Technology and Environment
3. Responding to climate change		MFSC, REDDIC	State–community for community-based REDD+ projects and PES projects State–community for adaptation planning and implementation State–NGO/civil society (for REDD+ and PES projects) State–NGO/civil society (local adaptation projects) Local government–community	Ministry of Science, Technology and Environment, Ministry of Federal Affairs and Local Development
4. Managing watersheds		MFSC, DoF, DNPWC, DSWC	State–community for community-based implementation projects State–private for implementation and provision of support services	Ministry of Energy, Ministry of Agricultural Development Ministry of Federal Affairs and Local Development
5. Promoting enterprise and economic development		MFSC, DoF, DNPWC		Ministry of Industry, Ministry of Commerce and Supply, Ministry of Finance, Ministry of Cooperatives and Poverty Alleviation, Ministry of Science,

				Technology and Environment, FNCCI
6. Enhancing capacities, institutions and partnerships	a. Human resource development and management	MFSC, all departments and RTCs	State-private for training provision	Ministry of General Administration Universities
	d. Institutions and partnerships	MFSC		Ministry of General Administration Universities
7. Managing and using forestry sector information	a. Forestry sector information	MFSC, DFRS	State-private for provision of support services, e.g. IT/MIS/GIS	Ministry of Information and Communication
	e. Forestry research and technology development	MFSC, DFRS, DPR	State-private for contracted research	National and International Universities/academic institutions
	f. Monitoring, evaluation and MIS	MFSC, all departments		National Planning Commission
	g. Communications and knowledge management	MFSC, all departments	State-private for provision of support services, e.g. publications, websites, etc.	

4.3 METHODS

A. Implementation approaches

The approaches that will be used to deliver the outcomes of the FSS in all the seven key thematic areas will be based on the eight strategic pillars identified in Part **Error! Reference source not found.**

Strategic Pillar	Approach
1. Sustainably managed resources and ecosystem services	• Landscape-level approach as a tool for resource planning, conservation, management, monitoring, evaluation, learning and knowledge sharing • Forest land-use planning in line with the national land use policy for all state forests at different levels covering all forest management regimes, i.e. community-based forestry, forests under Protected Areas, institutional leasehold forests, forest managed under public-private partnerships and government-managed forests • Support for PES approaches to link upstream/downstream resource users, value environmental services and share resource benefits more equitably
2. Conducive policy process and operational environment	• Adoption of evidence-based policy-making processes • Legislation, including laws and directives, and always follows policy to strengthen and enable its implementation (avoidance of unpredictable legislation) • Strengthen roles of Forest Sector Coordination Committee as a platform for stakeholder engagement and influence policy processes and forestry training
3. Responsive and transparent organisations and partnerships	• Establishment of a mechanism to channel funds, improve delivery, transparency and effectiveness of development programmes • Development of cross-sectoral working approaches, especially at decentralised levels, to enhance synergy between sectors, reduce duplication and inconsistency and transaction costs on local people
4. Improved governance and effective service delivery	• Multi-stakeholder approach with forums for information sharing, transparency, participatory planning, monitoring and public accountability at all levels from central to local level • Stakeholder and cross-sectoral coordination and engagement

	for planning and evaluating progress at different levels, e.g. NFF at national level and appropriate mechanism at province and local level • Use of public forums for decision-making and ensuring accountability, e.g. public audits, public hearings • Bottom-up planning processes (annual planning) incorporating different stakeholder perspectives and building voice for socially excluded groups • Partnership approach between government and civil society, including private sector, NGOs and communities, for delivery of a broad range of services at all levels across the forestry sector • Clarified roles for state/NGOs and civil society/communities/private sector and other stakeholders for the delivery of programmes, projects and their components • Consistency with policy legislation process, i.e. legislation follows policy as a means for enabling it to be implemented rather than <i>vice versa</i>. This also improves predictability and stability.
5. Security of use rights of resources of the community	• Revise existing legislation, clarify inconsistencies between legislation and reduce <i>ad hoc</i> policies and directives to strengthen security of use rights of community for all types of community-based forest management • Capacity building approach at community/group level and for supporting service providers and networks to create better understanding around resource use rights and legal issues
6. Private sector engagement and economic development	• Partnerships between private sector and government agencies and communities for service delivery, investment, commercial/enterprise expertise and reduced bureaucracy • Partnerships between government and private sector for commercial leasehold forest management • Involvement of private sector, including forest industry, financial sector and private forest owners, in multi-stakeholder forums as appropriate
7. Gender equality, social inclusion and poverty reduction	• Application of existing MFSC GESI Strategy across all forest sector institutions • Capacity development for women and other socially

	disadvantaged groups to enable them to be better represented and have a more effective voice in forestry institutions of all kinds • Disaggregated monitoring systems highlighting impacts of FSS on women, poor and socially disadvantaged people
8. Climate change mitigation and resilience	• Consistency with REDD+ approaches as separately defined in Nepal's Readiness Preparation Plan and REDD+ strategy • Community based adaptation approach consistent with NAPA, LAPA and other planning approaches targeted at the most vulnerable communities

B. Planning framework

Forestry sector planning processes will be implemented via a framework of interlinked plans at different levels. Each will result in an output consisting of a different kind of forestry plan and each will have a coordination structure that enables participation of different stakeholder groups, cross-sectoral coordination and collaboration and a means to ensure that the voices and views of women, poor people and socially discriminated groups are incorporated into the resulting plans.

C. Participatory and bottom-up planning

Within the broad planning framework for the forestry sector, annual plans will continue to be produced at different levels for the purposes of defining immediate actions for implementation and for securing necessary financial resources. MFSC has taken a lead amongst other ministries over the past two decades by institutionalising a participatory and bottom-up annual planning process. This begins at the forest user group level with plans being built up through range posts, districts and regions to national level by a series of interactive workshops where community and civil society representatives are able to actively participate in a transparent facilitated planning process. This process will continue for the purposes of preparing annual plans and budgets for FSS, although some improvements will be institutionalised, including:

- Improving the representation and 'voice' for women, poor and socially discriminated groups in the planning process at all levels. Planning processes will be monitored using disaggregated methods to ensure this;
- Participation of the private sector at all levels in the planning process (as key implementation partners);
- Establishing stronger cross-sectoral linkages at all levels in the planning process, including the integration of forestry sector plans into those of the local government;
- Ensuring that the bottom-up planning process remains within the framework of the FSS. This means that all actions being proposed for implementation will need to 'fit' within

the seven key thematic areas and contribute to achievement of the FSS goal and outcomes; and

- Institutionalise the role of the NFF for finalisation of the plan submitted to the NPC. This will ensure multiple-stakeholder participation, transparency and accountability and will ensure that FSS priorities are addressed.

D. Establishment of implementing support mechanism

An appropriate mechanism is desirable for implementing FSS and facilitating overall forest sector development. Forest Policy 2015 also highlights the need for such mechanism. MFSC, as per the decision of the GoN, will formulate an appropriate mechanism based on legal and institutional frameworks on natural resources, benefit-sharing mechanism of the federal system of governance.

E. Monitoring and review

Monitoring for the MPFS period was insufficient to regularly track its progress over the period of implementation. As a result, mid-term corrective actions were not taken for tackling weaker areas of implementation and there were no revisions in the MPFS reflecting changes taking place in the external environment in Nepal. These problems will be addressed by strengthening the system within the MFSC for regular monitoring and review. This unit will be responsible for:

- Overall monitoring of strategy implementation, i.e. whether the planned actions and priorities are being implemented and whether the planned approaches are being followed;
- Information collection on milestones and following the FSS monitoring framework;
- Preparation of annual progress reports on FSS;
- Reporting progress with NFF (annually) and the public (via web);
- Coordinating a mid-term review by independent external reviewers; and
- Incorporating corrective actions and recommended changes into the FSS following the mid-term review.

PART 5 ANNEXES

Annex 1: Role, functions and responsibilities of different actors and their partnerships

Annex 2: Priority programmes and strategic interventions in different ecological zones

Annex 3: Forestry Sector Strategy monitoring framework

Annex 4: Key forestry sector tools, including legislation, regulations, guidelines, directives and others

ANNEX 1: ROLES, FUNCTIONS AND RESPONSIBILITIES OF DIFFERENT ACTORS AND THEIR PARTNERSHIPS

Actor	Current roles	Proposed role
Government		
MFSC, Departments and district offices	• Enabling development of policies, legislation, plans and programmes and their implementation • Provisioning of technical services: plantations, watershed management, forest research and survey, plant resources and biodiversity conservation, extension and technology transformation • Regulating: patrolling and protecting the forest and protected areas, issuance of permits, monitoring and sanctioning of rule-breakers • Judicial adjudicating: forest and wildlife crimes • Administrating: administration of staff and coordinating with other agencies and stakeholders • Collecting revenue: tax and revenue collection from forestry activities • Planning and budgeting: increasing budgetary support of foreign aid demands for increased engagement of project management	• Enabling designing policies and procedures to enable others to perform their responsibilities through legislative frameworks. • Technical service provider provide technical services to different forest management regimes • Facilitation to all community based resource management regime and private sector engagement in enterprise development • Coordination role, particularly at local level, coordinate to mobilise various actors to promote forestry sector development based on their comparative advantage
Parastatals	• Facilitate the supply of timber, fuel-wood, NTFPs/MAPs after	• Review the performances of TCN, HPCCL and FPDB and make

	processing them for commercial needs	more competitive and transparent • Establish Forest Product Authority
Local government administration (DDC, VDC)	• Environmental services in the defined territory • Protection and utilisation of natural resources at local level • Revenue generation through tax and auction by selling boulder, stone and sand for local development	• Take role in integrated natural resource management • Coordinate all actors for inclusive and transparent management • Contribute to local livelihood and climate change adaptation
Civil Society		
Networks and federations	• Advocacy on rights of the users on natural resources, environment conservation • Linking policies and practices: bringing best practices from the field to the policy process • Focus benefit-sharing towards vulnerable and marginalised groups	• Mobilising citizens' perspectives for democratic and inclusive forestry sector • Linking policies and practices, bringing best and innovative practices from the field • Empowerment of marginalised groups • Advocacy to balance sustainability of resources and livelihood • Monitor the performance of policies, programs and their implementation
NGOs	• Service providers, bridging the gap between policies, practices and local knowledge • Rights advocates • Promoting inclusive and democratic governance • Volunteerism and adaptive to local contexts	• Engage in innovative work and provide services transparently and democratically • Work proactively for democratic and inclusive forestry sector • Empowerment of marginalised groups • Advocacy on balancing the sustainability of resources, livelihoods and securing local

		people's rights Strengthen local knowledge of sustainable resource management
Community		
Local leaders at users level	- Community mobilisation and organisation - Conservation and sustainable natural resource management	- Building democratic and inclusive community organisations - Creating enabling environment to engage poor and marginalised sections in decision making and benefit sharing - Act as change agents of local development - Liaison with other stakeholders
General users	- Conservation and sustainable management of natural resources - Equal participation in decision making and benefit sharing	- Engage in decision making and benefit sharing - Gain skills and knowledge of sustainable forest resource management and livelihoods - Raise voices for inclusive and democratic practices in decision making process
Private Sector		
Companies/investors	- Quality and competition - Investment, knowledge and technology, marketing and employment - Enlarge the market share and take leadership - Economic growth: profit from forestry sectors	- Bring entrepreneurship in forestry and enterprise development - Generate local employment, reasonable profit and local economic growth - Transparent operation of forestry enterprises
Development Partners		
Technical and financial assistance	Support for sustainable forest management, biodiversity conservation, watershed	- Respect Development Aid Policy of Nepal - Encourage inclusive practices in

	management and climate change adaptation • Support for livelihoods and economic growth • Support for establishment of democratic and inclusive forest institutions and good governance • Enhance skills, capacity and capability of forestry staff and other forestry sector stakeholders	the forestry sector • Promote innovation, skills, capacity and knowledge systems • Comply with the international commitments on foreign aid • Support scaling-up of best practices and institutionalising the lessons • Enhance the capacity of forestry sector stakeholders • Make aid disbursement more effective and transparent
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ANNEX 2: PRIORITY THEMES AND PROGRAMMES FOR DIFFERENT PHYSIOGRAPHIC REGIONS

Programmes	Tarai	Chure (Hills)	Mid-Hills (including inner Tarai)	High Mountains (including High Himal)
Major strategic focus of FSS	• Sustainable forest management • Public-Private-Partnership • Private forestry (farm forestry & agro-forestry) • Public land forestry • Forestry enterprises and industries • Conservation of Biodiversity • Management of Botanical Gardens	• Conservation-oriented management and operations • Integrated Watershed Management Forest management geared towards protection of fragile Chure ecosystems • Conservation of Biodiversity	• Sustainable forest management with due attention to environmental concerns • Public-Private-Community-Partnership • Micro-enterprises and entrepreneurship development • Conservation of Biodiversity • Management of botanical gardens	• Sustainable management of high value MAPs and other NTFPs • Integrated watershed management • Conservation of biodiversity • Integrated management of forest, livestock and rangeland • Micro-enterprises and entrepreneurship development • Management of botanical gardens
A. Managing Forests				
a. Community-based forest management	• Community-based forest management as the priority theme in all physiographic regions • Use the landscape approach as a tool for resource planning, conservation, management, monitoring, evaluation, learning and knowledge sharing • Intensify sustainable forest management • Forge Public-Private Partnerships (PPP) and Public-Private-Community Partnerships (PPCP), wherever possible • Develop District Forestry Sector Plan (DFSP) identification of forest			

	management modalities Promotion of private sector for efficient and effective delivery of various services			
i. Community forestry	- Consolidate existing CFs production-oriented intensive management - Governance improvement - Responding to distant users' need	- Consolidate CF balancing conservation needs of the area and basic needs of the local people. - Implement integrated watershed management	- Intensify sustainable forest management in CFs - Promote CF in remaining forest areas - Governance improvement	- Consolidate existing CFs considering/ incorporating issues of seasonal users (transhumance, NTFP collectors, etc.) - Intensify management of MAPs and other NTFPs - Initiation of integrated forest, biodiversity, soil conservation, livestock, NTFP, rangeland and eco-tourism management in appropriate sites
ii. Pro-poor leasehold forestry	Initiate pro-poor leasehold forestry in suitable areas	Consolidate and strengthening of existing LFUGs	- Consolidate and strengthen existing LFUGs - Focus LF in districts having potential large areas of degraded forests	Initiate pro-poor leasehold forestry in suitable area
iii. Collaborative	Promote and		Explore and	

ve forest management	strengthen CFM in remaining potential areas • Revise forest management planning from a sustainable forest management perspective		promote CFM in potential Inner Tarai areas	
iv. Public land management	• Identify and promote suitable public land area for forestry purpose			
v. Religious and cultural forests	Strengthen and promote in all potential areas			
vi. Urban forestry	• Promote in urban/semi urban areas in coordination with CFUG, local government, private sector and civil society	• Promote in urban/semi urban areas in coordination with, CFUG, local government, private sector and civil society	• Promote in urban/semi urban areas coordination with CFUG, local government, private sector and civil society	• Promote in urban/semi urban areas coordination with CFUG, local government, private sector and civil society in growing towns and tourist centres
vii. Buffer zone management	• Strengthen existing buffer zone forestry institutions • Declare buffer zones in remaining national parks and reserves			
viii. Conservati	• Develop comprehensive CA act and regulations			

on areas	Consolidate and strengthen the local institutions and handover the management to local institution			
ix. Protected forests	Develop legal instruments and strengthen management system and institutions			
b. Private forest management	- Simplify regulatory procedures - Develop and practice incentive mechanism to promote Private Forestry			
i. Private forestry	- Promote private forestry in less productive or marginal farmlands - Support both farm-forestry as well as Agro-forestry	Promote agro-forestry in existing privately owned farmlands	- Promote private forestry in less productive or marginal and/or abandoned farmlands - Promote agro-forestry in existing privately-owned farmlands	- Promote private forestry in less productive or marginal and/or abandoned farmlands - Promote agroforestry in existing privately-owned farmlands
ii. Institutional leasehold forestry	- Identify and delineate potential area for Institutional leasehold forestry - Facilitate institutional leasehold forestry in delineated areas		- Identify and delineate potential area for Institutional leasehold forestry - Facilitate Institutional leasehold forestry in delineated areas	- Identify and delineate potential area for Institutional leasehold forestry for cultivation of MAPs/NTFPs, ecotourism and conservation - Facilitate institutional leasehold forestry in delineated areas
iii. Cultivation of	Develop and promote suitable models for MAPs/NTFPs farming for both small			

MAPs/NTF Ps on private land	- and big farmers considering economy of scale • Provide necessary support for value addition			
c. Government-managed forest	• Identify, delineate and bring under sustainable management			
	• Intensify sustainable management of forest to increase the supply of forest products and income/employment	• Conserve Chure landscapes through integrated soil and watershed management	• Intensify sustainable management of forests to increase the sustained supply of forest products and income/employment	• Intensify sustainable management of accessible forests and pastureland • Practise conservation, management and farming (including wildlife) of high value MAPs and other NTFPs • Conserve biodiversity and watersheds and promote eco-tourism
B. Managing Ecosystems & Conserving Biodiversity				
• Manage habitat, increase and maintain stable population of key species • Conserve threatened species of both flora and fauna <i>in-situ</i> and <i>ex-situ</i> • Develop an equitable benefit-sharing mechanism between various PAs (considering all types of income accruing from the PA system)				
a. National Park and Wildlife Reserve Management	• Manage habitat considering the requirements of the major species • Conserve and maintain ecosystem integrity • Maintain meta populations of key species			
b. Plant Resources Conservation	• Develop technology for the <i>in-situ</i> and <i>ex-situ</i> conservation of floral genetic resources for all physiographic regions • Publish all volumes of the Flora of Nepal			

i. Botanical gardens	• Establish and maintain botanical gardens representing all major ecosystems of the region			
ii. Herbariums	• Document and update herbarium records periodically			
iii. Floriculture	• Promote and support commercial floriculture			
iv.	• Conserve genetic resources of important tree species of all regions, • Prepare tree species conservation plan • Establish seed orchard/seed collection stands			
c. Zoo Management	• Maintain the existing zoo and establish zoos in representative areas of the country			
C. Responding to Climate Change				
a. Strengthening people's climate resilience	• Develop site-specific and need-based climate-resilient technologies and support their adaptation • Promote ecosystem-based and community-based adaptation to climate change			
b. Climate-proofing forests and ecosystems	• Assess the impact and vulnerability due to climate change and implement the recommendations	• Develop site-specific and need-based climate-resilient technologies and support their adaptation	• Develop site-specific and need-based climate-resilient technologies and support their adaptation	• Develop site-specific and need-based climate-resilient technologies and support their adaptation
c. Mitigating climate change through REDD+	• Develop ground rules/regulations for accessing benefits from REDD+ mechanism • Combat climate change through REDD+ • Prepare and implement the REDD+ strategy • Pilot the REDD+ payment mechanism at appropriate scale in line with the REDD+ strategy • Strengthen the REDD+ monitoring , measurement, reporting and verification system			
D. Managing Watersheds				
a. Land Use Planning	• Implement the national land use policy			
b. Integrated watershed management	• Promote land reclamation and river	• Delineate critical watersheds/s	• Delineate critical watersheds/sub-watersheds and	• Delineate critical basins and

	bank stabilisation	ub-watersheds and implement integrated watershed management	implement integrated watershed management at sub-basin level	watersheds and implement integrated watershed management
E. Promoting Enterprise and Economic Development				
• Develop supportive policy instruments and environment for investment • Carry out a study to ascertain the status of all forest-based enterprises in the country and develop support mechanism for their upgrading and sustainability • Assist in developing public-private-community partnerships • Design and regularly update a forest product-related market information system				
a. Wood-based enterprise and industry development	• Promote sustained supply of raw materials • Support importation of new/advance technologies • Facilitate foreign direct investment • Support enhancing of quality of products	• Support green micro-enterprises where environment ally feasible	• Ensure sustained supply of raw materials • Support importation of new/advance technologies • Facilitate foreign direct investment • Support enhancing of quality of products	• Ensure sustained supply of raw materials • Support importation of new/advance technologies • Facilitate foreign direct investment • Support enhancing of quality of forest products
b. MAPs/NTFP enterprise development	• Ensure sustained supply of raw materials • Support importation of new/advance technologies • Facilitate	• Support green micro-enterprises where environment ally feasible	• Ensure sustained supply of raw materials • Support importation of new/advance technologies • Facilitate foreign direct investment	• Ensure sustained supply of raw materials • Support importation of new/advance technologies • Facilitate

	foreign direct investment			foreign direct investment
c. Eco-tourism development	Promote eco-tourism in suitable areas (in and outside PAs)			

F. Enhancing Capacities, Institutions and Partnerships

- Provide required and necessary training, mentoring, study tours and exposures during pre-job and on-the-job to improve capacity of existing human resources
- Coordinate with academic institutions and other organisations to improve curricula to address the current needs of the forestry sector and update recruitment process
- Equip institutions with all necessary tools and equipment
- Reform institutions to make them more effective and efficient, and forge coordination and partnership among relevant institutions to harness synergy

G. Managing and Using Forestry Sector Information

- Carry out periodic forest resource assessment
- Undertake need-based research and disseminate their results
- Establish and operationalize Integrated Forest Information System
- Make forestry-related information publicly available

ANNEX 3: FORESTRY SECTOR STRATEGY MONITORING FRAMEWORK

Description of summary	Indicators	Means of verification	Frequency	Risk and key assumptions
Vision: Sustainable management of forest ecosystems, biodiversity and watersheds for national prosperity				
5.1 GOAL Forest, biodiversity, plants resources, wildlife, watersheds and other ecosystems are protected, sustainably managed and made climate resilient through an inclusive, decentralised, competitive and well-governed forestry sector providing equitable employment, incomes and livelihoods opportunities	% of forest area in the country % of forest area sustainably managed Quantity of forest products produced and % of export % of self-sufficiency of wood products from domestic production % of GDP contribution from Forestry Sector % change in tourism income from protected areas % of forest sector contribution to household income % of job creation from forestry sector % of protected area system coverage % of forest sector revenue generated annually Amount of carbon stock in forest and in wood product use Area under watershed management	Forest Resource Assessment Report Annual Trade Reports from Trade Promotion Centre and Ministry of Finance Forest database (MIS) and reports from MFSC and Departments CBS reports GDP study DFSPs Survey Studies and Reports	5 year Annually Annually Biannually Biannually	Enabling policy environment Stable political environment and functioning rule of law. Adequacy, predictability, and stability of forest agency budgets and organisational resources
Outcome 1: Increased productivity of forests and sustained supply of products and services Objectives:	Deforestation rate/ Area under forests Area under sustainable management by physiographic	Forest Resource Assessment	5 Year	Collective understanding, readiness and

- Intensify sustainable forest management and increase forest productivity - Expand forests, trees and NTFP/MAPs cultivation in and outside forest areas - Promote community-based forestry and ensure their use rights and enhance their capacity in forest management, conservation and utilisation - Ensure transparent, predictable and stable supply of forest products and services - Improve harvesting technology of forest products and promote green products - Develop tools and techniques to reduce the incidence and damage incurred by forest fire, insects and disease - Strengthen forest planning through improved research and forestry information	region and management regime Area under trees and NTFP/MAP cultivation in and outside forests Per hectare Mean Annual Increment of wood by physiographic region and management regime Quantity of NTFP/MAPs traded and revenue generated per year Percent of area under community-based forest management Per year timber harvested and supplied in the market	Report Departments MIS and annual reports Survey Reports Inventory reports District Forest Management Plans Forestry sector's forest fire incidence reports and other reports	Annually Biannually Biannually Annually	support of government, communities, media and other stakeholders. Enabling operational environment and fiscal policies
Outcome 2: Improved biodiversity, watersheds and ecosystem services Objectives: - Improve habitat management of major flora and fauna by restoring, conserving and managing protected area networks, corridors, connectivity, bottlenecks and other landscapes. - Promote the scientific, socio-economic, recreational and cultural values by adopting people-centred approaches and optimally managing diversity of flora, fauna, genetic resources and ecosystems	No of ecosystem conserved under protected area network Population of mega-wild species No of incidence of human-wildlife conflict No of cases of illegal trade and poaching Area of critical watersheds managed Per unit land productivity in intervened watersheds Soil erosion rates in different	Wild animal census reports DNPWC and DoF reports National Disaster Reports Survey/Studies reports Watershed Management and River Basin Plans DSCWM	Biannually Annually Annually Biannually Biannually annually	do International communities recognise and support to biodiversity conservation

- Control wildlife poaching and illegal trade of wild fauna and flora, and reduce human-wildlife conflict - Conserve biodiversity (flora and fauna) hot spots and environmentally fragile ecosystems/landscapes of Chure and other areas - Enhance safety, food security and aesthetic values of landscapes by improving and restoring land, its productivity - Promote integrated watershed management by strengthening up-stream and down-stream linkages - Promote research and studies on ecology, habitat and genetic resources (plant and animal species)	land use Annual sedimentation level in river beds under bridges Number of new plants identified and stored in herbariums Number of Flora of Nepal volume published Number of Zoos established Number of research/studies permits by different Departments Number of wildlife species under commercial farming Number of landscapes established and managed Number of accredited labs Number of botanical gardens established	Reports DPR Reports Flora of Nepal Zoo report Annual report of concerned departments Permit record MFSC report DFRS report DFRS report		
Outcome 3: Developed a devolved, competitive, accountable and inclusive forest sector organisations and institutions Objectives: - Reform and create an enabling policy and operational environment - Make the forestry sector institutions competitive, decentralised, people-centric and accountable - Define role and functions of state forestry institutions Increase participation, competency, and leadership of women, indigenous, other socially excluded groups and poor	Clarity, consistency, and coherence of policies, laws, regulations, and directives Existence and use of internal accountability mechanisms with measures of performance standards and performance-based rewards, and penalties Incentives for agency staff to enforce forest laws, including investigation and prosecution Forestry Council established and fully functional. National Forestry Forum established and effective Appropriate financing mechanism established	Job descriptions Study report Perception/Governance survey reports Forest act, regulations and directives Council report Meeting minutes of the Forum Fund flow through such mechanism	Biannually Biannually 1 time Annually Annually Annually Biannually Annually	Positive mind-set, attitude and trust among stakeholders Extent to which government engages with, creates space for, and supports the participation of civil society, indigenous peoples, and forest-dependent communities in forest-

- Strengthen the governance and capability of forestry organisations at all levels - Enhance partnership, collaboration and coordination among sectoral agencies, academic institutions, civil society and private sector - Ensure transparency of quality information at various levels - Establish appropriate mechanism for financing forestry sector development	Adaptive management planning Public confidence on forest agencies (in policy, business, services and governance) Security of the use rights to forest resources Percentage of representation and leadership of women, indigenous, other socially excluded groups and poor Public availability of data, plans, directives, circulars, budgets and other information Accountability and responsiveness of non-forestry institutions towards forestry sector development Number and functioning of multi-stakeholder forums at different levels Establishment of appropriate mechanism and disbursement of fund to different stakeholders Establishment and performance of forestry council	MIS and annual reports of Departments Departmental websites Audit reports Regulations and guidelines related to financing entity Annual budget allocation of MFSC		related processes and decision making
Outcome 4: <i>Established a climate resilient society and forest ecosystem</i> Objectives: - Enhance adaptive capacity of local communities and forest ecosystems - Promote community based resilient and mitigation measures - Establish forest carbon trade or fund based mechanisms by linking with forest, biodiversity and watershed conservation and management - Develop and strengthen	Change in Forest carbon stock Number of people affected from climate induced disaster Area of alien species affected forests Carbon stock in forest Income received from forest carbon trade Number of local projects with PES system Amount of wood products used in construction and in furniture Percentage use of renewable energy	FRA report National Disaster Report from MoH Study reports Forest Carbon Survey report National carbon trade (REDD+) reports PES related reports Sample survey	5 years Annually Biannually Biannually Biannually Annually Biannually Annually Annually	Coordination among different agencies and sectors Certainty of REDD financing and disbursement to real beneficiaries

mechanisms for payment of ecosystem services Encourage low carbon development by promoting timber and renewable energy	Forest carbon trade/payment mechanism in operation Forest area protected through implementation of adaptation plan. Number of Community/Ecosystem based adaptation program implemented and area covered	WECS and AEPC reports REDD IC report Reports Report		
Outcome 5: Improved livelihoods and contribution to national economic development Objectives: - Increase GDP contribution from forestry sector - Diversify and optimise the utilisation of forest products and services - Promote competitiveness in supply and value addition of forest products and services - Promote community based, private forestry, and enterprise development for livelihoods improvement and wealth creation for poor - Emphasise to create and expand decent forest base jobs and income through backward and forward linkages Increase roles and investment of private sector in farming forestry crops (including NTFP/MAPs), forestry operations (including service delivery), forest based enterprises, and eco-tourism	GDP contribution from forestry sector Volume of forest products produced per year Type and quantity of wood and non-wood products processed within the country Quantity and value of imported wood products per year Quantity and value of wood and NTFP/MAP certified and other products exported per year Number of poor and disadvantaged groups getting benefits from CBF Number of people employed in productive jobs in forestry sector Amount of investment by private sector in forest industry	GDP study report DoF report Annual Trade Reports from Trade Promotion Centre and Ministry of Finance Survey and study reports Department reports CBS /FNCCI reports	Annually Annually Annually Annually Annually	

ANNEX 4: KEY FORESTRY SECTOR ‘TOOLS’ INCLUDING LEGISLATION, REGULATIONS, GUIDELINES, DIRECTIVES AND OTHERS

Policy or legal tools	Major Provisions
Buffer Zone Management Guidelines 1999	• Procedure of managing the buffer zones of Nepal
Collaborative Forest Management Directives 2011	• Procedure to allocate forests for collaborative forest management
Community Forestry Directives 1995	• Requirement for inclusion of growing stock and annual allowable cut in the operational plans of community forests
Decentralisation Act 1982	• Authority to District and Village Development Committees; • Promotion of users’ committees
Domestic Elephant Management Policy 2003	• Provision of managing domestic elephants in Nepal
Environment Protection Act 1996	• Provision of Environmental Impact Assessment and Initial Environmental Examination
Environment Protection Regulations 1997	• Provision of EIA and IEE in the forestry sector of Nepal
Forest Act 1993	• Categorisation of forests based on land ownership and forest tenure; • CFUG empowered to manage forests; • Orientation towards people-centric forestry • Extent of quasi-judicial authority of forestry officials reduced
Forest Carbon Measurement Guideline 2011	• Procedure to measure forest carbon in Nepal
Forest Policy 2015	• Overarching sector policy
Forest Regulations	• Forest Act implementation made easier • Forest tenure and governance related to community, leasehold and religious forests clarified • Forest products sales and distribution clarified
Formation and Operational Directives on District Forest Sector Coordination Committee 2011	• Procedure for the formation and operation of inclusive DFCC in Nepal
Gender, Equity and Social Inclusion (GESI) Strategy 2008	• Strategy to include gender and various social groups on Nepal in decision making in the forestry sector of Nepal
Guidelines for Community Forestry	• Detailed procedure for community forest hand-

Development Programme 1995	- over, harvesting rules, fund mobilisation and expenditure • Provision of livelihood promotion through community forestry
Guidelines for Inventory of Community Forests 2004	• Provision of taking forest inventory in the community forests of Nepal
Guidelines on Leasehold Forestry 2008	• Procedure to allocate leasehold forests in Nepal
Herbs and NTFP Development Policy 2003	• Provision of conserving, managing and utilising NTFPs in Nepal
Human Resource Development Strategy of MFSC 2004	• Strategy to better manage the human resources of the Ministry of Forests and Soil Conservation
Leasehold Forest Policy 2002	• Provision of leasing part of national forest to private entities for commercial purposes
Local Self Governance Regulations 2000	• Detailed procedure for the implementation of Local Self Governance Act
Master Plan for the Forestry Sector 1989	• Initiation of programme approach in the forestry sector • Provision of users' committees and community forest Management
National Conservation Strategy	• Conservation Strategy of Nepal
National Parks and Wildlife Conservation Act 1973	• Categorisation of protected areas; • Management of protected areas • Designation of buffer zones
National Wetland Policy 2012	• Policy to conserve and utilise the wetlands of Nepal
Nepal Biodiversity Strategy and Action Plan 2014	• Strategies to conserve biodiversity of Nepal • Plan to implementation of various components of biodiversity in Nepal
Nepal Environment and Policy Action Plan 1993	• Policies related to environmental sectors developed
Nepal Trust for Nature Conservation Act 1982	• Management of conservation area
Policy to hand over Protected Area Management to NGOs and others 2003	• Provision of assigning management of PAs to NGOs and others
Poverty Reduction Strategy 2002	• Strategy to reduce poverty in Nepal
President Chure Conservation Programme Directives 2011	• Procedure to implementation the President's Chure Conservation Programme
Private Forest Nationalisation Act 1957	Nationalisation of large forest area under landlords
Procedure for handing over leasehold for commercial purposes and to poor families 2011	• Further procedure to lease part of national forests for livelihoods and commercial purposes

Rhino Conservation Action Plan 2007	• Plan to expand the number of rhinoceroses in Nepal
Snow Leopard Conservation Plan 2004	• Plan to conserve the snow leopards of Nepal
Soil and Watershed Conservation Act 1982	• Management of protected watersheds
Soil Conservation and Watershed Management Working Guidelines 2001	• Procedure for implementing soil conservation and watershed management in Nepal
Strategic Plan on Sacred Himal Landscape 2006	• Plan to conserve the sacred Himal landscape of Nepal
Strategic Plan on Tarai Arc Landscape 2003	• Strategies to conserve the landscape of Tarai from the Mahakali River to the Bagmati River
Tiger Conservation Plan 2008	• Plan to expand the tiger population in Nepal
Water Resource Strategy, 2002	• Concept of river basin approach to water management
Wildlife Damage Relief Guideline 2015	• Procedure to provide relief to the damage done by wildlife in Nepal
Working Policy on Wildlife Domestication, Reproduction and Research 2003	• Promoting private sector in domestication and research of wildlife in Nepal

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