National Agroforestry Strategy and Action Plan

(January 2026-December 2035)

Royal Government of Bhutan
Ministry of Energy and Natural Resources
Department of Forests and Park Services

Thimphu: Bhutan

National Agroforestry Strategy and Action Plan

(January 2026-December 2035)

Royal Government of Bhutan
Ministry of Energy and Natural Resources
Department of Forests and Park Services

Thimphu: Bhutan

Technical guidance

Karma Tenzin, Director, Department of Forests and Park Services, Ministry of Energy and Natural Resources

Sonam Tobgay, Chief Forestry Officer, Forest Resources Planning and Management Division, DoFPS, MoENR

Himlal Baral, PhD, Senior Scientist, Climate Change, Energy and Low Carbon Development, CIFOR-ICRAF

Department of Forests and Park Services
Ministry of Energy and Natural Resources
Thimphu Bhutan
Post Box # 1345
Telephone # +975-2-334458/ 322487
Website: https://www.dofps.gov.bt/

Citation

DoFPS, 2025. National Agroforestry Strategy and Action Plan, Department of Forests and Park Services, Ministry of Energy and Natural Resources, Royal Government of Bhutan

Published by: DoFPS, MoENR

ISBN: 978-99980-725-6-5

MINISTER

དཔལ་ལྡན་འབྲུག་གཞུང་།
ནུས་ཤུགས་དང་རང་བཞིན་ཐོན་སྐྱེད་ཚན་ཁག།
Ministry of Energy and Natural Resources
Royal Government of Bhutan
Thimphu

BHUTAN
Believe

MESSAGE

Agroforestry is central to the future of Bhutan's land, forests, and people. By integrating trees with crops and livestock, it offers a nature-based solution that safeguards our environment, enriches soil and water, and strengthens food security and rural incomes. This strategy is more than a plan; it is a pathway to a greener, safer, and more resilient Bhutan.

It reflects our national commitment to sustainable development and resonates with global aspirations to reduce poverty, combat climate change, and promote inclusive growth. Agroforestry will empower rural communities, especially youth and women, to build stronger livelihoods and lead more secure, fulfilling lives.

At its heart, this strategy is about people, ensuring that every Bhutanese, from farmers to future generations, can benefit from healthier landscapes, stronger communities, and opportunities that honor both tradition and innovation.

This framework has been shaped through the dedicated efforts of the Strategy Formulation Taskforce, whose expertise and collaboration ensured that national priorities are harmonized with practical, sector-driven insights. I extend my heartfelt appreciation to each member for their commitment and vision.

I now call upon all stakeholders, communities, partners, and friends within Bhutan and beyond to unite in purpose and translate this vision into action. With enabling policies, capacity-building, and inclusive investments, the Ministry of Energy and Natural Resources stands ready to support this journey. Together, let us protect nature, grow our economy, and shape a sustainable future through agroforestry.

Tashi Delek!

(Gem Tshering)

དཔལ་ལྡན་འབྲུག་གཞུང་།
ནུས་ཤུགས་དང་རང་བཞིན་ཐོན་སྐྱེད་ལྷན་ཁག།
Ministry of Energy and Natural Resources
Royal Government of Bhutan
Thimphu

BHUTAN
Believe

SECRETARY

FOREWARD

Bhutan's path to development has always been guided by a balance of protecting our environment, advancing our economy, and ensuring the well-being of our people. Rooted in the philosophy of Gross National Happiness, agroforestry offers a practical and inclusive way to achieve this harmony. By weaving trees into our farming systems alongside crops and livestock, we can create landscapes that are resilient, livelihoods that are secure, and communities that thrive.

Yet, we face urgent challenges. Land degradation, shifting climate conditions, and growing pressures on rural communities demand innovative responses. Agroforestry, shaped by Bhutan's unique terrain and rich cultural heritage, is not just possible; it is essential. It can restore ecosystems, improve food and nutrition, generate employment, and reaffirm the central role of forests in our daily lives.

Agroforestry may not solve every challenge alone, but it has been carefully designed to complement Bhutan's wider development goals. Rather than slowing progress, it strengthens resilience, improves food security, and creates opportunities for inclusive growth. By aligning with infrastructure development, youth aspirations, and climate adaptation, agroforestry stands as a supportive pillar, helping the nation move forward smoothly while enriching our shared vision of a sustainable future.

This Strategy and Action Plan was shaped through the voices of farmers, youth, researchers, officials, and local leaders, ensuring it reflects real conditions, community priorities, and national aspirations while fostering shared ownership. The Royal Government of Bhutan is committed to bringing this plan to life by strengthening partnerships, building capacity, and promoting inclusive investments. But lasting success depends on collective action from communities, partners, and friends within Bhutan and beyond. Together, we can grow strong communities, restore healthy landscapes, and secure a greener future for generations to come.

Tashi Delek!

(Karma Tshering)

དཔལ་ལྡན་འབྲུག་གཞུང་།
ནུས་ཤུགས་དང་རང་བཞིན་ཐོན་སྐྱེད་ལྷན་ཁག།
ནགས་ཚལ་དང་གླིང་ཀ་ཞབས་ཏོག་ལས་ཁུངས།
ROYAL GOVERNMENT OF BHUTAN
MINISTRY OF ENERGY & NATURAL RESOURCES
DEPARTMENT OF FORESTS & PARK SERVICES
THIMPHU

DIRECTOR

PREFACE

Bhutan's rich natural heritage, steeped in a deep reverence for harmony between people and the environment, has long embraced practices that align with the spirit of agroforestry. This National Agroforestry Strategy and Action Plan has been conceived to build on that legacy, offering a focused, strategic direction to mainstream agroforestry as a pillar of sustainable land use, climate resilience, and rural prosperity.

This strategy is designed to address major challenges, including land degradation, limited income opportunities, and biodiversity loss across Bhutan's varied regions. Agroforestry offers a holistic solution by linking farming, livestock, and forestry practices to create productive landscapes that support both people's livelihoods and the health of the environment. This Strategy aligns seamlessly with Bhutan's national priorities, including the Gross National Happiness framework, the 13^{th} Five-Year Plan, and its commitments under the UNFCCC and other international environmental conventions. It contributes meaningfully to Bhutan's transition toward low-emission, climate-resilient development and food security.

A consultative approach has shaped this document, with active participation from farmers, community leaders, government agencies, civil society organizations, and development partners. Their insights and lived experiences have been fundamental in crafting a plan that is both grounded and forward-looking. Through this Strategy, the Royal Government of Bhutan reaffirms its commitment to sustainable land stewardship, enhanced rural livelihoods, and ecological integrity. It provides not only a roadmap for action but also a shared vision for all stakeholders working toward a greener, more resilient Bhutan.

I am profoundly grateful to the Strategy Formulation Taskforce for their tireless efforts and insightful contributions throughout the development of this Strategy. I am also thankful to **ICRAF/CIFOR**, Bogor, Indonesia, for their valuable insights, which helped strengthen and refine the Strategy. My special thanks go to **Bhutan for Life** for their financial support, without which this endeavor would not have been possible.

Tashi Delek!

(Karma Tenzin)

EXECUTIVE SUMMARY

Global Context of Agroforestry

Agroforestry has evolved from traditional land-use practices into a globally recognized solution for food security, environmental degradation, and climate resilience. Its formal emergence in the late 1970s, marked by the establishment of the International Centre for Research in Agroforestry (ICRAF), catalyzed scientific inquiry and innovation. Over the decades, agroforestry has proven its value in enhancing soil fertility, conserving biodiversity, and mitigating climate change. Today, it is a cornerstone of sustainable rural development, integrating modern technologies with indigenous knowledge to support carbon sequestration and diversified livelihoods.

Bhutan's Agroforestry Landscape

Bhutan's unique geography, ranging from subtropical lowlands to alpine highlands, supports diverse farming systems deeply intertwined with forest ecosystems. With 69.71% forest cover and only 7% arable land, Bhutan's agrarian economy remains vital, employing 41.7% of the population and contributing 14.96% to GDP. The country's constitutional mandate to maintain at least 60% forest cover reflects its commitment to environmental stewardship. Bhutan's integrated crop-livestock-forestry systems are culturally embedded and ecologically appropriate, supporting biodiversity, providing essential resources, and reinforcing the nation's status as carbon-negative.

Rationale for a National Strategy

Despite widespread informal adoption, agroforestry in Bhutan lacks a unified strategic framework. It is practiced across farms, home gardens, institutional lands, community forests, rangelands, degraded slopes, and urban spaces, encompassing **agri-horticultural**, **agri-silvicultural**, **silvo-pastoral**, and **agro-silvo-pastoral systems**. A national study found that 87% of farmers engage in agroforestry for household consumption and income, with additional benefits such as fodder, wood products, soil conservation, and wind protection. However, implementation remains fragmented, constrained by limited technical capacity, inadequate financial mechanisms, and insufficient research and data. The National Agroforestry Strategy and Action Plan (NASAP) 2025–2035 was developed to address these gaps and unlock agroforestry's full potential.

Strategic Vision and Alignment

NASAP 2025–2035 envisions agroforestry as a transformative pathway for sustainable land management, rural prosperity, and ecological resilience. It aligns with Bhutan's development philosophy of Gross National Happiness (GNH) and supports key national priorities, including the 13th Five-Year Plan, the Bhutan 21st Century Economic Roadmap, the National Forest Policy, the Agri-Food Sector Strategy, and the Climate Change Policy.

Internationally, it contributes to Bhutan's commitments under the UNFCCC and the Sustainable Development Goals by promoting multifunctional landscapes that integrate trees, crops, and livestock to enhance biodiversity, improve soil health, and increase carbon sequestration.

Scope, Mission, and Target Groups

The strategy aims to promote agroforestry across all agroecological zones to enhance food security, rural livelihoods, climate resilience, and biodiversity conservation. It targets farmers, entrepreneurs, cooperatives, and community groups, with a strong emphasis on women and youth. The mission is to institutionalize agroforestry as an integrated land-use system that delivers ecosystem services, strengthens food and nutrition security, and supports Bhutan's sustainability goals.

Strategic Objectives and Theory of Change

NASAP's objectives include promoting climate-smart agroforestry, preserving traditional systems, fostering entrepreneurship, strengthening food security, mobilizing sustainable financing, and advancing knowledge and conservation of biodiversity. Its theory of change positions agroforestry as a transformative system that addresses production, institutional, market, and financial challenges through climate-smart technologies, sustainable land management, research, value chain development, and policy reform. These interventions aim to build a resilient agroforestry sector that supports food security, rural incomes, and Bhutan's development goals.

Guiding Principles and Legal Framework

The National Agroforestry Strategy and Action Plan 2026–2035 is built on strong legal foundations that protect land tenure, tree ownership, farmers' rights, and environmental standards. It ensures that agroforestry practices are clearly aligned with national laws and policies, promoting fairness, sustainability, and accountability in implementation. At the same time, it creates supportive conditions for farmers and communities—opening pathways to market access, incentives, and fair mechanisms for resolving disputes—so that agroforestry can thrive as both an environmental and economic solution**.**

SWOT Analysis

The strategy is guided by principles of sustainability, equitable socio-economic development, cultural preservation, and climate adaptation. A SWOT analysis reveals strengths such as ecological compatibility for agroforestry integration and indigenous

knowledge, weaknesses including fragmented implementation and limited capacity, opportunities in climate finance and fallow land utilization, and threats from human-wildlife conflict and climate variability.

Strategic Framework and Implementation

NASAP outlines six strategic areas: strengthening policy and institutions, enhancing capacity, promoting climate-smart systems, improving livelihoods and food security, mobilizing financing, and establishing robust monitoring and evaluation. The strategy will be implemented over ten years with a projected budget of **Nu. 920 million,** equivalent to **USD 10 million**, integrated into local development plans and supported by a results-based monitoring framework to ensure adaptive management and accountability.

Inclusive Development and Future Outlook

NASAP 2026–2035 positions agroforestry as a catalyst for inclusive, climate-resilient development. By empowering women and youth, restoring degraded lands, and mobilizing investments, the strategy embeds agroforestry into Bhutan's rural development and conservation agenda. It maximizes contributions to food security, climate resilience, and sustainable livelihoods, reinforcing Bhutan's leadership in environmental stewardship and community empowerment.

ACRONYMS

BES	Bhutan Ecological Society
BFDA	Bhutan Food and Drug Authority
BFL	Bhutan for Life
CFMG	Community Forest Member Group
CIFOR	Center for International Forestry Research
CNR	College of Natural Resources
CSM	Cost Sharing Mechanism
CSO	Civil Society Organization
DAMC	Department of Agricultural Marketing and Cooperatives
DECC	Department of Environment and Climate Change
DoA	Department of Agriculture
DoL	Department of Livestock
DoFPS	Department of Forests and Park Services
FNS	Food and Nutritional Security
FYP	Five-Year Plan
GEF	Global Environment Facility
GovTech	Government Technology Agency
GNH	Gross National Happiness
LGs	Local Governments
MoENR	Ministry of Energy and Natural Resources
MoAL	Ministry of Agriculture and Livestock
MoH	Ministry of Health
MoIC	Ministry of Information and Communication
MoF	Ministry of Finance
MRV	Measurement, Reporting, and Verification
NACO	National Agroforestry Coordination Office
NALA	National Agroforestry Lead Agency
NASAP	National Agroforestry Strategy and Action Plan
NASC	National Agroforestry Steering Committee
NBC	National Biodiversity Centre
NBSAP	National Biodiversity Strategy and Action Plan
NFP	National Forest Policy
NGO	Non-Governmental Organizations
NPPC	National Plan Protection Center
NLCS	National Land Commission Secretariat
NWFP	Non-Wood Forest Products
PPP	Public-Private Partnerships

SRFL	State Reserved Forest Land
SFT	Strategy Formulation Taskforce
UNFCCC	United Nations Framework Convention on Climate Change
UWIFoRT	Ugyen Wangchuk Institute for Forestry Research and Training Institute

CONTENTS

LIST OF FIGURES

LIST OF TABLES

I. Guiding Principles

CHAPTER I: GUIDING PRINCIPLES

1.1. Introduction

1.1.1 Evolution of Agroforestry

Agroforestry has been practiced traditionally in the global south for ages. However, agroforestry, as a formal scientific discipline, emerged in the late 1970s in response to global concerns about food security, environmental degradation, and deforestation. The International Council for Research in Agroforestry (ICRAF), founded in 1977, played a pivotal role in advancing agroforestry research and development. By the 1980s, agroforestry was recognized as a viable solution for improving soil fertility, enhancing biodiversity, and mitigating climate change impacts. Over the decades, research institutions and governments worldwide have integrated agroforestry into rural development programs, reinforcing its role in sustainable agriculture and forestry. Today, agroforestry continues to evolve, incorporating modern innovations to address global challenges such as carbon sequestration, climate resilience, and sustainable livelihoods.

1.1.2 Understanding Agroforestry

Agroforestry exists in various forms across different countries and regions, serving diverse purposes based on social, environmental, and economic needs. While definitions may vary, the core principle remains the same. ***Agroforestry is a collective term for land-use systems and practices in which woody perennials are deliberately integrated with crops and/or livestock on the same land management unit*** (NFP, 2011). These systems involve the intentional and planned combination of trees with other agricultural components, either simultaneously in various spatial arrangements or sequentially over time. This integration can be short-term, within a single growing season, or long-term, extending over several years. In all cases, agroforestry systems are actively managed and dynamic, either cyclical or progressive in nature.

Well-developed agroforestry systems are based on a holistic understanding of the landscape, considering biophysical conditions, economic viability, socio-cultural dimensions, and legal frameworks to promote sustainable and adaptable land-use practices (Hocking & Wangdi, 2000). These systems are practiced across diverse landscapes—from small to large landholdings, including farms, rangelands, urban and forest areas, and can be adapted to suit varying socio-cultural contexts and agroecological zones.

1.1.3 Benefits and Potentials of Agroforestry

Agroforestry has multifunctional benefits that align closely with environmental, economic, and social development goals. Environmentally, agroforestry enhances biodiversity, improves soil health, reduces erosion, increases carbon sequestration, and contributes to climate resilience. Economically, it diversifies farm outputs and income sources for rural communities while optimizing land use efficiency. Socially, agroforestry practices preserve traditional knowledge, strengthen national food and nutrition security, and support the livelihoods of smallholder farmers.

Agroforestry can maintain or enhance yields while mitigating carbon emissions, adapting to the increasingly frequent droughts and floods that climate change brings, restoring degraded soils, and maximizing the overall productivity of landscapes for humanity and nature alike (CIRAD, 2019). As per the case study conducted on Agroforestry Systems and Practices in Bhutan, 87% of the respondents stated that the primary reason for practicing agroforestry systems was to produce diverse crops for household consumption and cash income generation, with added fodder for livestock and wood product supplies for the household. The other reasons for practicing agroforestry are for soil conservation and as a windbreak (BES, 2021).

1.1.4 Agroforestry in the Context of Bhutan

Bhutan is a mountainous country, with diverse agroecological zones ranging from subtropical lowlands (100 masl) to alpine highlands (7700 masl), supporting a wide range of farming systems**.** It is an agrarian country, with over 41.7 % of the population employed in the agriculture sector (LFS, 2024). Forest cover of the country stands at 69.71% (NFI, 2023), with arable land of 7% and registered agricultural land accounting for 4.41% of the total land area (NLUZ, 2023). The three primary sectors (agriculture, livestock, and forestry) contribute 14.96% of the country's total GDP (NAS, 2024). Committed to environmental sustainability, Bhutan is the world's only carbon-negative country and has set ambitious conservation targets, including maintaining at least 60% forest cover for all times to come, as enshrined in the Constitution of Bhutan (2008).

Bhutan is subsistence-based, characterized by integrated crop-livestock-forestry practices that align closely with the country's rugged mountainous terrain and ecological diversity. The country's forest ecosystems are home to rich biodiversity, with 5114 fauna species, 5369 flora species, 55 species of agriculture plants and 8 livestock species (NBS, 2017). With high forest area coverage in the country, forests are intricately connected to the livelihoods and cultural values of Bhutanese communities, providing fuelwood, fodder, timber, and non-wood forest products (NWFP). The close linkage between forests and farming in rural areas makes agroforestry a practical and sustainable land-use system for Bhutan.

Farmers in Bhutan have different reasons for practicing agroforestry, and they can be categorized into several groups based on land use patterns, production goals, and socio-economic status. Most agroforestry practitioners fall under the category of smallholder subsistence farmers. These farmers typically operate on small plots of land, often less than one acre, and depend on mixed farming systems that include a kitchen garden, a few fruit trees in the homestead, and one or two livestock such as cows, horses, goats, or poultry. Large-scale farmers own more than one acre of land holdings (CSM Guidelines, 2025). These farmers manage a more diversified system with orchards, vegetables, poultry, piggery, and occasionally fishponds or dairy animals for commercial purposes. Pastoral and nomadic farmers are transhumant and depend on rearing animals and trade. In the alpine zones, they rear yaks, while in temperate areas, cattle are more common. These highlanders migrate with their animals to lower elevations in the winter season for better pasture and water and

migrate back to the higher areas in the summer. In these highland zones, agroforestry is linked to grazing lands, shrub-tree integration, and the sustainable harvesting of alpine medicinal plants and other non-wood forest products, some of which are exported or used in Bhutan's traditional medicine system. Agroforestry systems play a vital role in mountain and smallholder farming by enhancing soil fertility, preventing erosion, conserving water, and increasing biodiversity, making them well-suited to fragile, sloped landscapes. They provide multiple benefits such as food, fodder, fuelwood, timber, and high-value medicinal products, thereby diversifying income and improving household livelihood. Agroforestry systems reduce input costs, support livestock systems, and improve nutrition, while also contributing to climate change mitigation. Rooted in traditional knowledge, Agroforestry systems are low-cost, climate-smart solutions that enhance livelihoods and ecological sustainability in smallholder and mountain farming systems.

The two other rural land users are absentee landowners, people who inherited land from their parents but have moved to urban areas for employment and better opportunities. Commercial orchard owners who invest in land for the sole purpose of planting fruit orchards. They typically do not reside on the farm but employ caretakers or neighboring farmers to manage their orchards. Farmers and youth groups associations are those engaged in commercial farming, often on leased private or government land. Across all these farmer groups, the success of agroforestry practices depends on resilience and climate adaptation, environmental sustainability and conservation, and the integration of traditional knowledge with innovative modern technologies and practices.

1.1.4.1 Classification of Agroforestry Systems in Bhutan

Agroforestry systems in Bhutan are traditionally structured around the integration of crops, trees, and livestock, depending on the diverse agro-ecological zones and farming typologies. These systems can be broadly classified into **Agri-horticultural**, **Agri-silvicultural, Silvo-pastoral**, and **AgroSilvo-pastoral systems**. In the **Agri-horticultural system**, fruit trees such as citrus, guava, or apples are intercropped with vegetables to optimize land use and enhance household nutrition and income. An agri-silvicultural **system** integrates crops with woody perennials for timber and fuelwood trees, including species like bamboo and willow. The **Silvo-pastoral system** integrates trees with pastures/fodder grass. The **agrosilvo-pastoral system** combines food crops, tree crops, and grazing for livestock in a complementary manner. These traditional systems not only enhance productivity and biodiversity but also contribute to soil and water conservation, carbon sequestration, and climate resilience.

Table 1: Agroforestry typology in Bhutan (after Hocking and Wangdi, 2000)

Type	Traditional land use typology	Agroecological zone	Tree spatial arrangement	Main tree species	Main intercrop
Agri-silviculture systems					
Scattered trees in paddy fields/dry land fields	Chuzhing (paddy/wetland field) or Kamzhing (dryland)	Subtropical to cold temperate	Scattered along bunds, field boundaries	Many	Rice (paddy field), food crops/ oilseed(dryland)
Hedgerows and boundary trees	Chuzhing and Kamzhing	Sub-tropical to cold temperate	Planted in intervals, may be with electric fencing.	Many	All food crops
Contour hedgerows	Kamzhing	Sub-tropical to warm temperate	Along the contour	Many depend on regions	Grass as fodder
Long-rotation fallows (Pangzhing)	Pangzhing (fallow)	Temperate (Pangzhing)	Mostly thicket, often abandoned and full of trees	Many, depending on the region	Interval: food crops depending on altitude
Horti-silviculture systems					
Orchards or plantations	Kamzhing	Subtropical/cold temperate	Spaced at a specific interval	Fruit trees. grapes, kiwi, coffee, agarwood, tea	Fodder (grasses) for grazing/ vegetables
Cardamom plantations	Kamzhing	Sub-tropical / warm temperate	Closed canopy	Many: alnus, etc.	Cardamom as an intercrop
Homestead	Khemsa (Kamzhing)	Subtropical to warm, cold temperate	Scattered	Many	Vegetables
Timber plantation	Kamzhing. Private forest.	Sub-tropical	Closed canopy	Timber: teak, acacia	Grass for grazing/ vegetables
Bamboo plantation	Kamzhing. Private + State.	Sub-tropical	Scattered/Closed canopy	Bamboo	Grass and vegetables
Silvi-pastoral systems					
Fodder trees	Kamzhing	Subtropical to cold temperate	Scattered around the fields	Ficus, willow	All food crops
Trees in pasture	Tsamdro (pasture)	Subtropical to temperate	Scattered, sometimes in clusters	Many, depending on the region	Fodder (grasses) for grazing
Non-wood forest product production	Community forestry	Subtropical to temperate	Closed canopy or clustered	Many	Non-timber forest products

1.2. Rationale of the National Agroforestry Strategy and Action Plan

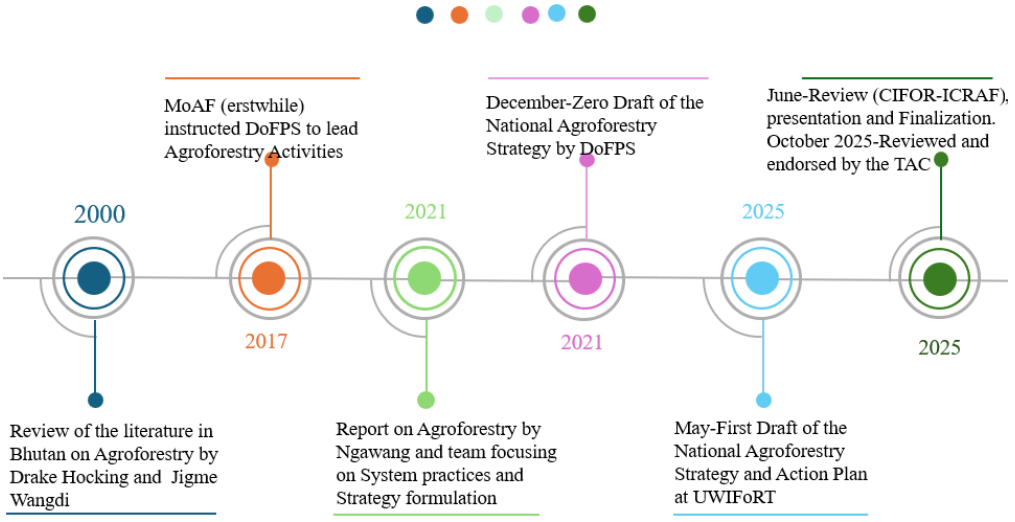
Agroforestry is crucial for Bhutan, given its unique environmental, socio-economic, and policy landscape. With only 4.41% of land registered as agricultural, much of it on steep, fragile terrain, traditional farming methods alone are insufficient to support sustainable food production and rural livelihoods (NLUZ, 2023). Agroforestry emerges as a viable solution by integrating trees, crops, and livestock, maximizing land productivity while ensuring long-term ecological stability. Additionally, Bhutan faces growing challenges of soil erosion, deforestation, and land degradation, which threaten both agriculture and biodiversity. A structured strategy will help restore degraded landscapes, enhance soil fertility, and improve water retention, reinforcing Bhutan's commitment to environmental conservation and sustainable land management.

Beyond ecological benefits, agroforestry is central to enhancing rural resilience and addressing food security, climate adaptation, and livelihood diversification. Bhutan's farmers struggle with low yields, unpredictable climate patterns, human-wildlife conflict, and restricted market access. Agroforestry provides multiple streams of income, from timber, fodder, and fuelwood to fruit crops and medicinal plants, reducing dependence on single-crop farming and strengthening economic stability. Furthermore, as climate change intensifies risks such as floods, glacial lake outbursts, and erratic rainfall, agroforestry acts as a buffer against extreme weather, improving ecosystem services and reducing vulnerability.

Developing a National Agroforestry Strategy and Action Plan (NASAP) is essential to provide clear direction and coordination for agroforestry as a key component of sustainable land use. Currently, efforts to promote agroforestry are fragmented and lack a unified framework, which limits their effectiveness. The NASAP will serve as a guiding framework to align agroforestry development with Bhutan's broader policy goals—such as the Gross National Happiness (GNH) framework, the 13th Five-Year Plan, the National Forest Policy, the Agri-Food Sector Strategy, Climate change policy, Sustainable land management strategy, Disaster management policy and Bhutan's climate change commitments while clarifying institutional roles and facilitating inter-sectoral collaboration. It will set priorities, define implementation plans, and establish mechanisms for monitoring, evaluation, and accountability. Additionally, the strategy will strengthen research, extension services, and capacity building, and serve as a platform to attract investments and donor support.

Ultimately, the strategy will ensure that agroforestry is systematically integrated into Bhutan's rural development and environmental conservation agenda, scaling its adoption thereby enhancing its contribution to livelihoods, food security, and climate resilience.

1.2.1 Strategy Formulation Process



At the national level, agroforestry has the potential to contribute to two of the GNH domains in enhancing Ecological Diversity and Resilience and Living Standards through enhanced responsibility towards the environment and income generation. Further, agroforestry strongly contributes to Bhutan 21st century Economic Road Map through promotion of private sector participation in Agroforestry landscape, and the 13th Five-Year Plans' focus on resilience, biodiversity, inclusive development, and policy reform aligns.

Even though agroforestry contributes to an array of development objectives, a specific policy and legal framework for the development of agroforestry does not exist in Bhutan. However, there are some sectoral Policies, Acts, and Guidelines that have elements related to agroforestry, thereby supporting the promotion of the agroforestry concept and practice in the country. All three primary Departments (DoA, DoL, and DoFPS) have certain agroforestry components in their plans and program activities, but none of the Departments have a mandate to lead the program. Therefore, the Ministry of Agriculture and Forests instructed the Department of Forests and Park Services to take the lead on all the activities of agroforestry. Accordingly, the Department initiated the formulation of the zero draft for the National Agroforestry Strategy in 2021.

In April 2025, the Strategy Formulation Taskforce, composed of representatives from relevant agencies, was formed and initiated the formulation of the first draft of the National Agroforestry Strategy and Action Plan in May 2025.

1.3 Scope of the Strategy

The scope of the National Agroforestry Strategy and Action Plan of Bhutan (2026–2035) is broad and inclusive, aiming to promote agroforestry as a sustainable land-use system across all agro-ecological zones of the country. It focuses on improving food and nutrition security, enhancing rural livelihoods, increasing climate resilience, restoring degraded land, and biodiversity conservation. It targets a diverse group of beneficiaries, including agroforestry entrepreneurs, farmers, community groups, and cooperatives, with emphasis on the inclusion of women and youth-led enterprises. It covers multiple sectors, including agriculture, forestry, livestock, and the environment, promoting intersectoral coordination for effective implementation. The plan is aligned with national development priorities and policies, including the vision of the Bhutan 21st Century Economic Roadmap by promoting sustainable, high-value agroforestry enterprises that enhance rural livelihoods, ensure climate resilience, and contribute to a carbon-neutral economy. The strategy includes a 10-year timeframe with a detailed action plan (January 2026– December 2035). It also emphasizes capacity building, research, policy integration, and the mainstreaming of agroforestry into national and local development planning processes.

1.4 Vision, Mission & Objectives

1.4.1 Vision

A resilient, green, and prosperous Bhutan where integrated agroforestry systems enhance sustainable livelihoods, promote ecological resilience, and foster a thriving bioeconomy.

1.4.2 Mission

To promote agroforestry as an integrated and sustainable land use system that enhances ecosystem services, ensures food and nutrition security, supports rural livelihoods, and promotes national goals of environmental sustainability and economic self-reliance.

1.5 Strategic Objectives

The strategic objectives of the National Agroforestry Strategy for Bhutan are to promote sustainable land management by integrating trees, crops, and livestock in a way that enhances rural livelihoods, strengthens food and nutrition security, and builds resilience to climate change. This will be achieved through strategies including improving policy and institutional support, strengthening research and capacity building, increasing awareness and adoption of agroforestry, and strengthening the monitoring and evaluation framework.

Objective 1:	Promote climate-smart agroforestry to enhance sustainable land use, ecological balance, and economic resilience.
Objective 2:	Preserve and integrate traditional and innovative agroforestry systems for long-term environmental and agricultural sustainability.
Objective 3:	Encourage entrepreneurial agroforestry that fosters economic growth and empowers communities.
Objective 4:	Strengthen food security and livelihoods through sustainable agroforestry practices that improve nutrition and income.
Objective 5:	Enhance the financial sustainability of agroforestry initiatives through effective mobilization, allocation, and governance of funds.
Objective 6:	Advance knowledge, collaboration, and biodiversity conservation to ensure responsible and sustainable use of biological resources.

1.6 Theory of Change

1.6.1 Strategic Outcomes

Bhutan's National Agroforestry Strategy is about more than planting trees; it's about reshaping the way families live and farm. By weaving together crops, livestock, and trees, it helps farmers build resilient systems that not only put more food on the table but also open new doors for income through fruits, nuts, bamboo, and other forest products. This means fewer imports of food, timber, and animal feed, and more pride in producing locally. With support in the form of training, seedlings, and extension services, farmers gain the confidence to take risks, diversify their livelihoods, and protect their land from climate shocks. The strategy follows a clear path of change: start with strong policies and capacity-building, encourage farmers to adopt agroforestry, strengthen local value chains, and watch as incomes rise, imports fall, and communities grow more resilient. In the end, it's about creating a future where rural households thrive, Bhutan achieves food sovereignty, and the country continues to lead as a carbon-neutral nation.

1.6.2 Conceptual Theory of Change

The Theory of Change for the National Agroforestry Strategy envisions agroforestry as a transformative land-use system that integrates trees, crops, and livestock to enhance rural livelihoods, strengthen climate resilience, and promote ecological sustainability. By addressing systemic challenges across four key domains of production constraints, institutional and capacity gaps, market and value chain limitations, and financial and risk-related barriers, the strategy seeks to foster the adoption of innovative and sustainable agroforestry practices. Targeted interventions include sustainable land management, promotion of climate-smart technologies, enhanced research and development, value chain integration, and strengthened policy and institutional frameworks. .

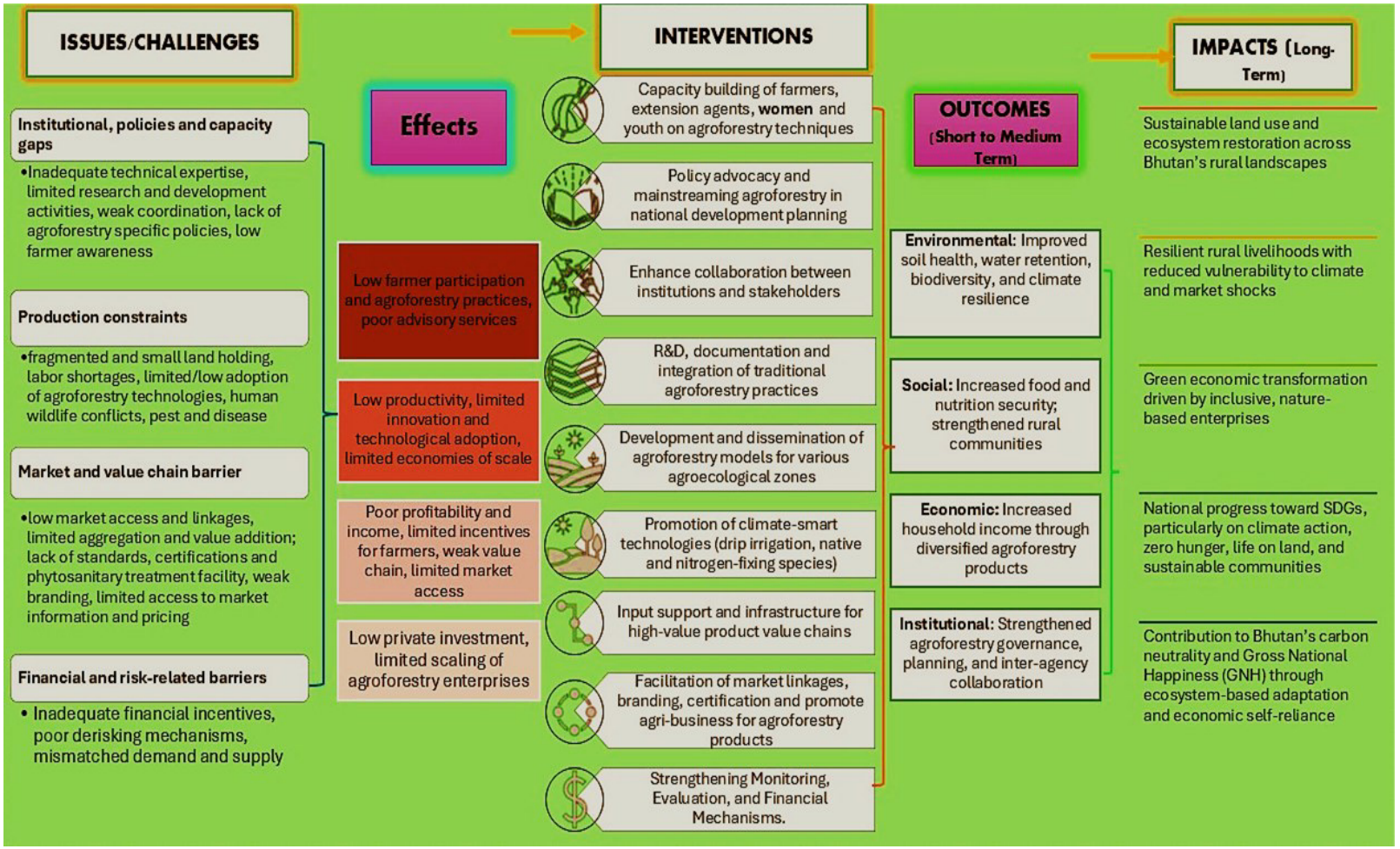


Figure 1 Conceptual Theory of Change for Agroforestry Strategy

1.7 Guiding Principles, Policy, and Legal Framework

1.7.1 Guiding Principles of Agroforestry in Bhutan

i. Sustainability & Environmental Conservation

Agroforestry in Bhutan is rooted in practices that care for the land while nurturing biodiversity and ecological resilience. It aligns with our national and global commitments, including the UN Sustainable Development Goals (SDG 15: Life on Land; SDG 13: Climate Action), the UNFCCC, UNCBD, and UNCCD. True to Bhutan's constitutional mandate of maintaining at least 60% forest cover, agroforestry strengthens the environmental pillar of Gross National Happiness. By capturing carbon, it contributes to Bhutan's proud status as carbon-negative, ensuring that our environment remains healthy and sustainable for generations to come.

ii. Equitable Socio-Economic Development

Agroforestry is more than an environmental solution; it is a driver of rural prosperity. Diversifying income opportunities, it helps reduce poverty (SDG 1), improve food security and nutrition (SDG 2), and empower women through their roles in processing and marketing agroforestry products (SDG 5). It creates jobs, especially in rural areas, and strengthens Bhutan's socio-economic foundation under GNH, fostering inclusive growth and long-term stability.

iii. Cultural & Traditional Preservation

Agroforestry honors Bhutan's rich cultural heritage by valuing indigenous farming knowledge and traditional land management practices. It supports community-based forest stewardship, strengthens local governance, and reinforces social cohesion. In this way, agroforestry becomes a living bridge between tradition and sustainability, ensuring that cultural wisdom continues to guide modern development.

iv. Resilience & Climate Adaptation

Agroforestry is also a shield against climate uncertainty. Promoting traditional agricultural practices that withstand unpredictable weather and natural disasters enhances resilience across communities. Through improved soil fertility and water conservation, it prevents land degradation and secures sustainable productivity, helping farmers adapt and thrive in the face of climate change.

1.7.2 Current Policies and Legal Framework Related to Agroforestry

Table 2: Legal Frameworks and Policies support for the National Agroforestry Strategy

Policy and governance document	Remarks
The Constitution of The Kingdom of Bhutan 2008	Mandates the nation to maintain at least 60 % of the forest country's land under forest cover for all times to come The government is mandated to protect and enhance the environment, safeguard biodiversity, prevent pollution and ecological degradation, and promote balanced, sustainable development for a safe and healthy future.
Bhutan 21st Century Economic Roadmap	Promotes inclusive sustainable land use that benefits farmers, communities, and ecosystems alike - revitalizing rural livelihoods, enhancing environmental resilience, and unlocking green growth through climate-smart high-value nature-based solutions.
13th Five-Year Plan	The 13th Five-Year Plan's focus on resilience, biodiversity, inclusive development, and policy reform aligns seamlessly with the Strategy's goals of climate-smart livelihoods, ecological integrity, community empowerment, and enabling institutional frameworks.
Economic Development Policy 2016	The agriculture sector is reckoned as one of the Five Jewels of the National Economy. EDP promotes the sustainable use of natural resources, encourages private-sector investment in agriculture and agroforestry enterprises, and fosters climate-resilient rural economic growth.
National Forest Policy of Bhutan 2011	Defines AF & promotes sustainable forest management and agroforestry as a tool for livelihood enhancement.
Forest and Nature Conservation Act of Bhutan 2023	Allows the landowner to manage private registered land as a private forest or agroforestry for domestic and commercial harvest of forest produce.
Forest and Nature Conservation Code of Best Management Practices of Bhutan 2021	Strongly supports Agroforestry interventions as part of the cross-cutting management regimes and as part of the Community Forest.
Food and Nutrition Security Policy of Bhutan 2023	Promotes agroforestry through sustainable soil and land management practices, including the rehabilitation of fallow lands, to enhance land productivity, support mechanization, and foster integrated, sustainable land use systems that contribute to resilient and productive agri-food systems.

Bhutan Agri-food Sector Strategy 2034	The strategy aims to transform Bhutan's agrifood sector by 2034 by tripling exports, enhancing commercialization and technological adoption, increasing the sector's contribution to GDP, tripling farmers' incomes, ensuring national food security, and promoting environmental sustainability through climate action and biodiversity conservation.
Renewable Natural Resource (RNR) Marketing Strategy 2021	Promotes, facilitates, and/or supports market-led commercial production of agroforestry products, through value chain development, market research and information, establishment of market access and linkages (both domestic and export), and promotion and development of agroforestry-based business and enterprise and investment planning.
Biosecurity Policy of Bhutan 2010	Establishes a national framework to safeguard human, animal, plant, and environmental health from biological risks through prevention, preparedness, and coordinated response.
Bhutan Biosecurity and Food Safety Strategy and Action Plan (2021-2028)	Provides a roadmap to strengthen biosecurity and food safety systems, ensuring safe trade, resilient agriculture, and consumer protection while supporting Bhutan's sustainable development goals.
Strategy and Management Plan for Livestock Input Farms 2019	Promotes the fodder tree and contour hedgerows system.
Biodiversity Act of Bhutan 2022	Promotes conservation and sustainable utilization of biological resources and the use of traditional knowledge associated with the biological resources.
National Biodiversity Strategy and Action Plan 2025	Identifies degraded land restoration and management of areas under agriculture, fisheries, and forestry as national targets for biodiversity conservation and food security.
Access and Benefit Sharing (ABS) Policy (2015)	Promotes the utilization of Bhutanese genetic resources and traditional knowledge associated with biological resources, ensuring fair and equitable sharing of benefits from their utilization.
The Land Act 2007	Recognizes landowners' right to trees on registered land and even on the boundary of private registered land
Gross National Happiness Principles/Framework	Emphasize sustainable development, ensuring agroforestry aligns with environmental and social well-being
National Environment Protection Act of Bhutan 2007	Strongly supports the protection of forests, Biodiversity, and ecosystem integrity
National Adaptation Plan (NAP) 2023	Strongly promote Community-Based Natural Resource Management (Community Forests, NWFP, Agroforestry) and efficient utilization of alpine rangeland and development of agroforestry systems for livestock

II. SITUATIONAL AND RISK ANALYSIS

CHAPTER II: SITUATIONAL AND RISK ANALYSIS

2.1 Situational Analysis

Agroforestry in Bhutan presents a unique opportunity within the context of extensive forest cover (69.71%) and widespread dependence on forest resources for livelihoods. The country faces the dual challenge of conserving its forest ecosystems while enhancing agricultural productivity and sustainability. Agroforestry, which integrates trees with crops and/or livestock, offers a viable solution to improve land-use efficiency, support rural livelihoods, and promote climate resilience and ecological balance.

However, agroforestry practitioners in Bhutan encounter numerous challenges that hinder widespread adoption, requiring targeted interventions and systemic support mechanisms. The absence of an agroforestry-specific strategy or policy is a major bottleneck. Without formal recognition and policy backing, agroforestry lacks institutional clarity, dedicated funding streams, and regulatory support, making it difficult to mainstream into national planning processes. Furthermore, agroforestry remains poorly integrated into land-use and rural development planning, despite its potential to support forest conservation goals and sustainable agriculture. Land use and landcover change driven by urbanization, infrastructure development, and agricultural expansion have further fragmented landscapes, thereby affecting the long-term viability of agroforestry systems.

Bhutan Ecological Society Annual Report (2021) highlighted several key challenges hindering the effective implementation and adoption of agroforestry practices in Bhutan. These include a lack of agroforestry-specific policy, inadequate policy awareness, limited integration of research initiatives, restricted access to customized financial services, and small and fragmented private land holdings. Additional challenges identified include weak stakeholder coordination, human-wildlife conflict, labor shortages, fragmented and small landholdings, soil erosion, erratic rainfall patterns, and pests and diseases (Hocking & Wangdi, 2000; Chogyal & Kumar, 2018) which corroborates with the studies conducted by Schaffer et al., 2024; Kumar et al., 2023. These challenges have also been documented in other SAARC countries, as evidenced by studies conducted by Amatya and Adhikari (2022) and Paudel and Shrestha (2022).

In Bhutan, agroforestry can address key sectoral vulnerabilities, such as the shortage of green fodder during winter months that limits dairy farmers from realizing the full genetic potential of improved dairy cattle (Wangchuk & Gyaltshen, 2018). Yet, despite its multidimensional benefits, the adoption and progress of agroforestry remain slow due to knowledge gaps and limited research on system performance across diverse ecological zones and socio-economic contexts. The underdevelopment of market-driven models, value chains, and product innovations further weakens economic incentives for farmers. The absence of targeted extension services, technical training, and financial incentives limits support for both existing and aspiring agroforestry practitioners.

Addressing these challenges requires a comprehensive and integrated approach. The formulation of an agroforestry-specific strategy is a critical first step to institutionalize support and coordinate implementation. This must be accompanied by land use planning, research and development, incorporating agroforestry in rural development plans, capacity development, and gender-responsive programs. Strengthening innovation, public-private partnerships, and farmer education through demonstration plots, training is essential, alongside recognizing agroforestry's critical role in delivering environmental, economic, and social benefits.

2.2 SWOT Analysis

A SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis is a strategic framework used to assess internal and external factors influencing the success of a proposed initiative. In the context of agroforestry strategy development, this analysis helps policymakers, researchers, and practitioners identify key advantages, constraints, and potential risks associated with integrating trees into agricultural landscapes. This analysis serves as a foundation for developing a sustainable agroforestry strategy that aligns with environmental, economic, and social goals

Table 3 SWOT Analysis

INTERNAL FACTORS

STRENGTHS +	WEAKNESSES –
➢ Ecological compatibility for agroforestry integration ➢ A strong conservation ethic aligned with Gross National Happiness (GNH) promotes sustainability. ➢ Traditional knowledge systems support tree-based farming practices in rural communities and the availability of indigenous tree species adapted to local conditions. ➢ Diverse agroecological zones enable a wide range of agroforestry models. ➢ Existing community forestry institutions provide a framework for participatory resource management. ➢ Conducive policies and government support for the promotion and adoption of agroforestry.	➢ Despite 69.71 % forest cover, rising degradation and human-wildlife conflict limit the agroforestry potential. ➢ Small & Fragmented landholdings restrict production scalability and mechanization. ➢ Inadequate technical expertise and weak institutional coordination. ➢ Weak integration of agroforestry in research and development agendas. ➢ Limited value addition and market linkages for agroforestry products. ➢ Limited awareness about the benefits of agroforestry among farmers. ➢ Inadequate financial incentives tailored for agroforestry. ➢ Low adoption of innovative agroforestry technologies.

EXTERNAL FACTORS

OPPORTUNITIES +	THREATS –
➢ Increased global interest in nature-based solutions for climate resilience. ➢ Access to climate finance from carbon credit schemes. ➢ Scope for blending agroforestry with ecotourism and conservation programs. ➢ Potential for agroforestry to enhance food, nutrition, and energy security. ➢ Collaboration with research institutions for technology transfer. ➢ Employment opportunities through agro-enterprises and value addition. ➢ Promotion of productive utilization of fallow and degraded lands.	➢ Human-wildlife conflict reduces farmers' willingness to adopt agroforestry. ➢ Labor shortages due to rural-urban migration. ➢ The prevalence of pests and diseases negatively affects both crops and trees. ➢ Variability in climatic patterns increases uncertainty in yields. ➢ Market volatility is affecting the profitability of agroforestry products. ➢ Establishing an integrated financing mechanism may prove trying. ➢ Inadequate investment in long-term agroforestry research.

Bhutan's agroforestry potential is supported by its extensive forest cover, strong conservation policies, and traditional knowledge. However, challenges such as a lack of agroforestry-specific policies, fragmented landholdings, limited technical capacity, and weak market linkages hinder the adoption of Agroforestry. Emerging opportunities include access to climate finance, research collaboration, and productive land use. Yet threats from human-wildlife conflict, labor shortages, and climate variability pose risks. A strategic approach should leverage strengths, address weaknesses, capitalize on opportunities, and mitigate threats to promote sustainable agroforestry adoption and resilience.

2.3 Mitigation Measures for Agroforestry Threats in Bhutan

1. Human-Wildlife Conflict: To mitigate human-wildlife conflict in Bhutan's agroforestry systems, protective measures, including solar/electric fencing, buffer zones with non-palatable species, and community-based repellents and guard animals, should be implemented.

2. Labor Shortages: To address labor shortages in Bhutan's agroforestry sector, key solutions include introducing labor-saving technologies, developing youth entrepreneurship programs, and strengthening farmer cooperatives for resource and labor sharing.

3. Pests & Diseases: To combat pests and diseases in Bhutan's agroforestry systems, integrated pest management strategies, disease-resistant crop combinations, and mobile-based alert systems should be implemented.

4. Climate Risks: To enhance climate resilience in Bhutan's agroforestry systems, cultivation of drought/flood-resistant species, implementation of soil-water conservation techniques, and expansion of weather-indexed crop insurance should be prioritized.

5. Market Volatility: To enhance market stability for Bhutan's agroforestry products, establishing agro-processing units, creating digital market platforms, and developing contract farming agreements with reliable buyers are essential strategies.

III. THE STRATEGY

CHAPTER III: THE STRATEGY

These strategies aim to strengthen policy and institutional support, promote coordinated multi-sectoral collaboration, and enhance knowledge, awareness, and technical capacity to drive agroforestry innovation. Emphasis is placed on advancing climate-smart agroforestry systems that support sustainable land use and ecological integrity while improving livelihoods, food, and nutritional security. Additionally, the strategies prioritize the integration of traditional practices with modern approaches, encourage entrepreneurship, and promote inclusive economic development. A robust monitoring, evaluation, and financing mechanism will ensure effective implementation, accountability, and long-term sustainability of agroforestry initiatives in the country.

Strategy 1. Strengthening policy, institutional frameworks, and multi-sector coordination to support agroforestry development.

To fully integrate agroforestry into Bhutan's development strategy, policies must reflect its importance in sustainable land management, biodiversity conservation, and climate resilience. This strategy will ensure that agroforestry is included in agricultural, livestock, and forestry policies, supported by legal frameworks, and promoted across various levels of governance.

Strategic Actions

1.1. Conduct a Comprehensive Review and Harmonize Agroforestry-Related Policies

A meaningful start to strengthening agroforestry in Bhutan is to carefully review existing forestry, agriculture, livestock, biodiversity, and land-use policies. This process should not only identify gaps and overlaps but also highlight areas where regulations unintentionally conflict, leaving farmers and communities uncertain about what is permitted. By forming a cross-sectoral task force and engaging with local leaders, farmers, and herders, the review becomes more than a technical exercise; it becomes a listening process that captures lived experiences. Harmonizing these policies will create clarity, reduce bureaucratic hurdles, and build trust among communities that rely on the land for their livelihoods. Ultimately, this step ensures that agroforestry is supported by a coherent and enabling policy environment.

1.2. Develop National Agroforestry Guidelines

.Once the policy foundation is clear, the next step is to develop national agroforestry guidelines that blend tradition with innovation. These guidelines should document indigenous practices such as mixed farming systems and sacred grove protection, while also introducing climate-smart techniques like contour planting, soil conservation, and water harvesting. To make them accessible, the guidelines should be presented in user-friendly formats or manuals, visual guides, and training materials that extension workers and farmers can easily apply. By honoring

the wisdom of elders and integrating modern science, the guidelines become a living resource that communities can proudly use to strengthen resilience, diversify incomes, and protect cultural values tied to the land.

1.3. Organize Policy Dialogues with Stakeholders

Policies and guidelines gain strength only when they are shaped through dialogue. Organizing multi-stakeholder forums will bring together government agencies, NGOs, private enterprises, monastic institutions, and academic experts to share perspectives and build consensus. These dialogues should go beyond formal presentations; they should include storytelling sessions where farmers and stakeholders describe how agroforestry sustains livelihoods and spiritual tradition, sustainable livelihood, and biodiversity conservation. Such exchanges humanize policy discussions, reminding decision-makers that agroforestry is not just about trees and crops but about people, culture, and values. By documenting consensus points and translating them into actionable recommendations, these dialogues ensure that agroforestry is formally recognized within national land-use and agricultural frameworks.

1.4. Integrate Agroforestry into Local Government Plans and Sustainable Forest Management Frameworks

Agroforestry must be rooted in local action. Integrating strategies into gewog and dzongkhag plans ensures that national priorities resonate with community realities. Training local officials to incorporate agroforestry into annual planning cycles, providing incentives such as seedlings or small grants, and showcasing successful models will help communities see tangible benefits. When agroforestry is embedded in Local Government Plans and Sustainable Forest Management frameworks, it becomes more than a policy; it becomes a practice that improves soils, diversifies incomes, and strengthens resilience against climate change. This bottom-up ownership transforms agroforestry into a movement that grows from the ground up, empowering communities to lead Bhutan toward a more sustainable future.

1.5. Develop, Strengthen, and Integrate safety net packages that are strategic and sustainable

Incentive schemes for the commercial production of viable and priority agroforestry products, targeting both domestic and export markets, should be streamlined and strengthened. This includes input support for agroforestry, processing, and market linkage initiatives through cost-sharing mechanisms, as well as integrating agricultural and livestock insurance to safeguard against natural calamities, wildlife depredation, and crop damage.

1.6 Establish National Agroforestry Coordination Office

The Agroforestry Coordination Office/Centre will be established under the Department of Forests and Park Services for overall coordination and integration of agroforestry programs in

the country. The office is proposed under the Department of Forests and Park Services, as the then Ministry of Agriculture and Forests (MoAF) mandated and entrusted DoFPS to lead the Agroforestry program from 12th FYP onwards.

1.7 Establish the National Agroforestry Steering Committee (NASC)

To guide Bhutan's agroforestry journey, a National Agroforestry Steering Committee will be established as a diverse and inclusive body. It will bring together representatives from government agencies, local leaders, environmental organizations, research institutions, farmers' cooperatives, and private-sector partners. The committee's strength will lie in its diversity, ensuring that decisions reflect both policy expertise and the lived realities of communities. Its first activities will include identifying and nominating members, holding an inaugural meeting to set shared priorities, and creating communication channels such as newsletters or online platforms to keep stakeholders and communities engaged.

1.8. Develop Terms of Reference for National Agroforestry Steering Committee Framework

For the committee to function effectively, clear terms of reference will be developed to outline roles, responsibilities, and decision-making processes. This framework will ensure transparency and accountability, while also fostering collaboration among members. Drafting the TORs will involve consultation with all committee representatives so that collective priorities are reflected. Once agreed upon, the framework will define responsibilities for coordination, monitoring, and reporting, while also establishing mechanisms for consensus-building and conflict resolution. By approving and widely sharing the TORs, NASC will operate with clarity and legitimacy, giving stakeholders confidence that the committee is working with purpose and fairness.

1.9. Strengthen Agroforestry Research and Innovation Networks

Agroforestry will flourish when knowledge flows freely between institutions and communities. Strengthening research and innovation networks will connect universities, government agencies, rural farmers, entrepreneurs, youth programs, and indigenous knowledge holders. These networks will encourage joint research projects that link scientific institutions with farmer cooperatives, while also creating innovation hubs where youth and entrepreneurs can test climate-smart practices. Indigenous agroforestry models will be documented and shared through workshops and publications, ensuring that traditional wisdom is valued alongside modern science. Annual knowledge-sharing events will showcase success stories and lessons learned, inspiring communities to adapt and innovate. By nurturing collaboration and experimentation, these networks will empower farmers and communities to lead Bhutan's agroforestry transformation with confidence and creativity.

1.10. Establish Funding Mechanisms and Incentives for Agroforestry Expansion

Expanding agroforestry requires not only technical expertise but also strong financial and institutional support to make it sustainable and attractive for farmers and communities. This activity is about making agroforestry adoption financially rewarding and practically feasible for farmers and communities. It focuses on setting up direct support systems such as grants, subsidies, and low-interest loans, while also introducing tax breaks and carbon credit schemes that recognize the environmental value of tree-based farming. Community revolving funds ensure local ownership, and performance-based incentives like payments for ecosystem services, recognition awards, and premium market access motivate farmers to expand agroforestry. The heart of this activity lies in creating immediate, farmer-centered financial tools and incentives that reduce risks, build confidence, and encourage widespread adoption.

Strategy 2: Enhancing Knowledge, Awareness, Research, and Technical Capacity for Agroforestry Innovation

Expanding agroforestry research and knowledge dissemination is critical to strengthening its adoption. The strategy focuses on documenting traditional practices, improving education programs, and building local capacity through structured learning platforms.

Strategic Actions:

2.1. Strengthen Research and Development on Agroforestry

This action focuses on placing people and ecosystems at the center, weaving science with community needs through Research and Development. Research on soil, water, and nutrient interactions in agroforestry landscapes to sustain healthy forests and forage, while also exploring ways to improve yields and strengthen livestock nutrition. Biodiversity conservation will be considered, with careful monitoring of invasive species and pests, alongside safe, eco-friendly approaches to fertilizers and agrochemicals. Research will also focus on developing resilient tree and fodder varieties, ensuring forests can adapt to climate change while continuing to support rural livelihoods. A nationwide bamboo assessment and plantation program will help conserve soil, provide sustainable materials for construction, and open new opportunities for communities. To make this vision real, the Royal Government of Bhutan will mobilize funds and foster collaboration among research institutions, private enterprises, and local farmers, ensuring that forest rese.

2.2. Document Traditional Knowledge and Indigenous Practices, including exploration and promotion of native species for agroforestry

Systematically record and preserve traditional agroforestry knowledge and practices, including the role of sacred groves, indigenous species used for soil enrichment and nutrition, and community-driven forest management techniques. Collaborate with local elders, farmers'

cooperatives, and research institutions to promote these models alongside modern sustainable farming innovations.

2.3. Develop an Agroforestry Curriculum

A specialized agroforestry curriculum will be developed for the College of Natural Resources (CNR), designed to reflect Bhutan's unique ecological principles and cultural values. The program will blend traditional practices, such as sacred grove protection and indigenous mixed farming systems, with modern agroforestry methods, climate adaptation strategies, and entrepreneurship skills. Alongside this, UWIFoRT will prepare practical training materials tailored for farmers and field staff, ensuring that lessons are accessible and relevant to those working directly on the land. By incorporating gender-sensitive approaches, the curriculum will encourage the active participation of women and youth, empowering them as leaders in agroforestry education and practice.

2.4. Enhance Agroforestry Knowledge Exchange and Training Platforms

Knowledge grows stronger when shared, and agroforestry will be advanced through vibrant exchange platforms. National, regional, and international events such as conferences, training workshops, field demonstrations, and farmer-to-farmer exchanges will be organized to connect practitioners, researchers, and policymakers. These platforms will not only showcase best practices but also create opportunities for farmers to learn directly from one another, building confidence and solidarity. By linking Bhutanese experiences with global innovations, these exchanges will inspire communities to adapt, innovate, and strengthen their resilience in the face of climate change.

2.5. Strengthen Agroforestry Education and Capacity Building

Agroforestry education must reach across institutions and communities. To achieve this, CNR and UWIFoRT will integrate agroforestry into their curricula, offering specialized courses and short-term training programs for students, technical staff, and researchers. These programs will build a new generation of agroforestry specialists equipped with both scientific knowledge and practical skills. At the same time, capacity-building initiatives will target technical workers across different agencies, ensuring that extension services are well-prepared to guide farmers. By investing in education and training, Bhutan will cultivate a skilled workforce capable of driving agroforestry forward as a cornerstone of sustainable development.

2.6. Develop Agroforestry Knowledge Dissemination and Outreach Centers

To make agroforestry knowledge accessible to all, dedicated dissemination and outreach centers will be established. These centers will serve as hubs for on-the-job training of officials, farmers, and extension workers, offering hands-on guidance and technical support. Beyond formal training, agroforestry will be promoted through sensitization programs, mass media

campaigns, school curriculum integration, and exhibitions that reach wider audiences. By combining technical expertise with public awareness, these centers will ensure that agroforestry is not confined to classrooms or policies but becomes a familiar and celebrated practice across Bhutanese society.

Strategy 3: Promoting Climate-Smart Agroforestry Systems

Given Bhutan's vulnerability to climate change, agroforestry must be adapted to diverse environmental conditions to ensure resilience to land degradation and climate variability.

Strategic Actions:

3.1. Conduct consultations with Local Governments and communities to identify suitable areas for agroforestry

To ensure the effective implementation of agroforestry practices, consultations will be conducted with Local Governments and communities to identify suitable areas using a participatory approach. These consultations will help integrate local knowledge, land-use practices, and community priorities. Site selection will be based on soil conditions, including fertility and moisture retention, topographic features such as slope, elevation, aspect, climatic suitability, land tenure security, and preferred species with ecological and economic value.

3.2. Development and Pilot Agroecological Zone-Specific Agroforestry Models

Design and pilot agroforestry models that are carefully tailored to the country's diverse ecological zones, from the high-altitude temperate regions to the mid-hill subtropical belts and the humid lowlands, ensuring that each model reflects the unique climatic and soil conditions of its landscape. These models will integrate traditional land-use practices that have sustained communities for generations, while introducing innovations such as sustainable water management systems and climate-resilient species to strengthen productivity and resilience. By blending indigenous knowledge with modern science, the models will serve as living laboratories where farmers, researchers, and institutions can collaborate to test, refine, and scale approaches that enhance food security, conserve biodiversity, and improve rural livelihoods

3.3. Develop buffer zones in potential agroforestry areas using existing Human-Wildlife Conflict information or data to promote coexistence and living in harmony

The strategic action intends to incorporate the development of buffer zones in identified agroforestry areas using existing Human-Wildlife Conflict data to promote coexistence between humans and wildlife. By targeting potential agroforestry areas and integrating wildlife-resistant or deterrent plant species, these buffer areas will act as protective barriers around farmlands and settlements. This approach is expected to reduce crop damage, enhance

community resilience, and promote harmonious living with wildlife while ensuring productive land use through agroforestry systems.

3.4. Promote Climate-Resilient Agroforestry Practices Among Farmers

Promote technical and climate-resilient innovations on agroforestry, which include seed selection, assisted natural regeneration, alley cropping, pest control, drought-tolerant tree-crop systems, flood-resistant planting models, and climate-smart soil conservation methods. Integrate indigenous water management practices to enhance resilience.

3.5. Restore Degraded Lands Through Agroforestry-Based Rehabilitation

Implement agroforestry restoration projects to reclaim degraded forest and agricultural land through plantation of high-value agroforestry species (Rattans, bamboo, fruits and nuts, Chilgoza pine (*Pinus gerardiana*), Chemshing (*Ziziphus buddhensis*), Hazelnuts, agarwood, Sandalwood, and development of backyard nurseries to produce agroforestry tree seedlings. Promote the use and commercialization of native species (Crops, plants, and livestock) for agroforestry.

3.6. Integrate Agroforestry into Bhutan's Climate Adaptation Strategies

Agroforestry will be formally integrated into Bhutan's National Adaptation Plan (NAP) to strengthen climate resilience and promote sustainable land use. This action ensures that agroforestry is recognized as a key adaptation measure, aligned with national policies and frameworks for climate resilience. Activities will include policy reviews to embed agroforestry within adaptation priorities, consultations with stakeholders to harmonize practices across sectors, and development of guidelines that link agroforestry to soil conservation, watershed protection, and livelihood security. By positioning agroforestry within the NAP, Bhutan will reinforce its commitment to climate-smart solutions that safeguard both communities and ecosystems.

3.7. Empower Disadvantaged Households Through Carbon-Incentivized Agroforestry

Marginalized households will be supported through mass plantation initiatives in degraded State Reserved Forest Land (SRFL), with a focus on high-value species such as bamboo that provide both ecological and economic benefits. These plantations will be designed to generate carbon credits, creating opportunities for disadvantaged communities to access new income streams while contributing to Bhutan's carbon-negative status. Activities will include site identification and preparation, provision of seedlings and technical training, establishment of community-managed plantation blocks, and facilitation of access to carbon credit programs and markets. By linking agroforestry to climate finance, this action empowers vulnerable households with sustainable livelihoods while restoring degraded landscapes.

3.8. Promote climate-smart fodder species plantation in degraded or fallow land within the agroforestry system

To promote climate-friendly fodder species in degraded or fallow land within agroforestry systems, nutritive fodder species adapted to local climate and soil conditions will be identified and selected. Initiate soil erosion techniques like promoting contour hedgerows, alley cropping using fodder grass, and root slips to stabilize the slope and feed livestock. This will also establish agroforestry systems that both enhance fodder production to support sustainable livestock production and improve land management systems.

Strategy 4: Enhancing Livelihood, Food, and Nutritional Security through Agroforestry

This strategy focuses on enhancing livelihoods, food, and nutritional security by promoting economically viable and climate-resilient agroforestry systems. It encourages integrated commercial farming practices, such as intercropping, alley cropping, and livestock rearing, to diversify production and increase household income. Special emphasis is placed on cultivating high-value agroforestry products, tree crops like fruits, nuts, and NWFPs, and supporting women and youth-led agroforestry enterprises through targeted incentives. The strategy allows farmers with limited dryland or irrigated land to engage in agroforestry activities within nearby community forests, with regulated land access. It also promotes the cultivation of bamboo for industrial use, vermicomposting from forest litter to enhance soil fertility, wildfire control, and the cultivation of high-value flowers by highland communities in partnership with private entrepreneurs, thereby fostering inclusive growth and sustainable resource use.

Strategic Action:

4.1. Develop input supply for agroforestry development and promote production of high-value agroforestry products

To support the adoption of agroforestry practices, essential inputs will be identified, sourced, and delivered through prevailing subsidy and cost-sharing mechanisms with a focus on encouraging the participation of women, youth, and private entrepreneurs. This includes the provision of quality planting materials such as seeds and seedlings, nuts, herbs, vegetables, livestock, non-wood forest products (NWFPs), improved breeds, appropriate tools and equipment, organic or inorganic fertilizers, nutrients, pesticides, and protective materials like fencing or mulch to promote production of high-value agroforestry products.

Collaboration with local nurseries, agricultural extension services, and community groups ensures timely and cost-effective access to inputs and services. Additionally, organizing training for farmers on the proper use and management of these inputs enhances their effectiveness and promotes sustainable agroforestry practices.

4.2. Establish agroforestry nurseries across the country to produce quality seeds/seedlings

Establish nurseries nationwide to ensure the availability of quality seeds and seedlings. These nurseries will focus on producing selected varieties of multipurpose species, providing reliable planting materials to meet the needs of agroforestry initiatives. Strengthening nursery infrastructure and capacity will play a vital role in promoting wider adoption of agroforestry practices and enhancing the sector's overall sustainability.

4.3. Promote the development and dissemination of both existing and emerging agroforestry technologies

The strategy will promote both existing and emerging technologies tailored to local agro-ecological zones. Existing practices such as mixed cropping, home gardens, the use of native tree species, and organic soil enrichment through farmyard manure will be preserved and integrated with modern innovations. These include Sloping Agricultural Land Technology for erosion control, Silvo-pastoral systems combining fodder trees and improved grasses, and contour hedgerows using nitrogen-fixing species. Additionally, introducing labor-saving technologies and techniques such as vegetative propagation, biochar, wood charcoal, biofertilizer, vermicompost, biogas from the live waste, apiculture, bio-fencing with live plants, green house with hydroponic and aeroponic techniques, and GIS-based site planning will be promoted to enhance productivity, climate resilience, and biodiversity conservation. Technology dissemination will be facilitated through farmers' engagement, agroforestry demonstration plots, participatory research, and collaboration with Local Governments and relevant agencies to ensure technologies are accessible, practical, and culturally appropriate.

4.4. Develop and implement a market-led production plan for agroforestry commodities

Emphasis will be given to promote market-led commercial production of viable agroforestry commodities by developing and implementing a strategic commercial production plan at national and Dzongkhag levels in line with demand and specifications of markets, promoting specialized mass production through contract farming, and encouraging private sector participation and investment, including FDI, in production, processing, and marketing of agroforestry products.

4.5. Support Community Forest Member Group (CFMG) to practice agroforestry

Community Forest Member Groups (CFMGs) will be supported to introduce agroforestry in degraded portions of Community Forests adjoining their private land, limited to a maximum of 10% of the total CF area. This initiative is designed to benefit small landholders and ensure equitable sharing of resources, while maintaining at least 10% forest canopy cover to safeguard ecological integrity. To enable this, Community Forest Management Plans (CFMPs) will be amended or revised to incorporate agroforestry activities, with land use revisions clearly reflected in the plan. Activities will include mapping suitable sites, providing training and

demonstrations on agroforestry practices, supplying quality seedlings of shade-tolerant and high-value crops, establishing pilot plots, and developing fair benefit-sharing mechanisms. Regular monitoring will help balance livelihood gains with conservation goals, while linking CFMGs to local markets and cooperatives will create opportunities for processing and sale of agroforestry products, thereby strengthening both community resilience and sustainable forest management.

4.6. Explore agroforestry business opportunities, including Access and Benefit Sharing Regime for investment and establishment by targeted local groups/communities and entrepreneurs/private sector.

Promote agroforestry enterprise through the institution of a clear government support system, which may include entrepreneurial capacity building, facilitation of access to market finance (soft loans/low interest, tax breaks, credit guarantees), de-risking mechanism, cost-sharing mechanism, incentive scheme, etc. Review, strengthen, and transform existing potential farmers' groups, cooperatives, and CFMG into viable and sustainable enterprises through investment and other appropriate development measures.

4.7. Strengthen Agroforestry Supply Chains and Market Infrastructure

To enhance supply and value chain, priority will be given to the development and implementation of critical national post-harvest management, marketing infrastructure, logistics, and value addition (processing, treatment) facility plan with effective aggregation and distribution systems focused on specific/priority commercial agroforestry products at strategic locations, including major entry/exit gateways. Multi-stakeholder platforms will be established to strengthen links among producers, processors, agroforestry enterprises, and exporters. Domestic distribution networks, aggregation systems, and Agrifood Eco Hubs will be leveraged to improve accessibility to both local and international markets.

4.8. Promote Value Addition and Product Diversification

Farmer groups, cooperatives, and agroforestry entrepreneurs will be trained in processing techniques, quality control, and hygiene standards to enhance the competitiveness of their products. Efforts will be made to innovate and develop products through research and product development trials in collaboration with the National Post-Harvest Centre (NPHC) and the College of Natural Resources and National Biodiversity Centre. Private sector participation is to be encouraged to invest in value-added agroforestry enterprises, through bioprospecting and Access and Benefit Sharing programs, ensuring sustainability and scalability. Private sector participation is to be encouraged to invest in value-added agroforestry enterprises, ensuring sustainability and scalability.

4.9. Establish Branding, Certification, and Market Linkages

Technical assistance will be provided for certifications, standardization, branding, labeling, and packaging to increase the marketability of agroforestry products. Producers will be supported in obtaining certifications such as Bhutan Organic Certification Scheme (BOCS), Local Organic Assurance System (LOAS), Good Agricultural Practices (GAP), Phytosanitary certificate, Food Safety Licensing, including Good Hygiene Practices (GHP) and Good Manufacturing Practices (GMP), with effective Quality Control Systems to enhance credibility of high-value products in markets. In addition, product standards, certification, and pest risk analysis will be developed in line with the import requirements and procedures of the targeted export markets.

Domestic market, aggregation, and distribution systems will be strengthened. Production with consumption strategically, such as the development and implementation of seasonal supply plans from surplus areas to deficit areas across the country, will be connected to establish market linkages in coordination with stakeholders and through participation in trade fairs. Concerted efforts will be put into the exploration of new potential export markets (both international and domestic markets), trial marketing of potential agroforestry commodities, and establishing export market access and linkages. In addition, market intelligence will be enhanced to enable farmers, traders, food processors, and policymakers to make informed strategic decisions on production planning, investment, and marketing. E-commerce, such as digital commodity exchange/trading portal/platforms, for the facilitation of both domestic trade and export, will be promoted and strengthened to enhance market outreach.

4.10. Strengthened Livestock and Forage Production within Agroforestry

Livestock farming will be integrated into agroforestry systems through silvopasture and high-quality fodder plantations to improve feed availability and farm resilience. Farmers will be trained in forage processing techniques, including ensiling and haymaking, to preserve excess fodder for sustainable livestock production. Establish a dedicated fodder germplasm bank to ensure the supply of fodder saplings of recommended fodder species and improve fodder availability. Dairy cooperatives will be linked to forage enterprises to strengthen the feed and fodder value chain.

4.11. Promote the use and commercialization of native species (Crops, plants, and livestock) for agroforestry

Native species of crops, plants and livestock which are already adapted to the agroecological zones will be explored and promoted for commercialization through agroforestry to reduce the risk of invasive species import and to strengthen the sustainable utilization of native neglected and under-utilized biological resources (viz. Yuebja poultry, Nublang cattle, Native sheep breeds, goats and Saphag pig) and indigenous crops (eg. finger millet) through product diversification and value addition.

4.12. Integrate the agroforestry landscape into the tourism experience

Leverage the ecological value of agroforestry landscapes by integrating them into local tourism offerings. By promoting farm-based eco-tourism, developing nature trails through diversified agroforestry sites, and showcasing value-added products, communities can diversify income sources and raise awareness of sustainable land use practices. This approach enhances the visibility of agroforestry, supports rural livelihoods, and fosters appreciation for conservation-based farming systems.

Strategy 5: Strengthening Agroforestry Financing Mechanisms

To ensure the long-term sustainability and scalability of agroforestry in Bhutan, financial mechanisms will be mobilized through both domestic and international sources. Funding will be sourced from the Royal Government of Bhutan, as well as international financing instruments and development partners. Microcredit schemes and donor-funded grants will support farmers and agroforestry enterprises in adopting climate-resilient practices. Strategic public-private partnerships (PPP) models will be developed to attract private investment, particularly in market-led commercial agroforestry, medicinal plants, and eco-tourism ventures, supported by incentives like subsidies and cost-sharing mechanisms. Additionally, agroforestry will be integrated into Bhutan's Carbon Registry and MRV (Measurement, Reporting, and Verification) system to quantify carbon sequestration benefits, enabling access to carbon markets and aligning with international climate finance mechanisms.

Strategic Actions:

5.1. Mobilize diverse and inclusive financing mechanisms to scale climate-resilient agroforestry across Bhutan

This activity looks outward, focusing on mobilizing resources and building partnerships to sustain agroforestry at scale. It involves fundraising campaigns, forging collaborations with international donors and development partners, and actively participating in global workshops and conferences to showcase Bhutan's agroforestry vision and attract investment. Public–private partnerships and inclusive financing models ensure that marginalized groups also benefit, while international cooperation brings in knowledge, networks, and long-term funding. The essence of this activity is broad resource mobilization and inclusivity, ensuring that agroforestry expansion is not only well-funded but also equitable, resilient, and connected to global climate action

5.2. Facilitate Private-Sector Engagement and Public-Private Partnerships (PPP)

Strategic PPP models will be developed to attract private investment into agroforestry ventures, particularly in market-led commercial farming, medicinal plants, and agroforestry-based eco-tourism. Incentives such as tax benefits, subsidies, and business incubation programs will foster

collaboration between farmer cooperatives and private enterprises. In addition, Foreign Direct Investment (FDI) will be leveraged wherever critical and viable.

Strategy 6: Strengthening Monitoring and Evaluation of Agroforestry Systems

An effective monitoring framework will ensure that agroforestry development progresses efficiently and contributes meaningfully to Bhutan's national priorities. By establishing clear indicators, data collection systems, and reporting mechanisms, the implementation of the strategic actions can be assessed, and evidence-based decision-making can be promoted. Regular monitoring will allow for the timely identification of challenges and enable adaptive management, while periodic evaluations will offer valuable insights into the overall impact and effectiveness of agroforestry interventions.

Strategic Actions:

6.1. Develop a National Monitoring & Evaluation (M&E) Framework

A national M&E system with well-defined indicators will be established to measure agroforestry progress, including tree survival rates, soil health, biodiversity improvements, and carbon sequestration levels. Digital tools such as GIS mapping and satellite monitoring will enable real-time tracking of agroforestry sites. Annual stakeholder reviews and policy audits will guide adaptive management based on performance data.

6.2. Integrate Agroforestry data into the existing Database and Dashboard

Integrate Agroforestry data into existing database systems to store, analyze, and visualize agroforestry data. The dashboard will provide access to real-time updates, performance trends, and decision-support analytics for policymakers, implementing agencies, and stakeholders.

6.3. Provide Technical facilitation and carbon project Readiness Support for Agroforestry, Community Forestry, and Private Forestry

The Ministry will facilitate agroforestry and private forestry participation in carbon markets by providing technical, regulatory, and coordination support to enable landholders to secure credible carbon projects. The focus will be on project readiness, compliance with national policies, and linkage with accredited carbon project developers, without the provision of direct financial or material incentives.

Key activities include the identification and mapping of carbon-eligible agroforestry and private forestry areas, the development and dissemination of technical guidelines and standard agroforestry carbon models, support in baseline data collection, documentation, and MRV preparedness, facilitation of partnerships between landholders and accredited carbon project

developers/registries, and coordination with relevant agencies to ensure policy alignment, safeguards, and approvals

6.4. Conduct Regular Field Assessments and Impact Evaluations

Regular field assessments and impact evaluations will be carried out to ensure that agroforestry initiatives remain effective, inclusive, and aligned with Bhutan's national development goals. Scheduled site visits will allow teams to observe progress directly on the ground, engage with community members, and document lessons learned. Mid-term reviews will provide opportunities to adjust strategies, address challenges, and strengthen implementation, while end-line evaluations will measure long-term environmental, social, and economic impacts.

These assessments will focus not only on technical performance—such as forest health, soil fertility, and crop productivity- but also on community benefits, including livelihood improvements, equity in benefit sharing, and contributions to climate resilience. Findings will be shared with stakeholders to promote transparency, encourage collective learning, and guide future policy and program adjustments.

IV. STRATEGY IMPLEMENTATION, MONITORING & EVALUATION

CHAPTER IV: STRATEGY IMPLEMENTATION, MONITORING, AND EVALUATION

4.1. Implementation Strategy

The Agroforestry Strategy will be implemented through actionable projects and programs, which will be integrated into the sector and agency plans with clear targets and action plans. Priority funding will be arranged to implement key programs and projects. The MoENR will seek support through RGOB finance, climate finance, and private investments. The strategy will be implemented over ten years, covering the 13th and 14th FYPs. Activities will be aligned with the Ministry's annual and five-year plans.

The MoENR will lead and coordinate the strategy. However, its success will depend on the support of farmers, community forest groups, cooperatives, private businesses, local governments, CSOs, and Research Centers. Roles and responsibilities will be delineated clearly across various relevant agencies as reflected in the Terms of Reference of the National Agroforestry Steering Committee (NASC). The Ministry will focus on policies, funding, agroforestry technology adoption, and tracking progress. Local governments, CSOs, and extension agents will help manage forest-related issues, provide agroforestry advice, and support communities. Farmers' Groups, Cooperatives, and agrobusinesses will receive support to improve production and add value to the agroforestry products. Research institutions and universities will help with studies and capacity-building programs.

The strategy will be turned into real projects and programs starting in 2025. It will be guided by data and evidence to make smart decisions, monitor progress, and solve issues. Infrastructure will be improved, and access to finance will be expanded to support businesses in agroforestry. High-value agroforestry products will be promoted for both local and export markets. Agroforestry will be treated as a business, with support and services focusing on farmers, agro-entrepreneurs, youth, and women groups to help increase their income and livelihood.

4.1.1 National Agroforestry Steering Committee (NASC)

The National Agroforestry Steering Committee (NASC) will serve as the central body overseeing agroforestry policy formulation, coordination, and implementation across different sectors. Operating under the guidance of the MoENR, NASC will ensure alignment with national development goals, monitor progress, and provide strategic direction for sustainable agroforestry practices. It will also facilitate inter-ministerial cooperation, stakeholder engagement, and resource mobilization to strengthen agroforestry initiatives across the country. The NASC will comprise the Department of Forests and Park Services, Department of Agriculture, Department of Livestock, Department of Agricultural Marketing and Cooperatives, Bhutan Food and Drug Authority, National Biodiversity Centre, and other relevant agencies.

4.1.2 Ministry of Energy and Natural Resources

This ministry will play a crucial role in integrating agroforestry with environmental conservation, climate resilience, and energy policies. The Department of Forests and Park Services will lead the program and ensure sustainable forest management and biodiversity conservation through agroforestry interventions. Meanwhile, the Department of Environment and Climate Change will work on climate adaptation strategies, including carbon sequestration efforts and energy-efficient agroforestry models that contribute to Bhutan's carbon-negative status.

4.1.3 Ministry of Agriculture and Livestock

The Ministry of Agriculture and Livestock will be the main collaborating agency driving agroforestry development. The Department of Agriculture will collaborate on research, innovation, and production activities related to agroforestry, focusing on crop cultivation and spearheading scientific advancements and collaboration with external institutions. The Department of Livestock will ensure livestock integration into agroforestry models for sustainable land use. The Department of Agricultural Marketing Cooperatives will promote, facilitate, and/or support market-led commercial production of agroforestry products, through value chain development, market research and information, establishment of market access and linkages (both domestic and export), and promotion and development of agroforestry-based business and enterprise and investment planning. The National Biodiversity Centre will work on biodiversity conservation and genetic resource management, while the National Soil Service Centre will oversee soil health management and land restoration efforts.

4.1.4 Ministry of Health

Agroforestry plays a key role in ensuring food security and nutrition. The Ministry of Health, through the Bhutan Food and Drug Authority (BFDA), will regulate Biosecurity, quality seeds and seedlings, pest and disease surveillance, internal and external phytosanitary measures, regulations of agrochemicals, food safety licensing, including Good Hygiene Practice, Good Manufacturing Practice, and promote the consumption of agroforestry-based nutritional products. The ministry will also support public awareness campaigns highlighting the health benefits of agroforestry crops and medicinal plants, and provide certification services for agroforestry products.

4.1.5 Scientific Research and Educational Institutions

The College of Natural Resources (CNR) and the Ugyen Wangchuck Institute of Forest Research and Training Center (UWIFoRT) will drive agroforestry research and capacity-building through academic programs, field studies, and innovation hubs. It will collaborate with local and international experts to enhance agroforestry knowledge, develop the best practices, and support technical training for farmers and stakeholders.

4.1.6 Other Relevant Ministries and Government Agencies

The Ministry of Finance will allocate resources, subsidies, and financial incentives to promote agroforestry adoption and sustainable economic growth. The National Land Commission Secretariat (NLCS) will oversee land-use policies, ensuring equitable access to agroforestry lands while balancing conservation goals. Local Government (LG) offices will play a vital role in implementing agroforestry programs at the grassroots level, mobilizing communities, and facilitating participatory decision-making in agroforestry initiatives.

4.1.7 International Organizations

In the future, Bhutan may strengthen its global partnerships to advance agroforestry research, climate resilience, and sustainable land management. Organizations such as the Food and Agriculture Organization (FAO) and the World Agroforestry Centre (ICRAF-CIFOR) could play a supportive role in potential fund mobilization and implementation of the National Agroforestry Strategy and Action Plan (NASAP). Agencies, including the United Nations Development Programme (UNDP), International Fund for Agricultural Development (IFAD), and International Bamboo and Rattan Organization (INBAR), may contribute to enhancing agroforestry financing mechanisms, subject to mutual interest and alignment. Bhutan's collaboration with the International Union for Conservation of Nature (IUCN) could also open avenues for biodiversity conservation initiatives. Financial assistance for agroforestry infrastructure, innovation, and market development may be explored through development partners such as the Japan International Cooperation Agency (JICA), the Asian Development Bank (ADB), and the World Bank, depending on future opportunities and strategic alignment.

Possible collaboration is not restricted to these entities. Other relevant research and funding organizations, such as the International Centre for Integrated Mountain Development (ICIMOD), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the United States Agency for International Development (USAID), and the European Union (EU), may also be considered for future engagement, depending on strategic alignment and emerging opportunities.

4.1.8 Civil Society Organizations (CSOs) and NGOs.

Bhutan's agroforestry strategy will continue to be strengthened through potential collaboration with CSOs, NGOs, and donor agencies that align with environmental sustainability and rural development goals. Organizations such as the Bhutan Ecological Society (BES), Bhutan Foundation, Bhutan Trust Fund for Environmental Conservation (BTFEC), and Royal Society for Protection of Nature (RSPN) may contribute to conservation efforts, agroforestry research, and policy advocacy. The Tarayana Foundation is expected to play a key role in empowering rural communities through agroforestry-based livelihood initiatives, while WWF Bhutan and Bhutan for Life (BFL) may support livelihood enhancement, ecosystem protection, and biodiversity conservation, subject to future alignment and mutual interest.

4.1.9 Private Sectors

The private sector will be promoted to invest in climate-resilient and commercially viable agroforestry production by promoting high-value crops, supplying quality inputs, and facilitating access to technologies. They will be encouraged to establish aggregation and collection systems to streamline the sourcing of agroforestry products from farmers and community-managed forests. Private sectors will invest in processing agroforestry products and enhance value additions through product diversification and development, packaging, branding, and certification to meet the market requirements. They will also facilitate market linkages, establish contract farming, and promote sustainable sourcing practices in collaboration with relevant stakeholders to strengthen conservation efforts while promoting agroforestry enterprises across the value chain. Additionally, opportunities in agri and ecotourism will be harnessed by integrating agroforestry landscapes into tourism experiences, promoting farm-based tourism, nature trails, and showcasing value-added agroforestry products.

Emphasis will be given to empower women and youth by promoting their participation across the agroforestry value chain - from production, processing, and marketing to leadership in agroforestry-based enterprises, Groups, and Cooperatives.

4.2 End Land Users in the Field

Farmers, rural communities, and landowners, the end land users, will be the backbone of agroforestry implementation. They will adopt sustainable agroforestry practices, contribute to biodiversity conservation, and benefit from improved livelihoods, food security, and economic opportunities. Their active participation, traditional knowledge, and innovative approaches will be essential in shaping Bhutan’s agroforestry landscape for long-term success.

4.3 Monitoring and Evaluation

Overseeing the implementation of Bhutan's agroforestry strategy will require a coordinated effort among various stakeholders to ensure sustainable land management and environmental conservation. The Department of Forests and Park Services (DoFPS) will play a central role in monitoring compliance with the agroforestry strategy, providing technical guidance, and ensuring that agroforestry practices align with national environmental goals. The Ministry of Agriculture and Livestock will oversee policy integration, ensuring that agroforestry initiatives support food security and rural development. Local governments will be responsible for facilitating community engagement, ensuring that farmers and landowners actively participate in agroforestry programs. Research institutions will contribute by conducting studies on soil conservation, biodiversity enhancement, and climate resilience, providing data-driven insights to refine agroforestry practices. Research and training institutes/centers will spearhead capacity building, educating farmers on sustainable land management, and monitoring the socio-economic impacts of agroforestry adoption.

The implementation process will follow a structured timeline, beginning with a baseline assessment to evaluate existing agroforestry practices and identify key performance indicators. This will be followed by the establishment of monitoring protocols, which will define data collection methods, reporting mechanisms, and evaluation criteria. Periodic assessments, possibly conducted annually or biennially, will help track progress, identify challenges, and recommend policy adjustments. The framework will also incorporate adaptive management, allowing stakeholders to refine strategies based on emerging environmental and socio-economic trends.

Further, to ensure continued relevance and effectiveness of implementation, the strategy will undergo a Mid-Term Review after five years and a Terminal Review at the end of the 10-year implementation period. These reviews will evaluate progress, the impact of interventions, and provide evidence-based recommendations for refining policies and addressing any implementation gaps.

4.4 Institutional Setting

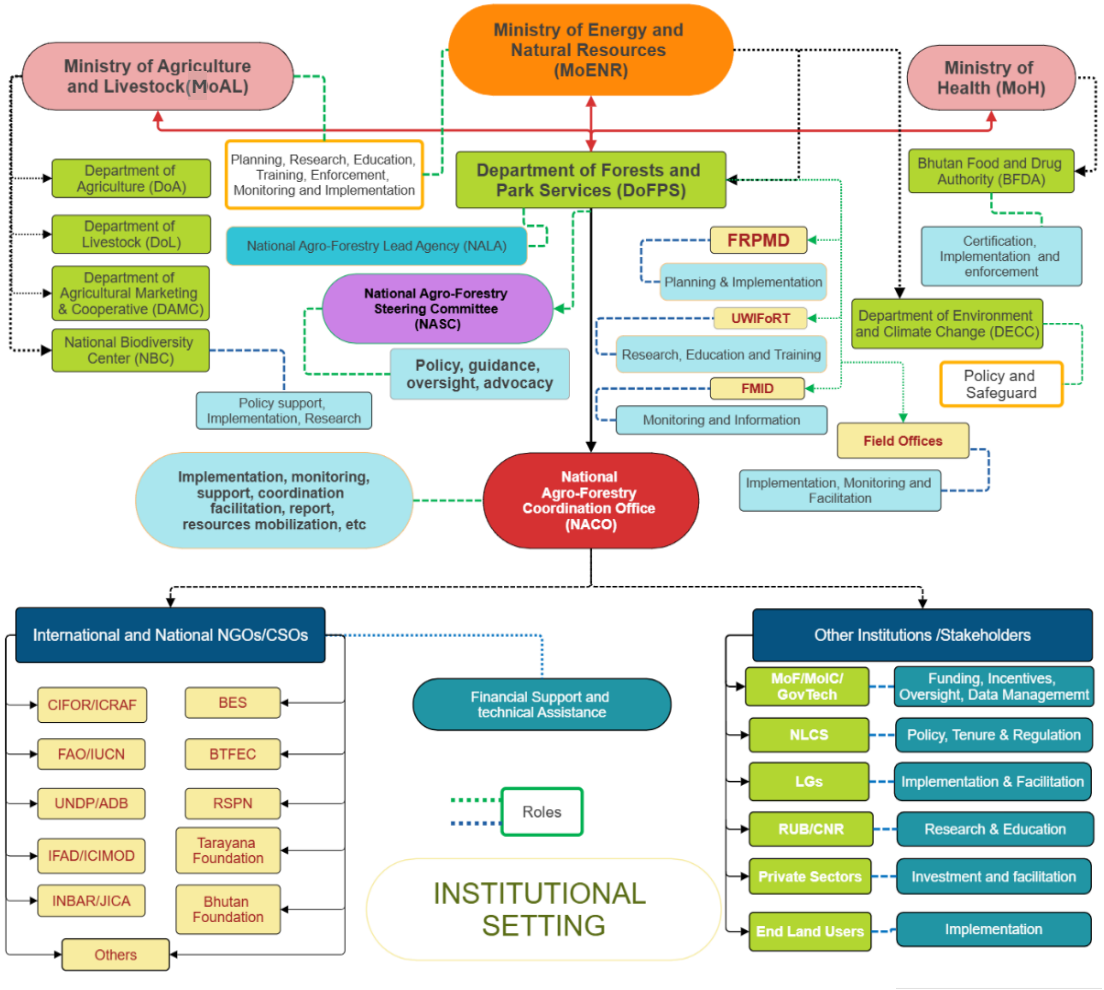


Figure 2 Institutional Setting for Coordination and Implementation

4.5 Implementation Plan

Table 4: Implementation and Budget Plan

Strategic Actions	Timeframe	Est Budget (Nu. in million)	Lead Agency	Collaborators/ Relevant stakeholders
Output 1: Policy and institutional frameworks for agroforestry strengthened and implemented				
Strategy 1. Strengthening policy, institutional support frameworks, and multi-sector coordination to support agroforestry development (A)				
1.1. Conduct a Comprehensive Review and Harmonize Agroforestry-Related Policies.	2027	2.00	NACO/DoFPS	PPDs, DoA, DoL, DAMC, NBC, NLCS, DECC, BFDA,
1.2. Develop or enhance National Agroforestry Guidelines	2027	1.50	NACO/DoFPS	PPDs, DoA, DoL, DAMC, NBC, NLCS, DECC, BFDA,
1.3. Organize Policy Dialogues with Stakeholders	2026-2035	5.00	NACO/DoFPS	PPDs, DoA, DoL, DAMC, NBC, NLCS, DECC, BFDA, LGs
1.4. Integrate Agroforestry into Local Government Plans and Sustainable Forest Management Frameworks	2026-2035	15.00	NACO/DoFPS	PPDs, DoA, DoL, DAMC, NBC, NLCS, DECC, BFDA, LGs
1.5. Develop, Strengthen, and Integrate safety net packages that are strategic and sustainable	2027-2028	5.00	MoENR & MoAL (PPDs)	MoF, DoFPS, DoA, DoL, DAMC, NBC, LGs, Financial Institutions.
1.6. Establish National Agroforestry Coordination Office (NACO)	2026-2027	3.00	NACO/DoFPS	RCSC, DoA, DoL, DAMC
1.7. Establish the National Agroforestry Steering Committee (NASC)	2026-2027	2.00	NACO/DoFPS	PPDs, DoA, DoL, DAMC, NBC, NLCS, DECC, BFDA,

1.8. Develop Terms of Reference for National Agroforestry Steering Committee Framework	2026-2027	0.50	NACO/DoFPS	PPDs, DoA, DoL, DAMC, NBC, NLCS, DECC, BFDA,
1.9. Strengthen Agroforestry Research and Innovation Networks	2026-2035	5.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, BFDA, College and training Institutes
1.10. Establish Funding Mechanisms and Incentives for Agroforestry Expansion	2026-2035	25.00	NACO/DoFPS	MoF, DoA, DoL, DAMC, NBC, BFDA,
Total (A)		**64.00**		
Output 2: Traditional and innovative agroforestry models promoted and adopted				
Strategy 2: Enhancing Knowledge, Awareness, Research, and Capacity for Agroforestry Innovation (B)				
2.1. Strengthen Research and Development on Agroforestry	2026-2035	10.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, BFDA, Colleges, training and research Institutes/Centers
2.2. Document Traditional Knowledge and Indigenous Practices, including exploration and promotion of native species for agroforestry.	2026-2035	6.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, BFDA, Colleges, training and research Institutes/Centers
2.3. Develop an Inclusive Agroforestry Curriculum	2026-2028	2.00	NACO/DoFPS	MoESD, DoA, DoL, DAMC, NBC, BFDA, RUB/CNR, training and research Institutes/Centers
2.4. Enhance Agroforestry Knowledge Exchange and Training Platforms	2026-2035	30.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, BFDA, RUB/CNR

2.5. Strengthen Agroforestry Education and Capacity Building	2026-2035	25.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, BFDA, RUB/CNR, training and research Institutes/Centers, LGs and Farmers
2.6. Develop Agroforestry Knowledge Dissemination and Outreach Centers	2026-2035	10.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, BFDA, RUB/CNR, training and research Institutes/Centers
Total (B)		**83.00**		
Output 3: Climate Smart and Inclusive Agroforestry System promoted				
Strategy 3: Promoting Climate-Smart Agroforestry Systems (C)				
3.1 Conduct consultation with Local Governments and communities, to identify suitable areas for agroforestry	2026-2035	20.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, BFDA, RUB/CNR, training and research Institutes/Centers, LGs/communities, and Farmers
3.2 Development and Pilot Agroecological Zone-Specific Agroforestry Models	2027-2029	20.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, BFDA, RUB/CNR, training and research Institutes/Centers, LGs, and Farmers
3.3 Develop buffer zones in potential agroforestry areas using existing Human Wildlife Conflict information or data.	2027-2030	70.00	NACO/DoFPS	DoA, DoL, LGs and Farmers
3.4 Promote Climate-Resilient Agroforestry Practices Among Farmers	2026-2035	50.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, BFDA

3.5. Restore Degraded Lands through Agroforestry-Based Rehabilitation	2026-2035	65.00	NACO/DoFPS	DoA, DoL, NLCS
3.6. Integrate Agroforestry into Bhutan's Climate Adaptation Strategies	2026-2035	1.00	NACO/DoFPS	DECC, DoA, DoL, DoW, NCHM
3.7 Empower Disadvantaged Households through Carbon-Incentivized Agroforestry	2026-2035	10.00	NACO/DoFPS	MoF, DECC, DoA, DoL, DoW, LGs
3.8 Promote climate-smart fodder species plantation in degraded or fallow land within the agroforestry system	2026-2035	15.00	MoAL (DoL)	DoFPS, DoA, DAMC, NBC, BFDA
Total (C)		**251.00**		
Output 4: Livelihood, Food, and Nutritional Security enhanced through Agroforestry practices				
Strategy 4: Enhancing Livelihood, Food, and Nutritional Security through Agroforestry (D)				
4.1 Develop input supply for agroforestry development and promote production of high-value agroforestry products	2026-2035	20.00	MoAL (DAMC)	DoFPS, DoA (NSC, NPPC, NSSC), DAMC, NBC, BFDA, DoL
4.2 Establish agroforestry nurseries across the country to produce quality seeds/seedlings	2026-2035	50.00	NACO/DoFPS	DoFPS, DoA (NSC, NPPC, NSSC), DAMC, NBC, BFDA, DoL
4.3 Promote the development and dissemination of both existing and emerging agroforestry technologies	2026-2035	5.00	NACO/DoFPS	DoA (NSC, NPPC, NSSC), DAMC, NBC, BFDA, DoL
4.4 Develop and implement a market-led production plan for agroforestry commodities	2026-2035	20.00	MoAL (DAMC)	DoA, DoFPS, DoL, BFDA
4.5 Support the Community Forest Member Group (CFMG) to practice agroforestry	2026-2035	25.00	NACO/DoFPS	DoA, DoL,NLCS, BFDA

4.6 Explore agroforestry business opportunities, including the Access and Benefit Sharing Regime.	2026-2035	15.00	MoAL (NBC) DAMC	DoFPS, DoA, BFDA, DoI, DoL, Private entrepreneurs
4.7. Strengthen Agroforestry Supply Chains and Market Infrastructure	2026-2035	150.00	MoAL (DAMC)	DoFPS, DoA, DoL, DoI, BFDA
4.8 Promote Value Addition and Product Diversification	2026-2035	20.00	MoAL (DAMC)	DoFPS, DoA, DoL, DoI, BFDA, Private entrepreneurs
4.9 Establish Branding, Certification, Standardization, and Market Linkages	2026-2035	20.00	MoICE (DoT, BSB), MoH (BFDA), MoAL (DAMC)	DoFPS, DoA, DoL, DoI, DoT, BFDA, BSB, Private entrepreneurs
4.10. Strengthen Livestock and Forage Production within Agroforestry	2026-2035	50.00	MoAL (DoL)	DoFPS, DoA, DoL, Private entrepreneurs
4.11 Promote the use and commercialization of native species (Crops, plants, and livestock) for agroforestry.	2026-2035	15.00	MoAL (NBC)	DoFPS, DoA, DoL, NBC
4.12 Integrate the agroforestry landscape into the tourism experience	2026-2035	40.00	NACO/DoFPS	DoA, DoL, DAMC, DoT, NBC, LGs, Farmers, Private entrepreneurs, NGOs, CSOs
Total (D)		**430**		
Output 5: National Agroforestry Financing Mechanisms established and strengthened.				
Strategy 5: Strengthening Agroforestry Financing Mechanisms (E)				

5.1 Mobilize diverse and inclusive financing mechanisms to scale climate-resilient agroforestry across Bhutan.	2026-2035	20.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, MoF, DoW
5.2 Support Private-Sector Engagement and Public-Private Partnerships (PPP)	2026-2035	16.00	NACO/DoFPS	DoA, DoL, DAMC, NBC, MoF, DoW, Private Sectors
Total (E)		**36.00**		
Output 6: National agroforestry monitoring and evaluation framework established				
Strategy 6: Strengthening Monitoring and Evaluation of Agroforestry System (F)				
6.1 Develop a National Monitoring & Evaluation (M&E) Framework	2027	2.50	NACO/DoFPS	DoA, DoL, DAMC, MoF
6.2 Integrate Agroforestry data into exiting database and dashboard	2027-2035	1.50	NACO/DoFPS	DoA, DoL, DAMC, NBC, MoF, GovTech
6.3 Provide technical facilitation and carbon project Readiness Support for Agroforestry, Community Forestry, and Private Forestry	2027-2035	30.00	MoENR (DoFPS & DECC)	DoA, DoL
6.4 Conduct Regular Field Assessments and Impact Evaluations	2026-2035	20.00	NACO	NASC
Total (F)		**54**		
Grand Total (A+B+C+D+E+F) (Ngultrum in million)		**920**	**10 million USD**	(Conversion factor 1 USD$=90 Nu.)

4.6. Monitoring and Evaluation Framework

Table 5: Monitoring and Evaluation Plan

Outputs	Output Indicators	Indicator Descriptions	Unit	Base line	Target (2034)	Means of Verification	Reporting Frequency
1. Policy and institutional frameworks for agroforestry were strengthened and implemented	No. of agroforestry-related guidelines/TOR/SOP reviewed/developed	Measures the policies related to agroforestry reviewed/developed/published, or updated and harmonized	No.	NA	5	Policy review report; Annual Report	Annually
	No. of policy dialogues with stakeholders conducted	Measures stakeholder consultations held to gather input for agroforestry-related policies, guidelines, SOP, and TOR	No.	NA	5	Guidelines, TOR, SOP developed	Annually
	No. of Gewogs integrated with agroforestry in their plans.	Measures the number of Gewogs integrating agroforestry practices in their plans	No.	NA	20	Annual Plan for Gewog, Annual Report (DoFPS)	Annually
	Timeline by which the Agroforestry Coordination Office was established	National level agroforestry coordination mechanism established and functioning	Timeline	NA	2026	Annual Report (DoFPS)	Annually

	Timeline by which the National Agroforestry Steering Committee was formed	National multi-sector steering committee established	Timeline	NA	2026	Annual Report (DoFPS)	Annually
	Number of agroforestry research and innovation collaboration networks established	Collaborative networks supporting agroforestry research	No.	NA	3	Annual Report (DoFPS)	Annually
	Number of farmers accessing financial incentives (grants, loans, subsidies, PES payments)	Tracks how many farmers directly benefit from newly established funding and incentive schemes.	No	NA	-	Reports	Annually
	Number of agroforestry R&D projects implemented	Measures the number of Research and development projects implemented on agroforestry practices and models	No.	NA	6	Project Report, Annual Report (DoFPS)	Annually
	Number of agroforestry-related traditional knowledge systems documented	Measures the number of Traditional agroforestry practices and native species compiled and disseminated	No.	2	5	Research report	Annually

2. Traditional and innovative agroforestry models promoted and adopted	Tailor-made agroforestry curriculum developed and adopted	A national-level curriculum developed and integrated into training institutions, and is being used for training farmers and entrepreneurs	No.	NA	1	Agroforestry curriculum	Annually
	Number of training and exchange events conducted	Capacity-building and peer-learning programs implemented	No.	NA	30	Training Report	Annually
	Number of individuals trained in agroforestry practices	Measures the number of farmers, extension staff, and others trained	No.	NA	600	Training Report	Annually
	Number of outreach and knowledge centers developed/integrated with Gewog Community Centers/Range/Beat offices	Measure the number of centers developed to support knowledge dissemination and farmer outreach	No.	NA	20	Annual Report	Annually
	Timeline by which the national agroforestry database and decision support system were established	A centralized system to inform planning and policy decisions established	Timeline	NA	2026-2028	Annual Report	Annually
	Number of agroforestry potential sites identified and implemented	Measure the number of Dzongkhags/gewogs with mapped and identified agroforestry potential areas	No.	NA	5	Annual Report	Annually

3. Climate Smart and Inclusive Agroforestry System promoted	Number of agroecological-specific models developed and piloted	Measures tailored agroforestry practices for major agroecological zones	No.	NA	6	Annual Report	Annually
	Number of agroforestry buffer zones established in Human-wildlife conflict-prone areas	Establishment of integrated buffer zones with species that deter wildlife around farms and settlements	No.	NA	5	Annual Report	Annually
	Number of households adopting climate-resilient agroforestry practices	Measures the adoption of drought-tolerant, pest-resistant species, water-efficient systems, greenhouse	No.	NA	2000	Annual Report	
	Area (hectare) of degraded land restored using agroforestry	Measures rehabilitation of lands (SRF) using multipurpose tree-crop systems	Hectare	NA	500	Field Report, Annual Report	
	Area (hectare) planted with climate-smart fodder species	Expansion of livestock-supportive agroforestry species in underutilized land	Hectare			Field Report, Annual Report	

	Number of disadvantaged households supported under carbon-incentivized agroforestry programs	Inclusion of vulnerable groups (e.g., women-led, landless, low-income) in carbon finance-based projects	No.	NA	200	Annual Report	Annually
	Number of households supported with agroforestry inputs	Tracks the distribution of inputs such as seedlings, compost, tools, equipment, etc., to farmers/enterprises	No.	NA	2000	Annual Report	Annually
	Number of functional agroforestry nurseries established/strengthened	Public and private nurseries produce certified quality planting materials	No.	NA	20	Annual Report	Annually
	Number of agroforestry technologies developed and disseminated	Technologies include intercropping models, soil improvement methods, pest control, etc.	No.	NA	50	Annual Report	Annually
	Market-led production plans developed for priority commodities	Commodity-wise production targets aligned with market demand and supply chain capacity	No.	NA	10	Annual Report	Annually

4. Livelihood, Food, and Nutritional Security enhanced through Agroforestry practices	Number of CFMGs implementing agroforestry practices on degraded CF	Agroforestry-based livelihood initiatives within permitted CF boundaries	No.	NA	100	Annual Report	Annually
	No. of agroforestry business opportunities, including Access and Benefit Sharing Regime for investment and establishment, explored and developed.	Includes ABS regime for investment and enterprise support mechanisms	No.	NA	30	Annual Report	Annually
	Number of agroforestry value chains strengthened	Establishment of collection centers, cold chains, and transport systems for high-value agroforestry products	No.	NA	10	Annual Report	Annually
	Number of agroforestry products with value-added processing	Includes dried, processed, packaged products for niche and export markets	No.	NA	10	Annual Report	Annually
	Number of agroforestry products certified and branded	Measures the number of agroforestry products certified, branded, and supported	No.	NA	20	Annual Report	Annually

	Number of farming households integrating livestock and forage production into agroforestry systems	Measures the number of Silvo-pastoral or integrated systems contributing to the meat/milk/egg supply	No	NA	1500	Annual Report	Annually
	Number of native species identified, conserved, and commercialized for Agroforestry	Focus on endemic crops/livestock/Trees with market or climate adaptation potential	No.	NA	100	Annual Report	Annually
	Number of agroforestry-based tourism sites established	Includes nature trails, farm stays, and value-added product showcase sites	No.	NA	12	Annual Report	Annually
5. National Agroforestry Financing Mechanisms established and strengthened	Total funds mobilized through international collaboration and fundraising	Measures the number of financial resources secured via donors, partners, and fundraising efforts	USD in Million	0	2 million	Reports	Biennial
	Number of agroforestry-related PPPs or private investments supported and facilitated	Includes contracts, investments, and joint ventures in commercial agroforestry, eco-tourism, or value chains	No.	NA	30	Annual Report	Annually
6. National agroforestry monitoring and evaluation	Timeline by which the National Agroforestry M&E framework was developed and officially adopted	Completion and formal adoption of the M&E framework	Timeline	NA	2026	Annual Report	Annually

framework established	The functional centralized database and online dashboard are operational	Digital platform enabling real-time data collection, analysis, and dissemination on agroforestry progress	Timeline	NA	2028	Annual Report	Annually
	Number of field assessments and impact evaluations of agroforestry sites conducted annually	Monitoring visits, surveys, and evaluations, assessing agroforestry outcomes and challenges	Number	NA	Biann ually	Annual Report	Annually
	Agroforestry, Community Forestry, and Private Forestry Areas Prepare for Carbon Project Development	Measures the extent of agroforestry, CFs, and private forestry land technically assessed, documented, and confirmed as carbon-eligible	Hectares (ha)	0	2035	Assessment and mapping report	Every 5 years
	Landholders linked to Accredited Carbon Project Developers	Track the number of landholders formally connected to accredited carbon project developers or registries	Land-holders/ Project Numbers	0	2035	Minutes of Coordination meeting, report/endorse ment documents	Every Five Years

V. ANNEXURES

Chapter V: Annexure

5.1 Strategy Formulation Task Force

	Kencho Dukpa (Mr) Principal Forestry Officer, DoFPS, MoENR		Wangchuk (Mr) Offtng.Program Director, NDCAN, DoL, MoAL
	Dawa Tshering (Mr) Principal Forestry Officer, DoFPS, MoENR		Sither Wangdi (Mr) Principal Forestry Officer, DoFPS, MoENR
	Karma Orong (Mr) Dy.Chief Forestry Officer, DoFPS, MoENR		Jamyang Lophyal (Mr) Dy.Chief Economic Development & Marketing Officer, DAMC, MoAL
	Lhaksam Chedrup Senior Economic Development & Marketing Officer, DAMC, MoAL		Pem Zam (Ms) Senior Biodiversity Officer, NBC, MoAL
	Kinley Sithup (Ms) Horticulture Officer, DoA,MoAL		Pema Tshering Lepcha (Mr), Senior Regulatory and Quarantine Inspector, BFDA, MoH

 Tsheltrim Dorji (Mr) Senior Forestry Officer, DoFPS, MoENR	 Tshedar (Mr) Senior Forest Ranger, DoFPS, MoENR	 Sonam Pelzin Dor (Mr.) Agriculture Officer DoA, MoAL

5.2 References

Amatya, S. M., & Adhikari, S. (2022). The agroforestry practices in SAARC countries: A critical review.

Bhutan Ecological Society (2021). Annual Report 021. Retrieved from https://www.bes.org.bton 13th May 2025

Chhogyel, N., & Kumar, L. (2018). Climate change and potential impacts on agriculture in Bhutan: a discussion of pertinent issues. Agriculture & food security, 7(1), 1-13.

Clavero, T., & Suárez, J. (2006). Limitations to the adoption of Silvo-pastoral systems in Latin America. Pastos y forrajes ,29 (3).

DAC (2014). National Agroforestry Policy 2014. Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India. Available at: https://www.nitiforstates.gov.in/public-assets/policy/policy-repo/agriculture-and-allied-services/PNC511A000509.pdf

DAMC (2021). RNR Marketing Strategy 2021. Ministry of Agriculture and Forest, Royal Government of Bhutan

DoA, 2017. Agriculture Land Development Guidelines (ALDG). Department of Agriculture, Ministry of Agriculture and Forests, Royal Government of Bhutan, Thimphu.

Economic Development Policy (2016). Royal Government of Bhutan

Hocking, D., & Wangdi, J. (2000). Review of the literature in Bhutan on Agroforestry. Hunting Technical Services.

Kumar, R., Veeraragavan, M., Baral, K., Saikanth, D. R. K., Singh, V., Upadhyay, L., & Raj, S. (2023). Agroforestry and its potential for sustainable Land Management and Climate Action: A review. International Journal of Environment and Climate Change, 13(12), 620-629.

Ministry of Agriculture and Forest (2011). National Forest Policy of Bhutan 2011. Retrieved from https://www.moenr.gov.bt on 14th May 2025

Ministry of Agriculture and Forest (2021). Guidelines on Cost-Sharing Mechanism for the RNR Sector.

Ministry of Agriculture and Livestock (2023). Food and Nutrition Security Policy of Bhutan, Royal Government of Bhutan, Thimphu.

Ministry of Agriculture and Livestock (2025). Bhutan Agrifood Sector Strategy 2034. Royal Government of Bhutan.

MoALD (2019). National Agroforestry Policy 2019 (2076). Available at: https://faolex.fao.org/docs/pdf/nep203241.pdf

MoALFC (2021). Kenya National Agroforestry Strategy 2021–2030. Ministry of Agriculture, Livestock, Fisheries and Cooperatives, Government of Kenya

National Biodiversity Centre (2017). National Biodiversity Statistics. Ministry of Agriculture and Livestock, Thimphu. Retrieved fromhttps://www.biodiversity.bt on 14th May 2025

National Biodiversity Centre (2022). Biodiversity Act of Bhutan. Ministry of Agriculture and Livestock, Thimphu. Retrieved fromhttps://www.nbc.gov.bton 14th May 2025

National Biodiversity Centre (2025). National Biodiversity Strategy and Action Plan. Ministry of Agriculture and Livestock, Thimphu.

National Land Commission Secretariat (2023). National Land Use Zoning A Baseline Report. Retrieved from https://www.nlcs.gov.bt on 14th May 2025

National Statistics Bureau (2024). 2024 Labour Force Survey Report Bhutan. Retrieved from https://www.nsb.gov.bt on 14th May 2025

National Statistics Bureau (2024). National Account Statistics 2024. Retrieved from https://www.nsb.gov.bt on 14th May 2025

Pancholi, R., Yadav, R., Gupta, H., Vasure, N., Choudhary, S., Singh, M. N., & Rastogi, M. (2023). The role of agroforestry systems in enhancing climate resilience and sustainability-a review. Int. J. Environ. Clim. Change, 13(11), 4342-4353.

Paudel, Y., & Shrestha, S. (2022). Agroforestry practices prevailing in SAARC countries: A review. Indonesian Journal of Social and Environmental Issues (IJSEI), 3(1), 10-18.

Phadermrod, B., Crowder, R. M., & Wills, G. B. (2019). Importance-performance analysis-based SWOT analysis. International journal of information management, 44, 194-203.

Schaffer, C., Eksvärd, K., & Björklund, J. (2019). Can agroforestry grow beyond its niche and contribute to a transition towards sustainable agriculture in Sweden?. Sustainability, 11(13), 3522.

Schaffer, C., Elbakidze, M., & Björklund, J. (2024). Motivation and perception of farmers on the benefits and challenges of agroforestry in Sweden (Northern Europe). Agroforestry Systems, 98(4), 939-958.

Sears RR, Phuntsho S, Dorji T, Choden K, Norbu N and Baral H. 2017. Forest ecosystem services and the pillars of Bhutan's Gross National Happiness. Occasional Paper 178. Bogor, Indonesia: CIFOR.

Vijay Kumar, R., Tiwari, P., Daniel, S., Kumar, K. R., Mishra, I., Aneesh, K. S., & Shah, D. (2024). Agroforestry Systems: A Pathway to Resilient and Productive Landscapes. International Journal of Environment and Climate change

Wanghcuk & Gyaltshen, G (2018), Effect of total mixed ration (TMR) differ between progressive and less progressive dairy farms. Bhutan Journal of Animal Science, Volume 2, Issue 1, Page 62-65.

Reviewed by the 74th Session of the Technical and Advisory Committee Meeting dated 30th October 2025

Supported by:

ISBN: 978-99980-725-6-5