Provincial REDD+
ACTION PLAN
Gilgit - Baltistan

2022-2031

REDD+ Pakistan

Prepared under the REDD+ Readiness Preparation Project for Pakistan financed by Forest Carbon Partnership Facility (FPCF), implemented by Federal Ministry of Climate Change (MoCC) through National REDD+ Office (NRO), Islamabad.

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Financed by
Forest Carbon Partnership Facility (FPCF) of the World Bank through National REDD+ Office, Ministry of Climate Change, Pakistan.

Technical assistance
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Forests, Wildlife, Environment Department, Gilgit Baltistan

April 2022

Government of Gilgit Baltistan (2022). "Provincial REDD+ Action Plan of Gilgit-Baltistan". GB Forests, Wildlife and Environment Department and National REDD+ Office, Federal Ministry of Climate Change, Government of Pakistan.

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ACRONYMS

ADB	Asia Development Bank
CKNP	Central Karakorum National Park
DNP	Deosai national Park
FCPF	Forest Carbon Partnership Facility
FGD	Focus Group Discussion
FGRM	Feedback Grievances and Redressal Mechanism
FREL/ FRL	Forest Reference Emission Level/ Forest Reference Level
FSMP	Forestry Sector Master Plan
GB	Gilgit Baltistan
GHG	Green House Gases
GIS	Geographic Information System
GPS	Global Positioning System
HNP	Himalayan National Park
HSNP	Handrap Shandur National Park
IPCC	Intergovernmental Panel on Climate Change
KNP	Khunjerab National Park
LULUCF	Land Use, Land Use Change and Forestry
MoCC	Ministry of Climate Change
MRV	Measurement Reporting and Verification
MT	Metric Ton
NDC	Nationally Determined Contribution
NFI	National Forest Inventory
NFMS	National Forest Monitoring System
NGOs	Non – Governmental Organizations
NPNP	Nanga Parbat National Park
NRO	National REDD+ Office
NRS	National REDD+ Strategy
PAM	Protected Areas Management
PES	Payment for Ecosystem Services
PRAP	Proposed Remedial Action Plan
QNP	Qurumber National Park
REDD+	Reducing Emissions from Deforestation and Forest Degradation; and the Role of Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks in Developing Countries
R-PP	REDD+ Readiness Preparation Proposal
SES	Social and Environmental Safeguard
SESA	Strategic Environmental and Social Assessment
SFM	Sustainable Forest Management
SLMS	Satellite Land Monitoring System
TBTTP	Ten Billion Trees Tsunami Project
ToT	Training of Trainers
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nation's Framework Convention on Climate Change
WB	World Bank

SUMMARY

Gilgit-Baltistan (GB) has been a pioneer in introducing participatory approach in multi-sector rural development in early 1980s. This participatory approach has been vital in improving the region's natural resource base, including integration of trees in the landscape with an immense contribution of local communities, women and men. GB's REDD+ Action Plan (PRAP) is founded on this history of over four decades for building community-based approaches to introducing REDD+ in GB.

The Pakistan National REDD+ Strategy was approved in 2021. This Provincial REDD+ Action Plan has been developed to contribute to the strategy's objectives and sustainable management of forest resources of GB.

Preparation of this PRAP took a multi-stakeholder participatory approach and is designed to help meet the objectives of Pakistan's National REDD+ strategy as well as envisaged objectives of GB's Forest Act. The specific objective of this document are to (i) Outline actions in line with ground realities to address the prioritized drivers and barriers with context specific actions[1] and related budget (ii) Improve health of the forest ecosystems by reducing deforestation and forest degradation and enhancements of biomass (iii) Define effective implementation and monitoring of REDD+ actions to address the drivers (iv) Identify social and environmental risks associated with actions and propose mitigation (v) Propose a clear benefit sharing mechanism associated with implementation of REDD+ activities, and (vi) Identify areas for enabling policy, legal and institutional arrangements in favour of implementing PRAP.

The forestry resources of GB are classified in three different categories viz. coniferous forest, broad leaved forests, and mixed forests. The total forest area of GB is estimated at 142,191 ha which make up 3.57% of the total area of the region. Legally, the forests of GB are protected and privately owned.

The main drivers of deforestation identified by the stakeholders included (i) infrastructure development e.g. roads and urban expansion, habitation, tourism related construction (hotels, restaurants), (ii) agricultural expansion or cash crops: e.g., Potato, pea, (iii) mining of semi-precious stones. The drivers of forest degradation included (i) unsustainable fuelwood extraction (70% extraction of trees in GB for fuelwood), (ii) illicit timber extraction by timber mafia, and (iii) lack of institutionalized participation of community.

The PRAP outlines actions that support investment on improving local livelihoods to address local drivers of deforestation and degradation in order to achieve sub national and national REDD+ and forest policy objectives. The PRAP identifies measures and interventions that will contribute to national and global goal of reducing emissions. The GB Forest, Wildlife and Environment department as custodian of the GB's forests advocates that REDD+ policies and measures are designed locally and with full involvement of local institutions and communities.

One of the key action identified in PRAP consultations, was the implementation of participatory approach in forest management founded on a long track record in GB on community-based development. In addition, a huge emphasis was laid on solving a near-crises situation of alternative energy for heating and cooking. GB is Pakistan's most prominent regions for Protected Area Management (PAM) with around 60% of the area under some sort of PAM. The stakeholders emphasized looking into PAM closely from REDD+ benefit sharing aspect and ensure that communities that PAMs (especially in the most fragile ecological areas) generate incentive for communities in lieu of their tradeoffs to resource use entitlement.

1 A set of interlinked activities that form a coherent actions for counteracting a driver of deforestation, forest degradation and/ or barriers to expansion of a forest carbon enhancement activity.

The PRAP will make a traction through Participatory Forest Management Plans (PFMPs) with an approach that encourages harvesting trees on a rotational basis so that timber and fuel may be produced and used sustainably for local use. The PRAP suggests activities aimed at enhancing forest stocks so that forests continue to see improvement for effective REDD+ results. GB Forest, Wildlife and Environment Department will follow a site specific, landscape approach in PFMPs in which various actions are planned and implemented in a coordinated way, aiming at maximizing economic, social and environmental benefits.

The total indicative financial size of this PRAP is PKR2,010 million for ten years (2022-2031).

1 INTRODUCTION

Pakistan signed and ratified the United Nation Framework Convention on Climate Change (UNFCCC) in 1994. Pakistan also initiated a national dialogue on REDD+ in 2010 and submitted its REDD+ Readiness Preparation Proposal (R-PP) to the World Bank Forest Carbon Partnership Facility (FCPF) in 2014. The Federal Ministry of Climate Change (MoCC) through its Office of the Inspector General of Forests (OIGF) has been implementing Readiness activities after approval of R-PP in 2014 with financial and technical support from FCPF along with other bilateral initiatives and UN-REDD target support fund.

One of the key outputs[2] of REDD+ Readiness activities was preparation of a National REDD+ Strategy for Pakistan which was finalized in 2021 with the vision that forests provide ecosystem services and livelihood support on a sustainable basis. As part of the development of the strategy direct and underlying drivers of deforestation and forest degradation and barriers to enhancement of biomass and forest area/cover were assessed at the national level. The strategy also identified measures necessary to effectively address the drivers and barriers. For the implementation of recommendations proposed under the national REDD+ strategy, it is important to elaborate the drivers and barriers at sub-national and local levels. To undertake these tasks at the sub-national and local level, the strategy suggested development of Provincial REDD+ Actions Plans (PRAPs) and Participatory Forest Management Plans (PFMPs).

The PRAP of GB therefore is in line with the recommendation of the NRS. This document provides details on province specific drivers of deforestation and forest degradation and describes actions to address them in order to improve forest resources of GB. The actions also aim to capitalize opportunities and address challenges for strengthening REDD+ readiness process in GB.

1.1 Context of GB

1.1.1 Area and location

GB is situated in the extreme north of Pakistan between 43° 40‟ to 37° 04‟ North Latitudes & 72° 30‟ to 77° 50‟ East Longitudes. It borders with Xingjian province of China to Northeast, Wakhan province of Afghanistan to the north, Indian administered Jammu and Kashmir to the Southeast and Pakistan administered Azad Jammu and Kashmir to the South. The total area of GB is 720496 km² (9.1% of total land cover of Pakistan) and out of this 3.57%[3] land is under forest cover[4] representing 5.2% of total forest cover of Pakistan i.e. 4786831 ha[5].

GB is divided into 10 districts and 113 union councils[6]. Gilgit is the capital and main political and financial hub of GB. GB is predominantly mountainous and is located in high mountain ranges of Karakorum, Himalayas, Hindukush and Pamir with most of the area situated 3,000 meters above sea level. Five out of the world's fourteen peaks exceeding 8,000 meters, including the second highest, K2, are in GB. The territory also contains the largest perennial glacial deposits outside of the Polar Regions, and GB is sometimes referred to as the 'third pole' of the world. The mountains are supporting a rich biodiversity of high-altitude plants, forests and animals as well as opportunities for trekking, climbing and hiking. The alpine meadows and rangelands are mostly used for grazing during summer. The tree cover is generally limited to higher sub-alpine and dry temperate regions.

2 National REDD+ Strategy, National Forest Monitoring System, Safeguard Information System, Forest Reference/ Emission Level
3 Anwar et.al (2017). Forest carbon inventory of Gilgit-Baltistan. Forest, Wildlife and Environment Department of Gilgit-Baltistan. 2017
4 Land use cover map of GB (2017). REDD+ Cell GB
5 https://redd.unfccc.int/files/1._unfccc_frel_pakistan__final_with_proofread_-final.pdf
6 GoP, 2017. Pakistan National Census Report. Government of Pakistan.

1.1.2 Demographic and socioeconomic pattern

As per 2017 Census Report the GB Population is approx. 1.5 million[7] (Male: 51.7%; Female: 48.2%). The rural and urban population constitute 16.5% (246,332) and 83.5% (1,246,592) of the total population of GB, respectively. The population of GB is increasing at an average 2.56% per annum and will cross 1.84 million by 2030 and 2.61 million by 2050[8], if growth continues at current rates. Most of the population of GB follows Islam. The provincial economic outlook is reflected in terms of GDP as USD 4.60 billion compared to national GDP of USD 314.588 billion which is merely 1.5% of national GDP. The per capita GDP of GB is USD 1550 as compared to USD 1641 for Pakistan.

The local languages of GB are Shina, Balti, Khowar, Wakhi and Broshiski. Shina language is dominant in Gilgit region and Balti in Baltistan region. Wakhi is spoken in parts near China border. It is worth mentioning that Wakhi is also the local language of the people living across the border in China and Afghanistan. People all over GB can speak and understand Urdu, which is a common medium of communication between national tourists and local people.

1.1.3 Economy

A majority (45%) of the people of GB depend on agriculture, livestock and forestry as their main source of livelihood. The total cultivable area of GB is hardly 0.40 million hectares[9] with less than 5.5% of the total geographical area as cultivable land. GB is food deficient as more than 50% of its food staples including wheat are supplied from down country. Agriculture production is strongly linked with the seasonal and long-term variations resulting from climate change. More than 80% population engages in subsistence farming by which cereal crops, fruits, vegetables and fodders for livestock are produced[10]. GB endures diverse range of animal and plant species of economic significance. Though 50% area is protected to forefend endangered species, they continued to be threatened for many reasons like over-exploitation of medicinal plants and habitat destruction.

1.1.4 Climate

Climate change related disasters hit the region frequently. This further increases the food insecurity of local population. The area as a whole falls within dry temperature zone and characterized by a fragile high mountain environment and extreme climatic conditions mostly covered with snow throughout the year. Climatic conditions vary widely in the GB, ranging from the monsoon influenced moist temperate zone in the western Himalaya, to the arid and semi-arid cold desert in the northern Karakoram and Hindu Kush. The summer season is mostly pleasant at high altitudes but hot in the low-lying valleys. Likewise, the winter season is pleasant in low lying areas and extremely cold at high altitudes. The southern areas are normally hotter during June, July and August with the mean minimum and mean maximum temperature of 22°C and 37°C respectively and colder during December, January and February with the mean minimum and mean maximum temperature of 1°C and 12°C respectively. However in the northern part the mean maximum temperature in winter remains 0°C while the mean minimum temperature falls as low as -14°C. Below 3,000 m, precipitation is minimal, rarely exceeding 200 mm annually. However, there is a strong gradient with altitude, and at 6,000 m, the equivalent of 2,000 mm per year falls as snow. Entire GB territory forms the watershed of the Indus River where the perennial streams are fed by glacial and snowmelt water – an important source of water for Pakistan's Southern and central arid flood plains.

7 https://portal.pnd.gog.pk/Content/Files/Reports/Gilgit%20Baltistan%20at%20a%20Glance%20New%20Design%202020%20Final_210554160.pdf
8 Projection is based on the current rate of population growth reported in census report 2017.
9 https://portal.pnd.gog.pk/Content/Files/Reports/Gilgit%20Baltistan%20at%20a%20Glance%20New%20Design%202020%20Final_210554160.pdf
10 http://gbepa.gog.pk/files/GBEPA_CCS_and_AP_2018-07-31.pdf

1.1.5 Overview of the forest resources

The forestry resources of GB are classified in three different categories viz. coniferous forest, broad leaved forests, and mixed forests. The total forest area of GB is estimated at 249,205 ha which make up 3.57% of the total area of the region. Diamer has the highest forest cover (71%) followed by Astore (12%) and Gilgit (10%). These three districts together contain 93% of the total forest area of GB. Ghizer, Nagar and Skardu districts have 2.5%, 1.86% and 1.12% forest area respectively (**Figure 1**).

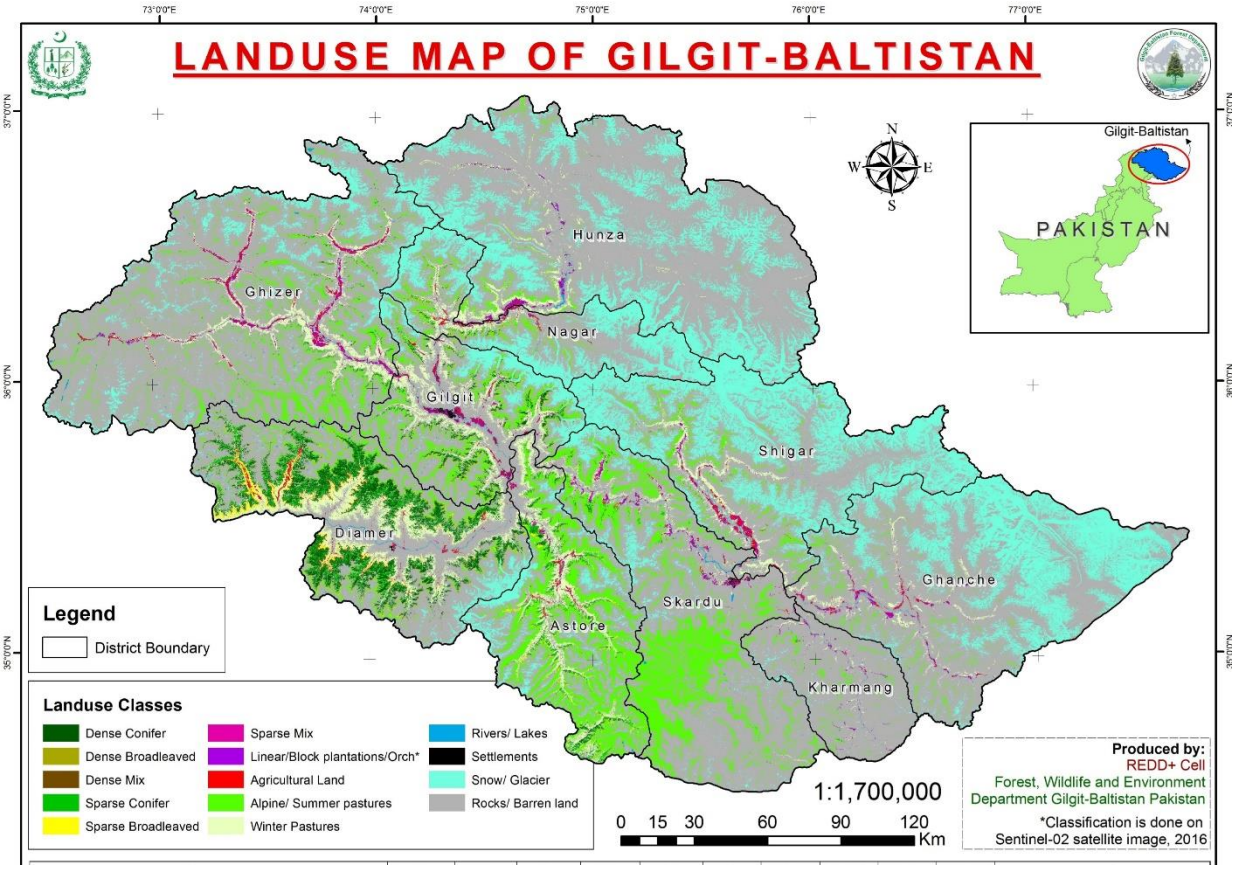

Figure 1: Land use map of 2016 (source: REDD+ Cell GB Forest Department)

Forest area was classified into different forest strata on the basis of climate and crown density and species composition i.e. Montane sub-tropical scrub forests, Montane dry temperate coniferous forests, Montane dry temperate broadleaved forests, sub-alpine forests and northern dry scrub. It was found that the highest amount of forest cover falls under the dense coniferous class (43%) followed by sparse conifers (34%) and sparse broad-leaved forest (11%). The remaining forest cover consists of dense mix, dense broad-leaved and sparse mixed forests each having 4% cover. The natural forests of GB are an important source of softwood timber for the country. Locally, they provide timber; firewood; torch wood; grazing; medicinal plants and other non-timber forest products (NTFP). These forests and impressive landscape have a great potential for countryside recreation and eco-tourism.

Forests in GB are under natural and manmade pressure. In addition, the population growth, poverty and subsistence cutting are some of the indirect causes of deforestation in the region. Poor forest management and planning, low institutional capacity, lack of community involvement and lack of enabling environment are responsible for further escalating the problems. Rangelands constitute 52% of the GB's area and their proper management is pivotal in the larger natural resource landscape[11].

11 http://gbepa.gog.pk/files/GBEPA_CCS_and_AP_2018-07-31.pdf

The total carbon stock in aboveground and belowground biomass in the forests of GB was estimated at 16.95 million ton. It was found that 80% of the carbon stock is in aboveground and 20% is in belowground pool. The highest amount of carbon stock is present in Dense Conifers (70%) followed by Sparse Conifers (14%). Dense Mixed forests have 5% share in the total carbon stock. Dense Broad-leaved and Sparse Broad-leaved forests have almost equal share in the total carbon stock i.e. 4.37% and 4.55% respectively. Similarly, sparse mixed forests have 2.09% share in the total carbon stock in the area **(Figure 2)**.

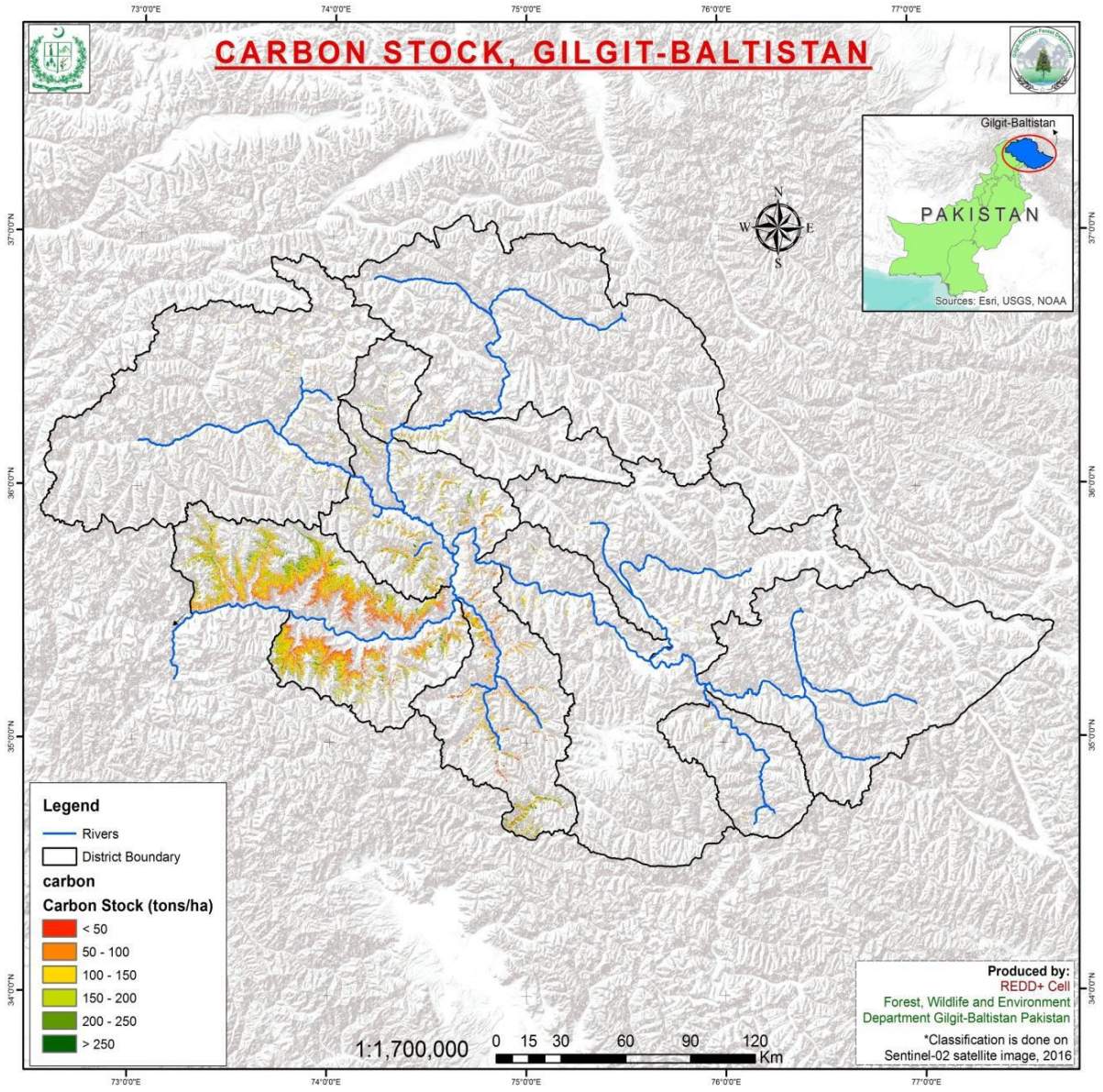

Figure 2: Forest Carbon Map of 2016 (source: REDD+ cell GB Forest Department)

The Government of GB is taking further steps to increase the forest cover and forest carbon stock under the largest ever afforestation program in the history of the country i.e. the Ten Billion Trees Tsunami Programme (TBTTP). This four-year flagship national program (2019-2023) will increase the existing forest area. During phase one, 3.29 billion plants will be planted and/or regenerated to restore nine different forest categories over an area of 1.2 million hectares by 2023. During phase two, 750 to 850 million plants/ year will continue over the next six years up to 2030. The estimated project cost of about US$800 million is being met nationally from indigenous resources. TBTTP is expected to sequester

148.76 MtCO2e emissions over the next 10 years. Pakistan's emissions as per 2018 are 489.87 MtCO2e, TBTTP is expected to sequester around 500 Mt CO2e by 2040, if implemented fully, which shows a significant potential for the country to report its performance compared to 2012 i.e. national FREL of Pakistan.

Broadly, land tenure rights in GB may also be classified as 'formal or *de jure*' or 'customary or *de facto*'. Formal property rights are those that are explicitly acknowledged by in GB whereas informal property rights are those that lack official recognition and protection. Customary property rights are exercised by indigenous communities by virtue of their historical relationship with the forests on which their survival depends *(pushtani)*. Some customary rights are given formal recognition thereby blurring the distinction between formally recognized rights and customary rights.

In GB, forests and allied resources are being regulated through recently approved GB Forest Act, 2019 that repealed the Forest Act of 1927. In addition, the Gilgit Private Forest Regulations 1970 and the rules and notifications made from time to time in respect of protected and private forests before the commencement of revised Act govern forests. Currently, New rules are being made taking guidance from GB Forest Act 2019.

The tenure system in private forests of District Diamer is complex and distribution of forest ownership is based on ethnic groups. Three ethnic groups i.e. Shin, Yashkun and Kamin have forest ownership rights while some of the ethnic groups such as Soniwal, Gujjars, and Doms, despite being permanent settlers, have no forest ownership and are weak and could not cut tree for commercial purpose. In Tangir valley, nearly 50% of the population of Tangir valley has no forest ownership rights. Communities have distributed some of their forests on household level which triggered more deforestation when compared to forests owned by the communities jointly. Few influential individuals have mostly benefited from the forest. As a result, distribution of wealth from forests is not equitable. The remaining populations of Tangir valley is still very poor. Another serious concern in Tangir valley is that rich individuals have purchased the standing forests from their fellow villagers. Several households have thus lost the ownership of the forest changing communal ownership to mostly private ownership. In several cases boundaries are unclear. A clarification of land tenure rights is essential in order to understand the existing relationship people have with land and to assess where and how REDD+ may be incorporated in the current tenure system.

The provisions of the Forest Act of 1927 (amended GB Forest Act 2019) and the Land Revenue Act of 1867 (amended GB Land Tenure Act of 1967) remain the key legal instruments determining legal aspects of landownership, including forestland. However, it only covers the existing power system and entitlements to manage forests and lacks clarity on unrecognized claims (carbon pools), legal and customary jurisdictions of rights, access and use patterns with respect to resources and various stakeholder categories. Table 1 provides an overview of existing forest tenure system in GB.

Table 1: Forest tenure system in GB[12]

Legal Category / Tenure Regime	Forest type	Rights	Area and locations	Ownership and management arrangement
Protected Forest • GB Forest Act 2019, Chapter-VI (Section 17 – 45) 65,016 ha	• Dry temperate coniferous forests • Dry temperate broadleaved • Sub alpine juniper-Birch-willow • Northern dry scrubs	Proprietary rights: Government 100% Community rights: Usufruct[13] rights: Timber for domestic use, deadwood, NTFP, grazing.	All natural forests except in Darel, Tangir and Chilas sub-divisions	• Owned (proprietary rights), administered, regulated and managed by the Government through Forest Department. • Managed through working plans.
Private forests • Accession Deed of 1952 • Judgment passed by the Supreme Appellate Court GB in Case No SMC-18/2009, dated 16-04-2011 • GB Forest Act 2019, Chapter-VI 77, 175 ha[14]	• Sub-tropical scrub • Dry temperate coniferous forest	Timber sale proceed belongs to the owners, except the following: • The department may collect prescribed royalty from and tax the produce from Private Forests. • The department may also impose and collect punitive fines on certain timber and forest produce. • The department may retain timber and other produce obtained from Private Forests under syndicate and other government regulatory power. Community rights: Usufruct rights: Timber for domestic use, grazing, deadwood, NTFP, litter, land for agriculture	Darel, Tangir and Chilas sub-divisions	• Owned by the local people (an individual or individuals, singly or collectively) • Regulated and managed by the GB Forest Department in accordance with the Accession Deed of 1952 between the Government of Pakistan and the tribal communities of Darel, Tangir & Chilas Sub-Divisions of Diamer District and the Judgment passed by the Supreme Appellate Court GB in Case No SMC-18/2009, dated 16-04-2011
Total forest area	**142,191 hectares**			

12 (i) There is provision in Section 44 of GB Forest Act 2019 to declare protected forest as reserved forests, however currently none of the forests in GB fall under this category. In this category, timber sale proceed (100%) belongs to the government. Community can access usufruct rights (deadwood, NTFP/ controlled grazing, litter). If prevailed, the management of these forests will take place through working plans. (ii) There is a provision in Chapter-V of GB Forest Act 2019 (Section 46) that the Government may assign to any village community the rights of the Government to or over any land which has been declared as a Protected Forest and may cancel such assignment. All such lands shall be called "village forests". Currently no village forests have been declared in GB. Community rights in such forests are subject to prior permission and management agreement: timber, forest produce, pasture. If prevailed, the proprietary rights, administered, regulated and managed would have rested with the Government through Forest department. These forests would be managed through working plans and/or through joint Forest Management between communities and Government.

13 A usufruct is a legal right accorded to a person or party that confers the temporary right to use and derive income or benefit from someone else's property While the usufructuary has the right to use the property, they cannot damage or destroy it or dispose of the property

14 Hussain (2013), Ensuring REDD+ safeguards for socioeconomic sustainability of forest dependent mountain communities – A case study of private forests of Darel-Tangir GB Pakistan. Master's Thesis 2013

1.2 Structure of GB Forest, Wildlife and Environment Department

The Gilgit-Baltistan Forests, Wildlife and Environment Department (GBFW&ED) is basically comprised of two sub departments, (i) Forests, Wildlife and Parks Department (FW&PD) and (ii) the Environment Department which are administratively governed by Secretary GBFW&ED. The Forest, Wildlife and Parks Department is technically headed by Chief Conservator of Forests, Wildlife and Parks while the Environment Department is technically headed by Director Environment. The functions and structure of FBFW&ED are described below:

1.2.1 Forests, Wildlife and Parks Department

The Forests, Wildlife and Parks Department (FW&PD) is further divided into two circles i.e. (i) forest circle and (Ii) parks and wildlife circle as described below;

Forest Circle

The forest circle performs the functions for the protection, rehabilitation, establishment, sustainable use, conservation and management while improving the socioeconomic and ecological development of GB. Due to diverse nature of forest ecosystems in the region, the forest circle is further divided into three regional circles i.e. Gilgit, Diamer and Skardu, each circle being separately headed by Conservator of Forest, respectively. These regional forest circles are responsibilities for (i) promotion and regulation of state and community forests, farm forestry, roadside tree plantation and natural resources (like fuel wood, timber and non-timber forest products) and (ii) effective contribution in the carbon sink, combat climate change and reduction in the global warming.

Parks and Wildlife Circle

The Parks and Wildlife circle has management mandate for conservation of wildlife and its habitat to improve economic benefits locally, while improving ecological services globally in close collaboration with local communities, NGO's, other concerned departments, and ministries. The circle also provides legal, technical, and financial support to community-based institutions and other key partners for conducting research, conservation and sustainable management activities on the basis of availability of natural resources in the vicinity.

Protected Areas Management (PAM) in GB

This is an important category of management of natural resources in GB since a significant area of GB is covered under PAMs. Out of 07 notified national parks, 03 are under active management system, namely Khunjerab National Park KNP), Deosai national Park (DNP), and Central Karakorum National Park (CKNP). GB has received a 100 million PKR for Qurumber National Park (QNP) and a management plan is under development whereas the scheme for Handrap Shandur National Park (HSNP) is included in the 10-Billion Tree Afforestation Programme. Planning for Himalayan National Park and Nanga Parbat National Park is yet to begin, although the decision has already been taken. PKR 100 million has been allocated for these parks. There are several wildlife sanctuaries and game reserves, however, without any management plans. Staff are in place for these protected areas.

1.2.2 Environment Department

The Environment Department is responsible for the protection, conservation, rehabilitation and improvement of the environment, prevention and control of pollution, and promotion of sustainable development. The department holds the legal mandate to develop and implement the laws, regulation and rules related to environmental investigation and protection in the region.

An Institutional structure of GB Forest Wildlife and Environment Department is presented in **Figure 3**.

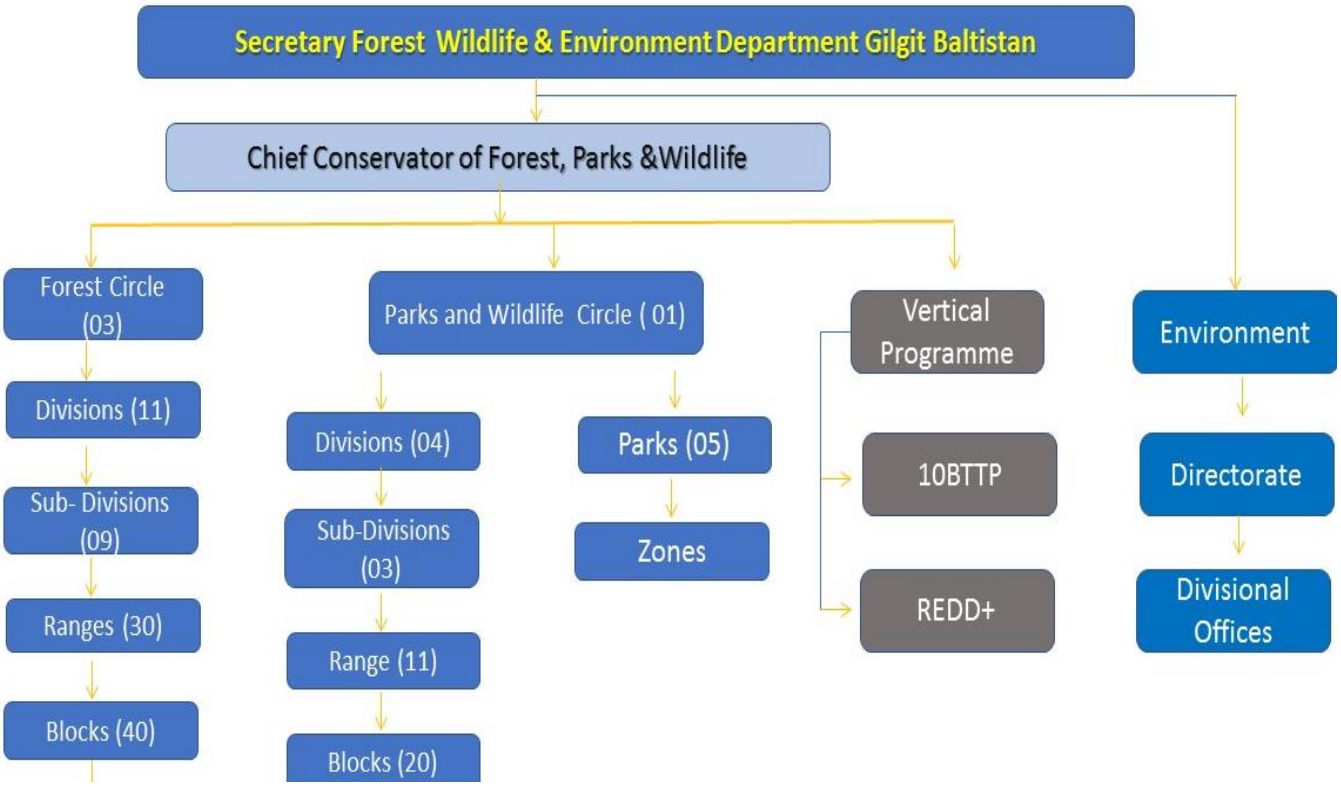

Figure 3: Institutional structure of GB Forest, Wildlife and Environment department

1.3 Stakeholders, Roles, and Responsibilities

This exercise is based on secondary information from research and reports, and discussion with key informants from the province.

The GBFWED and local communities are the key stakeholders of the province with the highest stake in REDD+. Scrutinizing illegal activities (mostly forest encroachment and illegal cutting and trafficking of forest trees) mainly entails support to joint forest management activities, implementation of forest enhancement, and coordination with other key agencies. The department also recognizes contribution from local community, other relevant government institutions, and CSOs/NGOs for their engagement in forest development, sustainable management and capacity building activities. There are five key groups of forests in GB having different (and at times overlapping) social and economic interests and influence in forest management related decisions and their implementation[15]:

1. Forest concessionists who have legal/ customary rights over the use of certain resources from reserved/ protected forests
2. Private forest owners (communities of district Diamer) who control and use forest for their basic needs (timber, firewood, grazing, grass cutting, fodder collection, NTFP collection etc and get revenue through commercial forest sale (direct lease and royalty).
3. Forest communities living in private forests belonging to non-owner ethnic groups (Gujars, Soniwals, Doms etc.) mostly involve as labour force in commercial forest harvesting and are highly dependent on forests and ranked as poor forest dependent communities. Poverty and

15 Hussain et al, 2014

disputes with owners may compel this group for deforestation and forest degradation through illegal activities.

4. Forest lessees/ contractors mostly invest in private forests for profit purposes. Due to their greater access to high forest officials and control over user groups, they manage to illegally cut forest over and above the prescribed volumes, therefore, major contributor of deforestation and forest degradation. Most of these rich influential became forest lessees and the forest officials find difficulties in containing these rich individuals as they have developed their links with provincial and federal governments.
5. Nomads mostly depend on the forests and due to their non-sedentary nature, these groups are generally on move to graze their cattle in forest valleys and try to get as many benefits from forests as they can. They cause forest degradation due to overuse of forests and trampling/grazing of regeneration by animals.

The non-owner users can use forests only on the permission of Forest Department and legal owners under customary arrangements. The power conflict between government institutions and owner groups might weaken the control by forest owners/ writ of the government. In such situations, the forests may be controlled and used by other non-owner user groups giving rise to conflicts between owners and non-users. Another potential conflict could be between government institutions and civil society organizations regarding organizations and strengthening of local communities. The forest department has established several Forest Conservation Committees (FCCs) and strengthened their management capacities from time to time. On the other side, the local NGOs/ CSOs have also established a network of Village Organizations (VOs) with overlapping vested interests. This may create conflicts between VOs and FCCs over resource management issues.

Table 2 presents some of the key stakeholders that are relevant in implementing different REDD+ initiatives in the province.

Table 2: Key REDD+ stakeholders in GB

Key stakeholder Group	Stakeholders	Roles in Forest Management
Government Institutions	• Forest Department • Agriculture Department • Mineral Department • Planning and Development Department • Tourism Department	• Responsible for implementing REDD+ Action Plan • Providing conducive policy, legal and institutional environment for forest management planning, administration and technical support, monitoring and control of illegal activities, coordination with other government and non-government agencies
Communities	• Individual households, forest owners, forest users and dwellers • Organized communities such as Forest Conservation Committees (FCCs), Village Development Committees (VDCs) and their apex institutions (e.g. Local Support Organizations) • Women organizations in the villages or their apex organizations • Forest conservation committees / valley conservation committees organized by different project initiatives • Organization of forest users/ forest owners	Potentially, • Have a direct stake in REDD+ benefit and thus conserve forest resources for a longer term while responsibly using forest resources according to *de jure* or customary laws • Support planning & implementation of forestry programmes, projects and/ or activities • Provide local knowledge to understand the drivers/ agents of deforestation and forest degradation • Ensuring participatory inputs for development of forest management and operational plans • Implement forest conservation, protection, and management • Engage in forest monitoring activities and strengthen the participatory monitoring process
Civil Society Organizations	• Local NGOs in development sectors with an implication on communities and forests • Citizens' fora and collectives for opinion building • National NGOs interested in development sectors with an implication on communities and forests	• Organize and strengthen community organizations • Mobilizing civil society for effective public sector development policies • Create platforms for dialogue on forest management issues • Promote equity and rights issues particularly of children, women, youth and marginalized groups living in or adjacent to forest areas • Promote voices/concerns of poor and marginalized social groups Offer implementation of development interventions when required
International organizations	• International NGOs in development sectors with an implication on communities and forests • Multi-lateral organizations with political power to influence policy and global opinion • International donor organizations	• Offer advocacy, advisory, and technical roles in developing or modifying policies that grant or protect local people's equitable access to resources • Facilitate advocacy for environmental conservation and public awareness • Build capacity of government and local communities to plan, implement and maintain forest protection and conservation activities • Generate finances for development activities (including research, technology development.
Private Sector	• Wood based businesses • Banks/ Micro Finance Institutions	• Invest in sustainable forest management through sustainable business opportunities • Provide access to microfinance for businesses, local production and promoting jobs

Key stakeholder Group	Stakeholders	Roles in Forest Management
	• Private investors and traders • Tourism companies, hotels, organizers • Technology developers and vendors	• Create alternative opportunities for local economies through employment and income generation • Create linkages through public-private partnership to contribute to participatory planning for reducing illegal and unsustainable activities
Media	• Print media, newspapers • Electronic media including public and private sources • Social media • Institutional communique, newsletters and magazines	• Social watch in justice to weaker stakeholders (women, landless, poor) in forest management by highlighting equity issues • Influence decision making of government and other stakeholders on benefit-oriented forest management • Report illegal activities and highlight good practice • Inform the public on key programs and activities; and ensure rights to information • Bring opinion-makers, policy makers and implementers, private sector, communities and other stakeholders together on common issues.
Academia and research	• Universities (e.g. Karakorum University) • GB's government / non-government research institutions • Federal government research institutions with or without provincial presence • International research institutions with provincial programmes (including CGIAR[16] research institutions)	• Developing science of forest exploitation and conservation and providing a steady stream of forestry professionals to both government and industry • Conduct critical and neutral studies on good practice; forest diversity and environmental changes and trends • Study dynamics of drivers of deforestation and forest degradation and forest enhancement and compare effectiveness of solutions • Study and propose alternatives (to timber, to firewood, income opportunities) and economics • Silvicultural-based sustainable forest management and solutions

16 https://www.cgiar.org/

2 METHODOLOGY

The main goal of the GB REDD+ Action Plan is to *serve as a strategic set of options to addressing drivers of deforestation, forest degradation and barriers to enhancement, while ensuring local livelihoods and incentives from REDD+ activities and aligning with National REDD+ objectives of Pakistan.*

2.1 Main objectives

1 Outline strategic options to address the prioritized drivers and barriers with context specific actions[17] and related budget
2 Improve the health of forest ecosystems by reducing deforestation and forest degradation and enhancement of forest biomass
3 Define effective implementation and monitoring of REDD+ actions to address the drivers
4 Identify social and environmental risks associated with actions and propose mitigation
5 Propose a clear benefit sharing mechanism associated with implementation of REDD+ activities
6 Identify areas for enabling policy, legal and institutional arrangements in favour of implementing PRAP.

2.2 Steps followed for preparing PRAP

The PRAP for the province has been prepared stepwise using a highly interactive process entailing consultations with representatives of the multiple stakeholders and with institutional memory holders of the subnational entity. In addition, updated secondary data, policy documents and research references have been consulted as a founding base for discussions and interventions proposed in this action plan. The methods followed are based on international best practices and examples, particularly within Asian countries[18]. The methodological steps are summarized below.

2.2.1 Review of literature

A detailed review of literature was conducted on drivers of deforestation and forest degradation in GB. This included documents available with the Ministry of Climate Change, the GB Forest Department and online sources. Available maps were reviewed, and these were improved to clearly mark administrative boundaries. These maps were then used to understand land use, land use change, forest cover/ forest cover change. This information was then presented to the stakeholders for triangulation and discussions on the drivers of deforestation and degradation.

2.2.2 Multi-stakeholder consultation

A consultation workshop was held in the province to undertake the tasks listed below. Since many of the drivers and barriers originate outside forestry sector, participation of relevant actors, other than the forest sector was ensured in the workshop so that views of all relevant actors are documented (**Annex I**).

17 A set of interlinked activities that form a coherent actions for counteracting a driver of deforestation, forest degradation and/ or barriers to expansion of a forest carbon enhancement activity.
18 https://lib.icimod.org/record/33717 https://www.unredd.net/documents/un-redd-partner-countries-181/asia-the-pacific-333/a-p-partner-countries/viet-nam-183/communication-knowledge-sharing-2000/communication-and-knowledge-sharing-materials-2002/leaflets-and-brochures-2009/17322-viet-nam-infobrief-series-viet-nams-experience-with-developing-provincial-redd-action-plans-prap.html?path=un-redd-partner-countries-181/asia-the-pacific-333/a-p-partner-countries/viet-nam-183/communication-knowledge-sharing-2000/communication-and-knowledge-sharing-materials-2002/leaflets-and-brochures-2009, https://lib.icimod.org/record/33672

A. Prioritization of already known drivers
The participants of the workshop shortlisted drivers of deforestation and causal links from the list that was taken from the National REDD+ Strategy and literature and prioritize them based on their impact. Following elements were considered while prioritizing drivers:

- Consider the level of future threat (increasing, decreasing or stay unchanged)
- Consider its impact on forest quality, biomass density and area
- Build consensus by scoring prioritization of drivers of deforestation and forest degradation
- Drivers of deforestation and forest degradation need to be spatially linked with their geographic and socio-economic contexts
- Establish cause and effect linkages between drivers to identify problem trees (some drivers are more the effects than drivers)
- Identify barriers to enhancement of forest (biomass) as specifically as possible

A consensus-based scoring was conducted for prioritization of drivers of deforestation and forest degradation for further analysis.

B. Causal analysis of the prioritised drivers
   - The drivers of deforestation and forest degradation as well as barriers to enhancement activities prioritised [19] by stakeholders were debated in a moderated group exercise.
   - Cause and effect of all drivers were analysed. The group prepared cause and effect problem trees so that interventions may be defined to remove causes as far as possible.
   - The geographical hotspots of the drivers identified and spatially mapped by experts for quantification.
   - The hotspots of drivers identified by the stakeholders, were randomly verified in the field.

C. Solutions and actions
   - Identify strategic solutions to address causal factors identified in the earlier exercise
   - Identify actions to address prioritised drivers and underlying causes
   - The actions were validated through field visits for their relevance to the geographic contexts.

D. Analysis of social and environmental safeguards
Social and environmental safeguard analysis of the proposed actions and risk reduction and mitigation measures to address safeguard issues. Potential safeguards of the proposed actions were discussed and analyzed founded on the Social and Environmental Safeguard Analysis (SESA) study conducted under Pakistan's REDD+ Readiness process[20] and tailored to the GB provincial context.

E. Focus group discussions
Focus group discussion (FGDs) were also held with local stakeholders (including communities) where the proposed actions were presented, and risk mitigation measures were identified.

2.2.3 Expert group consultations

The analysis from multi-stakeholder session and FGDs was peer reviewed by expert groups and improved. This is the stage where a few important issues related to REDD+ implementation were elaborated including:

19 The participants were encouraged to identify new driver, if any, or split / merge earlier drivers identified before prioritization exercise.
20 https://www.redd-pakistan.org/wp-content/uploads/2021/06/Strategic-Social-and-Environmental-Assessment-PAkistan.pdf

- Outline overall distribution mechanism for potential carbon benefits emerging REDD+ activities
- Capacity needs assessment of the stakeholders in connection with REDD+ implementation
- Identify measures to address capacity gaps and enhance existing capacities
- Monitoring indicators and protocols for different interventions and actions proposed
- REDD+ benefit sharing mechanism proposed to monitor distribution of benefits
- An indicative budget for actions proposed

2.2.4 Quantitative analysis of deforestation and degradation

A spatial analysis was conducted to understand changes in forest leading to conversion from forest to other land cover classes (deforestation). In this study, 2008 and 2012 land cover maps at level 1 (6 IPCC classes) were used for the spatial mapping. At the province level using a 6x6 land cover classes matrix was generated to assess the conversion of the forest area to other land cover land cover classes (i.e., Forest to Cropland, Forest to Grassland, Forest to Settlement, Forest to Wetland and Forest to Other land). No recent studies are available for quantification of degradation. Therefore degradation hotspots were identified by the stakeholders during the interactive session in the PRAP workshop and were mapped accordingly after random field verification.

2.2.5 Drafting and endorsement of the PRAP

Using the material collected, the PRAP was developed which includes immediate, medium and long-term intervention. The PRAP also include monitoring protocols, safeguards and actors relevant to implement actions.

The action plan was endorsed in the Provincial REDD+ Management Committee (PRMC) meeting on April 15, 2022 in Gilgit (note attached in Annex II), the discussion and feedback from the PRMC were integrated in the plan and were shared with the GB Forests, Parks and Wildlife Department.

3 DESK REVIEW: DIRECT & INDIRECT DRIVERS OF DEFORESTATION & FOREST DEGRADATION

The GB government recognized REDD+ as financial incentive-based forest management scheme likely to incentivize ongoing forest management initiatives to address Drivers of Deforestation and forest Degradation (DoDD) and associated behavioral change among the local communities. The intent and approach of the government on REDD+ have been described in this REDD+ Action Plan.

The NRS provided a strong base to initiate the identification and prioritization process of GB specific DoDD and barriers to enhancement. These drivers were further verified through desk review of other studies on DoDD. The summary of these references is given in **Table 3**. It is to be emphasized that GB's forestry resources have received a lot of interest from researchers and, therefore, the references in the table may not be complete. Therefore, a dialogue among major stakeholders was held to further validate this prioritization of drivers for a desk analysis:

Table 3: Drivers of deforestation, forest degradation & barriers to enhancement from literature - GB

Deforestation	Unsustainable Timber extraction	Infrastructure development, urban expansion, tourism related construction,	Commercial Agricultural practices	Encroachment	Surface Mining
Reference to Literature	• Draft NRS (2018) • Ali et al. (2014) • Pakistan's R-PP (2013) • Ali and Benjaminsen (2004) • Khan (2015a)	• Draft NRS (2018) • Pakistan's R-PP (2013) • Qamer et al. (2016) • Khan et al. (2013) • Ali et al. (2005). • Schickhoff (1998)	• Draft NRS (2018) • Pakistan's R-PP (2013)	• Draft NRS (2018) • Pakistan's R-PP (2013)	• Draft NRS (2018) • Pakistan's R-PP (2013)
Forest Degradation	Unsustainable wood extraction (fuelwood and timber)	Free grazing	Agricultural expansion for subsistence (limited)		
Reference to Literature	• Draft NRS (2018) • Hussain et al. (2015) • Ali et al. (2014) • Pakistan's R-PP (2013) • Ahmad et al. (2012) • Ali and Benjaminsen (2004) • Gohar (2002) • Schickhoff (1998) • GoP (1992a and b)	• Draft NRS (2018) • Hussain et al. (2015) • Ali et al. (2014) • Pakistan's R-PP (2013) • Khan et al. (2013) • Akbar et al. (2011) • Ali and Benjaminsen (2004) • Khan (2015b) • Schickhoff (1998)	• Draft NRS (2018) • Pakistan's R-PP (2013) • Khan et al (2013) • Ali and Benjaminsen (2004)		
Barriers to enhancement	Grazing	Lopping for collection of medicinal herbs	Natural hazards	Poor management capacity	Slow growing species, forest fires
	(Akbar et al. 2011)	(Ali et al 2014)	(Khan et al. 2013)	Khan et al. 2013)	(Khan et al. 2015a and Khan 2015b)

4 ANALYSIS OF DIRECT AND INDIRECT DRIVERS

The following sections provide details of direct and indirect or underlying causes of deforestation and forest degradation and barriers to forest (biomass) enhancement.

4.1 Drivers of Deforestation

4.1.1 Prioritization of drivers of deforestation

Two drivers were prioritized through multi-stakeholders' ranking and consultation for further analysis and deliberation under the action plan **(Table 4)** whereas **Table 5** provides an overview of the direct drivers of deforestation and associated under lying causes:

Table 4: Ranking of drivers of deforestation

Direct Driver	Location (s) / Forest Type (s)	Future threat	Impact on biomass/ Carbon	Impact on area	Total
(1: Very Low, 2: Low, 3: Medium, 4: High, 5: Very High)					
Infrastructure development, e.g., roads and urban expansion, habitation, tourism related construction (hotel, restaurants)	Naltar, Rama, Guru, Juglote, Chaprote, Tarishing, Bagrote, Danyore, Fairy Meadows, Rondu, Basho, Dashkin, Babusar	4	3	2	9
Agricultural expansion for cash crops: Potato, pea (limited, since all agriculture is under irrigation channel while forests are above)	Chaprote, Bagrote, Naltar, Kargah, Chakarkote, Tarishing, Mir Malik, Rama, Rondu, Sai, Danyore, Gitch, Darmandar, Gupis, Ishkoman, Babusar	3	2	3	8
Mining (including surface mining for semi-precious stones)	Chaprote, Shigar, Rondu, Chupursan, Jutal	2	2	0	4

This prioritization confirms drivers of deforestation supported by literature (**Table 3**) as well as quantification detail of deforestation provided in **Figure 5** (e.g., conversion of forestland to crops, infrastructure)

Table 5: Direct and indirect causes of deforestation

Direct Drivers	Underlying/ Indirect Drivers
Infrastructure Development e.g., roads and urban expansion, habitation, tourism related construction (hotels, restaurants)	• Unclear demarcation of forest land or violation of boundaries associated with weak forest monitoring and reporting system and weak governance. • High demand for tourism facilities due to improved access by tourists; scattered unplanned development with no consistent tourism policy on how to manage tourism in a fragile ecology. • Weak implementation of EIA guidelines for large projects. • High demand for housing due to population increase, behavioral change for lavish construction, and political influence for land acquisition for buildings • Lack of land use planning and policy associated with limited coordination between line departments. • Land compensation to communities from mega projects without a proper resettlement plan
Agricultural expansion or cash crops: Potato,	• Low agriculture productivity associated with poor technical inputs, lack of research base in mountain agriculture, limited knowledge of food preservation

Direct Drivers	Underlying/ Indirect Drivers
pea (limited, since all agriculture is under irrigation channel while forests are above)	techniques for off seasons, short term mentality for benefits due to economic stress, poor terracing liable to erosion or slips, and little land holding per family. • Sole reliance on crops / livestock and lack of alternative income sources. • In addition, lack of incentive-based schemes (REDD+, PES), awareness and skills to promote REDD+/ PES schemes, value chain management of fruit trees, and access to markets due to remoteness from urban centers. • Unclear benefit sharing mechanism for REDD+ • Unclear demarcation of forest land or violation of boundaries associated with weak forest monitoring and reporting system and weak governance. • Lack of land use planning and policy associated with limited coordination between line departments.
Mining	• Semi-precious stones are surface mined often above tree line; however, they use firewood • Weak implementation of mining rules / absence of do no harm framework for surface mining in forest areas. • Lack of land use planning and policy associated with limited coordination between line departments.

The problem tree with prioritized drivers of deforestation was prepared by the participants after a thorough discussion which is presented in Figure 4. Following locations (Table 6) were noted by the participants as hotspots of the prioritized drivers:

Table 6: Prioritised drivers of deforestation and forest degradation for PRAP

Prioritised drivers of deforestations	
Infrastructure development into the forest areas	Agricultural expansion for cash crops
Naltar, Rama, Guru, Juglote, Chaprote, Tarishing, Bagrote, Danyore, Fairy Meadows, Rondu, Basho, Dashkin, Babusar	Chaprote, Bagrote, Naltar, Kargah, Chakarkote, Tarishing, Mir Malik, Rama, Rondu, Sai, Danyore, Gitch, Darmandar, Gupis, Ishkoman, Babusar

Field verification of the drivers on some of the hotspots was also conducted.

4.1.2 Quantification of drivers of deforestation

A spatial analysis was conducted to understand the changes from forest to other land cover classes (deforestation).

In this study, 2008 and 2012 land cover maps at level 1 (6 IPCC classes) were used for the spatial mapping (Figure 5 and zoomed in Figure 6). At the province level using a six-by-six land cover change matrix was generated to assess the conversion of the forest area to other land cover land cover classes (i.e., Forest to Cropland, Forest to Grassland, Forest to Settlement, Forest to Wetland and Forest to Other land).

The analysis shows that an overall 0.6417% forestland was converted to non-forest land use between 2008-2012. Of these, 7% changed to crops, 1% changed to wetland and settlement and 92% to other land uses.

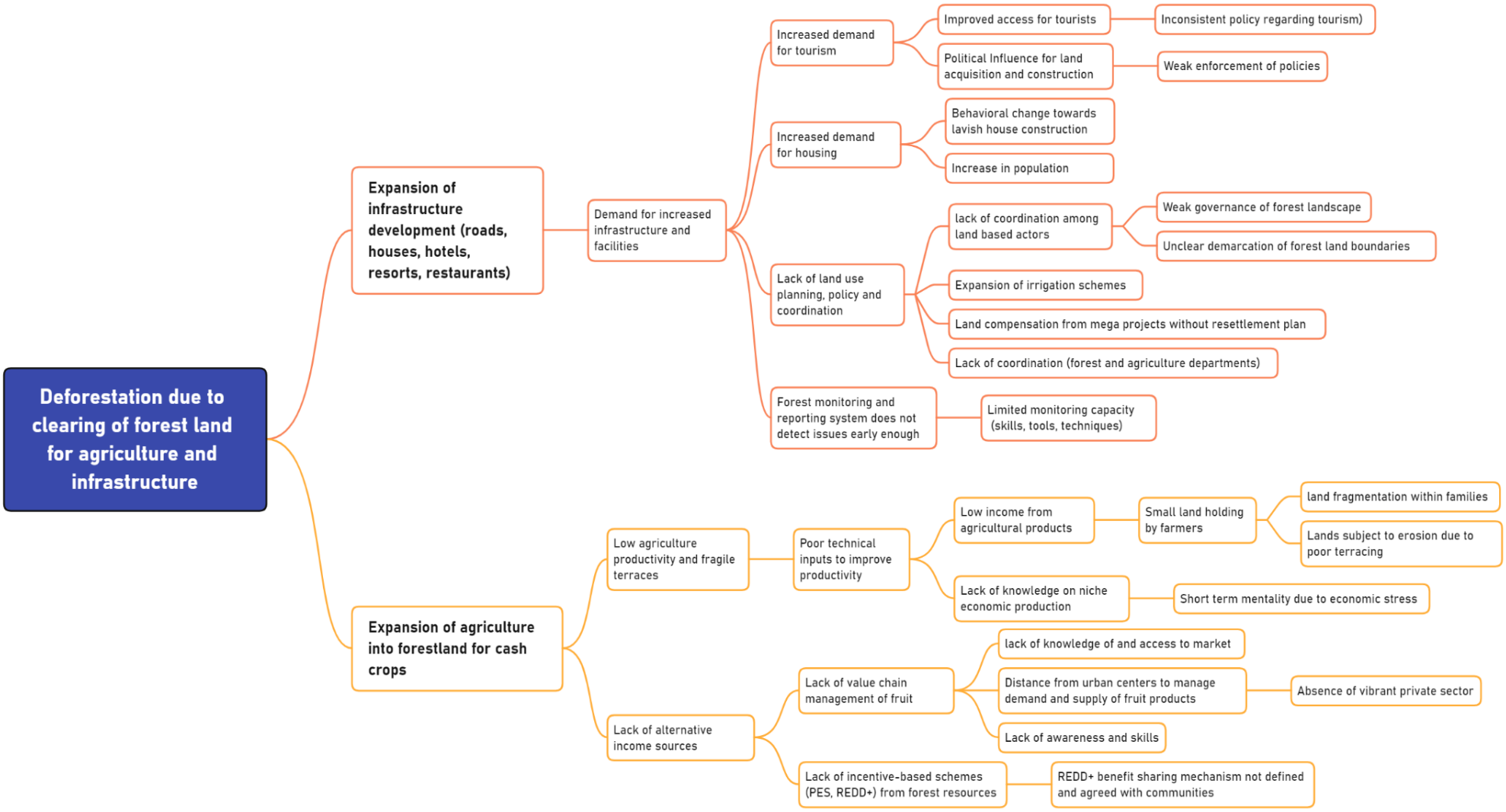

Figure 4: Problem tree of Deforestation

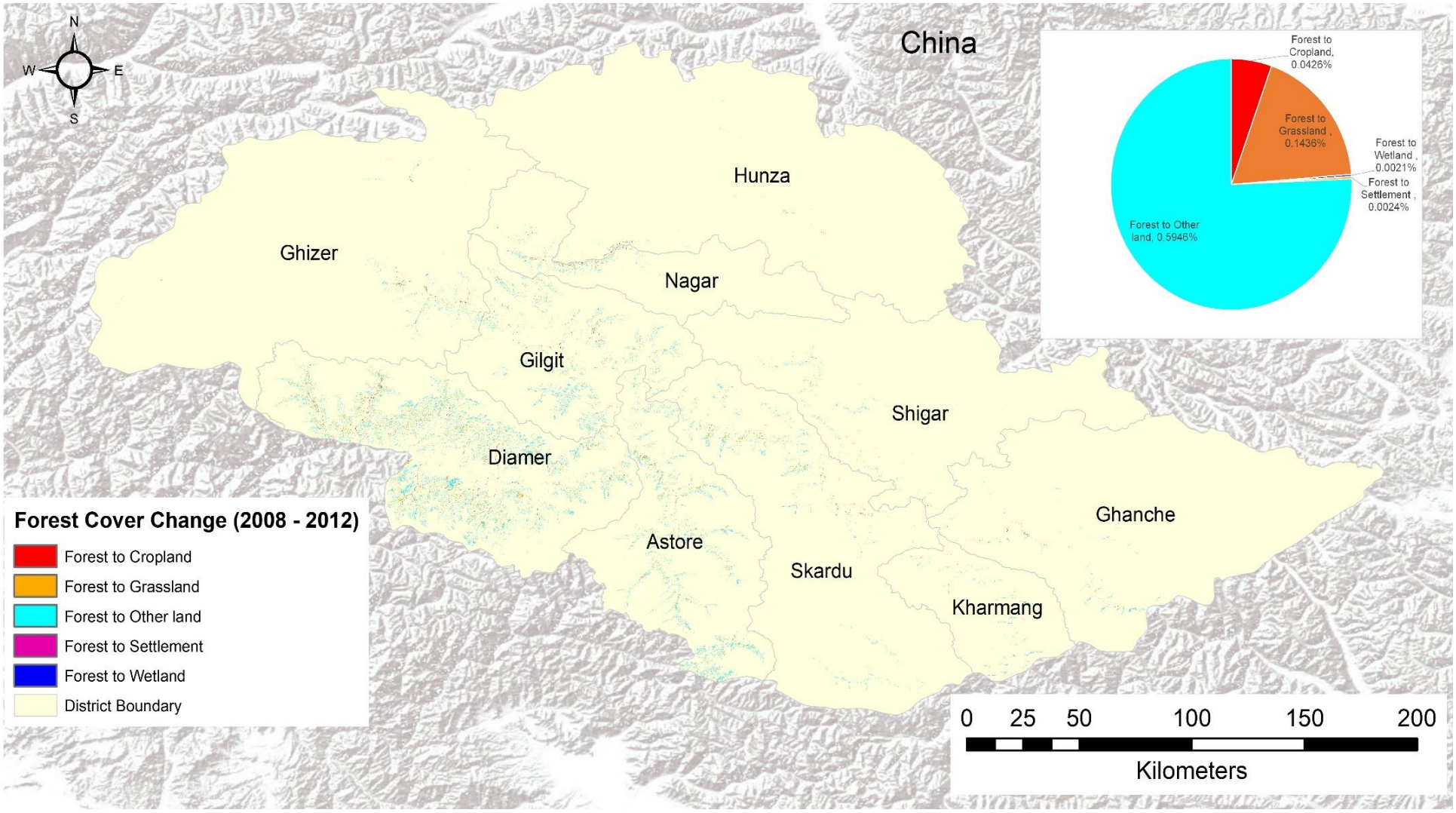

Figure 5: Forest Cover 2008 - 2012

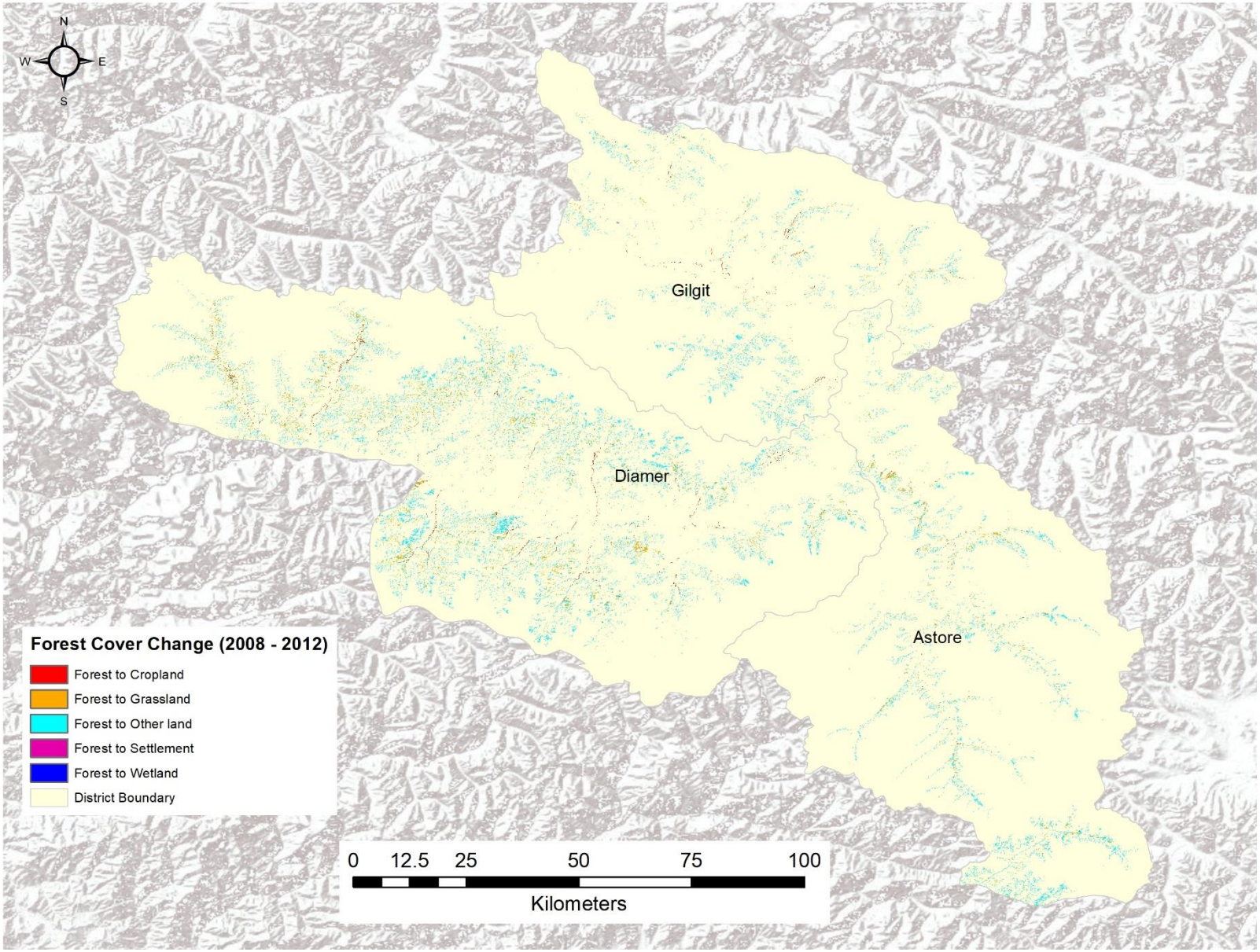

Figure 6: Forest Cover 2008 – 2012 – Diamer /Astore / Gilgit

Picture 1: Encroachment of land for housing and agriculture

Picture 2 Encroachment of land for housing and agriculture

Picture 3: Forest Fire in Diamer

Picture 4: Unplanned expansion of tourism

4.2 Drivers of Forest Degradation

4.2.1 Prioritization of drivers of forest degradation

Out of the drivers listed in the literature, two drivers were rated high by the stakeholders for further deliberation (**Table 7**). **Table 8** provides an overview of the direct drivers of forest degradation identified by the group and associated underlying causes for further elaboration.

Table 7: Ranking of drivers of forest degradation

Direct Driver	Location (s)/ Forest Type (s)	Future threat	Impact on biomass/ Carbon	Impact on area	Total Score
(1: Very Low, 2: Low, 3: Medium, 4: High, 5: Very High)					
Unsustainable fuelwood extraction (70% extraction of trees in GB is for fuelwood).	Ishkoman, Chaprote, Guru, Rondu, Basho, Minimurg, Kargah	3	4	3	10
Illicit timber extraction by timber mafia	Darel, Tangir, Chilas, Sai, Haramosh, Guru	4	3	2	9
Forest Fires (natural or due to negligence) - very limited and mostly due to negligence or accidental	Goharabad, Thor, Tangir, Hudur, Fairy meadow, Nagar, Bulachbar, Doyan	1	2	2	5

Table 8: Direct and Indirect causes of forest degradation

Direct Drivers	Underlying/ Indirect Drivers
Unsustainable fuelwood extraction (70% extraction of trees in GB is for fuelwood).	• In high altitude areas, people burn wood round the year for heating and cooking. • High dependency on fuelwood for energy associated with lack of/ poor access to alternative energy sources by local communities, extreme weather conditions, and limited income to afford alternatives. • Despite extreme shortage of fuelwood, people suffer extreme drudgeries to find fuelwood since they do not have choices, or they buy wood even when it is too expensive. Most of fuelwood sold in GB comes from Diamer. • Lack of incentive-based policies on forests (e.g. PES/ REDD+) which could discourage selling of fuelwood / opt alternative energy sources. • Poor monitoring, reporting and weak law enforcement due to poor governance and weak institutional capacity to quantify firewood outtake.
• Illicit timber extraction by timber mafia	• High dependence on natural forests for construction timber associated with lack of wood alternatives, poor affordability to buy timber on market prices. • Ban on commercial timber harvesting resulting in shortage of timber in the market which encourages trader to sell timber illicitly at any price. • Non-regulated and high prices of timber an incentive for illegal cutting • Deliberate forest fires to dry / damage trees • Ownership rights selling / hold of private forests by few influential • Poor monitoring, reporting and weak law enforcement due to poor governance and weak institutional capacity.
• Lack of institutionalised participation of community	• Trust deficit between communities and department • Complex ownership issues in privately owned forests • Lack of participation by communities in managing forests and conservation • Forest fires by grazers / timber owners / accidental

The problem tree with prioritized drivers and underlying causes of forest degradation is presented in **Figure 7.**

The stakeholders also identified main hotspots of drivers of degradation. These locations are shown in the map (Figure 8).

Prioritised drivers of degradation	
Unsustainable illicit timber extraction	Unsustainable fuelwood extraction
Darel, Tangir, Chilas, Sai, Haramosh, Guru	Ishkoman, Chaprote, Guru, Rondu, Basho, Minimurg, Kargah

4.2.2 Quantification of drivers of forest degradation

Quantification of degradation is not available. However, several studies indicate effect of firewood and illegal timber extraction in the province on forest resources.

The Government of Pakistan conducted a first baseline study in 2003-2004 on "Supply and Demand of Fuelwood and Timber for Household and Industrial Sectors and Consumption Pattern of Wood and Wood Products in Pakistan". The study revealed that the per capita availability of forests in Gilgit-Baltistan in 2002-2003 was 1.187 hectare (ha) per capita of the population. The study also revealed that the total supply of timber and fuel wood from state forests was merely 0.74 million m^3. On the other hand, the fuelwood consumption in GB was 1.042 million m^3 in 2003 that was anticipated to increase to 1.390 million m^3 in 2018. The use of industrial timber was 0.088 million m^3 in 2003 which was anticipated to increase to 0.117 million m^3 in 2018. The supply gap of wood was 0.30 million m^3 in 2003 that was anticipated to grow to 0.65 million m^3 in 2018[21]. The GB Forest Department chalked out their afforestation and rehabilitation programmes under TBTTP to tackle the additional area in order to achieve targeted wood production and increasing productivity level through intensive management of existing forest resources.

[21] Supply and Demand of Fuelwood and Timber for Household and Industrial Sectors and Consumption Pattern of Wood and Wood Products in Pakistan ((Maanics Int., 2004).

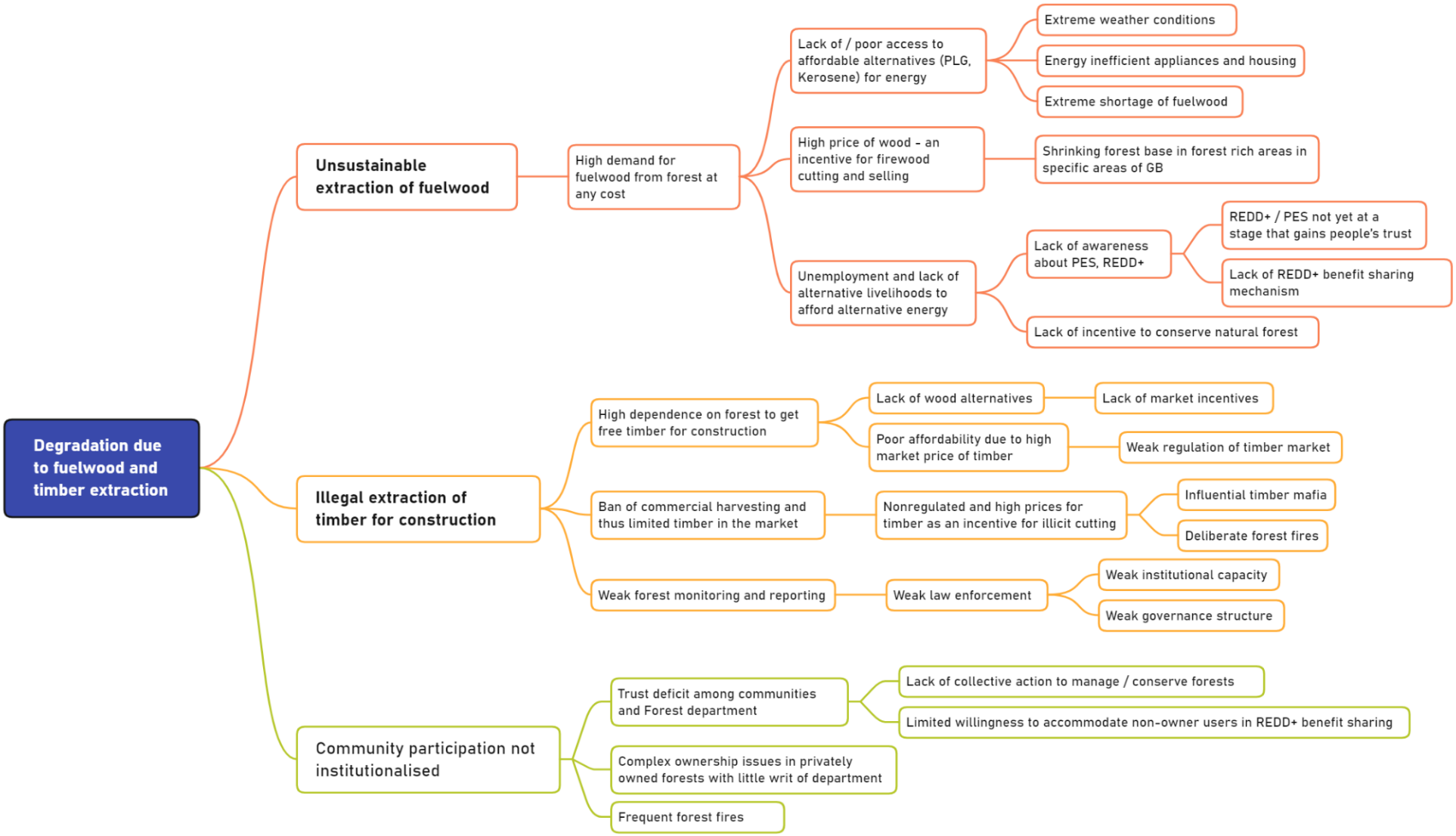

Figure 7: Problem tree of forest degradation

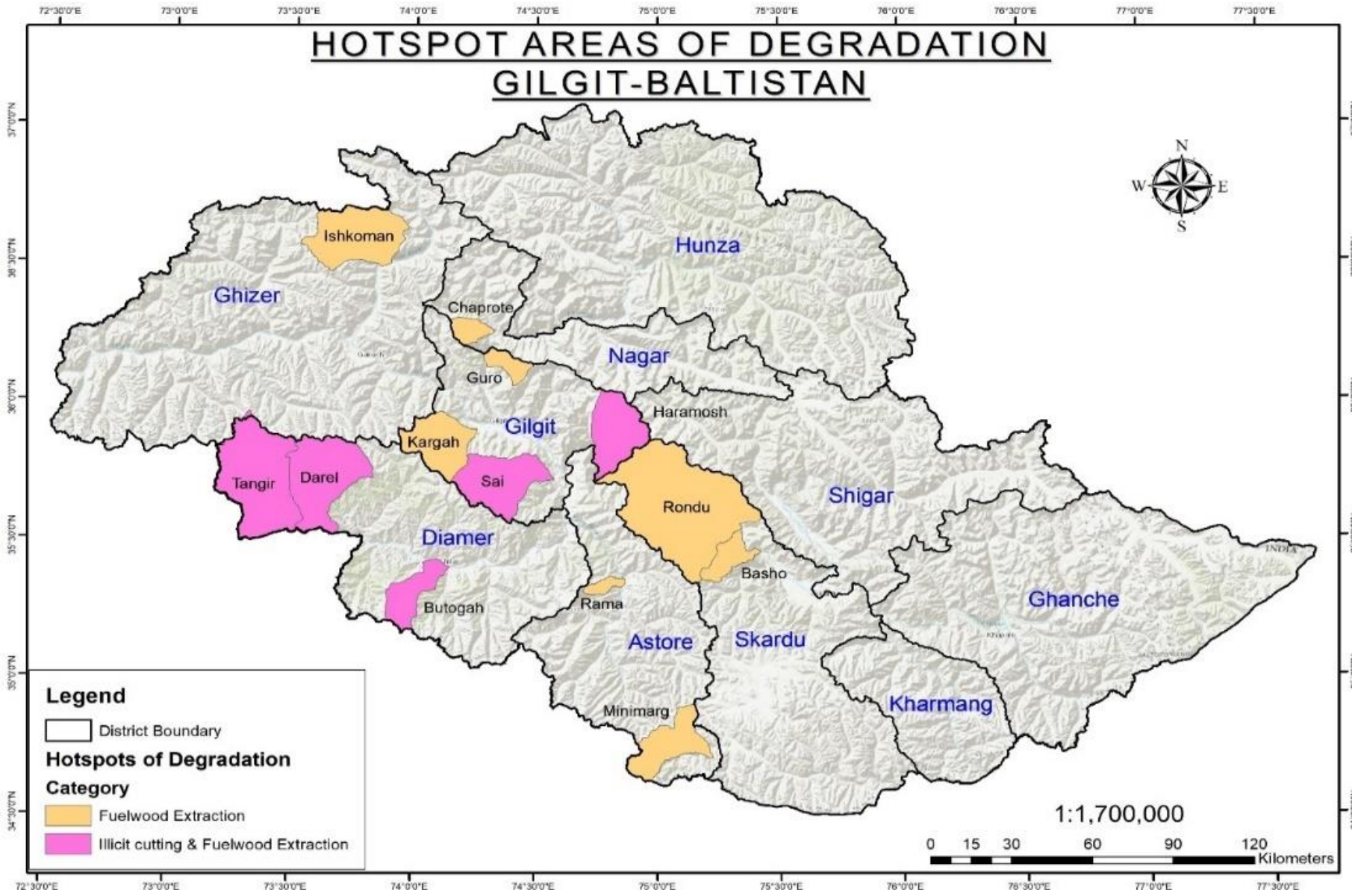

Figure 8: Hotspots areas of forest degradation

4.3 Barriers to enhancement of forest biomass

4.3.1 Prioritization of barriers

The Government of GB is committed to enhance the provincial forest biomass through conservation, development and sustainable management of forest resources in GB. This commitment manifests through different measures already being taken to contribute to forest lands restoration, biodiversity conservation and inclusive conservation of existing natural forests. Three enhancement options were rated by the stakeholders. They agreed on forest restoration, conservation through protected areas, and sustainable forest management (**Table 11**).

Table 9: Ranking of options to address barriers to enhancement activities

Enhancement Activities	Location (s)/ Forest Type (s)	Impact on area	Impact on biomass/ Carbon	Total Score
(1: Very Low, 2: Low, 3: Medium, 4: High, 5: Very High)				
Forest Restoration	All natural forests of GB	5	5	10
Conservation (Protection and Preservation)	Babusar, Butogah, Guro, Sai, Rama, Thore, Bearchi, Haramosh	4	4	8
SFM	Protected and Private Forests	4	3	7
Afforestation	All barren lands across Indus River	3	3	6
Reforestation	All natural forests of GB, plantations by department	2	2	4

4.3.2 Analysis of barriers

The prioritized forest enhancement initiatives, however, face several barriers (policy, economic, institutional, social and technological). These barriers were elaborated by the stakeholders during consultation sessions (**Table 10).** The problem tree with prioritized barriers of enhancement activities is presented in **Figure 9.**

Table 10: Barriers to enhancement of forest biomass

Major Barriers	Underlying challenges
Policy/ governance barriers	• Lack of efficient land use policies and action plans • Lack of incentive-based forest policies / schemes • Lack of REDD+ benefit sharing mechanism • Weak implementation and monitoring of existing policies
Institutional barriers	• Weak outreach of department to the people and acquire community participation • Lack of coordination mechanism with non-forestry actors • Sole reliance on legal measures which does not work
Technological barriers	• Limited knowledge/ lack of geo-spatial tools and monitoring technology • Lack of efficient irrigation practices to support afforestation
Social barriers	• Trust deficit from community leading to low interest and participation • Free grazing during active season • Migration for economic reasons; potential for community-based action is challenged by migration and lack of human resources
Economic barriers	• Lack of access to international markets (PES, REDD+) • Lack of value chain promotion of NTFPs, fruits and forest ESs • Weak and non-vibrant private sector for NTFP products / low incentive to conserve biodiversity

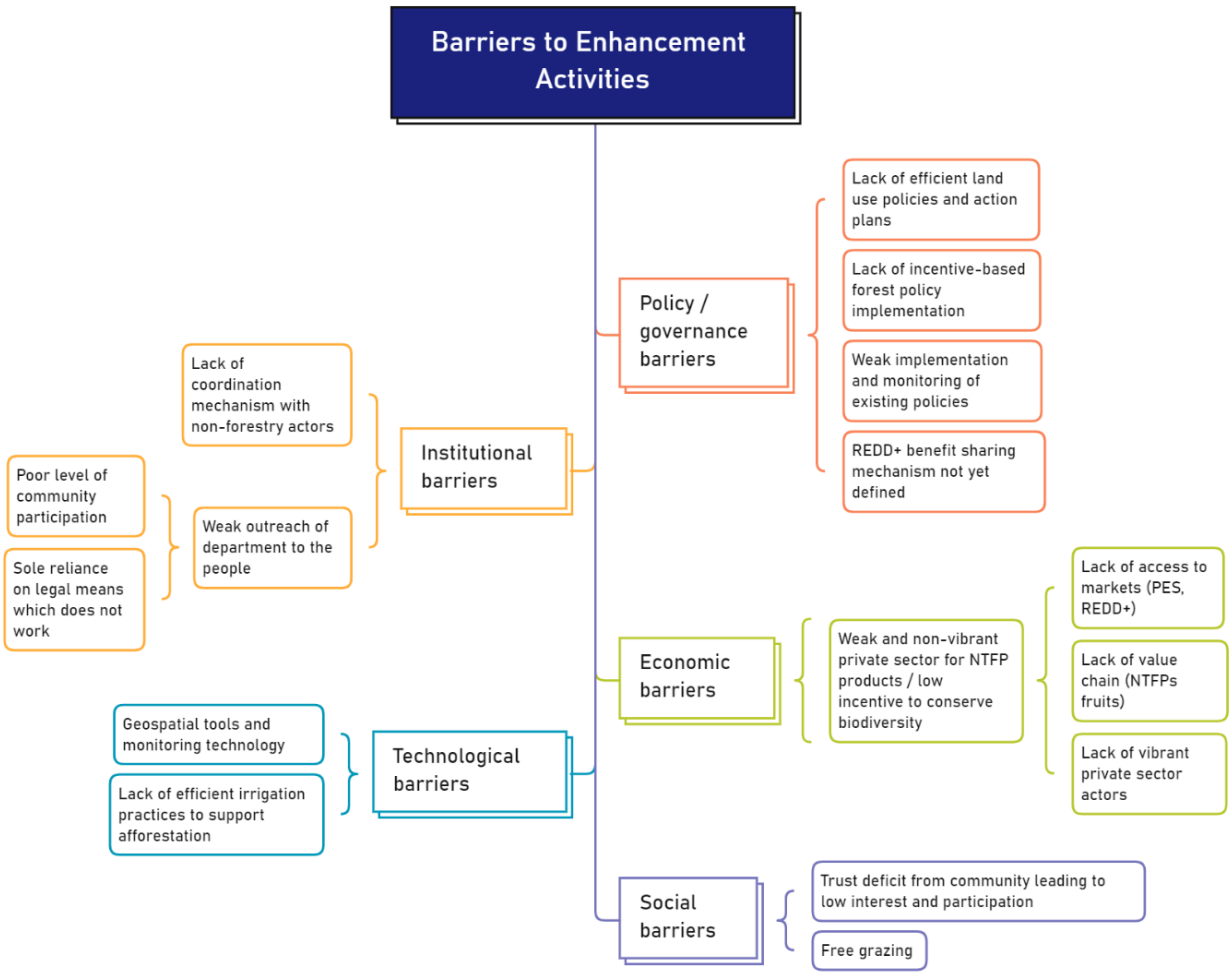

Figure 9: Problem tree of barriers to forest carbon enhancement

5 ACTIONS TO MANAGE DRIVER, UNDERLYING CAUSES AND BARRIERS

This chapter elaborates on solutions for reducing the rate of deforestation and forest degradation in GB and encourage activities for enhancing forest carbon stocks. Different solution pathways have been elaborated and presented in this chapter with proposed action plans.

5.1 Addressing drivers of deforestation

Deforestation is caused by poor policy implementation and lack of coordination among multiple / competing land use sectors, lack of alternative livelihood systems, extra pressure on lands for agricultural production for cash crops and inability of forest monitoring system to detect changes and allow timely action. An action plan to address drivers and underlying causes of deforestation is give in Table 11 whereas solution pathways are described in Figure 10.

5.1.1 Overall measures to address deforestation

The detailed discussion on prioritized drivers of deforestation led to a solution tree with multiple options. The participants clubbed a set of comprehensive pathways to address the drivers, which included effective policy development and coordination which have an overarching effect on the drivers and underlying causes. In summary, following overall actions will be necessary to reduce deforestation:

- *Improved clarity on land use and forest boundaries*: GB needs a land use policy and / or clarity on existing land tenure rights and revenue procedures to assure that forests are not converted unnoticed. Demarcation of forestland and other land uses based on land use policy and mapping are needed to establish benchmarks and secure forestlands. Advocacy campaign for effective institutionalization and implementation of land use planning and policy are required.

- *Incentive based PES Schemes:* A Payment for Ecosystem Services (PES) scheme is aimed at compensating forest owners or users to ensure forest health in specific ecosystems to maintain or improve environmental services that the forest provides, including the increase in forest carbon stocks and reduced deforestation and forest degradation. PES schemes may be effective if managed in such a manner that economic returns directly reach the forest-dependent communities (including users, owners, nomads, and seasonal migrants). However, the overall socioeconomic feasibility of PES will largely depend on alternative energy and income generation options available to local communities at the local level in an easy-to-access manner.

- *Improved and participatory monitoring mechanisms*. This includes establishment of a robust Provincial Forest Monitoring System at sub national level and link this with the National Forest Monitoring System to detect changes. Sound and coordinated forest monitoring and MRV system is necessary to detect and report change on timely basis; and based on results, an effective law enforcement and solution finding are necessary to dispose-off cases so that damages are controlled in time. GB's forest monitoring and data management systems are commendable at central level; however, these are not ready to quickly detect problems so that actions may be taken to address the driver in time, specially at circle level.

- *Coordination among relevant departments* (esp. forest, land revenue, agriculture, mining) is needed for planning and monitoring land use decisions and flag concerns if any. In addition, this is helpful in addressing contradictory policy regimes within relevant sectors and taking synergetic approaches forward in favour of REDD+.

5.1.2 Well-coordinated infrastructure development based on legal framework

While infrastructure development is necessary for GB (and in many ways helpful to diffuse drivers of forest degradation[22]), an uncoordinated development may lead to loss of forests as has been observed in the past. REDD+ implementation will be effective when policies / frame conditions for forestry and non-forestry sectors are in sync with each other. One of the concerns for instance is changing of forestland into other uses such as infrastructure projects for development, unregulated and unplanned tourism facilities etc. In unsettled areas, forest boundaries between government forest and private land are also not clear.

5.1.3 Supplementing and diversification of alternative incomes and livelihoods: Transforming forest-dependent poor and marginalized households' short term livelihood strategies to more sustainable ones should-reduce pressures on forest encroachment for cash crops. Enhanced productivity, resource optimization, and reduced fragility of agricultural system on slopes has a direct correlation with reduced pressure on forests by minimizing the need for breaking more plots for agriculture. Livelihood diversification may reduce pressures on agriculture and forests for livelihoods and also improve quality of life of forest dependent communities. GB is not an economy where agriculture serves a sole livelihood source. Diversification will improve affordability to alternatives to taking risks with unsustainable agriculture. In addition, unclear benefit sharing mechanism from forests conservation leads to dismissing forests' importance as opposed to cash crops and other land-based activities. REDD+ implementation framework should essentially include well-defined benefit sharing mechanism to enhance interest of stakeholders to contribute.

[22] The stakeholders suggested that development of road infrastructure will give two-way market access leading to improved economy in GB, access to market-based energy solutions and multiplying options for people to reduce sole pressure on forests. The downside however may be an improved access to forests and exploitation of resources which were earlier inaccessible. Also construction activity (houses, hotels) directly contributes to deforestation (use of timber and land).

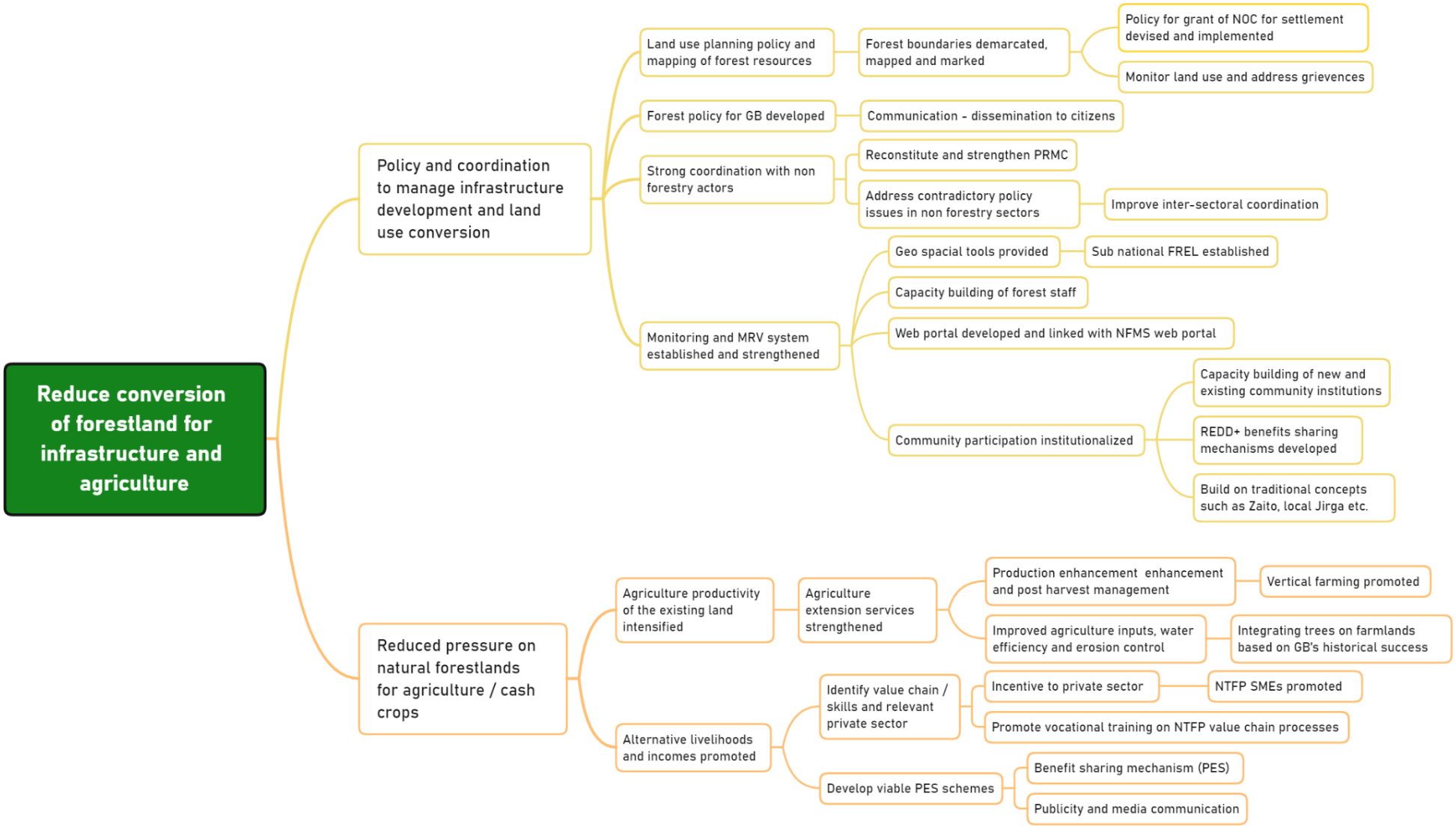

Figure 10: Solution pathways - Deforestation

Table 11: Action plan for addressing reduce drivers and underlying causes of deforestation

Driver	Key underlying causes	Proposed Actions to address the underlying causes	Indicative Timeframe			Responsible Agencies/Actors		Indicative targets	Indicative Budget (Rs. mill.)
			Short term (1-3 yrs)	Medium term (1-7 yrs)	Long term (1-10 yrs)	Lead	Support		
Expansion of infrastructure development (roads, houses, hotels, resorts, restaurants)	Lack of land use policy	Land use policy development and mapping of forest resources • Document critical land use / encroachment issues for multi-sectoral expert dialogue • Forestland demarcation and digitization • Liaise with department of revenue, tourism, agriculture and other relevant actors on the subject and establish the need for a land use delineation & policy for the future • Develop provincial land use policy based on review/ assessment studies on current land use patterns and potential future trends • Include NOC system in land use policy • Prepare detailed district-wise land use maps based on original historical legal boundary records where available • Raise the matter of resettlement plans in case of mega projects to reduce haphazard occupation of forestland	✓	✓		Revenue department	Forest, Planning & Development, Law, Agriculture, tourism departments	Land use policy Land use mapping	40
		• Draft forest policy and Act approved and implemented • Disseminate this information to citizens, stakeholders for transparency.	✓			Forest department	Media, Planning & Dev. and Law departments	Forest policy and Act	30
	Lack of coordination among departments	Improved coordination among relevant departments • Reconstitute PRMC, other bodies • Regular meetings and implement decisions • Review policies of agriculture, forests and land revenue, tourism, private sector development and identify contradictions (supported by ground examples) and present for discussion • Induce dialogue for harmonization of policies and projects among stakeholders • Define clear benefit sharing mechanism from REDD+ for the stakeholders including communities	✓			Forest department	Agriculture, Tourism, Revenue, Mining departments	PRMC notification Benefit sharing mechanism Coordination committees with clear tasks	9

Driver	Key underlying causes	Proposed Actions to address the underlying causes	Indicative Timeframe			Responsible Agencies/Actors		Indicative targets	Indicative Budget (Rs. mill.)
			Short term (1-3 yrs)	Medium term (1-7 yrs)	Long term (1-10 yrs)	Lead	Support		
	Weak forest monitoring to detect change	Improved and participatory monitoring mechanisms • Capacity building of department / community institutions • Establish monitoring protocols (district-province- federal) • Equip Forest department with modern equipment and geo-spatial monitoring and reporting tools • Regular reporting and draw lessons • Develop standard mobile app for information dissemination and community Feedback Grievances Redressal Mechanism (FGRM) • Regularly monitor land use policy implementation • Link forest monitoring with NFMS • Establish and maintain strong database/ forest management information system at provincial level	✓	✓	✓	Forest department	Communities, Agriculture, Ministry of Climate Change	Well-equipped forest monitoring system at central and Circle levels 2 ToTs on community forest monitoring and reporting	50
Expansion of agriculture int forestland for cash crops	Low agricultural productivity and fragile terraces	Intensification of agriculture /productivity enhancement • Assess key agricultural challenges in the hotspots ▪ Improved terracing and erosion control ▪ Soil fertility improvement ▪ Water use efficiency ▪ Choice of niche crops with improved techniques and inputs ▪ Post-harvest loss minimization ▪ Advice for market access • Train farmers to improve crop productivity • Promote vertical veg. farming to supplement income • Link farmers with private sector for utilizing fruit for cash • Link farmers with projects on sustainable agriculture • Encourage Farm / agroforestry		✓	✓	Agriculture department	Forest department, communities	100 farming families per district supported on improved agriculture and training 1000 women in vertical farming	220
	Lack of alternative livelihoods and employment	Development of NTFP as a sustainable alternative income: • Identify value chains, skills, and SMEs (e.g., NTFPs, planned tourist services, yak farming, fruit processing, kernels, and seeds) • Introduce NTFP rules & self-learning curricula for NTFP collection	✓	✓	✓	Forest department	SMEs, potential private sector / buyers	1000 HHs in hotspots adopt alternative livelihoods NTFP rules	200

Driver	Key underlying causes	Proposed Actions to address the underlying causes	Indicative Timeframe			Responsible Agencies/Actors		Indicative targets	Indicative Budget (Rs. mill.)
			Short term (1-3 yrs)	Medium term (1-7 yrs)	Long term (1-10 yrs)	Lead	Support		
		• Encourage women & men from to learn new skills and enhance their income on sustainable basis • Establish linkages with relevant organizations / NGOs / MFIs to replace unsustainable strategies • Monitor trends and document success stories						Self-learning curricula (5 products)	
		Engage TVET institutions to include skill training in their curricula (nursery raising, NTFP collection, value additions, tourist services): • Establish curricula for NTFP and other non-traditional forest-based income generation skills • Include these curricula in TVET menu • Encourage youth skill training (mandatory for certification)		✓		Forest department , TEVTA	Private sector / potential buyer companies	TVET curricula for NTFP collection and value addition Skill training 1000 youth	40
		Payment for Eco-system Services (PES) schemes • Identify gaps in PES mechanism that prevent communities to benefit from the incentives • Review current PAM regime and prioritise most fragile hotspots to develop PES plans (e.g., community-based eco-tourism schemes PES)[23] and assess feasibility (including activities such as bird watching towers, walking trails, high altitude trekking, culture etc.) • Develop equitable and transparent benefit sharing mechanism and monitoring (including community feedback system) • Communication for common understanding on PES • Monitor success of PES schemes against baseline (ecological improvement, improvement in communal income and services)	✓	✓		Forest department	Tourism (Public and private), Revenue	02 PES schemes Benefit sharing mechanism	90

23 Identified by earlier development projects and pilot forest management plans supported by international donors and government of GB

5.2 Social and environmental risks and safeguards

This section provides an analysis of IPs for any likelihood of social or environmental harm on people or resources. Potential safeguards of proposed actions in this plan were discussed and analysed founded on the Environmental and Social safeguard Analysis (SESA) study conducted under Pakistan's REDD+ Readiness process[24] and tailored to the GB's provincial context. Focus group discussions were also held with local stakeholders (including communities) where the proposed IPs were presented to the members of group and local implementation risks and obstacles (social and environmental risks), and risk mitigation measures were also identified. The risk mitigation measures were then incorporated into the PRAP as additional activities. Their implementation and monitoring costs added to the PRAP budget. Potential social and environmental risks associated with implementation of IPs are given in **Table 12**:

Table 12: Major social and environmental risks associated with implementation of IPs

Risks	Likelihood[25]	Impact	Mitigation measure to be facilitated by provincial REDD+ Cell
Lack of interest among offices on land use policy and policy harmonization	• Medium	• High	Acquire leadership of a higher authority in the province to coordinate
Grievance due to land delineation / corrective mapping - Poor / marginalized losing encroached land back to forest	• Medium	• Low	Establish Feedback Grievance Redressal Mechanism (FGRM) / tribunal and manage issues (including compensation to the poorest / marginalised if displaced)
Elite domination on REDD+ mechanisms and incentives (e.g. enhancement)	• Medium	• Low	Ensure participation of multi-stakeholders for everyone to be heard. Internal accountability mechanism through community participation. Ensure authentic data-based arbitration
Low participation of women on REDD+ monitoring trainings	• Medium	• Low	Ensure % of women participation for training as a mandatory step
Hotspot areas selection erroneous to evade urgency of addressing issues in most degraded areas	• Low	• Low	Careful spotting of hotspots of degradation through GIS mapping and local feedback (this knowledge is part of this document)
Introduction of invasive species in planting schemes	• Low	• Low	Prioritize indigenous tree species with high calorific value and are fast growing / easy to manage (coppice, cuttings, self-regenerate)
Exclusion of poor HHs from PES and other incentivized schemes leading to dispute on resource entitlement	• Medium	• High	Benefit sharing scheme needs to be inclusive and free from risks and loopholes; data-based arbitration
Alternative energy options are costly and not affordable	• Medium	• Low	Price regulation (enough to ensure it remains attractive for SMEs)
Unsustainable and excessive harvesting of forest products and NTFPs	• Medium	• Medium	Establish NTFP rules /SOPs for sustainable exploitation; Community-based monitoring; early warning on excessive harvesting
The risk of competing claims on Carbon	• Medium	• Low	Clarify and legalize carbon/ tenure rights; community participation and engagement
Prioritization of sites for PFMP leaves grievance among communities whose sites are not selected	• Low	• Low	Site selection criteria need to be transparent and defendable; strong adherence to PFMP guidelines
A centralized technology-oriented monitoring system perceived as an attempt to centralize decisions	• Low	• Low	Awareness campaign at community level (specially in privately owned forests) to address misperceptions

24 https://www.redd-pakistan.org/wp-content/uploads/2021/06/Strategic-Social-and-Environmental-Assessment-PAkistan.pdf

25 Likelihood Chances of this risk becoming real. The impact refers to extent to which this will sabotage REDD+ implementation and its effectiveness

5.3 Addressing drivers of forest degradation

The deliberation on solutions to forest degradation narrowed down four key pathways. These include finding ways and means to reduce heavy dependence on forests, enhancing income opportunities / alternative livelihoods, strengthening community institutions to acquire their role in reducing forest degradation and improve forest monitoring capabilities among actors. Table 13 deliberates on these pathways. The solution tree with strategic options to address drivers of forest degradation is presented in Figure 11.

Establish and strengthen GB's REDD+ implementation framework: REDD+ implementation will be effective when policies / frame conditions for forestry and non-forestry sectors are in sync with each other. One of the concerns for instance is changing of forest land into other uses such as agriculture and settlement due to: (i) unclear forest boundaries between government forest and private land (ii) weak forest law enforcement and management strategies (iii) Unclear benefit sharing mechanism. REDD+ implementation framework should essentially also include well-defined benefit sharing mechanism to enhance interest from stakeholders to contribute, and a sound and coordinated forest monitoring system to detect and report change.

Improve access to energy in all forms to release pressure from natural forests: One of the key drivers of severe forest degradation in GB is the pressure on natural forests for firewood for heating and cooking due to high altitude harsh weather condition of GB and a near complete lack of alternate energy sources. There are multiple options to solve this key driver – knowing the fact that the communities are also in search for cheaper and easy to access energy options and improve quality of their lives. Even fuelwood shortage is grave in many areas and people are forced to purchase fuelwood at a very high cost (around PKR 20/kg as opposed to PKR 10/kg in Islamabad). There are two pathways to reduce the demand for fuelwood from the degraded natural forests. One, promoting alternative sources of energy for heating and cooking including hydropower and solar. Two, continuing to promote tree planting on private lands / farmlands and along water ways may reduce supply and demand gap for fuelwood. In case of hydropower, it is recommended that it will be worth investing in at least 1 megawatt, and if resources permit, 2 megawatts hydropower units so that heating and cooking may be supported. A lower capacity hydropower units will only support lighting. In addition, transforming forest dependent poor and marginalized households' short term livelihood strategies to more sustainable ones will also reduce pressures on forest since people may be able to afford alternative energy instead of cutting free or buying expensive wood.

Promote community based participatory forest management / PFMP: REDD+ implementation needs overall changes of policy frame conditions to improve forest governance and local / site specific implementation to acquire tangible steps and results for stakeholders' benefits. There is a need in GB to institutionalize community participation (an example is in KP with community participation / Joint Forest Management rules). Community participation may be founded on existing traditional concepts such as *Zaitu* and local Jirga. As stated in the introduction, this PRAP will find traction through both the strategies. Participatory forest management planning is essential to manage and overcome drivers of deforestation and forest degradation with site specific solutions and to assure dividend for the resource as well as the concerned stakeholders. One complicated challenge for PFMP groups is to deal with complex ownership issues in privately owned forest areas, especially when influential are involved. It is therefore necessary to (i) engage influential in the PFMP groups (ii) the department to engage with PFMP groups and create a social pressure to conserve forests (iii) focus on providing viable schemes for incentive to owners and non-owners for not cutting trees or degrading forests, a priority being in privately owned forests of Diamer – and non-agreement to distribute incentives will lead to no implementation of REDD+ in private forests (iv) ensure that community groups are formally recognized and institutionalized layer of forest management.

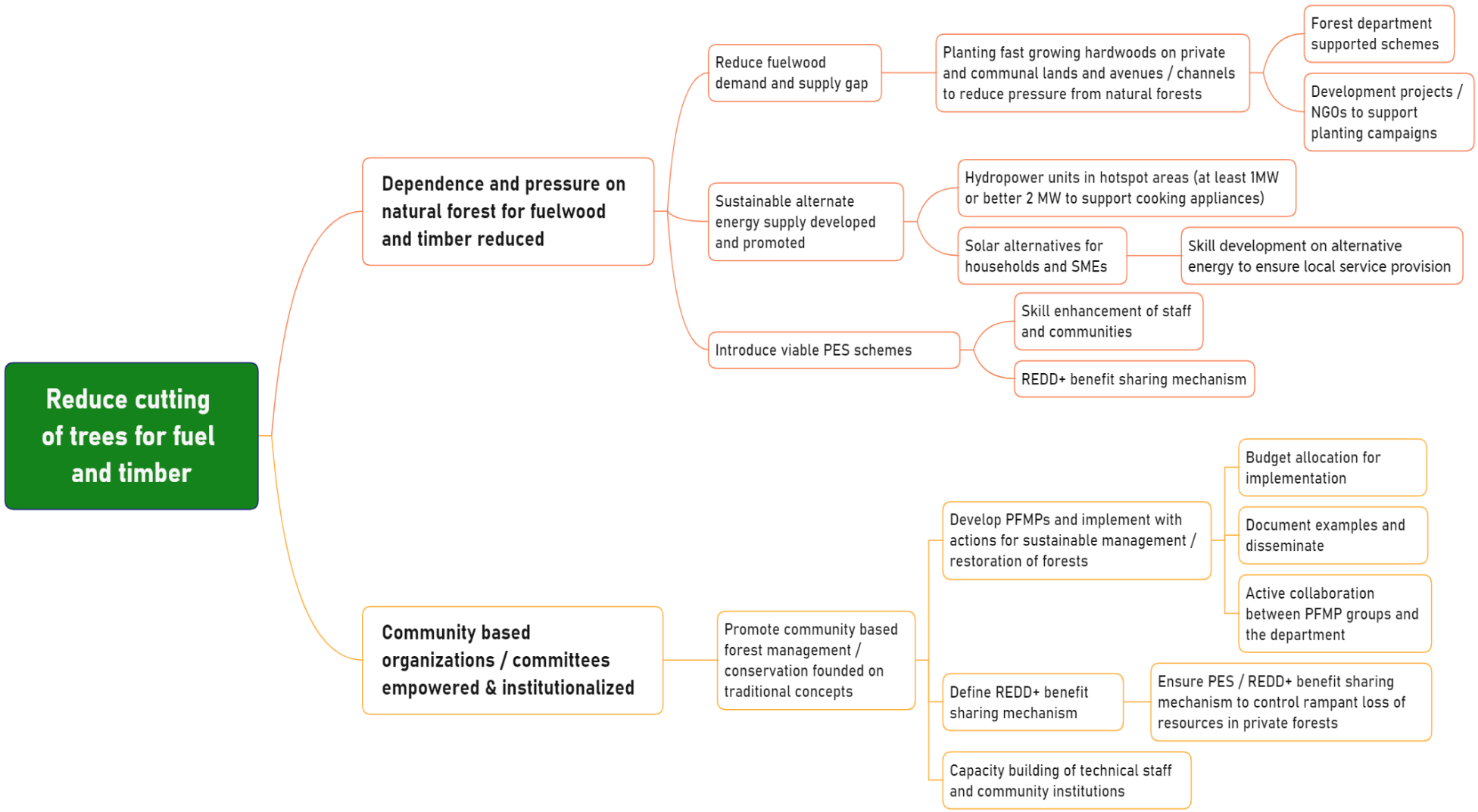

Figure 11: Solution pathways to address s forest degradation

Table 13: Action plan to reduce drivers and underlying causes of forest degradation

Driver	Key underlying causes	Proposed Actions to address the underlying causes	Indicative Timeframe			Responsible Agencies/Actors		Indicative targets	Indicative Budget (Rs. mill.)
			Short term (1-3 yrs)	Medium term (1-7 yrs)	Long term (1-10 yrs)	Lead	Support		
High demand for energy wood, timber	High dependence on forest for fuelwood and timber	Promote sustainable alternative energy sources • Collaborate with relevant players to introduce feasible models for solar energy (i) at household level (ii) SME level / shops and establish prototypes • Find market solutions to make the prototype available at a regulated price • Train at local technicians per district on installation and maintenance of solar panels • Install at least 15 new micro-hydel power stations[26] at the most chronic hotspots of degradation • Introduce prototype models for water heating using electricity and train technicians • Identify market-based solutions by disseminating prototypes at affordable price • Provide on-going technical assistance/monitoring of effective operation and maintenance of panels / micro-hydel units		✓	✓	Energy, power departments	Private sector, engineering universities, Forest department	50% of HHs in hotspots switch to mixed energy solutions 3 technicians of alternative energy systems trained per district (e.g. solar) 15 new micro-hydropower systems	1100
		Planting schemes on marginal lands / avenues / irrigation channels • Assess annual fuelwood (and timber) demand at districts level, particularly in hotspot areas with involvement of community institutions • Assess potential barren/ private lands at district level, particularly the hotspot areas where incentive-based activities may be launched for energy plantations • Invite interested individuals to conduct block plantations (priority fast growing fuelwood species) • Select potential applicants and conduct feasibility analysis of the lands for block plantations • Select applicants and conduct their training on how to manage the activity	✓	✓	✓			Targets planned to meet at least 60% of each valley's firewood requirements	200

[26] Initial cost of micro-hydel is high but an investment to achieve REDD+ benefits. Community is paying high for fuelwood and kerosine oil for inconsistent supplies

Driver	Key underlying causes	Proposed Actions to address the underlying causes	Indicative Timeframe			Responsible Agencies/Actors		Indicative targets	Indicative Budget (Rs. mill.)
			Short term (1-3 yrs)	Medium term (1-7 yrs)	Long term (1-10 yrs)	Lead	Support		
		• Provide one time incentive for plantations • In parallel, encourage small enterprises / community or private nurseries for producing planting stocks by proclaiming desired species • Regularly monitor + acquire support from community institutions							
Community participation not institutionalized	Trust deficit between communities and department	Implement participatory forest management and monitoring practices • Organize community-based forest management groups Conduct and implement PFMPs (at least 10) • Conduct participatory forest management plans • Implement plans with actions to address forest degradation issues (including energy, timber extraction, forest products, benefit sharing mechanism et.)	✓	✓	✓	Forest department,	Communities Agriculture District administration	10 PFMPs 10 PFMP community institutions	1000
		• Formally institutionalize community participatory mechanism in forest policy / rules • Capacity development of communities and forest field staff		✓	✓	Forest department, communities	Revenue department	Mainstream community institutions' role in forest policy	50

5.4 Social and environmental risks and safeguards

This section provides an analysis any likelihood of social or environmental harm on people or resources. Potential safeguards of proposed actions were discussed and analysed founded on the Environmental and Social safeguard Analysis (SESA) study conducted under Pakistan's REDD+ Readiness process[27] and tailored to the GB's provincial context. Focus group discussions were also held with local stakeholders (including communities) where the proposed actions were presented to the members of group and local implementation risks and obstacles (social and environmental risks), and risk mitigation measures were also identified. The risk mitigation measures were then incorporated into the PRAP as additional activities, and their implementation and monitoring costs added to the PRAP budget.

Potential social and environmental risks associated with implementation of actions in GB's PRAP are given in Table 14.

Table 14: Major social and environmental risks associated with implementation of PRAP actions

Risk	Likelihood[28]	Impact	Mitigation measure to be facilitated by provincial REDD+ Cell
Elite domination on REDD+ mechanisms and incentives (e.g. enhancement)	• Medium	• Low	Ensure participation of multi-stakeholders so everyone is heard; create internal community-based accountability mechanism. Ensure authentic data-based arbitration
Low participation of women in REDD+ monitoring trainings	• Medium	• Low	Announce a certain % of women participation for the training as a mandatory step
Hotspot areas selection erroneous to evade urgency of addressing issues in most degraded areas	• Low	• Low	Careful spotting of hotspots of degradation through GIS mapping and local feedback (this knowledge is already part of this document)
Introduction of invasive species in planting schemes	• Low	• Low	Prioritize indigenous tree species with high calorific value and are fast growing / easy to manage (coppice, cuttings, self-regenerate)
Exclusion of poor HHs from PES and other incentivized schemes leading to dispute on resource entitlement	• Medium	• High	Benefit sharing scheme needs to be inclusive and free from risks and loopholes; data-based arbitration
Alternative energy options are costly and not affordable	• Medium	• Low	Price regulation (enough to ensure it remains attractive for SMEs)
Rebound effect of unsustainable energy options with high emission risks	• Medium	• Low	Together with energy actors, carefully analyze possible alternatives and encourage cleaner options with providing market support and encouraging smart start-ups.
The risk of competing claims on Carbon	• Medium	• Low	Clarify and legalize carbon/ tenure rights; community participation and engagement
Prioritizing few sites for PFMP leaves grievance in communities whose sites are not selected	• Low	• Low	Site selection criteria need to be transparent and defendable; strong adherence to PFMP guidelines

5.5 Removing barriers to enhancement activities

The stakeholders in GB strongly believed that enhancement activities for the region are extremely important due to the reason that (i) a lot of natural forest resource has already been deteriorated to an extended that its natural reversal will be extremely slow, (ii) GB is a high altitude and fragile ecology with limited market dynamics for alternate energy sources and thus demand of forest resources will remain high, and (iii) there is a lot of land available for enhancement activities. Although water is in

27 https://www.redd-pakistan.org/wp-content/uploads/2021/06/Strategic-Social-and-Environmental-Assessment-PAkistan.pdf

28 Likelihood Chances of this risk becoming real. The impact refers to extent to which this will sabotage REDD+ implementation and its effectiveness

short supply on high altitudes, seeing success of planting trees in the past, this option can reduce demand and supply gaps in future and reduce burden on natural forests.

There are two main solution pathways to enhancement in GB – one, enrich private lands with tree resources to offer sustainable supply of resources for household consumption, market supply and also to reduce or eliminate pressure from natural forests; and two, introduce enhancement activities on government lands beginning from natural forests owned by the department (Table 15). The proposed actions to address barriers to enhancement are presented in Figure 12.

Table 15: Key actions to remove barriers of enhancement

Enhancement activities on private lands
• Provincial and Circle level forest monitoring system established to cater for monitoring results of action against drivers of deforestation, forest degradation, and impact of enhancement activities • Utilize land use maps to identify hotspots and prioritize incentive-based enhancement schemes • Scope of TBTTP extended through increased investment in afforestation schemes on private lands • Ensure integration of trees on agricultural lands and lands newly reclaimed with new irrigation schemes • Capacity building programmes launched on nursery raising and tree planting / tending • Introduce incentive schemes for tree planting and nursery raising
Enhancement activities in natural forests and government lands
• Inter-departmental coordination among forest, land revenue, tourism, agriculture, and law department improved to encourage enhancement activities • Institutionalisation and strengthening community institutions to acquire their role in enhancement • Increased participation of local communities in forest related events • Awareness and skill development program launched on forest conservation and ecosystem services (including grazing management) • Appropriate scientific based participatory grazing system adopted and regulate

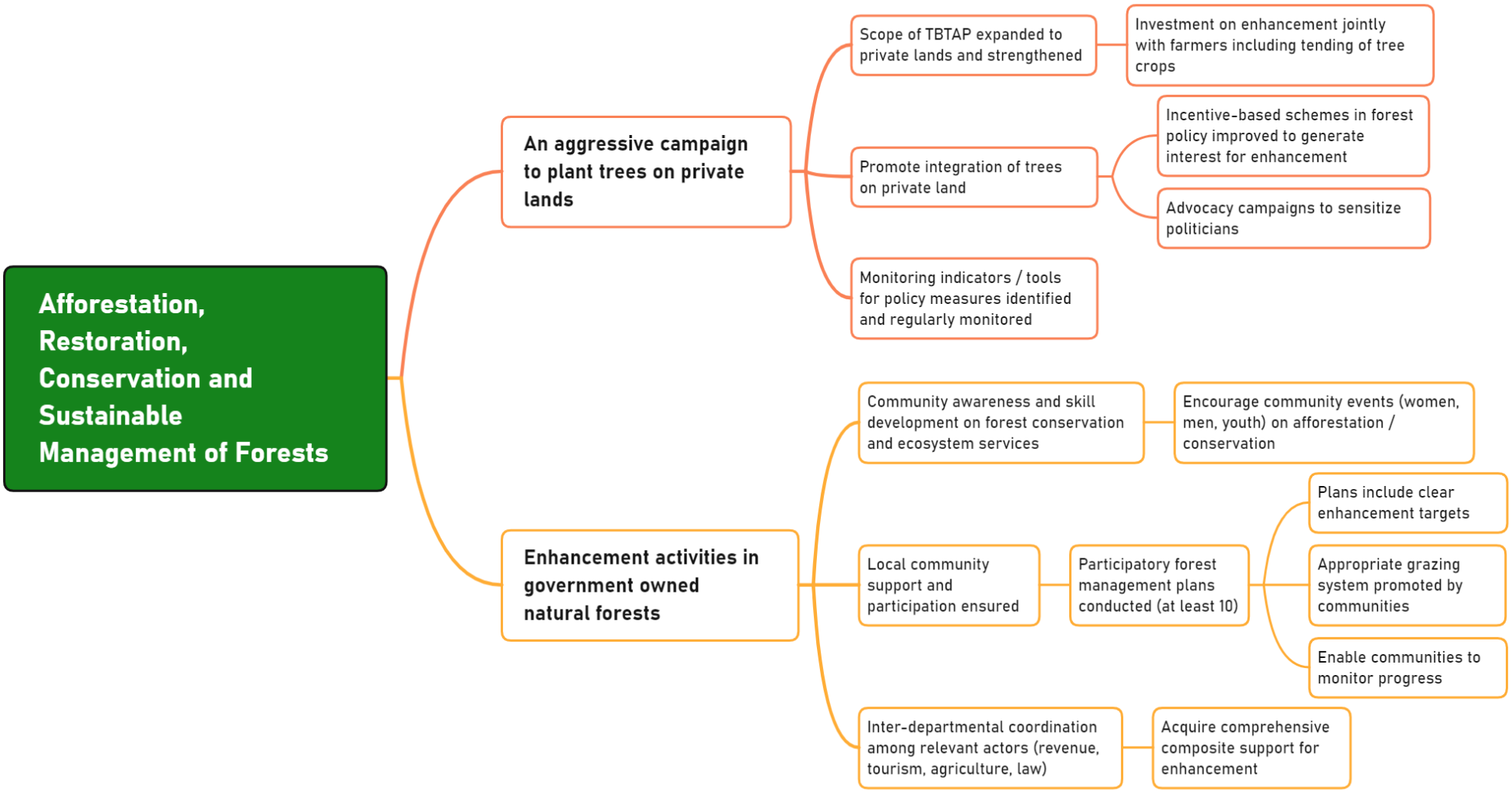

Figure 12: Solution pathways to address barriers to enhancement of forest carbon stocks

5.6 Examples from proposed actions

Case study 1: Farm forestry in GB

Development of farm forestry is a success story in GB. Natural forests in GB are scarce. In addition huge quantities of energy is required for cooking round the year and space heating during six harshly cold months (November to April). In high altitude areas this is extended to eight months. This resulted in the drive to promote forest trees on the farmland. It was founded on GB's long history of integrating fruit trees and crops. It was further supported by construction of water channels in GB with support from development agencies and establishment of new farmlands. Decreasing natural forest resources, the need for energy and experience with planting fruit trees helped the communities, forest department and the development agencies in planting millions of forest plants during the last 40 years. Before 1990s wood mainly extracted from the natural forest was traded in the market. Today, bulk of the firwood as well as timber comes from farm forestry.

Picture 5: A culture of integrating trees on farmlands

Farm forestry or integration of trees on private lands is a direct contribution to reduce deforestation and forest degradation by reducing pressure on natural forests for firewood and timber.

5.7 Indictive budget for proposed actions

The REDD+ actions are designed to operate at the provincial level. An indicative budget of PKR 2010 million has been proposed for each action line and the related outputs. The proposed actions may be implemented as separate projects (**Table 16, Figure 13).**

Table 16: Indicative management of PRA) targets (%) within short, mid and long term

Activities	Indicative targets		
	Short term (1-3 years)	Medium term (1-7 years)	Long term (1-10 years)
Land use policy, mapping and enforcement	50%	50%	0
Finalize Forest Policy / Act + harmonize other policies	66%	34%	0
Improve coordination among departments	33%	33%	34%
Robust Forest Monitoring and MRV System for GB	33%	33%	34%
Improve / intensify agriculture productivity & resilience	14%	41%	45%
Alternative livelihoods (NTFP, vocational skills)	20%	45%	35%
Payment for Eco-system Services schemes	44%	56%	0
Promote sustainable alternative and efficient hydro energy	21%	26%	53%
Forest enhancement schemes in natural forests	33%	33%	34%
Forest enhancement schemes on private lands / channels / avenues	33%	33%	34%
Implement participatory forest mgt. & monitoring	27%	36%	36%
Capacity building of communities and field staff	50%	50%	0

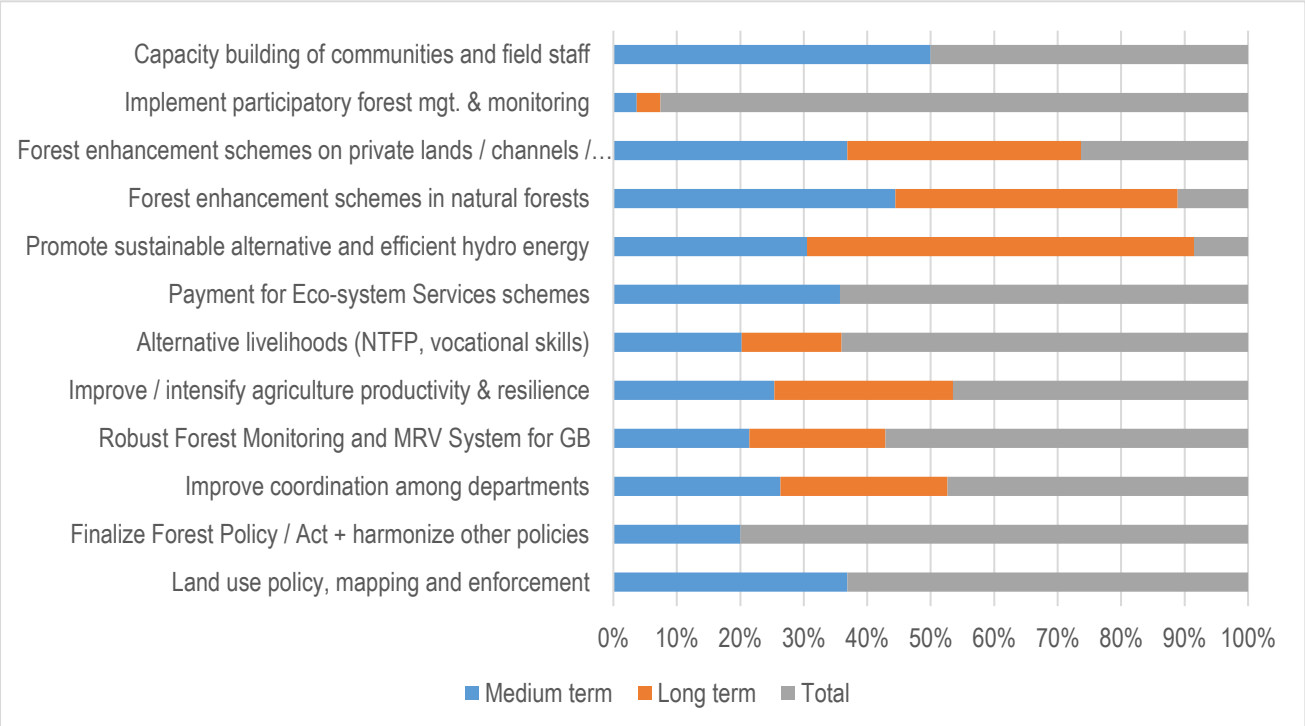

Figure 13: Indicative budget proportions of GB PRAP (short, medium and long term (%)

6 BENEFIT SHARING MECHANISM

The Gilgit Baltistan government recognizes REDD+ as a financial incentive-based forest management scheme to incentivize ongoing forest management initiatives and associated behavioral change among the local communities for addressing drivers of deforestation and forest degradation. A broad sketch of benefit sharing mechanism for Carbon and non-Carbon benefits is proposed in this section. It has been drawn on GB forestry stakeholders' deliberation and experience. The stakeholders suggested to keep it flexible and evolving with increased awareness and knowledge on REDD+ mechanism among foresters, non-forest stakeholders and communities.

GB's REDD+ action plan proposes a contract-based agreement between local stakeholders and the Forest Department to provide legal grounds for REDD+ implementation and sharing of Carbon and non-Carbon benefits. The monetary returns from REDD+ activities (carbon credits sale) would be divided differently for different forest tenures into various heads. There are a few fundamental principles in GB which need to be followed:

1. The final decision for sharing the Carbon benefits with entities outside the province will rest with the government of GB as the owner of land and natural resources.
2. The decision to engage with voluntary market or buyers of Carbon credits either directly by the province with voluntary markets or via Federal Ministry of Climate Change will also rest with the GB government in the best interest of forest resources and beneficiaries.
3. REDD+ benefits need to be seen independently of timber benefits. In case of scientific harvesting through sustainable forest management, the sale proceeds will be distributed exactly as stipulated for Protected and Privately owned forests. In case of REDD+ benefits, the same proportion of revenue sharing do not have to be applied since Carbon is a new product and the revenue will be generated due to reduced deforestation and forest degradation.
4. A greater share to the forest owners, right holders and users will result in better REDD+ benefits since most of the drivers to be removed originate at that level. The forest owners, right holders and forest users must be incentivised to contribute more to addressing drivers.
5. The owners' and non-owners' share will be divided into cash and kind. In kind benefit distribution will be ensured in the shape of schemes which have a direct contribution to reducing drivers of deforestation and forest degradation and forest enhancement.
6. The cost of transaction for individual REDD+ case under negotiation with a potential buyer will not be more than 10% of the total potential revenue so that maximum benefits may be retained for different stakeholders.

The main purpose of the benefit sharing mechanism is to ensure that the forest owners as well as users find an incentive in REDD+ measures and cooperate with the programme. GB's government is currently engaged in framing rules for REDD+ benefit distribution. This PRAP may provide inputs in this deliberation. The following proposal therefore may be taken as an input in the government's deliberation.

1. Protected Forests

   In case of protected forests, both the GB government and community right holders are joint equity holders. The recommended shares of the benefits are as follows:

   a. The Government of GB will transfer 50% of the share to the GB Forest, Wildlife and Environment department for executing REDD+ participatory forest management plans, REDD+ monitoring, financing REDD+ Cell and forest enhancement.
      i. Out of the government's share, 20% will be retained by the Government of GB.

ii. Federal Ministry of Climate Change will receive 5% subject to the case where MOCC had a direct or agreed engagement in REDD+ negotiation with a market, monitoring, or technical capacity enhancement of GB's REDD+ implementation.

b. 50% is recommended to be shared with forest communities / customary right holders through Participatory Forest Management Plan activities. Out of this amount, whole or part may be agreed to be spent on community share will be spent on village development schemes, which has a direct influence on reducing drivers of deforestation and forest degradation (e.g., alternative energy schemes, pasture improvement).

2. Privately owned forests

In case of privately owned forests, a major share will be transferred to the owners.

a. 70% share will go to the forest owners (50% cash and 50% liquidated through Participatory Forest Management Plan implementation).

b. 30% share will be retained by the government and will be spent has follows:

i. Two third of this share (20% from 30%) will be spent on community welfare schemes with direct relevance to reducing the drivers of deforestation and forest degradation (e.g., alternative energy development, pasture improvement etc.).

ii. The remaining 10% will be divided among the government of GB, the GB Forest department, and the MoCC. The GB Forest department will use this amount for executing REDD+ activities through REDD+ Cell.

A schematic explanation is given in Figure 14.

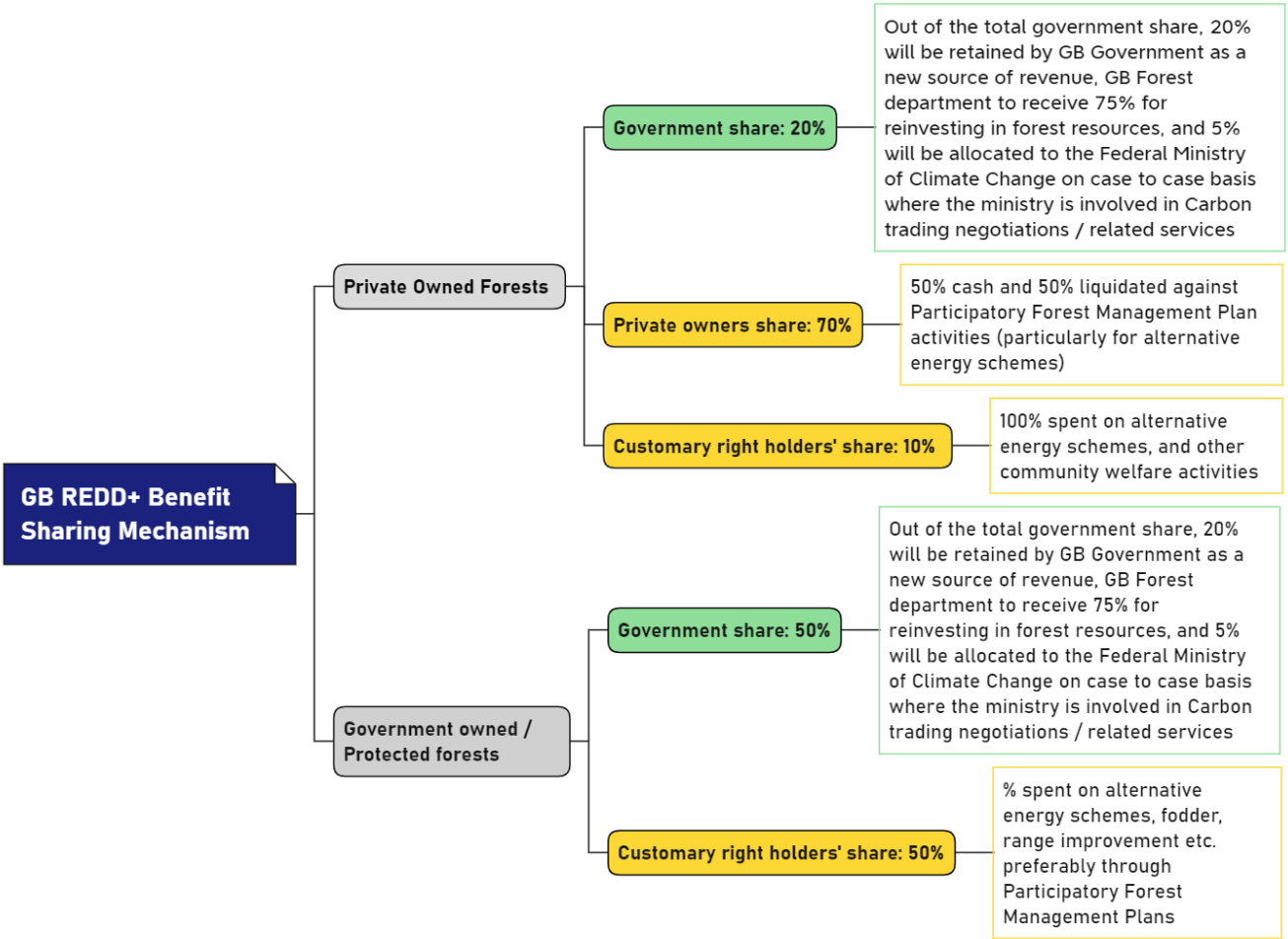

Figure 14: Flow Chart of Carbon and non-Carbon Benefit Sharing Accrued from REDD+ Programme

7 INSTITUTIONAL ARRANGEMENTS FOR IMPLEMENTATION OF GB PRAP

7.1 Institutional anchorage of REDD+ and responsibilities

The NRS has proposed and guided establishment of REDD+ institutions at national and sub-national level. In addition, it also proposes the establishment of certain thematic working groups to guide implementation of the various technical aspects of the strategy. During consultation process, the participants proposed the establishment of a number of other institutional set-ups at provincial level, regional/forest circle and district/local levels. The organogram envisaged for REDD+ implementation in GB is shown in Figure 14.

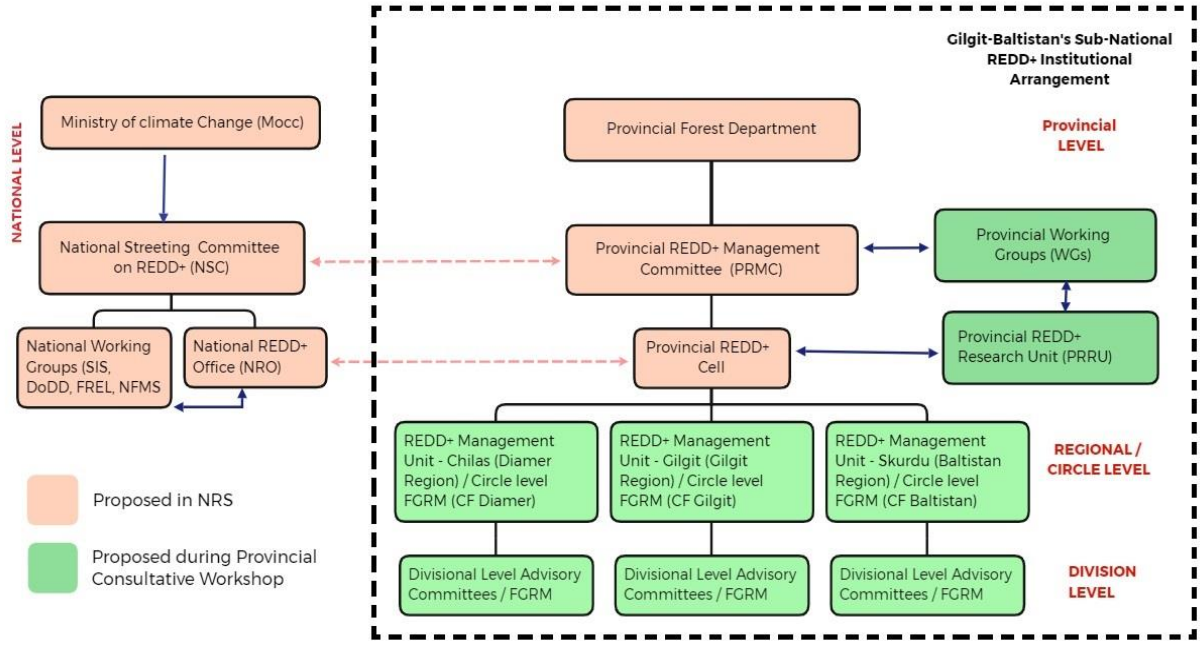

Figure 15: Sub-national REDD+ Institutional arrangements

1. **Provincial REDD+ Management Committee (PRMC):** This committee will be headed by the Secretary Forests and Wildlife and will perform as an advisory and steering body in preparation of REDD+ policies, plans, laws, and institutional mechanisms in addition to carrying out previously determined mandate and supervisory functions.

2. **Provincial REDD+ Thematic Working Group:** Four groups are proposed to provide technical guidance as follows:
    a. Technical working group on FREL/FRL (sub national level).
    b. Technical working group on Provincial Forest Inventory and MRV.
    c. Technical working group on REDD+ Social and Environmental Safeguards (SES), and Feedback Grievance Redressal Mechanism (FGRM).
    d. Technical working group on REDD+ Finance

3. **Provincial REDD+ Cell:** This unit will be responsible for designing and implementation of REDD+ action plans at the provincial, administrative, and regional/ circle level in consonance with the national and international framework. The provincial REDD+ Cell will be headed by the Project Director/ Provincial REDD+ Coordinator/ Provincial REDD+ focal person of GB REDD+ Programme.

4. **Provincial REDD+ Research Unit/ Committee:** The provincial REDD+ research unit will be based in Conservator of Forests (Research). A research committee will be formed representative of all administrative units to promote and coordinate research on REDD+ related thematic areas. This committee will also perform Quality Control checks on satellite based and forest inventories.

5. **Three Regional REDD+ Management Units:** Three Regional REDD+ Management Units (RRMUs) will be established in Gilgit, Diamer and Skardu. The management units will (i) support the provincial REDD+ Cell and oversee field and implementation activities of the pilot REDD+ project sites, (ii) undertake awareness raising / capacity building activities for forest staff and local communities, and (iii) collaborate with forest circles and divisions.

6. **Forest Circle level REDD+ SES and FGRM:** The circle level SES and GRM will be coordinated by the respective Conservator of Forests and will ensure adherence to the Social and Environmental Safeguards.

7. **Forest Division Level REDD+ SES and FGRM:** The division level SES and FGRM will be chaired by the Divisional Forest Officer of the Forest Division concerned. It will work as Think Tank and resource pool for the Provincial REDD+ Management Committee. It also will serve as platform for discussions on and resolution of REDD+ related issues at the district level. It will provide data and information on REDD+ implementation at the district level to the provincial REDD+ Management Committee.

7.2 Feedback grievance and redressal mechanism

A Feedback Grievance Redress Mechanism (FGRM) has been designed[29] at national level as part of national REDD+ readiness process to enable clear and effective handling of complaints or conflicts arising from the implementation of REDD+ activities. The FGRM is designed on the principles of legitimacy, accessibility, predictability equitability, transparency, rights compatibility and enabling continuous learning. The Standard Operating Procedures – SOPs for FGRM are defined and integrated into Safeguard Information System – SIS (www.pakistansis.com). A systematic stepwise procedure will be adopted for FGRM: i) Receipt and registration of feedback, grievance or complaint; ii) Investigation of the grievance or complaint; iii) Resolution to the utmost satisfaction of parties and in accordance with the rules, and; iv) Monitoring of implementation of the agreed resolution. These steps are in accordance with the FCPF guidelines. In total 30 working days are contemplated from the moment the complaint is received until its disposal. A summary of the SOPs of FGRM is given in **(Table 17)**. The aggrieved parties may decide to use the FGRM in preference to other available mechanisms.

The grievance redressal is also part of the existing provincial forest related policies and programmes in which complaint procedures are already defined and platforms to lodge complaints are available. The GB has also established its provincial FGRM for REDD+ following guidance from the national FGRM. This action plan proposes the DFO office as the main FDRM since it is locally located and is best known to the forest communities. The DFO office needs to publicize a specific desk, phone number and email address through which written complaints may be registered. If not resolved, the matter will be reported to the higher levels. The system is not operational yet, however efforts will be made to operationalize this to first sensitize DFO level staff on how to operate FGRM. Mass awareness campaign on REDD+ will also include publicity of FGRM so that they can access platforms made available to them to provide their feedback and lodge complaints.

[29] https://www.redd-pakistan.org/wp-content/uploads/2015/08/Draft-Final-Report_final.pdf.

Table 17: Recommended FGRM mechanism

Steps	Process	Processing days	Responsibility to Receive and Deal with Complaint	Communication Tools/ Channel	Outcome
1st	Receipt and registration of complaint / grievance	5 business days	Divisional level FGRM	**Channels**: Email, complaint box, specific desk, phone number	The Complaint is received, registered, lodged and sent to complaint officer at DFO level
2nd	Investigation	15 business days	Designated Complaint Officer	**Tool**: Diagnostic questions to gather information about relevant actors/ parties, nature of complaint, the request made by claimant and position of other party, violated, or recognised legal rights, supporting witness, evidence, and prayers from parties **Channel**: Complaint officer to contact directly with the claimant and other relevant parties	The complaint is resolved or taken to a relevant level for resolution. Comprehensively document grounds for complaint and record support from rules.
3rd	Resolution	15 business days	Designated Complaint Officer	**Tool**: Written response about decision process **Channel**: Face to face meeting with parties and mutual discussion at appropriate level i.e., district, village, or province	A signed agreement.
4th	Monitoring	3 – 12 months	Provincial REDD+ focal person	**Tool**: The FGRM monitoring database from which the information will be analysed **Channel**: Coordinated FGRM monitoring system between DFO and provincial REDD+ Cell	The patterns of complaints recognized, the causes of the complaint are identified, and the effectiveness of handling of complaints by PRMUs evaluated.

7.3 Capacity needs assessment and coordination

This capacity assessment was guided by the following:

1. Capacity-Based Needs Assessment (CBNA) report of 2014[30] (updated in 2017-2018[31]) to ensure consistency and comparability in reporting the capacity gaps;
2. Discussion on department's human and technical capacities during REDD+ Readiness consultations (R-Package)
3. Consultations on assessment of technical and extension systems at sub national level

GB Forest Department has a well-established mandate to undertake SLMS based activity data generation and regular monitoring. The department also has well established Remote Sensing and GIS Section/Unit integrated with inventory unit and manned by an academically qualified and trained GIS expert. However, the department do not have supporting GIS/RS Analyst, operators or IT personnel to support mapping and data management works. GB FD has good technical competence in image processing, analysis and production of LULUC data with field inventory/ground truth data, validation and accuracy assessment. However, there is limited technical capacity for reporting in compliance to IPCC reporting. The department also possess good system infrastructure in terms of computer hardware and IT. Licensed commercial GIS and RS software is not available. Field equipment such as GPS is limited in numbers to conduct provincial level field inventory or validation.

GB Forest Department is mandated to undertake inventory, mapping, reporting and preparation of working and management plan. The department is undertaking biomass inventory and sub-national level along with capacity enhancements with the support of PFI and ICIMOD. Stratified random sampling has been adopted to establish Temporary Sample Plots. Field inventory measurements also included measurements of parameters using been GPS for plot locations and vertex for heights. FD has trained human resources but are in limited numbers. Enhancements of human capacities are required in planning and designing, inventory data collections, QA/QC, data analysis and reporting as well as to generate data related of the drivers of deforestation and degradation. Computer hardware, software licenses and establishment of soil lab is also deemed necessary for operationalization of provincial level forest inventory.

GB Forest department's staff have not gone through specific training in community forestry management and extension skills. This, however, does not mean that the staff does not have participatory sense and cannot operate in community-based models. GB, being a pioneer region in introducing community-based development champions in this approach and the legacy is strong enough for the department not to evade the approach in the management regime. Yet, it is important to induce necessary skillsets in the following ways:

- Formally recognize and frame participatory approach in management of forest resources. This is to formally mainstream organize community institutions in participatory forest management
- Participatory approach is urgent in private forests of Diamer where communities and Forest department need to work together in a trustful relationship since most of the protected forests degraded due to illegal timber extraction where Forest department was in charge.
- Train field staff in skilfully engaging communities in dialogues / negotiations on benefit distribution.

30https://www.unredd.net/documents/un-redd-partner-countries-181/asia-the-pacific-333/a-p-partner-countries/pakistan-1129/implementation-technical-including-tors-1845/mrv-and-monitoring-1852/15245-pakistan-nfms-capacity-building-needs-assessment-report.html?path=un-redd-partner-countries-181/asia-the-pacific-333/a-p-partner-countries/pakistan-1129/implementation-technical-including-tors-1845/mrv-and-monitoring-1852

31 https://www.redd-pakistan.org/wp-content/uploads/2019/02/Capacity-Needs-Assessment-Technical-Capacity-Enhancement.pdf

- There is no forest school or learning facility for the lowest tiers of the field staff. It is important to train them on a balanced approach with participation as well as technical resource management. This staff is the first line of interaction with forest users / communities whose motivation in favour of REDD+ paradigm is needed to be transformed.
- REDD+ implementation will also require sound inhouse communication skills and ability to engage citizens (including web-based portals, social media and information sharing for greater accountability).

One of the most important capacity issues in GB is REDD+ management. REDD+ required full time human capacity with dedicated monitoring, coordination and communication staff. REDD+ during its implementation phase will no longer remain a part time job to be performed by staff with additional duties. Therefore improved human capacity is needed in GB with required skillsets and capacities to perform REDD+.

The GB Forest department at the highest leadership level will assume responsibility to ensure that regular capacity needs assessment is conducted, and the highest priority needs are fulfilled with appropriate resources for efficient and fruitful results.

7.4 Alignment with policy

National REDD+ Strategy

The NRS provides the overall guiding framework for implementing REDD+ at national and sub-national level. The GB PRAP is aligned with the NRS REDD+ vision of optimizing forest ecosystem services and livelihood support on a sustainable basis and is consistent with the goals and objectives of NRS as given below:

i. Contribute significantly to reducing GHG emissions through avoided deforestation and forest degradation and to enhancing forest carbon stocks in order to mitigate climate change
ii. Provide sustainable flow of environmental services from forest ecosystems
iii. Make available alternatives for sustainable livelihoods to people dependent on forests
iv. Provide the required institutional, legal, and economic conditions to ensure the sustainable management of forest resources and ecosystems
v. Create the necessary governance for the implementation of cross-sectoral policies
vi. Ensure awareness of stakeholders concerning the role of forest in sustainable development, climate change and REDD+

Based on the wider goal of NRS, the objective of this PRAP, as mentioned in section 2, is to contribute to achieve the targets set out in the NRS.

National Forest policy (2016)

The approved National Forest Policy 2016 has two main policy objectives i.e. (i) the expansion of forest cover and (ii) the curbing of deforestation and promotion of forest conservation. Under these objectives, the National Forest Policy envisages for both the implementation of REDD+ and the full transfer of benefits arising therefrom, such as payments for preserving carbon stock, to forest owners and right-holders. The GB PRAP is, therefore, designed to contribute to the objectives of National Forest Policy through implementation of REDD+ at sub-national level in GB.

Alignment with Provincial Sectoral Development Planning

This PRAP encompasses multi-sectors and related issues e.g., agriculture, infrastructure, energy, tourism, livestock, economic growth and poverty reduction. The prioritized actions are closely aligned with provincial sectoral development plans and promote co-ordination and cooperation with all

relevant stakeholders. Also, as already mentioned the PRAP is not a static document and would require periodic revision, taking inputs of the relevant provincial institutions and other stakeholders in the light of the experience gained from implementing the actions.

7.5 Monitoring needs

Monitoring of actions is a critical aspect of this PRAP that helps to ensure effective implementation of the actions and tracking any undesirable change in time for alerting possible remedies. Regular monitoring must be in place with trained human resources. The PRAP proposes Provincial REDD+ Monitoring Unit (PRMU) in Gilgit and Circle level monitoring units.

Monitoring of PRAPs will take place at three levels:

1. Individual actions at intervention and output level to address drivers / underlying causes – recurring monitoring
2. Monitoring of safeguards remedies to assure there are no social or environmental implications – project / action-based monitoring while assuring that grievances are addressed and agreed solutions are implemented. For this FGRM has been set up at divisional and circle levels that will report to provincial REDD+ management unit for further incorporation into provincial forest monitoring system.
3. Overall impact of actions on forest health and drivers of deforestation and forest degradation – medium and long-term monitoring

Currently, monitoring indicators for REDD+ related activities are being defined as part of sub-national forest monitoring system. However, forests have been monitored as per the standard methods/ protocols of working plans in addition of regular field staff visits and reporting. There is need of standardization and consistency in the procedures and methods for forest (including natural forests) monitoring at provincial and national level. Several forest related monitoring tools already exist, which need to be harmonized with new tools required for monitoring of PRAP. Founded on these, interlinked forest monitoring indicators and tools / mechanisms at federal and provincial levels have been proposed Table 18. This PRAP will help GB to formally and firmly, embed the provincial level forest monitoring indicators into existing national forest monitoring framework.

Since land and forest management within GB are the responsibility of multiple government institutions depending on the land cover specifications, a monitoring system that caters for all the aforementioned three levels is necessary to be designed by REDD+ management unit. There is a need to establish a thorough process for collecting, verifying, processing, analyzing and reporting data and create relevant capacities for performing these functions within the province. It is important for transparency and for empowering communities that the Forest department make information public. This will prevent unnecessary pressures to manipulate data or push for self-interpretation. The system will be linked with National Forest Monitoring System.

Table 18: Forest monitoring indicators and tools/ mechanisms at federal and provincial levels

REDD+ activities	Summary of proposed actions	National indicators	Provincial indicators	National monitoring tools	Provincial monitoring tools
Deforestation	Reduced conversion to non-forest uses by ensuring a clear forestland demarcation with digital records Strong coordination with non-forestry actors competing for land Provincial Forest Monitoring and MRV System in place Reduce pressure for breaking land for agriculture by enhancing agricultural productivity of existing lands / intensification Introduce alternative livelihood options (NTFP, PES) to diversify sole reliance on agriculture	Changes in national forest cover and land area (ha)	Conversion of forests to infrastructure and agricultural lands	NFMS (SLMS) and other international studies e.g., FAO's FRA **Actors:** NRSC, OIGF, NRO, GCISC, Provincial Forest departments, Academia	Provincial Forest Monitoring and MRV System in which regular staff / communities' surveillance are integrated **Actors:** PRMC, Provincial REDD+ management unit, Academia, communities
Forest Degradation	Reduce pressure on forests for energy by investing in alternative energy sources (esp. hydropower) and further encouraging culture of planting trees on farm / private lands Introduce alternative forest-based livelihoods to attach economic incentive in conservation Community based solutions to reduce illegal activities, overgrazing and reduced / control forest fire incidents	Decrease in forest density (percentage of forest cover), soil land degradation/ Erosion, grazing, forest fires	Unsustainable firewood and timber extraction (legal and illegal), forest fires	NFMS (SLMS and NFI) Social/economic surveys **Actors:** NRSC, OIGF, NRO, GCISC, Provincial Forest departments, academia	Provincial Forest Monitoring and MRV System in which regular staff / communities' surveillance are integrated; density-based forest cover assessment. **Actors:** PRMC, Provincial REDD+ management unit, divisional forest offices, communities, academia
Enhancement of Forest Carbon Stocks	Aggressive campaign to plant trees in natural forests (including artificial and natural regeneration) and private lands Incentivize enhancement activities in natural forests Promote / build on culture of community tree planting in GB	Areas (in ha) afforested/ reforested/ regenerated. No of plants planted each year	Afforestation (area in ha), reforestation (no. of plants/ area reforested in ha), regeneration (counting of no. of plants and area regenerated in ha)	SLMS, NFI, Afforestation/ reforestation plans, annual plantation targets/ reports from provinces, official statistics provided by other institution on plantations **Actors:** NRSC, OIGF, NRO, GCISC, Provincial Forest departments, academia, NGOs	Provincial Forest Monitoring and MRV System in which regular staff / communities' surveillance are integrated; counting of trees on regular basis to assess survival percentage **Actors:** PRMC, Provincial REDD+ management unit, divisional forest offices, communities, local NGOs, academia
Conservation	Develop forest policy of GB Institutionalize community participation Define and operationalize clear benefit sharing mechanism from REDD+	Conservation policies/ laws/ regulations, protected area notifications of government	Implementation of laws, regulations etc., SFM, PES implementation; fire management	Protected area networks, enacted laws/regulations, guided by national Policy guidance **Actors:** NRSC, OIGF, NRO, GCISC, Provincial Forest departments, academia, NGOs	Enforcement of laws/ regulations (enforcement checks) **Actors:** PRMC, Provincial REDD+ management unit, divisional forest offices, communities, local NGOs, academia
Sustainable Management of Forests	At least 10 Participatory Forest Management Plans and their implementation	No of Management Plans at national level	Participatory Forest Management Plans (forest types/ area covered)	Review reports of Implementation progress from provinces **Actors:** NRSC, OIGF, NRO, GCISC, Provincial Forest departments, academia, NGOs/ INGOs	Review of implementation progress of PFMPs (forest area/types covered) **Actors:** PRMC, Provincial REDD+ management unit, divisional forest offices, communities, local NGOs, academia

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Ref. No- REDD+ 1(5)/ 2021 **Dated: May 13, 2022**

To

Dr. Arjumand Nizami, Country Director
HELVETAS, Swiss Inter-cooperation,
Pakistan, Islamabad

Subject: **ENDORSEMNT OF PROVINCIAL REDD+ ACTION PLAN**

Reference to the letter No. CCF-12(12)/2018 on April 27, 2022 regarding Endorsement of Provincial Redd+ Action Plan GB. The version of the Provincial Redd+ Action Plan GB has been received after incorporating recommendations made by the committee.

Therefore, the new version of the Provincial REDD+ Action Plan Gilgit-Baltistan (PRAP GB) is endorsed.

(Muhammad Essa)
Coordinator REDD+
Gilgit-Baltistan, Gilgit

Copy to:

1. The Chief Conservator Forest, Parks & Wildlife GB for information please
2. Syed Ghulam Qadir Shah, National Coordinator REDD+, National REDD+ Office, Ministry of Climate Change, Islamabad.

Provincial REDD+ ACTION PLAN

Gilgit – Baltistan

2022-2031

REDD+ Pakistan

Prepared under the REDD+ Readiness Preparation Project for Pakistan financed by Forest Carbon Partnership Facility (FPCF), implemented by Federal Ministry of Climate Change (MoCC) through National REDD+ Office (NRO), Islamabad.