



Assessment of Carbon Rights in various types of forests based on Legal Classification

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Summary

Forest management in Pakistan is a Provincial Subject. Pakistan is a highly diverse country in terms of forest ecosystems, ecological boundaries, drivers of deforestation and forest degradation within legal forest types, besides great social and ethnic diversity that exist among the provinces and different regions within the provinces, with implication on forest ecosystems and governance, necessitating specific decisions in different situations.

The main objective of the study is to 'develop an overarching mechanism for carbon benefit sharing in six sub national entities of Pakistan'(Punjab, Khyber Pakhtunkhwa, Sindh, Balochistan, Azad Jammu and Kashmir and Gilgit-Baltistan). Data for this study was collected through review of secondary literature, provincial consultations in six sub national entities and MoCC, and a national online survey to document opinion on Carbon and non-Carbon benefit sharing, associated challenges, and opportunities. The draft findings were shared with the sub national entities in final round of consultation for feedback and factual corrections.

This report provides an overview of land and forest tenure in the six sub national entities and suggestions on entry points for REDD+ programmes. The report shows that forests in all six national entities are under a variety of tenurial systems. Main legal categories include Reserved, Protected, Guzara and Private forests. Reserved forests are relatively less burdened with rights. Whereas Protected forests are heavily encumbered with local rights. The Guzara forests are managed by the Forest departments, although these are private with individual and communal ownership, whereas privately owned forests are private property and are also managed by forest department. In addition, all the forests are under customary use by local communities for their livelihoods needs, especially for firewood collection. The report suggests that the Protected forest will be most suitable as an entry point for initiating REDD+ programmes and may demonstrate a good example and inspiration for private owners to practice private forests under REDD+ programmes.

This report suggests a nested approach with jurisdictional scale for implementation of REDD+ programmes. This approach is considered more appropriate to integrate existing forest Carbon projects into decentralized large-scale REDD+ programmes at national and sub national levels while allowing them to continue generating and trading Carbon units.

The stakeholder of the sub-national entities consider Carbon to emerge as an important forest product with the potential to bring monetary and non-Carbon (e.g., enhanced forest biomass, potential value chains) to the stakeholders. The stakeholders see great potential to initiate REDD+ programmes. However new legislation will be required to declare Carbon as a new forest product and for distribution of benefits accruing from implementation of REDD+ programmes.

This study presents recommendation on benefits sharing based on local needs, role of customary users including women and weak segments of society in REDD+ programmes, entry points for REDD+ programmes, Institutional setup for demonstrating transparency in benefit distribution, setting on a robust MRV system and the need for new legal framework to accommodate REDD+.

1 Introduction

Pakistan has meagre forest resources, however, extremely diverse ecologically as well as unique in terms of ownerships. These forests are heavily burdened with use rights and concessions and face multiple governance challenges which assert pressure on forest resources. The ownerships, rights and concessions differ not only with different legal categories but also within the same legal category. Similarly, legal classifications of forests and associated ownerships, rights and concessions are somewhat different in various subnational entities as well as the mechanisms of sharing different benefits arising from these forests under specific legal classes. Furthermore, with the intention of implementing REDD+ in Pakistan, the need for defining Carbon, assessing Carbon rights, and benefit sharing mechanism for Carbon and non-Carbon benefits under REDD+ regime also aroused. Therefore, this study on “Assessment of Carbon rights in various types of forests based on legal classification” was launched by the Ministry of Climate Change (MoCC) through a competitive process under the Pakistan REDD+ Readiness Project

This document outlines appropriate and equitable mechanisms for distribution of benefits from potential REDD+ projects/programmes taking legal and customary rights of the user communities, and moral aspects into consideration. It also considers issues relevant to carbon as a legal structure, ensuring a fair deal for neglected and voiceless users to access benefits within the existing legal framework and by devising new legislation where required.

The discussion on benefit sharing from REDD+ is nested in land and forest tenurial rights in Pakistan. This report, therefore, provides an overview of Pakistan’s land and forest tenure, the associated challenges with respect to the drivers of deforestation and forest degradation and how these may be addressed through an equitable benefit sharing mechanism.

The report introduces nested approach and debate on REDD+ benefit sharing mechanism in light of international literature guiding benefit sharing mechanism, references from countries where REDD+ already entered the implementation phase, and the National REDD+ strategy. This report also summarizes major responses collected during key informant interviews, several consultation sessions, workshops, and an online national survey on REDD+ benefit sharing mechanism.

At the end, this report summarises sub-national concepts of REDD+ benefit sharing mechanism which were devised with provincial stakeholders.

1.1 Objectives

The main objective of the study is to ‘develop an overarching mechanism for carbon benefit sharing in six sub national entities (colloquially called provincial hereinafter)¹ of Pakistan’. The specific objectives are:

- To identify stakeholders and their rights in different types of legal classes of forests in order to determine carbon rights
- Assess forest policies and legislation that provide legal basis for implementation of REDD+
- Identify gaps and provide recommendation for enabling policy and institutional framework to support recognition of carbon rights and distribution of benefits among relevant stakeholders

¹ The federation of Pakistan consists of four provinces, the State of Azad Jammu and Kashmir and Gilgit-Baltistan region. These six entities are jointly called sub-national entities. In this document, for simplicity and ease of readers, the term Provincial will mean sub-national entities.

- Undertake scenario analysis for assessing implications of reform for stakeholders to support optimal REDD+ outcomes

1.2 Methodology

Following methods and tools were used for data collection, data interpretations and analysis:

- 1) A comprehensive desk review of existing literature (e.g., policy documents, legal documents on forest tenure, international literature on REDD+ benefit sharing) was conducted to inform this study and to provide basis for stakeholders' consultation.
- 2) Provincial consultations were held in Sindh, Balochistan, Khyber Pakhtunkhwa (KP), Punjab, Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB) on forest rights, tenure, forest management challenges, and recommendations on REDD+ benefit sharing mechanism:
 - Dedicated sessions on finalizing province specific proposals on benefit sharing mechanism (summary **Annex 1**).
 - During the preparing Provincial REDD+ Action Plans with multi-stakeholders
 - During the final consultation on draft REDD+ Action Plan document
- 3) A national online survey was conducted to document opinion on Carbon and non-Carbon benefit sharing, associated challenges, and opportunities. Thirty-three selected experts participated in the survey (72% forest experts at federal and provincial levels; 28% other stakeholders - 85% men, 15% women - 84% from provinces and 16% federal). Recommendations from this survey have been useful in drafting this report (**Annex 2**).
- 4) The initial findings were refined based on a second-round input by forest experts with legal expertise and decision makers from the provinces
- 5) The draft report was then shared with the respective REDD+ focal persons in all six provinces for their feedback and factual corrections, which were incorporated

1.3 Structure of the report

Chapter 1 of the report is introduction. This report is mainly founded on three main chapters and a concluding chapter. Chapter 2 deals with existing forest tenure in different provinces and benefit sharing mechanism while Chapter 3 elaborates cornerstones of approach guiding benefit sharing mechanism at sub national level in Pakistan. Chapter 4 provides sub national proposals for REDD+ benefit sharing in different forest tenures for relevant beneficiary stakeholders. The last chapter briefly provides key conclusions and recommendations.

2 Existing forest land tenure and benefit sharing mechanism

Forest management in Pakistan is a provincial subject. Each province makes its own legislation for forest management and determines rights and obligations of stakeholders. This chapter therefore provides existing forest land tenure and benefit sharing mechanism prevailing in the province.

It is important to note that legal forest types at the provincial levels are still determined through the provisions in the Forest Act 1927. Although legal provisions are very important, forest management is highly impacted by what actually happens on the ground in terms of *de facto* practices. The analysis of *de facto* ownership and use rights help in understanding current state of forests and devising customized strategies for their improvement.

Conventional benefits from forests may broadly be classified into two categories: *non-monitory benefits* and *monitory benefits* (Carbon benefits is a new entry). The non-monitory benefits include the sub-categories of timber, firewood, grasses/fodder and other non-timber forest products (NTFPs). Cash accrued from direct sale of forest products or leasing out the forestland for agriculture, grazing or some other purposes comes under the category of monitory benefits. Rights and use patterns for both monitory and non-monitory benefits from forests are governed by a mix of prevailing forest/revenue laws and customary practices. Major legal forest categories which are same in all the provinces are summarized below while specific legal categories of each province are discussed separately in the preceding sections.

Reserved forests, is the category of forests that has the strictest defined control from the perspective of governance and of the exclusion of rights of users. Under Section 3 of the Forest Act, the government may notify any forestland or wasteland which is the property of the government, or over which the government has proprietary rights or entitlement to the whole or a part of the produce as a Reserved forest. In accordance with Sub-Section 1 of Section 26 of the Forest Act, unless done in exercise of any right under the Forest Act, rules, grant or contract made by the government or with the written permission of the forest officer², broadly, any act that can cause damage or harm to the forest or the forest ecosystem³ is an offense in a Reserved forest.

Common rights available in Reserve forests are rights of way and water, collection of fuel wood for domestic use and grazing rights. Rights in Reserved forests are rare in high hill forests but frequent in scrub forests. These rights cannot be sold or transferred but can be inherited. Afforested areas cannot be grazed on for the first ten years. Scrub forests within Reserve forests are managed as range lands and watersheds. The fee for grazing is fixed by the government and charged by the provincial Forest Departments.

² These acts include a) making fresh clearing; b) setting fire to the Reserved forest or kindling or burning fire, which endangers the forest or setting on fire any plant or tree; c) kindling, keeping or carrying any fire except during such season as the forest officer may notify in this behalf; d) trespassing, or pasturing cattle, or permitting cattle to trespass; e) causing damage by negligently felling a tree, cutting or dragging any timber; f) felling, girdling, lopping, tapping or burning a tree or stripping off a bark or leaves of a tree or otherwise damaging the same; g) quarrying stone, mines, minerals, burning lime or charcoal, or collecting and removing any forest produce; h) clearing or breaking up any land for cultivation or any other purpose; i) contravening any rules relating to hunting, shooting, fishing, or setting up traps or snares; j) cutting or damaging any plant; k) constructing any building, structure, hutment or cattle pen; l) encroaching upon the forest land; m) causing damage or tampering with barbed wire, or fence erected in or around the forest; n) removing or causing damage to the soil, water, natural vegetation (shrubs, herbs and plants), fish, wild animals and wild birds; o) damaging any structure such as [a] water channel, check dam, embankment, reservoir or pond; p) changing the land use for the purpose other than development, preservation or conservation of the forest or park; and, q) installing a sawmill, charcoal kiln or establishing a timber or firewood depot or operating any mechanical aid designed to cut, fashion or convert a tree /timber; or fabricating wood into articles of furniture, building materials, joinery or articles of domestic /commercial use within a 5-mile radius of the forest.

³ Sub-Section 5 of Section 26 of the Forest Act, 1927 (with Amendments for Punjab)

Protected forests are constituted under Section 29 of the Forest Act. Protected forests are owned and managed by the government yet vary from Reserved forests in two ways. First, they have not gone through the cumbersome process of admittance or extinction of rights or concessions of the nearby communities, and also, as opposed to Reserved forests, all acts are allowed in Protected forests unless restricted by a notification of the government. Protected forests were created after the merger of princely states in 1969 and government notification under section 29-31 of Pakistan Forest Act 1927.

Apart from share from sale of wood when commercial harvesting takes place, the Concession holders have several rights for domestic use from Protected forests including timber for domestic use and other purposes (building construction, agricultural implements, etc.) with the approval of the government. The Concessions holders can exercise their rights to firewood, grasses, fodder, NTFPs, grazing, right of way, water etc. as specified in revenue records.

An important legal category of forests in the Forest Act is **Guzara forests**. Guzara is a colloquial word which means subsistence. These forests are privately owned (individually or communally) but managed by government under the prescription of an approved Working Plan. Owners of Guzara forests and other residents whose rights are admitted in revenue record have right of timber for domestic use with approval of the government. In addition other rights include fuel wood collection, fodder and grasses, NTFP, grazing and rights of way etc. from Guzara forests. Owners of Guzara forests can change the land use with prior approval from the government. Timber permits for resident and nonresident right holders are issued by the Divisional Forest Officer.

Another category is **Resumed lands** which are the lands surrendered by big landlords when the ceiling on the ownership of land was fixed under the land reforms act of 1959. In Resume lands, the land use cannot be changed but only with the government approval.

2.1 Azad Jammu and Kashmir

Azad Jammu & Kashmir (AJK) has a total area of 13,300 km². Area under the control of the Forest Department extends over 5,670 km² that makes 42.6% of the total land mass. Of these commercial/ productive forests are only about 11%, 17.5% degraded forests, and 14.2% is Protected forests. Alpine pastures, barren rocks, water bodies, and snow-covered mountain peaks cover 14.7% (AJK 2020).

The subject of Wildlife and Fisheries was with the Forest Department until 1974. In 1976 a separate Department of Wildlife and Fisheries was created under Wildlife and Fisheries Protection Act 1976. Under this Act various categories of protected areas were set up in the demarcated forests and the management of these protected areas was shifted to Wildlife & Fisheries Department. The ownership of the demarcated forests within these protected areas (national parks, game reserves, game sanctuaries and other designations) however rests with the Forests Department. A number of conflicts have cropped up regarding the disposal of dry, dead and diseased trees from these protected areas. The Forests Department officials claim that all the produce except wildlife belongs to Forests Department whereas the staff of the Wildlife Department considers these protected areas along with the forest produce as property of Wildlife Department. There are 17 such protected areas (game reserves 11 & National Parks 6). The total area of protected sites is 57,547 ha, which is about 8.5% (AJK 2019) of the entire land mass and overlap with the State forests' area under the control of the Forests Department.

The Natural forests of AJK consist of Sub-Tropical Pine Forests and Moist and Dry temperate Forests. The sub-tropical forests have Chir Pine (*Pinus roxburghii*) mixed with broadleaved species. In Moist and Dry Temperate forests, Blue-pine (*Pinus wallichiana*), Deodar (*Cedrus deodara*), and Spruce (*Picea smithiana*) are the main conifers interspersed with certain broadleaved associates (Maple, Horse-chestnut, Bird-cherry, Walnut, etc.). Growing stock of

productive/ commercial forests is 34.440 million m³ with a potential of annual sustainable yield about 0.200 million m³ (AJK 2018).

In order to hold the high rate of deforestation, the government of AJK imposed ban on commercial logging of green trees in 2001. The mountain coniferous forests are the single most important natural asset of AJK. The importance of these forests and the allied biodiversity becomes all the more pronounced considering its role for the world largest irrigation system of Indus plains downstream. A net increase of 561 ha in the forest area during 1999–2018 was noticed due to the ban on cutting trees and implementing afforestation /reforestation programmes. The current annual afforestation is carried out over 5,000 acres against annual deforestation rate of 6,000 acre (AJK 2019).

The primary legislations concerning forests in the AJK are the Jammu and Kashmir Forests Regulation (No. 2 of 1930) - AJK Forests Regulation - and the Azad Jammu and Kashmir Wildlife (Protection, Preservation, Conservation and Management) Act, 2014 (Act IV of 2015) - AJK Wildlife Act. The AJK Wildlife Act recognizes varying degree of community rights. For example, 80% of trophy hunting fee is be paid to the community and 20% to the government treasury. The Forest Acts also recognizes community concessions which are not suspended in protected area network, except in case of National Parks.

2.1.1 Legal forest categories AJK

Legally, two types of forest exist in AJK – state owned forest and private forest.

A. State-owned forests

The state-owned forests are further categorized into Demarcated and Un-demarcated Forests as opposed to Reserved and Protected forests, elsewhere in Pakistan.

Demarcated Forests (elsewhere Reserved forests): The demarcated forests are further divided into two categories, i.e., productive/commercial forests covered under growing stock estimation, and the protection forests with no growing stock estimation or annual prescribed yield meant to protect steep hill slopes/ watershed. These forests defined as demarcated under Section 3 of the AJK Forest Regulation. The government may make rules declaring a forestland or wasteland as a demarcated forest only when the land is the property of the government. Under a recent amendment to the AJK Forest Regulations, under Section 9-A, the government may issue a notification to declare any demarcated forest or any part thereof as a Reserved forest or a Protected forest. The Acts regarding the offenses concerning a Reserved forest under the Forest Act are also offenses concerning a demarcated forest under Section 6 of the Forest Regulations. Reserved forests are a category of Demarcated Forests where all acts are prohibited unless permitted. The AJK Forest Regulation under Section 10-A allows the government to declare that a forest or a portion thereof, or a State Forest or a demarcated forest, is no longer demarcated forest. In a Demarcated Forest all rights, concessions and activities can be exercised with the written permission of the forest officer.

Un-demarcated Forest (elsewhere Protected forest): Un-demarcated Forests are defined as all forestland and wasteland that is the property of the government and not appropriated for any specific purpose. This category of forests is similar to the Protected forest elsewhere. As per the AJK Forest Regulation, a Protected forest is defined as “the forest where all acts are permitted unless prohibited”. The government however may declare any class or tree as reserved and prohibit any activity. Record shows that almost all previously un-demarcated forests have now been demarcated.

Concessions are granted in the State forests and village forests for domestic and agricultural uses to landowners and tenant farmers within a 4.8 km radius of the forest boundary; which cannot be sold or bartered. The concessionary rights include grazing, grass cutting and the collection of forage and timber (excluding deodar wood) for domestic/ personal use.

B. Village Forests (elsewhere Guzara Forest)

Section 14-A of the AJK Forest Regulation provides for the formation of village forests. The government has the right to assign Khalsa (Crown) lands to any village community thereby declaring it a village forest (comparable to guzara forests elsewhere). Further, the government has the power to make rules for the management of a village forest, including the conditions under which the village community may use the forest produce including timber, other forest produce, and pasture, as well as their duties to protect and improve the forest. All the provisions related to demarcated forests would apply to village forests as well, insofar as these are not inconsistent with any rules about village forests made by the government. Village forests are managed and developed by the Forest Department on behalf of the Deh Council. The net income from the community forests shall be treated as the revenue of the Deh Council. Buffer zones are also created around forests to protect them from encroachments however there have been cases of misreporting and mismanagement. Buffer zones are considered demarcated forests or community/ village forests as the case may be, to bring them under a proper system of management.

C. Private forests

AJK also has a small area of private forests which is regulated under the Azad Kashmir Rules for Sale and Development of Private Forests 2001 and Section 2 of the Azad Kashmir Land Revenue Act 1955. Apart from legal activities, illegal logging and felling of trees is a devastating driver of deforestation in AJK. While there are laws that criminalize illegal felling and logging of trees, their implementation on the ground remains a distant reality. Lack of implementation of applicable laws coupled with poor governance means that timber mafias often operate with impunity, which will be a challenge for implementation of REDD+ activities.

2.2 Gilgit Baltistan

The total forest area of Gilgit-Baltistan (GB) is 142,191 ha of which 77,175 are private and 65,016 are government owned Protected forests. Major forest types are sub-tropical scrub, dry temperate coniferous, sub-alpine juniper-birch forest, and northern dry scrub. Commercial harvesting was conducted in the private forests in the past, which has been now banned.

The forests of GB are within the exclusive legislative and executive domain of the Council with the Prime Minister of Pakistan as its chairman who may exercise the executive authority vested in the Council directly or through the Secretariat of the Council of which the Federal Minister for Kashmir Affairs and Gilgit-Baltistan Division is in charge. As such, the National Forest Policy 2015 or the National Climate Change Policy 2012, both of which lay down an effective policy framework necessary for the implementation of REDD+ across Pakistan, can effectively be used as a platform for the implementation of REDD+ in Gilgit-Baltistan. For Gilgit-Baltistan, these policies may be made applicable by the issuance of a notification to that effect from the GB Council (the Chairman of which is also the Chief Executive of the Federation). From an institutional capacity point of view, this is good for the effective implementation of the REDD+ framework insofar as GB is concerned.

2.2.1 Legal forest types and associated rights in GB

The primary legal regime determining the legal categories of forestland in GB is the Forest Act, 1927 with amendments in 1993. Private forests are regulated under the Regulations 1970 and Rules 1975.

A. Protected forests

The Protected forests of GB are scattered in all the ten districts of GB except Diamer, with more concentration in districts Astore, Nagar, Gilgit, and Skardu. The Protected forests are property of the government and GB Forest department is the custodian, with use rights of the local communities. These forests have been drastically degraded as result of large-scale

harvesting in the past for government uses in addition to local pressure for firewood and timber. Large scale harvesting in these forests have now been stopped and only local uses are allowed with the permission of the government. The government has encouraged local communities to form village/valley conservation committees to protect the remaining forests. The government and the NGOs have also supported the communities in raising irrigated plantation so that pressure on the natural forest is reduced. Some of the important forest species in these forests are blue pine, juniper and birch.

B. Privately owned forests

Privately owned forests of GB are mainly located in Diamer District. Under the Accession Deed of 1952, the government of Pakistan has accepted the private ownership of forests as it existed prior to the date of accession. Furthermore, under the Accession Deed, the protection, oversight, management, promotion, propagation, and felling of these forests is the responsibility of the government of Pakistan in consultation with the owners of these forests. The Accession Deed also requires that a third of the revenue generated by the government from these forests will be spent for the benefit of the locals and forest development, specifically for addressing drivers of deforestation. The Accession Deed also provides for the imposition of grazing restriction in regeneration areas which is not enforced⁴.

The private forests are managed by Forest, Parks and Wildlife Department of GB under the Private Forests Regulation of 1970. These forests are laden with rights and the proprietary rights are totally with communities. Forest department exercises management function in the forests through working plans, however in reality, in recent years the working plans were not prepared on regular basis and ad hoc policies were introduced for removing dead and fallen trees from the forests.

Under the local customary laws, the nonowner tribes including *Syeds*, *Gujars*, *Kamins*, *Dooms* and *Soniwals* are not entitled to ownership rights in forest royalty (sale proceeds). They are, however, allowed to use firewood, timber of local construction, grazing and collection of non-timber forest products (Bilal, Haq and Moore, 2003)⁵. According to the locals, the contractors and the forest department seldom plant in forest areas harvested. Besides, the contractors hire labors from outside the District Diamer which are loyal to contractors. Local influential are the major beneficiaries in distribution of income from lease of forest (IUCN, 2000).

2.3 Balochistan

Balochistan is the largest province in terms of size and smallest in terms of population. These distinguished features offer both challenges and opportunities for development. Balochistan has 591,000 hectares of forest area, (FCPF, 2014). The forests are legally categorized as State Forests, Protected forests and Private Forest.. It has a multitude of forest ecosystems including the juniper belt, the costal mangroves, and Chilghoza pine. The *Juniperus* forests are in the Ziarat and Loralai districts (Achakzai et al., 2013). The dry temperate juniper forest is the second largest of its type in the world and contains trees as old as 2500-3500 years (Marcoux, 2000). The Chilghoza pine forests are found in Zhob Division. The Juniper and Chilghoza forests provide important ecosystem services, especially for watershed management. The Mangrove forests are located at three isolated sites along the coastal area - Miani Hor, Kalmat Khor and Jiwani (Abbas et al. 2011; 2013).

Forest Act 1927 applies to those areas of the province that were part of the Kalat State and Forest Regulation 1890 is enforced in area that were part of British rule. The Forest

⁴ Trends in forest ownership, forest resources tenure and institutional arrangements A case study from Pakistan, FAO. Available at: <http://www.fao.org/forestry/11265-0f977bbb5c6a591b2924c6443ef171d08.pdf>

⁵ Bilal, A., Haq, H., & Moore, P. 2003. Customary laws governing natural resources management in Northern Areas. Planning and Development Department Northern Areas. IUCN Law Programme 2003. Available at: www.iucn.org/places/pakistan/elaws/pdf/customary%20law%20folder/customary%20laws%20na.pdf.

department has drafted a revised Forest Act to replace the Forest Act 1927 and Forest Regulation 1890. The new Act which is yet not approved is expected to cater for the emerging legal issue, for example legal provision required for the implementation of REDD+. The wildlife is managed through the Wildlife Act 2014. The forestry sector in Balochistan receives very low priority from the provincial government due to little forest area and the perceptions that investment may not be economical because the forests are of protective in nature and not contributing in terms of revenues from commercial harvesting.

2.3.1 Legal forest types and associated rights in Balochistan

A. State forests

These forests are managed under Forest Regulation 1890. Under Section 3 of the Forest Regulation, the government may declare any woodland, permanent grazing ground or other lands which is the property of the government, to be a State Forest. Generally, all the Acts that are offences in a Reserved forest in the Forest Act 1927, are also punishable offences under Section 7 and 8 of the Forest Regulation 1890, unless these Acts are done with the permission of a forest officer or the Chief Commissioner or otherwise in accordance with any rules made by the government⁶. The forests that were declared State forests under the Forest Regulation 1890 retain that status and are legally a separate category from the Reserved forests under the Forest Act 1927. In the newly drafted Forest Act, it has been made clear that State Forests declared under Forest Regulation 1890, fall in the same category as Protected forests defined in the Forest Act, 1927. Both the Forest Act and the Forest Regulation allow the government to declare that a forest or a portion thereof is no longer Reserved⁷, or a State forest⁸, as the case may be. This is an unrestricted power, and the government need not to have a prior justification for changing the status of a forest in this manner.

B. Protected forests

These forests are managed under Forest Act 1927. Under Section 29 of the Forest Act, the government of a province may constitute any forestland or wasteland which is not included in a Reserved forest, but which is the property of the government, or over which the government has proprietary rights or entitlement to the whole or a part of the produce; as a protected forest. Section 32 of the Act empowers the government to make rules for a Protected forest. Section 30 and 32 of the Act allow the government to regulate certain acts in respect of Protected forests. Unless a notification concerning the matters enumerated in Section 30 is issued or rules under Section 32 of the Act are promulgated by the government, all acts are permitted in a Protected forest. Under Section 34 of the Forest Act, an act that would otherwise be an offence shall not be deemed to be one if done with the permission of the forest officer, in accordance with the rules made in respect of Protected forests, or except as regards any portion of the Protected forest closed by notification or in the exercise of any right which is recognized by the government at the time of notification of a Protected forest.

C. Private forests

Private forests are communally owned and managed by tribes. Legally, the management right rests with the government. However, in practice, private forests are left to communities for protection function. They harvest different products from the forests including Chilghoza pine nuts, grasses, herbs, deadwood and firewood etc. In recent years, these forests have remained under critical pressure for timber and firewood.

⁶ Section 9 of the Balochistan Forest Regulation

⁷ Section 27 of the Forest Act, 1927

⁸ Section 10 of the Balochistan Forest Regulation

2.4 Khyber Pakhtunkhwa

The total forest area of Khyber Pakhtunkhwa is 1,681,000 hectares. Around 92% of the forest is either privately owned or heavily encumbered with rights. The forests are managed under KP Forest Ordinance 2002. It is the responsibility of the provincial Forest department to manage and protect forests. Forests are divided into private owned and state-owned forests. On the basis of land settlement and subsequent demarcation, forests of KP can be categorized into three broad categories i.e. forests that has passed land settlement and demarcated with proper boundary, forests that has passed land settlement but not demarcated and forests that have neither been passed through settlement process nor demarcated. The Reserved, Protected and most Guzara forests of Hazara region have been demarcated after land settlement. Demarcation record of these forests is maintained both by Forest and Revenue departments.

2.4.1 Legal forest types and associated rights in KP

A. State Owned Forests

The state-owned forests are further divided into four categories. These include (i) Reserved forests (ii) Protected forests (iii) Un-classed Forests and (iv) Resume Lands. Municipality and Cantonment Forests also fall into the category of state-owned forests, but since they cover small areas, they have been assembled with Reserved forests.

Reserved forests: Reserved forests were assigned after settling their possession and utilization rights under section 4 to 26 of the Forest Act, 1927. Legal source for tenure rights in Reserved forests is given based on Land settlements of 1872, 1901 and 1905, Forest Act 1927 and KP Forest Ordinance 2002 (part II Section 4-27). These forests are owned and managed by KP government through Working Plans. The revenues generated from the commercial sales of these forests goes to government of KP with a small Seigniorage fee to landowners of adjoining Guzara. All prohibitions mentioned in Section 26 of KP Forest Ordinance 2002 are prohibited in Reserved forests. In Hazara and Murre Hills control of some Reserved forests was moved from forest department to cantonment and municipal administration. Such forests are called Cantonment and Municipal forests with a management similar to Reserved forests.

Protected forests: Currently, these forests include all existing forests declared protected prior to the commencement of Forests Ordinance 2002 and any other forests that may be declared as protected under section 29 of the ordinance. The Protected forests are dealt under Chapter IV (Section 29-34) of the KP Forest Ordinance 2002, and their management is undertaken in light of prescriptions of an approved working plan and KP Protected forests Management Rules 2005. Commercial harvesting of timber and extraction of forest produce from the Protected forests is regulated in accordance with the approved Working Plan. For actualizing the working plan prescriptions, Joint Forest Management Committees (JFMCs) are constituted under Community Participation Rules 2004. The revenue generated from commercial sale of Protected forests is shared between the government and concession holders. 80% of the net sale proceeds of the timber and other forest produce of Protected forests of Painsa Khel, Sultan Khel tribes of District Dir, District Buner, the Right Bank of River Indus in Kohistan District and 60% of the net sale proceeds of timber and other forest produce of the rest of Protected forests in Malakand Circle is payable to the concession holders and the balance amount is credited to the revenue account of the government. In Protected forests, the land use can only be changed with the government approval. In addition, all prohibitions mentioned in section 33 of KP Forest Ordinance 2002 are prohibited in these forests.

Resumed lands: In Hazara Civil Division, big landlords retained cultivated lands and surrendered the wooded land previously owned by them, which were in excess of the ceiling fixed by the government. To differentiate these from the Reserved and Protected forests, these

wooded lands are called Resumed lands. Since this category of land was constituted after 1960, there is no mention of it in Pakistan Forest Act 1927 or in Hazara Forest Act 1936. Legal protection has, however, been provided to these lands by extending to them the provisions of 'Protected forests' under the Act. These forests are owned and managed by the government. Chapter IV (Section 29-34) is applicable to these forests, managed under the prescriptions of a Forest Working Plan. The government gets 100% of revenue generated from commercial sale of products from Resumed lands. The Concessions holders are provided several rights for domestic use from these forests including rights to firewood, grasses, fodder, NTFPs, grazing of livestock, right of way, water, etc. as specified in revenue record. All prohibitions mentioned in section 33 of KP Forest Ordinance 2002 are also prohibited in Resume lands.

Un-classed Forests: Un-classed forests are those forests which are owned by the government but have neither been notified as Reserved nor Protected forests under Pakistan Forest Act 1927.

B. Private Owned Forests

Private owned forest is a broad category encompassing all forests with private ownership. These are divided into five groups, namely Guzara, Communal, Chos Act Areas, Section 38 Areas and Farm Forest Areas. A brief description of each category is given below.

Guzara Forests: When forests were Reserved and managed in Hazara at the time of first settlement of land ownership in 1872, sizable patches of wooded lands close to habitation were set aside to meet the bonafide domestic needs of the local communities in the districts of Haripur, Abbottabad, Mansehra, Kohistan and Battagram. Such forests were designated as Guzara forests. Their ownership is vested in local people either as individual property or joint (communal) property called "village shamilat". Land Settlement of 1901 in Hazara Area, the then Hazara Forest Act 1936 and currently the KP Forest Ordinance 2002 in its Chapter V sections 35-37 and 39-46 are the sources of tenure rights and provide legal cover to these forests. Khyber Pakhtunkhwa Guzara Forest Rules 2004 are also a source of guidance for management of these forests.

The KP Guzara Forest Rules 2004 elaborate that the management and administration of Guzara forests is carried out under the general supervision and control of the Conservator of Forests concerned in accordance with the approved management plan. In all Guzara forests dry wood whether standing or fallen or brush wood may be utilized without restriction for domestic or agricultural purpose by the land owners and resident right-holders within the limits of a village in which it is found and by non-residential right-holders in the limits of a village where they reside and also by the person resident or non-resident who is not a right holder so long as the right holders raise no objection to their doing so and the Conservator does not think it necessary to interfere in the interest of forest conservancy. Furthermore, sale of dry wood and brushwood from any Guzara forests shall be prohibited except under and in accordance with the provision of the approved forest management plans.

For commercial harvesting from these forests, JFMCs are constituted under Community Participation Rules 2004 for preparation of Joint Forest Management Plans (JFMPs) and its implementation. Harvesting, transportation and sale of timber and revenue distribution after deduction of all taxes and government share (20% managerial costs deposited in Forest Development Fund for development of forests) is carried out by JFMCs. The owners of Guzara forests get 80% share from the net sale proceed of forest produce from these forests. The JFMCs are responsible for restocking of harvested forests and other developmental activities in the forests by using the Forest Development Fund. Legal Procedure for payments to Guzara owners is the same as is explained under Protected forests. All acts mentioned under section 44 of KP Forest Ordinance 2002 are prohibited in Guzara Forests.

Communal Forests: Communal forest is a sub-category of Guzara forest. There is no distinction between the two except that the Guzara forests may be owned individually or jointly by a small family or a large village community whereas communal forest is essentially owned by the entire village.

Chos Act Area: Privately owned lands that are subjected to erosion hazard, which endanger vital public installations or structures, can be taken over by the government under the Chos act, 1900. These lands are then called Chos Act Areas. These areas may be returned to the original owners after their treatment.

Section 38 Areas: Private owners can offer their lands to forest department for afforestation and management for an agreed period ranging from 10 to 20 years under section 38 of Pakistan Forest Act 1927. The land is returned to owner(s) after establishment of plantation.

Wasteland and other forests: Wasteland means all uncultivated or cultivable land in the area comprising the districts of Haripur, Abbottabad, Mansehra, Kohistan and Battagram and in such other areas in the province as may be declared by government as wasteland under Forest Ordinance 2002 or the rules made there under, but shall not include Reserved/ Protected forests, graveyards, sacred places, land recorded and settlement as part of the village or land shown as *khali* (barren) or *banjarjadeed* (recently degraded), land in urban areas and under roads, railway tracks or water bodies.

2.5 Punjab

The total forest area of Punjab is 672,787 ha. Out of which 48% is Reserved forest, 33% Protected forest and Guzara 10% and the rest is other categories. Forests are managed under the Forests Act 1927. The forests are legally categorized into two broad categories, the state owned and private forest. Each category is further divided into subcategories described below.

2.5.1 Legal forest types and associated rights in Punjab

A. State owned forests

The state-owned forests are further divided into the following four categories.

Reserved forest: The province of Punjab has amended Section 27 of the Forest Act 1927 to provide that the government shall not declare or notify a Reserved forests or any part thereof as no longer being Reserved, and further, that the government shall not allow change in the land use of a Reserved forest except for the purpose of right of way, building of roads and development of a forest park, but the government shall not allow construction of [a] concrete building or permanent structure therein⁹. However, through a further amendment to Section 27¹⁰, the government of Punjab may de-notify a Reserved forest, if the organization requiring the Reserved forestland is able to:

- a) Satisfy the government that there is no other option but to use the Reserved forestland for the purposes of a national project of strategic importance;
- b) Provide a substitute land equal to or bigger than the required Reserved forestland, in a compact form and situated close to the Reserved forestland; and
- c) Provide funds for immediate forestation and maintenance of the substitute forestland.

Protected forest: The Protected forest are managed as per the provisions of Forest Act 1927 as has been described above for KP and Baluchistan. However through an amendment to Section 33 of the Act applicable in the Protected forest of Punjab, an act that would otherwise have been an offence under the provisions of the respective laws will not be deemed an

⁹ Amendments through Punjab Forest (Amendment) Act 2010

¹⁰ Addition of Sub-Section 3 to Section 27 of the Forest Act through Punjab Forest (Amendment) Act 2016

offence if done in exercise of any right recorded in the *wajib ul arz*, under a grant, concession or contract made by the government, or under the law or with the written permission of an officer under the rules made by the government.

Village Forest: The Forest Act 1927¹¹ provides for the formation of village forests, whereby the government may assign to any village community the rights of the government to or over any land which has been constituted a Reserved forest. The Forest Act further provides the government with the power to make rules for the management of a village forest, including the conditions under which the village community may use the forest produce (including timber and pasture), and the duties of the community to protect and improve the forest. Specifically, in respect of village forests, all the provisions related to Reserved forests apply to village forests. However, none of the provinces, including Punjab, actually formed a village forest.

Unclassed Forest: In Punjab, Section 28-A was inserted in the Forest Act through the Forest (Amendment) Act, 2010, whereby the government may declare a wasteland, not being a Reserved forest or Protected forest, as Unclassed forest, and further direct that all or any of the provisions of the Forest Act relating to a Reserved forest or Protected forest shall apply to such Unclassed forest. However, in case of Riverain forests only need based salvage felling is allowed in these forests. All the rights of the community documented in the *wajib ul arz* are acknowledged in these forests.

B. Private forests

The following sub-categories are included in the private forests.

Guzara Forests: Within the Murree and Kahuta Tehsil of the Rawalpindi District, all forests (other than Reserved and Protected forests) and wasteland, including privately owned forests, wasteland, and Guzara forests, are subject to regulation under the rules of Guzara lands or forests and wastelands of Murree and Kahuta Tehsils, other than Reserved and Protected forests under Section 76 (c) of Act XVI of 1927 (Punjab Guzara Forest Rules). Wasteland is defined in the Forest Act as uncultivated or uncultivable land constituted as a wasteland by the government of Punjab¹². The Forest Act as applicable to the province of Punjab does not expressly address Guzara forests; however, certain wastelands close to villages in the Murree and Kahuta Tehsils of the District of Rawalpindi were set aside at the time of the first regular settlement for the purpose of meeting the genuine domestic needs of the village landowners.¹³ These Guzara (literally subsistence) forests are owned by the village landowners but managed by the Forest Department as per the Punjab Guzara Rules. The trees in Guzara are categorized in two categories: Category A that includes pine trees like Chir, kail, deodar; are property of the government and category B including broad leaved trees belongs to individuals/communities who can cut these trees without permission of the FD for meeting domestic needs. Commercial felling is only allowed with the approval of Guzara committee under the Deputy Commissioner where DFO Guzara acts as technical advisor to the Deputy Commissioner. The sale proceeds are dispensed as 60% to the community, 20% to Guzara fund and 20% for replenishment of the area felled in case of community ownership. In case of individual ownership commercial felling takes place with the approval of Guzara committee under the Deputy Commissioner, DFO Guzara acting as technical advisor to the DC, and sale proceeds are dispensed as 80% individual and 20% Guzara fund. Subject to certain exemptions¹⁴, generally, no person may do any of the acts including felling trees that damage

¹¹ Section 28 of the Forest Act

¹² Sub-Section (u) of Section 2 of the Forest Act, 1927, as amended by Punjab

¹³ Changing perspectives on forest policy (1998), by Jawad Ahmed and Fawad Mahmood

¹⁴ Under Sub-Rule 2 of Rule 6 of the Punjab Guzara Rules, the following acts are exempted a) the felling and removal of any dry timber or any dry timber for ordinary domestic and agricultural purposes; b) the cutting and removal of grass and fruit of all kinds and species; c) the removal of fallen pine needles and empty pinecones; d) the lopping of any tree whose shade is detrimental to the growth of field crops up to half of the height of the tree above the ground, and, e) lopping of leaves for fodder for cattle from such trees and at such seasons as may be prescribed by the Deputy Commissioner from time to time.

the forest in privately owned wastelands and in Guzara forests¹⁵. However, the residents of a village in whose boundaries a Guzara forest exists have the right to use certain classes of trees for ordinary domestic and agricultural purposes¹⁶, including a quota of three trees for the construction of a new house¹⁷.

Section 38 forests: Under Section 38 of the Forest Act, the owner of any land (or if there is more than one owner, then the owners with an aggregate of two-thirds of the land) may request from the relevant Revenue Department officer either that the land may be managed on their behalf by the Forest Officer as a Reserved or Protected forest, on such terms as may be mutually agreed, or that all or any of the provisions of the Forest Act may be applied to such land. In either case, the government may apply any of the provisions of the Forest Act to such land as it deems appropriate in the circumstances. In other words, it applies to Privately owned lands voluntarily and temporarily put under the control of Punjab Forest Department, for conservation and preservation of soil and vegetation for which 20% of the sale proceeds are charged by the Forest Department as management fee and 80% of the sale proceeds go to the community or individuals additionally, with the approval of the government some uses can be exercised conditionally.

Land Subject to the Punjab Land Preservation (Chos) Act, 1900: Under the Punjab Land Preservation (Chos) Act (1900), for the conservation of sub-soil water or the prevention of erosion in any area subject or likely to erosion, the government may constitute such area under Section 3 of the Chos Act. Under Section 4, the government may regulate an area under Section 3 by controlling, restricting or prohibiting several activities¹⁸ in such area, including the cutting of trees or timber or the collection or removal of forest produce (other than by right holders admitted in the *wajib ul arz* in such area for a bona fide domestic or agricultural purpose).

Furthermore, under Section 5 of the Chos Act, in respect of any village or villages, or parts thereof, comprised within the limits of any area under Section 3, the government may further regulate, restrict and prohibit certain acts¹⁹ in such village, including the cultivation of land ordinarily under cultivation prior to the notification under Section 3, or the cutting of trees or timber or the collection or removal of forest produce for any purpose.

Lease for Forest land: Forest Company Under Section 78-A of the Forest Act 1927 for Punjab Under Sub-Section 3 of Section 80-A of the Forest Act, the government of Punjab may itself or through a forest company permit any person to use bare forestland or wasteland to increase

¹⁵ Rules 4 and 12 of the Rules of Guzara land, or forestlands of the Murree and Kahuta Tahsils, other than Reserved and Protected forests under Section 76 (c) of Act XVI of 1927

¹⁶ Rule 5 of Guzara land, or forestlands of the Murree and Kahuta Tahsils, other than Reserved and Protected forests under Section 76 (c) of Act XVI of 1927

¹⁷ Rule 11 of Guzara land, or forestlands of the Murree and Kahuta Tahsils, other than Reserved and Protected forests under Section 76 (c) of Act XVI of 1927

¹⁸ Under Section 4 of the Chos Act, the following acts may be regulated, restricted or prohibited in an area constituted under Section 3: (a) the clearing or breaking up of land not ordinarily under cultivation prior to the notification under Section 3; (b) the quarrying of stone or burning lime at places where this was not ordinarily done prior to the notification under Section 3; (c) the cutting of trees or timber, or the collection or removal or subjection to any manufacturing process of any forest produce other than grass, save for bona fide domestic or agricultural purposes (of right holders in such area); (d) the setting on fire of trees timber and forest produce; (e) the admission, herding, pasturing or retention of sheep (goats or camel); (f) the examination of forest produce passing out of such area; and (g) the granting of permits to the inhabitants of the area and towns and villages in the vicinity of such an area to take any tree, timber or forest produce for their own use therefrom, or to pasture sheep (goats or camel), or to cultivate or erect buildings therein, and return of such permits by such persons.

¹⁹ Under Section 5 of the Chos Act, the following acts may be regulated, restricted or prohibited in an area constituted under Section 3: (a) the clearing or breaking up of land ordinarily under cultivation prior to the notification under Section 3; (b) the quarrying of stone or burning of lime at places where this was ordinarily done prior to the notification under Section 3; (c) the cutting of trees or timber, or the collection or removal or subjection to any manufacturing process of any forest produce (for any purpose); and (d) the admission, herding, pasturing or retention of sheep (goats or camel).

the productivity of the forest. Under Section 78-A of the Forest Act, the government of Punjab may establish a forest company to oversee the implementation of a public-private partnership on assigned forestland or wasteland.

Under Sub-Section 2 of Section 78-A, the government may assign its own bare forestland or wasteland to a forest company for this purpose. Under Sub-Section 3 of Section 78-A, the agreement between the forest company and the successful applicant shall not exceed a term of fifteen (15) years, but it may contain a provision for the extension of the agreement for one more term of fifteen (15) years, subject to the satisfactory performance of the applicant. Under the mandate of these provisions, the South Punjab Forest Company (SPFC) was incorporated as not-for-profit company under Section 42 of the Companies Ordinance 1984. This was done for the purpose of raising tree plantations on bare forestland belonging to the government of Punjab through private investment on a profit-sharing basis, as delineated under Section 78-A of the Forest Act.

The Draft Concession Agreement between the SPFC and the potential Concessionaire²⁰ lays down several conditions in relation to afforestation and management of forestland assigned to a concessionaire. The Concessionaire is obliged to fully complete the development of land and plantation of the plantable area with the recommended species of trees (or other species approved by the SPFC) by the third year of the concession period. As remuneration for the concession granted by the South Punjab Forest Company, the Company shall receive from the Concessionaire a certain share of any forest timber crop standing on the plantable area that is ready for harvesting. The crop share of the SPFC shall be harvested only at its own discretion, while the Concessionaire may harvest the remaining forest timber crop subject to the written permission of the SPFC. In addition, the SPFC is entitled to share in the revenue generated by the Concessionaire from the non-timber forest produce on the project site. Finally, the SPFC is also entitled to a certain fee per acre of rangeland included in the project site. The Concessionaire may plant the rangeland with a forest timber crop and shall be exclusively entitled to the proceeds from the harvesting of timber from the rangelands.

Civil Rakhs: In Civil Rakhs land either belongs to the revenue department or Forest Department and are managed by revenue department or forest department under the working plan of the division. In these forests community enjoys the rights documented in the Wajib ul Arz. However, no commercial harvesting takes place in these forests.

Resumed Land: Lands taken over by the government under various land reforms (wastelands, agriculture lands) and martial law regulations and managed by the Forest department. Community exercises right of way, grazing and firewood collection.

Municipal Reserved forest: Municipal Reserved forests are the property of the Tehsil Municipal Administration (TMA) managed by Forest department on behalf of TMA as a lessee. Forest department pays lease money to TMA @Rs.1,250,000 for municipal forest area annually. TMA reserves the right to take any portion of land in the Municipal Forests for its own use, e.g., construction of buildings, water supply systems, etc. These forests are managed under the same set of rules as applied to a Reserve forest. Community is entitled to collect deadwood, litter and NTFPs from the forest. Grazing is not allowed.

Cantonments and military lands: These are forests under the control and use of military and generally free of rights. The Military authorities seek technical advice from Forest department. DFO Murree give technical backstopping when required for management of cantonment forests in and around Murree.

²⁰ http://spfc.org.pk/tenders/docs/Concession_Agreement.pdf

2.6 Sindh

Forests in Sindh have both productive and protective functions. Riverine forests and irrigated plantations are forests with productive functions, while mangroves and rangelands primarily function as protective forests. All forests in Sindh fall either under the Reserved or Protected category and are under the declared ownership of the government. Sindh allowed leasing or concession to government owned forestland to private persons (Sindh Agro-Forestry Policy 2004). The initial lease period is 5 years, extendable by another 5 years, depending on the performance of the lessee during the previous term. Each lessee is entitled to no more than 40 acres of land, and each such lease shall be granted through auction. The leaseholder shall be obliged to bring twenty-five percent (25%) of the leased land under Hurry block plantation within the first 12 months of the lease period, failing which the lease may be liable to cancellation. The remaining leased land may be used for agriculture by the lessee; however, this may be done only upon successful completion of the Hurry block plantation. The income from the Hurry is exclusively for the Forest department and did not bring the desired effects. Some of the area intended for leasing remains in possession of encroachers, whereas most lessees receive extensions regardless of performance in the previous term. The policy, therefore led to the degradation of forestlands by perpetuating the possession of forestland by individual private parties not committed to sustainable management of forests. A proposal was submitted on leasing with public-private-community partnership on forest raising, which was stayed by court order for riverine and irrigated.

2.6.1 Legal aspects of forests in Sindh

As mentioned above, Sindh has two categories of forest – Protected and Reserved. Their legal provisions (powers of the government and rights/concessions) are same as has been described above for KP. Therefore, this description is not repeated here in detail. A brief description of the Protected and Reserved forests is as under. Section 29 of the draft Forest Act 2011 / 2012 provides for declaration of Protected forests. The government may, by official notification, declare the provisions of this Chapter applicable to any forestland or wasteland not included in Reserved forest, but which is the property of government, or over which the government has proprietary rights, or to the whole or any part of the forest produce of which the government is entitled. The forestland and wastelands comprised in any such notification shall be called a "Protected forest". A precondition of making a declaration under Section 29 is that the government must satisfy itself that it has proprietary rights to the forest and forest-produce, and has inquired into the rights of private persons to the forest and forest-produce.

In 1958, in accordance with section 29 of the Forest Act, the Governor of West Pakistan published in the Official Gazette a declaration that "the undivided unsurveyed waste lands of Thatta District described in the schedule of Protected forests." In the same declaration, the Governor declared all trees within the Forest to be Reserved and prohibited "quarrying of stone and the burning of lime charcoal or the collection or subject to any manufacturing process or removal of any forest produce in such forest except grazing and the breaking up or cleaning the cultivation for building or herding cattle or for any other purpose of land of an such forest." The Governor also issued rules that "no person shall cut or remove grass from the Protected forest specified in the [schedule] except with permission in writing of the Deputy Commissioner or Divisional Forest Office" and that "no person shall graze any cattle or permit any cattle under his control to graze in the aforesaid Protected forests without the permission in writing of the Deputy Commissioner or Divisional Forest Officer. In accordance with Section 29 of the Act operating as provincial law, the government declared "the Intertidal Land (Mangrove Areas) of Thatta and Karachi districts described in the following schedules to be "Protected forests" with an immediate effect.

Table 1 provides summarized matrix based on legal categories of forests with exact nomenclature in Pakistan.

Table 1: Summarized matrix on legal categories of forests with exact nomenclature in Pakistan

Provincial (Sub national unit)	State owned forests									Private forests						
	Reserved forests	Protected forests	Guzara forest	Demarcated forest (comparable to Reserved)	Un- demarcated forest (comparable to Protected)	State forest Comparable to Reserved)	Resumed land	Unclassed forests	Cantonment forests	Private forest	Chose Act	Section 38	Village forests	Civil Rakh	Municipal forests	Communal
AJK																
Balochistan																
Gilgit- Baltistan																
Khyber Pakhtunkhwa																
Punjab																
Sindh																

3 REDD+ Benefit sharing mechanism

The mechanism for REDD+ benefit distribution suggested in this document is based on national and international experiences including:

- Guidelines provided in National REDD+ Strategy²¹ (Annex 1 of the strategy)
- Provincial REDD+ Action Plans endorsed by the provinces
- Japanese International Cooperation Agency (JICA) under Sustainable Natural Resource Mgt. Project (SNRM), Hanoi, 2019
- Advanced Draft Benefit Sharing Plan - Ghana Cocoa Forest REDD+ Programme 2018
- Approaches to REDD+ Nesting. Lessons learned from country experiences. World Bank/FCPF 2018
- UN-REDD Programme Vietnam 2014-2016
- Technical Guidance for Jurisdictional and Nested REDD+ Programmes, Part I & II VCS Guidance, 2015 (JNR)

Pakistan intends to follow Nested Approach (with jurisdictional scale)²² to integrate jurisdictional/ Provincial forest carbon initiatives into larger-scale REDD+ programmes. The reasons for choosing a nested approach with jurisdictional scale for defining REDD+ benefit sharing mechanism are as follows:

- Forest management in Pakistan is decentralised and a provincial subject. The provinces implement a range of activities, at times with overlapping objectives and spatial impact in different and overlapping geographical locations.
- Forests are managed under and variety of tenurial systems ranging from total state control to private property. Pakistan is a highly diverse country in terms of forest ecosystems, drivers of deforestation and forest degradation and thus ecological boundaries within legal forest types matter a lot for site specific decisions and over different times.
- Pakistan is also diverse from its social and ethnic context. Great social and ethnic diversity exist among the provinces and different regions within the provinces with implication on forest ecosystems and governance.

The term “nesting” originated from a desire to integrate existing forest carbon projects into larger-scale REDD+ programmes while allowing them to continue generating and trading carbon units (Lee et al. 2018). These projects use reporting and accounting rules including methods for calculating baselines and accounting for emission reduction, apply environmental and social safeguards, may maintain sub national registries either consistent or inconsistent with emerging national systems. The challenge of a nested approach, however, is how actions at smaller scales may best be catalysed to contribute to larger-scale jurisdictional (national or subnational) performance. Carbon units generated within such systems could be consistent with, and represented in, the national accounts. In other cases, Joint Implementation and performance may be considered between sub national and national units. A nested²³ approach

²¹ <https://www.redd-pakistan.org/wp-content/uploads/2019/02/Pakistan-REDD-Strategy-Annexes-1.pdf>

²² “If REDD+ provincial strategy is thought of nested approach, the objectives cannot be determined independently from those found in the National REDD+ Strategy and the progress made in various components of the national strategy must be considered. Like the goals that are proposed must be aligned with the province climate change programmes and other relevant policies, programmes and strategies”. Annex 1 – NRS Page 234 and its Implementation Framework DRAFT, Government of Pakistan, Page 67

²³ As the NRS, national level policy work supports REDD+ initiatives in the provinces (provincial jurisdictions) which in turn have target areas for interventions in the hotspot which may take ecological boundaries (e.g. Mangroves, entire Juniper belt or entire chir pine belt of a province or a region within the province). Thus, hotspots are nested within the provincial jurisdictional and ecological programmes. Therefore, the term nesting does not imply the development of sub-baselines for individual hotspots. The baseline is for the entire programme area and carbon will only be transacted on at this level. Alternatively, the province can develop programmes for individual hotspots (baseline and carbon transaction for individual

with jurisdictional scale, therefore, helps fulfil local objectives, makes REDD+ projects implementable and achievable, and helps contributing to larger national objectives.

Pakistan has a legally pluralistic governance regime with respect to forest tenure that recognizes both customary and statutory laws. The forests are under a variety of tenurial arrangements – public, private, Guzara forests and others. Due to the tenurial diversity, each province has to develop their own benefit sharing mechanism based on legal provision. To be able to involve the communities in resource management, the provinces will need enabling legislation, if not already in place. Such a legislation should formally empower the communities through their representative institutions to partner with the government and function as legal entities for sustainable resource management.

In a nested approach with jurisdictional scale, REDD+ (or forest GHG mitigation) results may be measured and accounted at multiple scales. There are benefits and challenges that arise when GHG performance is measured at various scales. Challenges may arrive with entitlement claim and benefit sharing. Therefore, a clear pre-definition of most likely nested cases (e.g., based on ecological, legal, or social boundaries) may be important to prevent confusions and lack of ownership. In Pakistan's context, these clarities may be ensured at multiple levels:

- At national level Nationally Determined Contribution (NDC), emissions reduction targets (or removals), and National REDD+ strategy document that determines the national course of action with strategic direction for the provincial level may be helpful. Provinces may be supported by national entities in determining baseline, building provincial capacity, or attract international buyers.
- At provincial level, a state or province may identify benefit sharing proportions by ecological / legal boundaries for different stakeholders. It may create a baseline against which performance is measured and seek payment for results (with no carbon asset or credit generated) or generate carbon assets and sell them to willing buyers anywhere in the world.
- Local level: Site specific Carbon projects may be developed in a participatory manner with clear baselines against which to measure performance and generate and sell carbon credits based on measured. Benefit sharing mechanism may be most practical in this case since the stakeholders' map is not fuzzy at this scale.

The main legal basis for initiating emission reduction programmes and benefit distribution mechanism is the current legal forest typology in vogue in Pakistan. However, within these legal forest types, it is important to have a differentiated approach for timber and Carbon benefits. Timber, when harvested under the prescription of sustainable forest management plans, is distributed through highly engraved legal distribution mechanism defined and provided under the relevant legal framework of the forest type. REDD+ benefits, however (which include Carbon and non-Carbon benefits), have not yet been defined under any legal framework. This provides an opportunity that REDD+ benefits to be defined in a manner that forest users and stakeholders see the incentive in addressing drivers that lead to deforestation and forest degradation.

3.1 Principles and criteria of the BSM

Benefit sharing at the provincial level and below (e.g., at project / programme / site) levels should be premised on the following principles:

- The design and implementation of the benefit sharing programmes should comply with relevant applicable laws in the provinces, including customary rights.

hotspot within an ecological boundary e.g., for one site on Mangrove or Juniper as opposed to the entire juniper belt on the province or an entire juniper region).

- The design and implementation of the benefit sharing in emission reduction programmes carried out in transparent and inclusive; excluding any user / forest stakeholder may trigger aggravation to certain drivers that may lead to loss of Carbon stocks. A greater share to the forest owners, right holders and users will result in better performance since most drivers to be removed originate at that level.
- Benefits are allocated to:
 - Actors who take verified actions to achieve emission reductions (performance);
 - Actors with legal rights (statutory or customary) to trees and forests;
 - Actors who have proved effective facilitators and essential in facilitating emission reduction activities
 - Local farmers and communities are expected to benefit the most: the proportion of benefits allocated to local people should represent the most significant share of benefits, as they are the key actors whose behaviour (in terms of land use) need to change to achieved ER.
- The final decision for detailing Carbon and non-Carbon benefit sharing will rest with the provincial government as the owner of land and natural resources.
- 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 Reserved, Protected, Guzara or any other legal categories of the forests. In case of REDD+, 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.

3.2 Who are the potential beneficiaries?

At its core, this benefit sharing mechanism is based upon the concept of community-based natural resource management²⁴. The aim is to use such a structure to enable local-based governance and management of the landscape and its resources with partnership and support from key stakeholders including relevant government bodies, communities, private sector and civil society.

An example from Pakistan

In the past, in Pakistan this type of natural resource management has been authorized and practiced through the Trophy Hunting programme in KP and GB. The benefit sharing in trophy hunting programme was simpler where 80% of the trophy income was distributed to the community where the trophy was hunted, usually a village or cluster of villages.

In the REDD+ programmes, the range of stakeholders and beneficiaries will be diverse and cross-sectoral, as are the types of benefits that will accrue. Any provincial or local REDD+ programme has to identify key stakeholders who will benefit from the programme, their rights, roles and responsibilities in reducing deforestation and degradation. These are summarized in **Table 2**. They include three broad categories of beneficiaries who will benefit from the carbon and/or non-carbon benefits of the programme.

²⁴ CBNRM refers to, "The collective management of ecosystems to improve human well-being. It aims to devolve authority for ecosystem management to the local (community) level, thereby empowering communities to manage their own resources without permanently damaging, depleting or degrading them". Fabricius, C. and Collins, S. 2007.

Table 2: Beneficiaries and rationale for their respective benefits

Beneficiary	Resource Rights & REDD+ Impact	Rationale
Landscape Stakeholders		
Communities/groups/ households with land/forest ownership	Direct impact on ERs by participating in the development and operation of landscape governance mechanisms, including forest monitoring exercises and local enforcement of bye-laws, resulting in reduced encroachment into forests and reductions in legal/ illegal over exploitation of resource.	<ul style="list-style-type: none"> • Support forest law enforcement and monitoring against legal over exploitation and encroachment. • Support forest management and forest conservation activities via collaborative natural resources management programmes.
Communities with no ownership but <i>de facto</i> rights to resources (timber, firewood, grazing, NTFP)	Direct impact on ERs by participating in the development and operation of landscape governance mechanisms, including forest monitoring exercises and local enforcement of bye-laws, resulting in reduced legal/illegal harvesting of resource	<ul style="list-style-type: none"> • Provide viable market based alternative solutions to reduce pressure on natural forests • Support forest law enforcement and monitoring against legal/illegal over exploitation; • Support forest management and forest conservation activities via collaborative natural resources management programmes.
Government Agencies		
MoCC	Indirect impact through <ul style="list-style-type: none"> • Legal right to develop national policies on ER and sustainable forest management • Legal rights to coordinate international negotiations and receive and manage international funds • Legal right to provide finances through public sector development programmes to promote REDD+ 	<ul style="list-style-type: none"> • Develop national policies that foster ER • Harness international support including finances and linkages for ER reduction • Support capacity building of provincial stakeholders • Harmonization of policies • Provide opportunities for cross provincial and international learning
Provincial governments represented by the forest departments	Direct impact on ERs by: <ul style="list-style-type: none"> • Coordinating implementation, monitoring and reporting • Supporting expansion of law enforcement activities and pursuance of legal action, resulting in the reductions of illegal activities that cause deforestation or degradation, including illegal; • Legal right to manage forest resources; 	<ul style="list-style-type: none"> • Responsible for forest management and coordinates forest conservation activities and programmes; • Induce and encourage community participation and stakeholder coordination • Responsible for forest law enforcement against illegal logging and illegal mining; • Offer excellence in technical methodologies in forest monitoring, verification and reporting
Private Sector		
Companies / contractors interested in timber and NTFP	Direct impact through resource exploitation	<ul style="list-style-type: none"> • Cooperate with authorities to avoid illegal over-exploitation of resources and encroachment; • Invest in value addition and sustainable harvest activities that benefit both the resource dependent communities and the investors
Private Sector		
Companies investing in Carbon credits / market actors	Direct impact through making verified emission reduction / Carbon benefits a material reality	<ul style="list-style-type: none"> • National REDD+ strategies / provincial action plans • Benefit sharing mechanism

3.3 What are the REDD+ benefits?

Though local stakeholders (mainly communities), government agencies, and private investors will be potential partners in any REDD+ programme, the type of benefits that will accrue to each stakeholder varies according to their differential roles, rights, and interests in generating emission reduction under any given programme. REDD+ programme could generate two categories of benefits:

- **Carbon benefits:** Monetary or non-monetary goods, services, or other benefits related to performance-based payments received under contractual agreements with the investors by the provincial/federal governments.
- **Non-carbon benefits:** In-kind or financial benefits produced by or in relation to the implementation or operation of a REDD+ Programme, other than those that directly derive from performance-based payments for emission reduction.

A unique aspect of REDD+ programmes is that they may hinge upon the importance of the non-carbon benefits that will derive from the project, including increased income from (e.g., improved tourism, improved income from sustainable NTFP value chains, any other livelihoods activities) that the private sector can use to validate its no-deforestation supply chain commitments. This may represent a significant strength of potential REDD+ programmes, as it means that the expected carbon benefits will not be the only source of incentives or benefits to stakeholders. **Table 3** provides a breakdown of the carbon and non-carbon beneficiaries of a potential sustainable tourism development programme aiming at emission reduction. In this hypothetical case the private sector's primary interest is to showcase sustainable, climate-smart tourism that helps to protect and restore forests of a given landscape.

Table 3: Breakdown of the Carbon & non-carbon beneficiaries (depending on negotiation)

Stakeholders	Recipients of Carbon Benefits	Recipients of Non-Carbon Benefits
Landscape stakeholders		X
<i>Community groups /households</i>	X	X
<i>Community institutions</i>	X	
Government agencies (case to case)	X	X
<i>MoCC</i>	X	
Provincial Forest departments	X	
Private Sector		X

3.4 Types of Carbon benefits

Any emission reduction programme may generate both Carbon and non-Carbon benefits. The Carbon benefits are primarily focused on incentivizing and appreciating key stakeholders contributing to changing behaviour of how resources are managed, while also providing upfront and incremental support to the implementation of some key activities led by the government.

The types of main Carbon benefits are given in Table 4, which provides an overview of all of the expected benefits for the various beneficiaries, with clarity on the monetary or non-monetary type, and performance indicators to trigger disbursement.

Table 4: Carbon benefits and performance indicators

Carbon Beneficiary (Priority Level)	Benefit Type	Description of benefit	Performance Indicator
Landscape Beneficiaries			
Households /individuals Registered: <i>Primary Beneficiary</i>	Non-monetary	Training and inputs for development of sustainable NTFP	<ul style="list-style-type: none"> No. of beneficiaries registered No. beneficiaries demonstrate adoption of sustainable NTFP harvests
Community institutions: <i>Primary Beneficiary</i>	Monetary	Performance based incentive payment	<ul style="list-style-type: none"> Agreement signed with Community institutions Documents showing development of governance system (constitution, by-laws, management plan) ER from the site/landscape or deforestation rate against estimated baseline.
Communities/households in general in the landscapes: <i>Secondary beneficiaries</i>	Non-Monetary	Community development projects	<ul style="list-style-type: none"> Agreement to participate in governance system
Communities/ households - private owners in general in the landscapes: <i>Primary beneficiaries</i>	Monetary	Performance based incentive payment	<ul style="list-style-type: none"> ER from the site/landscape or deforestation rate against estimated baseline.
Government of Pakistan			
MoCC: <i>Secondary beneficiary</i>	Monetary	% age of Carbon benefits income	<ul style="list-style-type: none"> Policies/guidelines on ER International linkages Interprovincial coordination
Provincial governments (FDs): <i>Primary beneficiary</i>	Monetary	Provincial polices Provincial policies and legislation, forest monitoring and law enforcement. Administration and logistics	<ul style="list-style-type: none"> Procured monitoring equipment and logistics District forest monitoring system Increased tree/forest cover in the programme area Support for implementation and monitoring of Safeguards Training and capacity development Prosecuted cases of illegal activities

3.5 Types of non-Carbon benefits

The non-Carbon benefits may have the potential to carry the programme, even if performance is low, and are meant to secure engagement in the programme and success over the long-term by ensuring that significant non-carbon monetary and in-kind benefits accrue to the main stakeholders. Such programmes could aim at improving livelihoods opportunities and alternative income opportunities. Non-Carbon benefits could exceed the Carbon benefits. In an example from Ghana, a cocoa programme²⁵ estimated economic value of doubling yields is just over US\$50 million, equivalent to the total Carbon benefits from the programme.

²⁵<https://www.forestcarbonpartnership.org/system/files/documents/Ghana%20FCPF%20ER%20Program%20Advanced%20Draft%20BSP.pdf>

3.6 Actors landscape

The provincial forest departments are responsible for the regulation of the utilization of forest and wildlife resources, the conservation and management of those resources within the provinces, and the coordination of policies related to them. The MoCC provides umbrella policies under the auspices of global negotiations and coordination with international stakeholders. The provincial forest departments' role is to develop programmes on REDD+ whereas the MoCC will provide coordination facilitation where international partners are involved.

REDD+ programmes will need implementation of jurisdictional programmes that may follow the provincial boundaries, and within those, the ecological boundaries / legal forest types to address the main drivers of deforestation and degradation within each sub-unit of REDD+ programme area. The programmes may take a nested approach or working with individual hotspots supported by a set of over-arching strategies and policies that are encompassed within the sub national and national REDD+ framework. These programmes will be coordinated by the Provincial Forest departments. MoCC may be a direct stakeholder in case specific project or site-specific initiative within REDD+ programme of the provinces financed by a federally funded programme to encourage investment in forests by multiple stakeholders to acquire win-win benefits. The coordination mechanism is explained below through a hypothetical example of Olive / Cocoa.

A hypothetical example:

Multiple investors come together to invest in an emission reduction programme of wild olive conservation and grafting in Balochistan. The programme's focus is development of a sustainable commodity supply chain that hinges upon the non-Carbon benefits that will be channeled to olive value chain groups who otherwise depend on deforestation to draw income. This means that climate-smart wild olive value chain enterprises agree to invest in olive wild trees conservation and in situ cultivation, grafting, and forest protection measures and in turn expect significant yield from improved olive production and oiling process²⁶. The donor xx (e.g., World Bank as in the case of Ghana Cocoa production project) will pledge PKR500 million for Carbon Credits (against performance over time) for community-based value chain promotion and initial investment for alternative energy to reduce firewood outtake as well as agree on projected Emission Reduction as an indication of reduced degradation and improved production. Investors interested in olive trade invests PKR 2 million annually in the olive sector to provide inputs to the farmers and procure olives from the sites. This investment together will result in a more sustainable olive production landscape, while providing added incentives to farmers and other stakeholders that support landscape governance and management activities to reduce deforestation and support the adoption of good forest governance practices. Provincial REDD+ office invests in setting the baseline, monitoring and verification and builds the case for reduced carbon emissions to a voluntary market for receiving rewards and distributing benefits.

The investment for the emission reduction programme may be generated from single and/or multiple investors such as funds from provincial Annual Development Plan (ADP), funds from MoCC under a Public Sector Development Programme (PSDP), funds from an international donor entity (bilateral or multi-lateral) and / or from a private sector investor (such as a company which is keen to either offset its Carbon emissions or to invest in Carbon credits to be able to trade in international market.

²⁶ There are two initiatives in Balochistan which merit to be linked with REDD+ (i) World Bank / Italian's investment in Olive production in Zhob, through Pakistan Poverty Alleviation Programme and Taraquee Foundation (ii) Balochistan Livelihood and Entrepreneurship Programme working on Olive value chain with Balochistan Forest Department.

4 Carbon rights in Provincial REDD+ Action Plans

Benefit sharing arrangements is a part of Provincial REDD+ Action Plans (PRAPs). This chapter has two parts.

- If and how the provinces have defined Carbon as a product
- Proposed provincial benefit sharing mechanism

4.1 Carbon as a commodity in sub national policy framework

So far only two sub national entities, Gilgit-Baltistan and Azad Jammu & Kashmir, have formally included Carbon rights in their legal deliberations. However, a legal overview of all the provinces is analyzed in the following sub sections to ascertain spaces for REDD+ benefit sharing:

4.1.1 Legal status of Carbon in AJK

In the Jammu & Kashmir Forest Regulation Amendment Act 2017, the term Carbon as commodity has been inserted under Section 2 of the definitions. However currently Carbon rights are not legally recognized, and customary land tenure arrangements also lack clarity and legal recognition. Thus, allocation of rights and responsibilities for REDD+ will require identification of land and carbon rights and development of appropriate legislation.

According to the AJK Forest Act “Carbon as Commodity” means the quantification of Carbon as sequestered in plants and trees from the atmospheric Carbon Dioxide and calculated in terms of its weight in Kilogram or tones of units and valued for sale / purchase as a commodity in the National and International market regarding Carbon trade. There is no mention of who explicitly holds the right to enjoy the benefits (monetary and non-monetary) linked to greenhouse gas emission reductions and removals achieved through the implementation of REDD+ activities.

4.1.2 Legal status of carbon in Balochistan

Although carbon is not defined explicitly as forest produce even than the Forest act 1927 and Forest regulations 1898 clearly indicates that anything produced or found in forest is a forest produce and the state and communities can benefit from it as per rights, privileges and concessions granted. Little ambiguity, therefore, is left that Carbon is a forest produce and the benefits accrued from carbon sequestration can be shared amongst the stakeholders.

4.1.3 Legal status of carbon in Gilgit Baltistan

Chapter-XII of GB Forest Act 2019 integrated REDD+ legally defines Carbon as a benefit. Benefit Sharing Mechanism is covered by Section-113 of the Act 2019. It is largely benefited from a pioneering trophy hunting programme in GB where even though wildlife is a public property, but the benefits of trophy hunting are mainly distributed among communities which infuses a great incentive in protecting habitat and the wildlife. Similar to this, the Government GB is convinced that most of the Carbon benefits must go to the communities as an incentive to protect forests, which is the actual physical capital to be retained in the long run. Carbon therefore has been defined as a new product which can be traded for generating benefits for the forest owners / managers and customary right holders. Benefit Sharing in Private forests of Diamer, however, needs careful considerations as the communities could resist sharing benefits with other stakeholders.

4.1.4 Legal status of Carbon in Khyber Pakhtunkhwa

The Forest Ordinance 2002 do not clearly define carbon as forest produce but it states that anything produced by plants and animals and any other produce which may be notified as

forest produce by department from time to time fall under the category of forest produce (Forest ordinance 2002, definition 19). This means that although Carbon is not defined explicitly as forest produce even though there is no ambiguity in law that Carbon is a forest produce and the benefits accrued from carbon sequestration can be shared amongst the stakeholders. Streamlining the procedure for the distribution of forestry income among the local people in order to promote the sustainable development of forest, and to devise an effective, transparent, equitable and prompt system is one of the resolves of the Forest Policy KP 1999.

4.1.5 Legal status of Carbon in Punjab

The Punjab Forest Act amended in 2016 under section 2 (h) on "forest produce" includes a long list of forest products, whether found in or brought from a forest. These include trees, timber, leaves, firwood, charcoal, catechu, wood oil, resin, varnish, bark, flowers, wild animals, skin, peat, rock minerals natural springs etc. and only other produce which may be notified as forest produce by the government.

Although Carbon is not defined explicitly as forest produce even though there is no ambiguity in law that Carbon is a forest produce and the benefits accrued from carbon sequestration can be shared amongst the stakeholders. The Punjab Forest Policy 2019 has clear objective to:

- Access Carbon markets by introducing "Reducing Emissions from Deforestation and Forest Degradation (REDD+) mechanism in line with national REDD+ programme.
- Undertake adaptation measures against climate change including choice of species, planting season, propagation techniques and irrigation methods etc.

4.1.6 Legal status of Carbon in Sindh

As mentioned for other provinces above, the forest authorities in Sindh believe that as per the Forest Act 1927 Carbon qualifies as "forest produce" since the Act defines any forest product emerging in the forest is a forest produce. Further, the draft Forest Act 2012 introduces specific reference to REDD+ projects. It is necessary for government of Sindh to notify that Carbon qualifies as "forest produce" or environmental product for the purpose of further qualifying forest produce given in the Forest Act 1927. Sindh has already advanced on assessing Carbon trading potential in the Mangroves and thus a practicing example may help refining the concept for future purposes.

4.2 REDD+ benefit sharing mechanism proposed by the provinces

All the sub national governments recognize REDD+ as a financial incentive-based forest management tool to incentivize ongoing forest management initiatives and associated behavioral change among the local communities for addressing drivers of deforestation and forest degradation. The intent and approach of the government on REDD+ have been described in Provincial REDD+ Action Plans.

A formal arrangement will be executed between local stakeholders and respective sub national Forest departments to provide grounds for REDD+ implementation and sharing of Carbon and non-Carbon benefits. In the REDD+ benefit sharing models proposed by sub national Forest departments, 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 to be followed:

1. The final decision for sharing the Carbon benefits with entities outside the province will rest with the sub national governments as the owner of land and natural resources in the province / sub national unit.

2. The decision to engage with voluntary market or buyers of Carbon credits either directly by the province / sub national unit with voluntary markets or via MoCC will also rest with the provincial government in the best interest of forest resources and beneficiaries.
3. The provinces have defined a prospect share for the MoCC subject to specific role of the ministry in finding potential market, negotiation, monitoring and technical assistance. MoCC may have a direct or agreed engagement in REDD+ negotiation with a market, monitoring, or technical capacity enhancement of the provinces in REDD+ implementation, for which the ministry needs to be financially compensated.
4. 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 Reserved, Protected, Guzara or any other legal categories of the 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.
5. 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 incentivized to contribute more to addressing drivers.
6. The owners' and non-owners' share will be divided into cash and kind. In-kind benefit distribution will be ensured in the shape of development schemes which have a direct contribution to reducing drivers of deforestation and forest degradation and forest enhancement. Most of these schemes may be financed through Participatory Forest Management Plans (PFMP).
7. Each PFMP prepared with REDD+ perspective (through its management committee) will define its Yearly Plan of Operation (YPO) for grant of annual funds and submit receipts for the expenditures of the same to the quarter concerned (divisional office). The plan must also balance the human use rights with stress on environment and will ensure sustainable use of resources.
8. The cost of transaction for individual REDD+ case under negotiation with a potential buyer will be kept as minimum as possible so that maximum benefits may be retained for different stakeholders.
9. The flow of funds needs to be well stipulated by the provinces. The international investor (e.g. FCPF) will disburse payments to the MoCC or directly to the provincial government (as the case). After deducting its share, the MoCC will transfer funds to the provincial government. After deducting the provincial share, the provincial government will transfer funds to the accounts of the respective Forest departments for disbursement to the beneficiaries. In case of a direct payment to the provincial government, the provincial government after deducting its share will hand over the amount to the respective provincial forest department for onwards distribution.
10. The amounts / shares defined for village development may be transferred to the community institutions recognized by the forest department for implementation of PFMPs and spent according to the plan. The liquidation of funds may be defined through joint signatories (department, office bearers of the community) to ensure transparency.

The following sections describe specific REDD+ benefit sharing mechanisms endorsed by the provinces / sub national Forest departments:

4.2.1 Azad Jammu & Kashmir

Following benefit sharing mechanisms are proposed for different legal forest tenures in AJK (Figure 1):

1. Demarcated and un-demarcated forests:

- a. Out of the total Carbon sale proceed, 50% of the share will go to the government of AJK after deducting all transactional costs of the site-specific negotiation and third-party monitoring and verification including the 10% service fee to the MoCC, decided on case-to-case basis for REDD+ credit registry and negotiation services. The government of AJK will retain 10% of the amount and allow the rest of the revenue to be deposited in the REDD+ Fund.
- b. Out of the remaining 50%, a total of 40% will be distributed to the concessionists, where applicable:
 - i. 60% of this proceed will be spent on community welfare and development activities, particularly in activities that contribute to reducing drivers of deforestation and forest degradation (e.g., alternative energy initiatives and piloting). The latter benefits will be enjoyed both by the private owners and customary forest users.
 - ii. 40% of this proceed will be distributed in cash
- c. The remaining 10% will be allocated for customary right holders / forest users. 100% of this amount will be spent on community welfare and development activities, particularly in activities that contribute to reducing drivers of deforestation and forest degradation (e.g., alternative energy initiatives). These benefits will be enjoyed both by private owners and customary forest users.

2. Private forests:

- a. Out of the total Carbon sale proceed, 10% of the share will go to the government after deducting all transactional costs of the site-specific negotiation and third-party monitoring and verification including 10% to the MoCC. Out of this, the government of AJK will retain 10% of the amount and allow the rest of the revenue to be deposited in the REDD+ Fund.
- b. Out of the total, 70% will be distributed to the private owners. Out of their total share:
 - i. 60% will be distributed in cash
 - ii. 40% will be spent in community welfare activities directly relevant to reducing drivers of deforestation and forest degradation (such as alternative energy development projects and installations). The latter benefits will be enjoyed both by private owners and customary forest users.
- c. The remaining 20% will allocated for customary right holders / forest users. 100% of this amount will be spent on community welfare and development activities, particularly in activities that contribute to reducing drivers of deforestation and forest degradation (e.g., alternative energy initiatives). These benefits will be enjoyed both by private owners and customary forest users.

Figure 1 provides a schematic explanation of the benefit sharing mechanism in AJ&K.

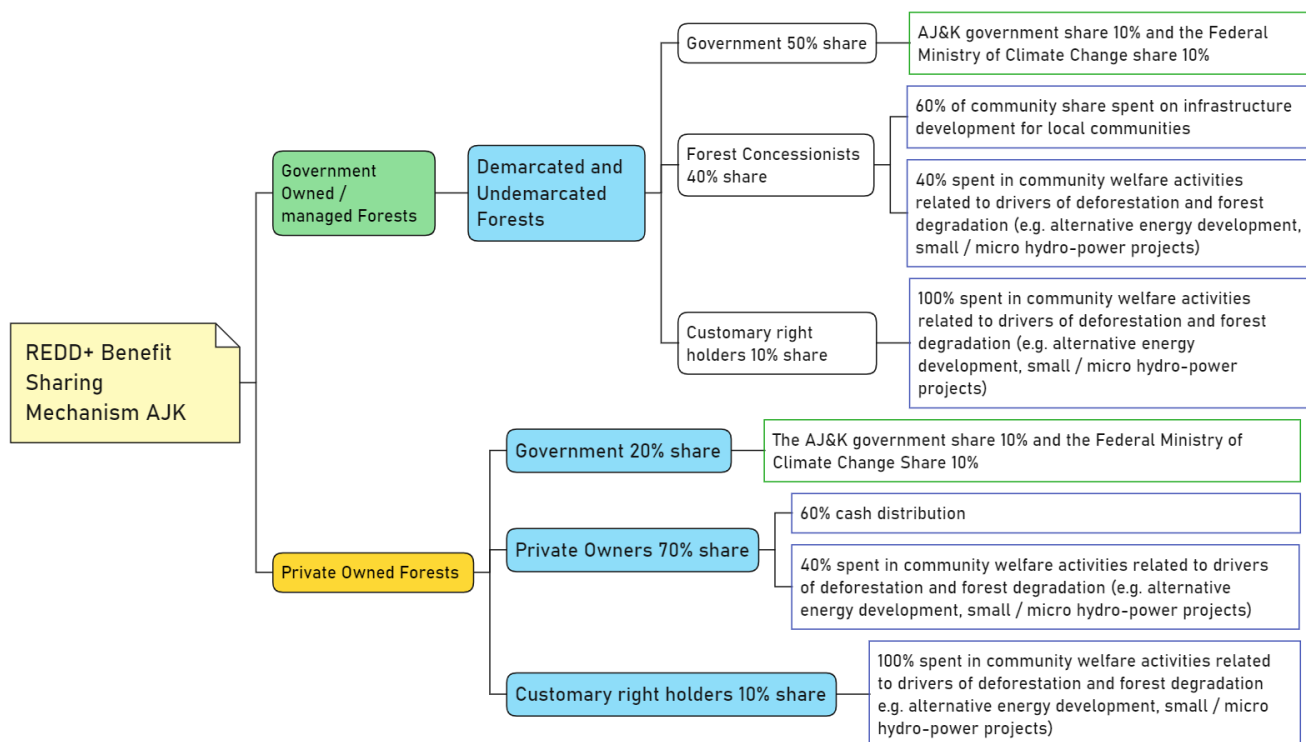


Figure 1: Carbon and non-Carbon Benefit Sharing accrued from REDD+ AJK

4.2.2 Balochistan

Following benefit sharing mechanism has been proposed for different forest tenure regimes (Figure 2):

1. Protected / State forests

The monetary returns from REDD+ activities (Carbon credits sale) and non-Carbon benefits would be divided into three heads, i.e., government, and customary forest users as follows:

- i. 80% proceeds²⁷ will go to the Balochistan Forest department. Out of this fund, 15% will be retained by the government of Balochistan and 5% will be allocated for MoCC on case-to-case basis.
- ii. 20% of the proceed will go the customary forest users / right holders. 100% of this amount will be spent in community village development activities geared to reducing drivers of deforestation and forest degradation, preferably through Participatory Forest Management Plans.

2. Privately owned forests

The monetary returns from REDD+ activities would be divided into three heads i.e. government, private owners and customary forest users as follows:

- i. 80% of the proceed will go the private forest owners. Out of this, 50% will go to the owners in cash, whereas 50% will be spent on community village development

²⁷ There are voices among the stakeholders that this needs to change in favour of communities otherwise it will not help contributing to reducing emissions and controlling drivers of deforestation and forest degradation. The stakeholders' dialogue needs to continue to find a balance and a greater incentive to forest communities.

activities geared to reducing drivers of deforestation and forest degradation. These activities will benefit the forest owners as well as customary forest users with no ownership rights.

- ii. 20% proceeds will go to the Balochistan Forest department. Out of this, 15% revenue will be retained by the government of Balochistan and 5% will be allocated for MoCC on case-to-case basis.

The government share and developmental share (50% from the 80% of private share) may be utilized for execution of forest enhancement activities, designating grazing areas, investing in REDD+ site specific plans and to provide livelihood trade-offs to the local communities (especially the non-owner and other deprived segments like poor and women).

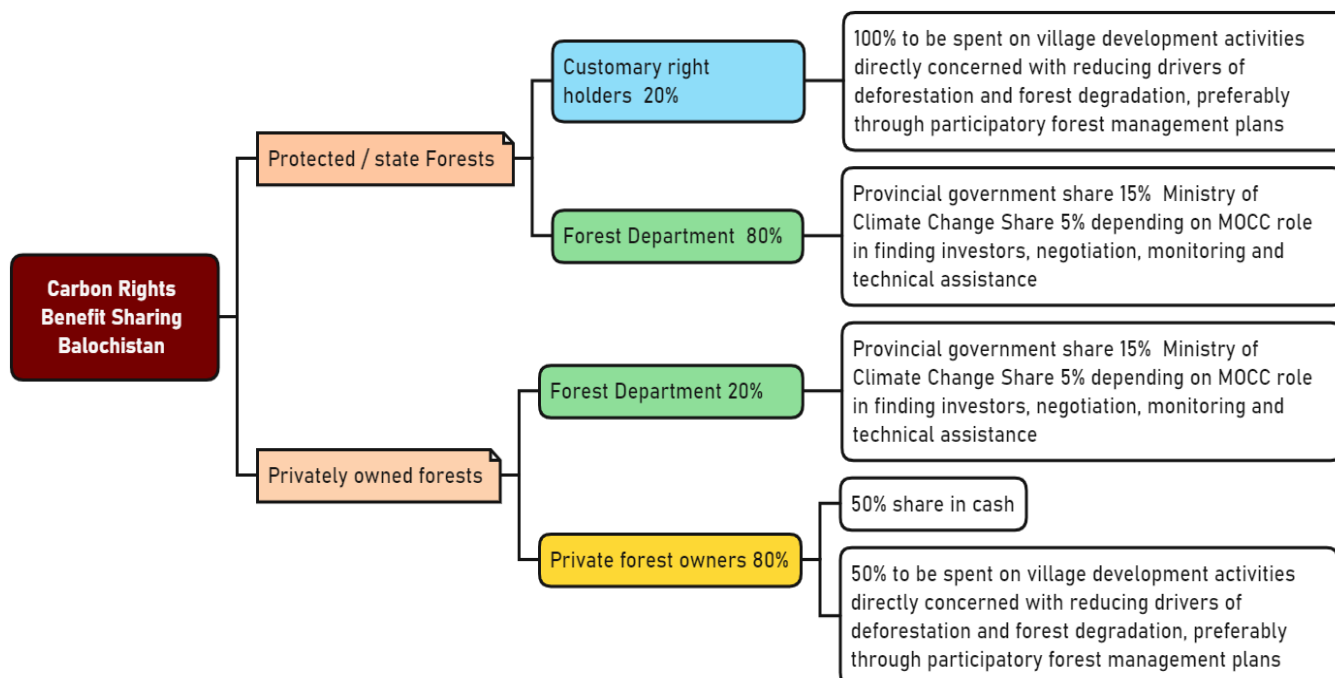


Figure 2: Carbon and non-Carbon Benefit Sharing accrued from REDD+ Balochistan

4.2.3 Gilgit Baltistan

GB's government is currently engaged in framing rules for REDD+ benefit distribution. The following proposal (Figure 3) has been drafted by GB Forest department to be taken as an input in the government's deliberation.

1. Protected forests

- a. The government of GB will transfer 50% of the share to the GB Forest, Parks and Wildlife department for executing REDD+ participatory forest management plans, REDD+ monitoring, financing REDD+ Cell and forest enhancement.
 - i. Out of this, 1/5th of the share (20% of the total share) will be retained by the government of GB.
 - ii. Federal Ministry of Climate Change will receive 1/20th share (or 5% of the total shared) subject to the case where MOCC provided technical assistance and negotiation support
 - iii. The remaining 75% will be spent on forest development.
- 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 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 as 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.). 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.

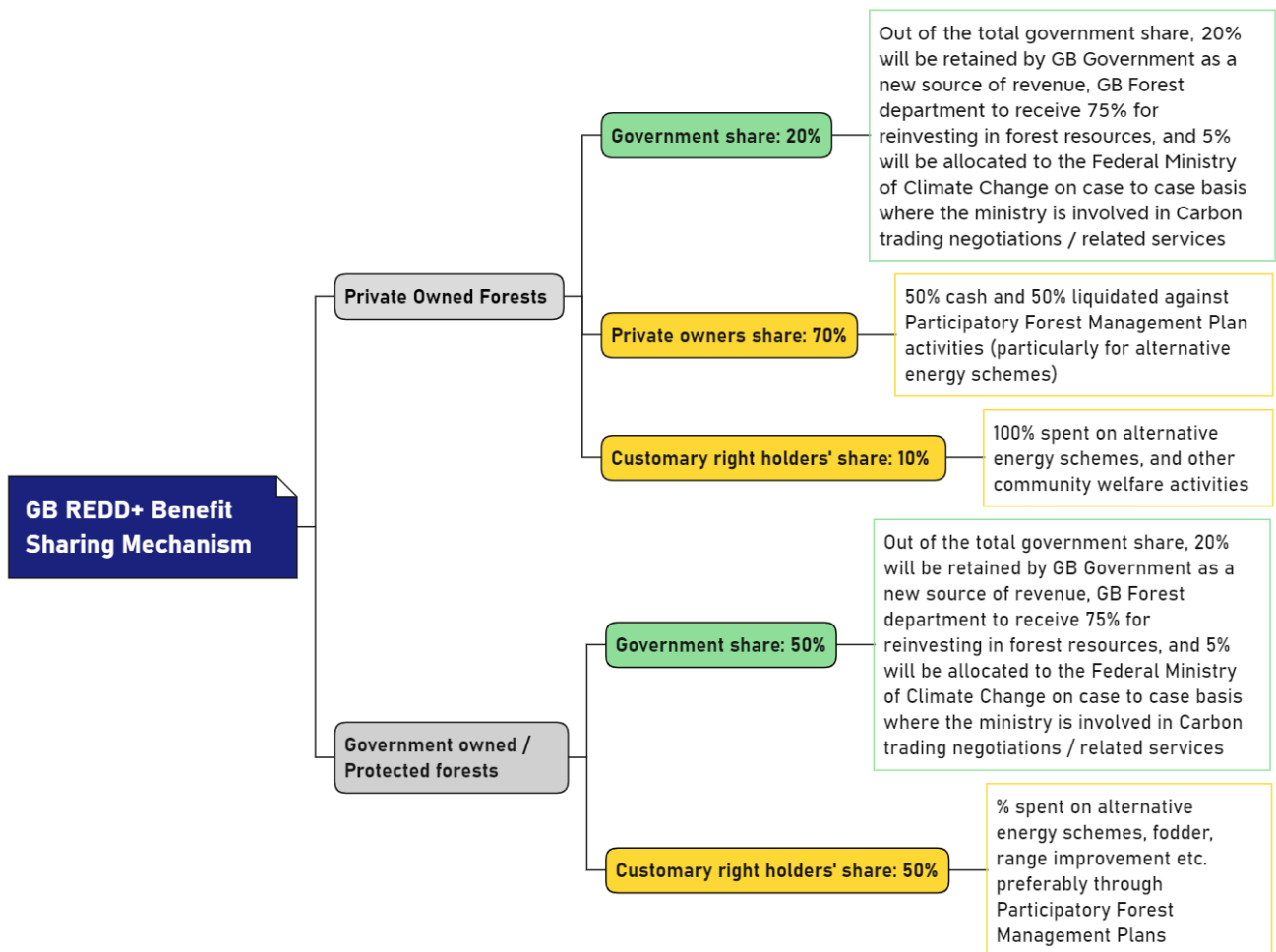


Figure 3: Carbon and non-Carbon Benefit Sharing accrued from REDD+ Balochistan

4.2.4 Khyber Pakhtunkhwa

A concept of benefit sharing mechanism was initiated in 2018 in KP province²⁸. In addition, a benefit sharing mechanism was also proposed for a pilot Pay for Environmental Services (PES) scheme for moist temperate forests of Kaghan valley. These concepts were further discussed with the stakeholders during the preparation of Provincial REDD+ Action Plan. In case of different legal forest tenures, following benefit sharing mechanisms are proposed:

1. Reserved forests

- a. Out of the total Carbon sale proceed, 50% of the share will go to the government after deducting all transactional costs of the site-specific negotiation and third-party monitoring and verification. The government of KP will retain 10% of the amount and allow the rest of the revenue to be deposited in the Forest Development Fund.
- b. Out of the remaining 50%,
 - i. Half will be distributed to the forest right holders (cash)
 - ii. The second half will be spent in village development activities directly relevant to reducing drivers of deforestation and forest degradation (such as alternative energy development projects and installations). The latter benefits will be enjoyed both by right holders and customary forest users.

2. Protected forests

- a. Out of the total Carbon sale proceed, 30% of the share will go to the Forest department. This fund will be distributed as follows:
 - i. 10% will be charged for covering transactional costs of the site-specific negotiation and third-party monitoring and verification (approx. 10%)
 - ii. 5% to the Ministry of Climate Change on case-to-case basis (the remaining 35% to be retained by the government).
 - iii. Out of the remaining fund, half will go to the Forest Development Fund for different schemes.
 - iv. The remaining half will be retained by the government of KP
- b. Out of the remaining share, 70% will be distributed to the forest right holders and customary forest users as follows:
 - i. 40% will be distributed to the forest right holders (cash)
 - ii. 30% will be spent in village development activities directly relevant to reducing drivers of deforestation and forest degradation (such as alternative energy development projects and installations). The latter benefits will be enjoyed both by forest right holders and customary forest users.

3. Guzara forests

- a. Out of the total Carbon sale proceed, 10% of the share will go to the government after deducting all transactional costs of the site-specific negotiation and third-party monitoring and verification. Out of this, the government of KP will retain 10% of the amount and allow the rest of the revenue to be deposited in the Forest Development Fund.
- b. The remaining 90% is meant for guzara owners and customary users:
 - i. 50% will be distributed to the Guzara owners (cash)
 - ii. 40% will be spent in village development activities directly relevant to reducing drivers of deforestation and forest degradation (such as alternative energy development projects and installations). The latter benefits will be enjoyed both by Guzara owners and customary forest users.

²⁸ Devising Benefit Sharing Mechanism for REDD+ under Different Land Tenure Systems

The Federal Ministry of Climate Change will be entitled for 5% share out of the government's share on case-to-case basis.

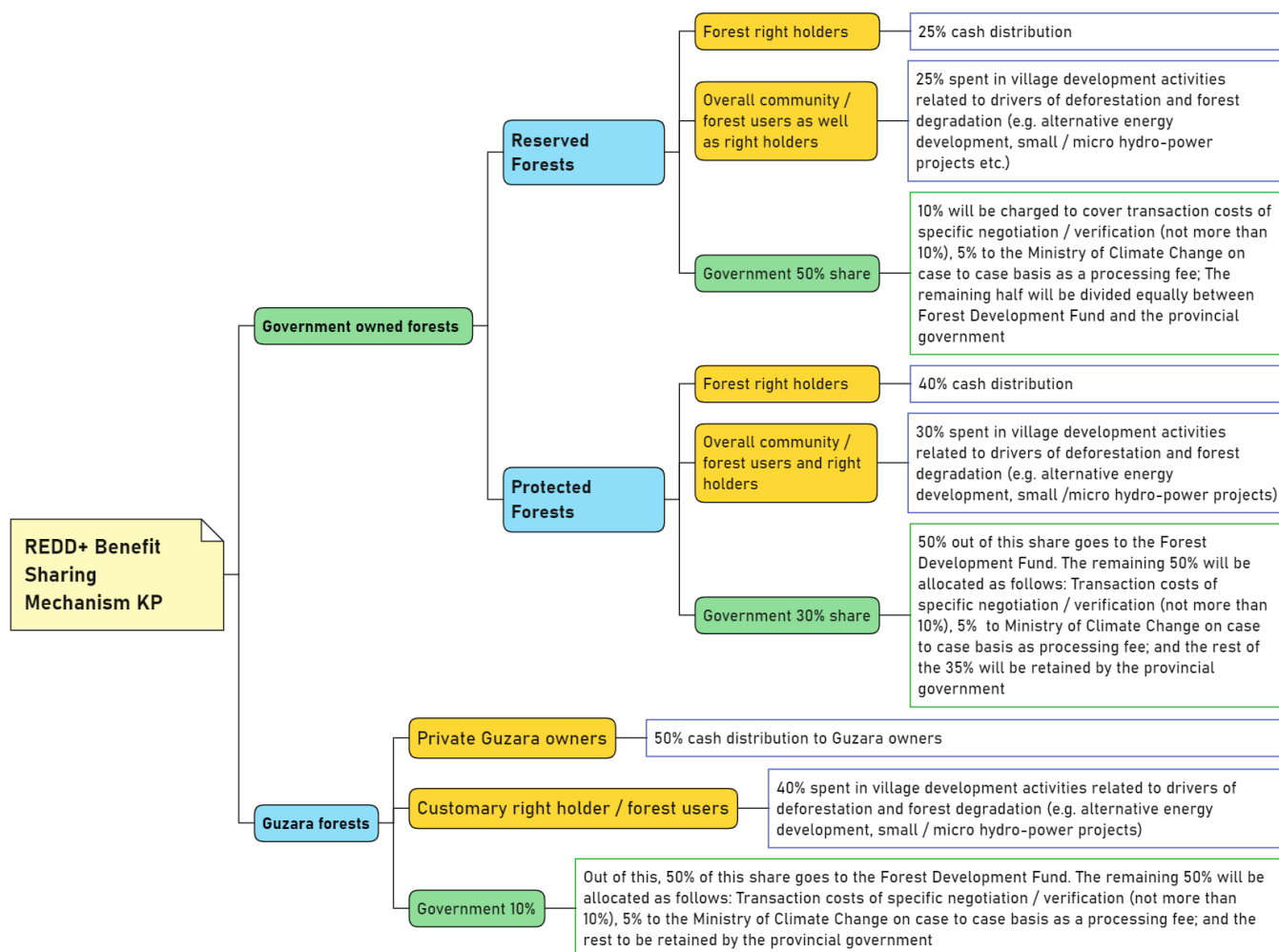


Figure 4: Carbon and non-Carbon Benefit Sharing accrued from REDD+ KP

4.2.5 Punjab

Punjab's benefit sharing mechanism has been defined by different stakeholders for different legal forest types (Figure 5)

1. Reserved and Protected forests

- i. The department will be entitled to 80% share from both Reserved and Protected forests.
 - a. The MoCC will be entitled for 5% share out of the government's share on case-to-case basis.
 - b. 10% will be retained by the Government of Punjab
 - c. 10-20% will be allocated to Forest department field staff as an incentive
 - d. The remaining 65-75% will go to forest development and enhancement activities
- ii. Customary right holders are entitled to 20% REDD+ benefits from Reserved and Protected forests. This fund will be spent on development activities related to

2. Private forest/Guzara

- i. The private owners will receive 80%. A significant proportion of these funds will be spent on development schemes related to REDD+ in consensus with owners.
- ii. The government will be entitled to 10% share and will be spent on forest development and enhancement activities
- iii. Customary right holders are also entitled to 10% REDD+ benefits, spent on local development

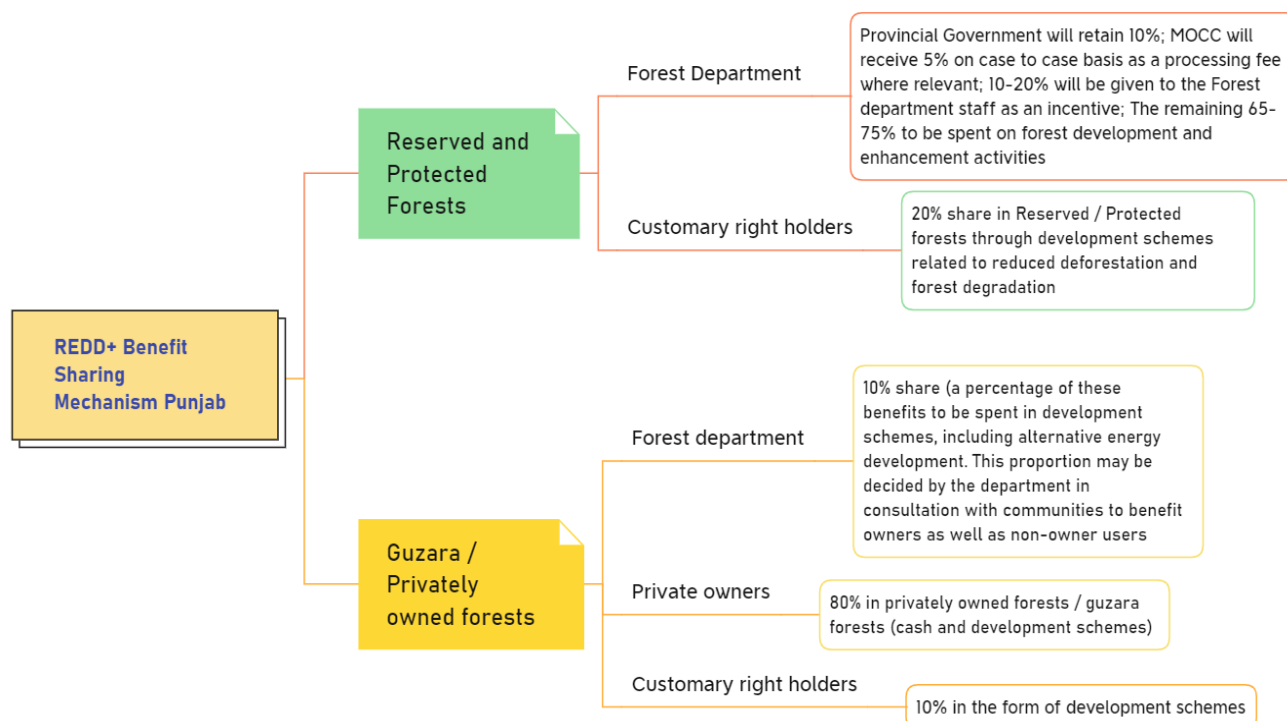


Figure 5: Carbon and non-Carbon Benefit Sharing accrued from REDD+ Punjab

4.2.6 Sindh

A benefit sharing mechanism for Sindh was proposed for pilot PES design of Mangrove forests²⁹ which was further discussed and analyzed during multi-stakeholder workshop in terms of its adoption for Sindh PRAP. The stakeholders emphasized to adopt the same benefit sharing mechanism as it was designed and agreed through rigorous multi-stakeholder consultation process. The main purpose of the benefit sharing mechanism is to ensure that the forest users find an incentive in REDD+ measures and cooperate with the programme.

1. Reserved forests

The carbon and non-carbon benefits would be divided into two heads i.e. government and customary forest users as follows (**Figure 6**):

- i. 80% proceeds is for government of Sindh. Out of this, 10% will be retained by the government; 5% will be allocated for the MoCC on case-to-case basis. The remaining share (85%) will come to the Forest department.
- ii. 20% of the proceed will go the customary forest users / right holders, which will be spent in community village development activities geared to reducing drivers of

²⁹ <https://www.redd-pakistan.org/wp-content/uploads/2019/02/Final-PES-Design-Document-Mangroves.pdf>

deforestation and forest degradation, preferably through Participatory Forest Management Plans.

2. Protected forests

The carbon and non-carbon benefits from REDD+ activities would be divided into two heads, i.e., government, and customary forest users as follows:

- i. 80% proceeds is for government of Sindh. Out of this, 10% will be retained by the government; 5% will be allocated for the MoCC on case-to-case basis. The remaining share (85%) will come to the Forest department.
- ii. 20% of the proceed will go the customary forest users / right holders. 100% of this amount will be spent in community village development activities geared to reducing drivers of deforestation and forest degradation, preferably through Participatory Forest Management Plans.

The government share and developmental share may be utilized for execution of forest enhancement activities, designating grazing areas, investing in REDD+ site specific plans and to provide livelihood trade-offs to the local communities (especially the non-owner and other deprived segments like poor and women).

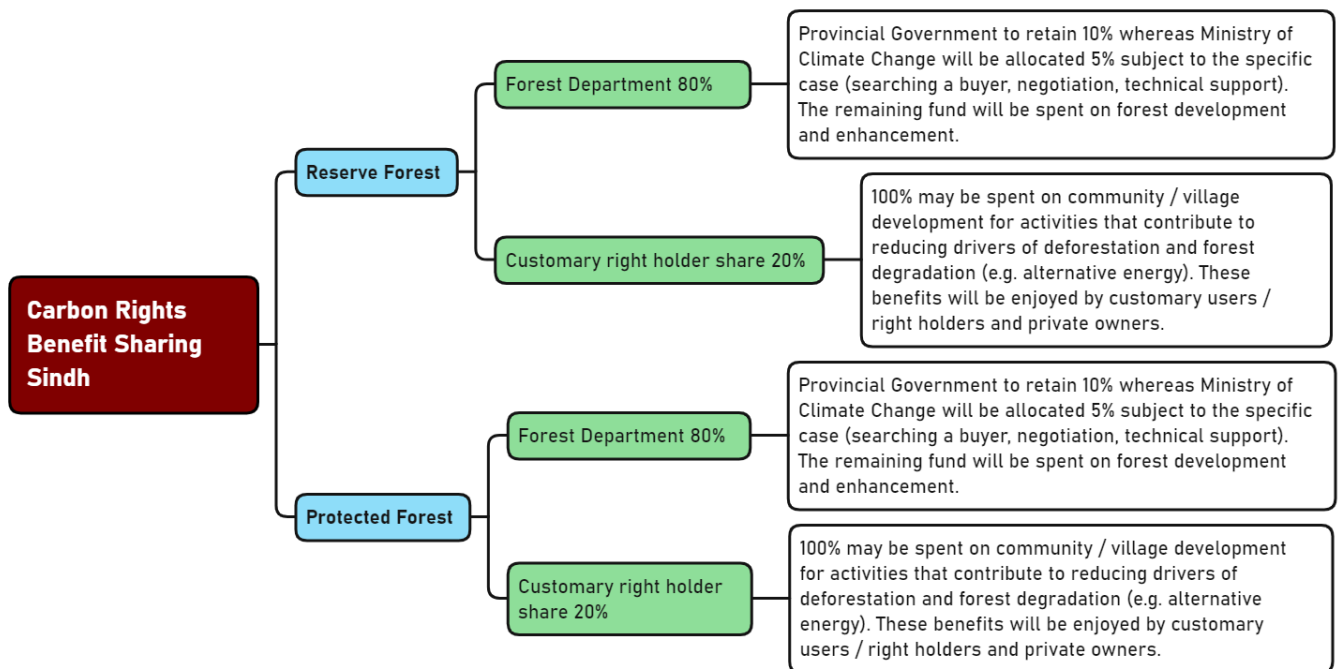


Figure 6: Carbon and non-Carbon Benefit Sharing accrued from REDD+ Sindh

If, in future, a specific case of private land arrives and qualifies for REDD+ benefit share with proper documentation, the customary users / right holders share will double (40%) and the Government's share will reduce to 60%.

5 Conclusions and recommendations

5.1 Conclusions

Carbon is understood and accepted as a new forest produce. The provincial forest departments are aware of the importance of this forest produce and are considering new legislation to remove ambiguity around carbon as a forest product and sharing its potential benefits among stakeholders.

The Forest Act 1927 still remain the main legal instrument for managing forest and explaining concessions and use rights of various stakeholders in the forest resource in majority of the subnational entities. Some sub-national entities have made amendments to some sections of the Act. In AJK The Jammu & Kashmir Forest Regulation Amendment Act, 2017, the term carbon as commodity has been inserted under Section 2 of the definitions. Similarly in Sindh, the Forest Act is being amended to include forest services and carbon sequestration as commercial activity under section 2 and section 103(3). The Punjab Forest Act amended in 2016 under section 2(h)vii regarding definition of Forest Produce, mentions that any other produce which may be notified as forest produce by the government. Thus, Carbon can be treated as forest produce, however formal notification declaring Carbon as forest produce is required to satisfy legal requirements.

The forest authorities suggest that even without any further amendment to Forest Act 1927, Carbon may be considered a forest product just like flora, fauna and environment. However, necessary amendments in regulations are needed to clarify ambiguity, for effective implementation of REDD+ and to develop an effective benefits sharing mechanism in case a buyer is ready to invest or pay for emission reduction.

Most forests in the sub-national entities fall under three major categories – Reserved, Protected and Private. Protected category of forests exist in all sub-national entities (called Demarcated in AJK, although blurred between Reserved and Protected) whereas Reserved exist in four provinces except GB and AJK (again the Demarcated in AJK could fall in this category). Private forests are in four entities - AJK, GB, Balochistan and Sind - while Guzara category exists in KP and Punjab. Other smaller categories exist in some entities and not in others – e.g., Unclassed and Resumed in KP and Punjab, Village Forest in Punjab and AJK. This analysis indicates that most of the forest areas in the sub-national entities fall under Protected category followed by Reserved and Private (including Guzara).

The benefits sharing mechanism among the government and the users suggested by the sub-national entities show significant differences even for the same legal category (e.g., in Reserved forest 50:50 by KP and 80:20 by Sindh for government and users, respectively. This significant difference cannot be explained given the fact that current legal provisions dictated by the Forest Act 1927 on sharing benefits in Reserved forest is mainly same in all the provinces. In discussions on developing a mechanism for REDD+ benefit distribution, there is a tendency to follow REDD+ benefits sharing based on current benefit sharing systems for timber and other economic goods from various legal forest categories, i.e., the government taking more share from benefits of Reserved forests as opposed to Protected forests. This indicates that traditional management approaches dominate thinking of forest managers even in case of Carbon emissions.

In the government owned forests, three main stakeholders are identified for sharing potential benefits from REDD+ programmes – the government, the right holder users and the non-right holder users. Forest officials do not see great challenges in enforcing this scheme. In private forests, however, the rights holder users are expected to resist inclusion of non-right holder users in benefit sharing. This was flagged in GB and Balochistan.

5.2 Recommendations

Benefits sharing based on local needs: The provinces must develop Benefit sharing mechanism keeping in view the national and international obligations. Most importantly benefit sharing to be based on ground realities and not on powers, rights and concessions defined in the centuries old forest regulations. Benefits sharing must be based on roles and obligation in the REDD+ initiatives considering drivers forest degradation and deforestation that needs to be addressed by through implementation of REDD+ Experience spread over centuries indicated that forest management by classifying the forest into various legal categories including the Reserved forest have failed. The reason being ignoring ground realities including local needs that dictate forest management as opposed to legal provisions. Sticking to the existing legal classification for benefit distribution from REDD+ programme is deemed to fail as the case with traditional top-down centralized forest management approaches. Taking needs of users into consideration would yield desirable results. Therefore, the basic principle is to provide maximum benefits to the user to address drivers, regardless which legal category of forest is taken for implementation of REDD+ projects. A successful example is trophy hunting programme where benefits from a government owned resource (wildlife a pure government property - comparable to timber or trees in a Reserved forest) was mainly diverted to the communities.

Role of customary users including women and weak segments of society: The non-right holder community which are presently getting benefits as cultural and customary acceptance should be compensated for their economic hardships, they might face due to the REDD+ programme implementation. This aspect needs to be given special attention in case of REDD+ programmes in private forests. Women have lot of economic contribution for the household and society but are the most unacknowledged and deprived segment of society. It should be ensured that women especially women headed households get their due share from REDD+ initiatives. While their share in carbon benefits are ensured, they get a priority in non-carbon benefits especially from livelihood improvement initiatives.

Removing misconceptions that REDD+ replaces timber benefits: It is important to remove the misperception that REDD+ benefit sharing mechanism replaces revenue shares defined for timber extraction. REDD+ benefits accrue because of reduced emissions and positive forest growth without losing the actual capital, which is timber. Therefore, anytime when timber is harvested for scientific management or for commercial interest, the distribution of benefits will be according to already prescribed rules. However, the harvesting prescription needs to be transparent and according to the rules not to create any apprehension among stakeholders who fear then to lose REDD+ benefits since harvesting may cause increased emissions.

REDD+ benefits independent of timber benefits: 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 Reserved, Protected, Guzara or any other legal categories of the forests. In case of REDD+, 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.

Addressing diversity and uniformity in distribution of benefits among stakeholders. As has been explained in the conclusion, there is significant difference on the share suggested for various stakeholders from potential REDD+ initiatives. For example, KP suggested a 50:50 share between the government and customary users in Reserved forest whereas Sindh suggested 80:20 for the same. This shows a relatively large difference among provinces. The provinces may need to justify the share they are seeking with respect to resources they need to address forest enhancement or reducing drivers of deforestation / forest degradation. For

example, does Sindh need more percentage of resources out of REDD+ benefits to enhance or address drivers when compared to KP.

Starting from government owned Protected forest to build confidence and demonstrate benefits for Private/Guzara owners: Discussions with official and private forest owners indicate that the private forest owners may not be willing to share REDD+ benefits with non-owner users, especially in 100% private forests with individual and clan ownership on resources especially timber. So far, the private owners have received significant share of timber sales. They may not be willing to share income with non-owner users who contribute to forest degradation and deforestation and needed to be included in benefit sharing for cooperating and contributing to REDD+ initiatives. A wise decision may be to start with government owned Protected forests and to demonstrate that Carbon and non-Carbon benefits from REDD+ programmes may exceed timber sale proceeds.

Institutional setup for demonstrating transparency in benefit distribution: it is recommended that an independent board consisting of majority members from civil society and community to steer management and distribution of benefits. See the Ghana Cocoa example referred in this report for inspiration.

A robust MRV system should be established at federal and provincial level. Measurement, Reporting and Verification (MRV) is a must for our global response to climate change. MRV enables the states to meet international reporting requirements like National Communications, Biennial Update Reports (BUR), and National Greenhouse Gas (GHG) Inventories. It also enables the country to demonstrate progress under measures such as Low Emission Development Strategies (LEDS), intended Nationally Determined Contributions (NDC), and nationally appropriate mitigation actions (NAMAs). Most importantly, MRV processes provide the information that countries need to inform their broader climate change and sustainable economic development objectives:

- **Development of allometric relationship** between area and tons of carbon sequestered for each forest type and each forest ecological community be studied and developed.
- **Carbon registry:** A majority of stakeholders and experts consulted believe that Carbon registry should be managed both at provincial and federal levels. A nested REDD+ approach with jurisdictional scale seems logical and appropriate.
- **Leakages:** It is not possible to effectively implement REDD+ programme unless Strategy and mechanism for leakage control is developed either at territorial, provincial or Federal level.

The need for new legislation to accommodate REDD+: it is suggested that the MoCC supports the provincial governments for amending existing legislation/bringing new legislation for forest management to accommodate REDD+ and promote joint forest management. Sporadic attempts by the provinces are slow and stuck at approval stages. A separate focused project on this subject to support to provinces will speed up process and facilitate the forest department in getting legislation approved.

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Annex: 1 Share of Benefits for different beneficiaries

Sub national units	Reserved			Protected and other state-owned categories			Guzara			Other privately Owned		
	Forest department	Right holders	Customary users	Forest department	Right holders	Customary users	Forest department	Forest owners	Customary users	Forest department	Forest owners	Customary users
AJ&K ³⁰				50%	40%	10%				20%	70%	10%
Balochistan				80%		20%				20%	80%	
GB	50%		50%							20%	70%	10%
KP	50%	25%	25%	30%	40%	30%	10%	50%	40%			
Punjab	80%		20%	80%		20%	10%	80%	10%			
Sindh	80%		20%	80%	10%	10%						

³⁰ Demarcated / un-demarcated in case of AJ&K

Annex: 2: Governance of Carbon benefits – survey results

A national survey was launched with selected experts (72% forest experts at federal and provincial level; 28% other stakeholders; 85% men, 15% women and 84% from provinces and 16% federal). This chapter summarizes their responses with few examples from specific references into the data received.

Definition and legal entity of Carbon benefits

Respondents from AJK, Balochistan and GB which are 28% of the total respondents, stated that a legal definition of carbon is available in the following legal documents.

- Balochistan: Revised Forest Act 2022 has been cleared by the provincial cabinet and is being placed before the provincial assembly as bill for the discussion.
- Gilgit-Baltistan: Incorporated in Forest Act 2019 under section 2 and sections 97-106. These sections define and discuss carbon as product. Section 111 deals with the forest carbon rights whereas section 113 related to sharing of carbon benefits.
- AJK includes forest carbon in the definition clause of Forest Regulation of 1930 (Amended Act 2017).

In other cases, including at federal level, Carbon has not yet been defined as a legal entity. The experts were asked to pool their thinking on how carbon should be defined. **Figure 7** suggests that 55% respondents are in favour of Carbon as a new product followed by 39% suggesting carbon is an environmental benefit.

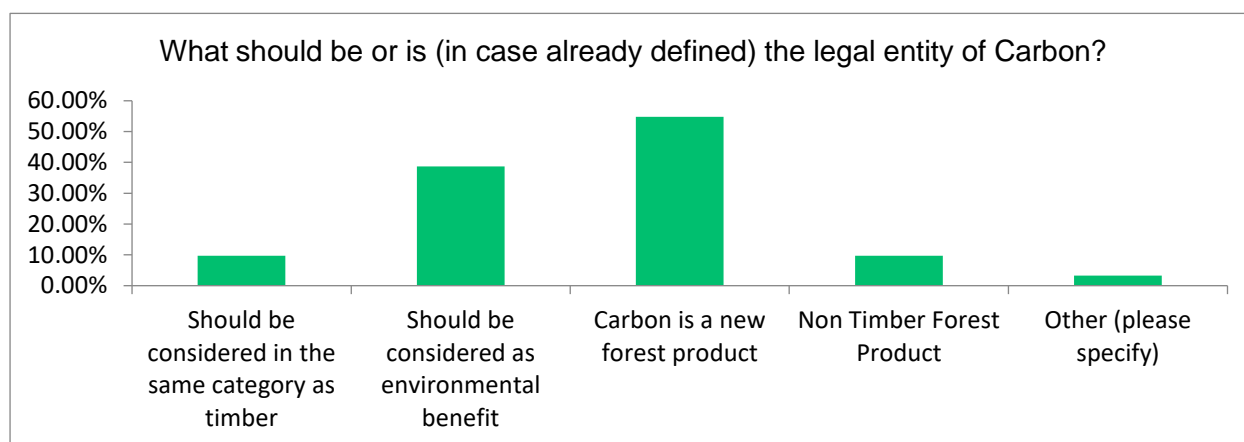


Figure 7: What should be Legal entity of Carbon?

The respondents were asked to propose a definition based on their understanding on Carbon. The following options were suggested:

Technical / biological definitions

- Carbon is sum total of all CO₂ sequestered by or stored in vegetative parts of a tree/shrub and associated soil, having capability of enhancing global temperatures if emitted.
- The amount of carbon stored in above ground biomass, below ground biomass, deadwood, leaf and litter and soil of a forest ecosystem.
- Carbon means chemical element present in all organic matters which contribute to climate change in the form of various greenhouse gases, for example carbon dioxide and methane.

- Carbon as commodity means quantification of carbon as sequestered in plants and trees from the atmosphere and calculated in terms of its weight in Kilogram and tones of units and valued for sale and purchase as a commodity in the national and international market on Carbon trade.
- An element captured or stored in biomass of trees, soil and other types of forest vegetation.
- It is a non-consumptive product of forest which is supposed to be perpetual

Management / governance definitions

- Carbon is a new product that incentivises national and sub national entities to trade reduced emissions according to the prescribed IPCC guidelines.
- Rent of tree for its environmental services.
- Forest carbon is considered as a product as a viable, alternative source of income for forest owners.
- The rise of new global agreements such as carbon offset and tons of CO₂ accumulated or decreased.
- Carbon is a benefit which is accrued as a trade-off to avoiding removal of tree and parts of trees.
- Carbon is a tree product to replace timber, firewood and grazing as benefits to its owners.
- A product available in trees as per definition in sub section 45 and 46 in Forest Ordinance 2002 of KP.
- A product to be sold at national or international level without losing its volume, density and area.
- A reward stored as a result of conserving forest.
- This product may be used for alternative income and revenue generation without losing capital.

Forest ownership and suggested Who owns Carbon?

An obvious question raised by the stakeholders is on ownership of the carbon and its benefits. The respondents were given multiple choices to suggest who owns carbon in different tenurial arrangement of the forests and how to include users in benefit sharing mechanism as an incentive while developing carbon benefit sharing mechanism. This discussion was tabled keeping in view that most forests are degraded including the government owned and managed Reserved and Protected due to heavy use and dependence by the communities. Keeping this contextual challenge confronted in all the provinces, and the legal tenurial system in view, the Carbon benefit sharing may be different from prevailing system of sharing timber sales proceed which are based on ownership and concessions/rights provided under various tenurial systems.

A large segment of respondents (84%) stated that excluding users will be a mistake and will impact the REDD+ objectives negatively. The ownership of carbon benefits therefore must rest with the owners (including the provincial government where applicable) as well as users of the forests. Including users in benefit sharing is essential since their role is critical in sustainable management and conservation of forest resources. Users' role in changing their use pattern needs to be compensated. Only 16% suggested that the carbon is owned by the owners (including the provincial government where applicable) and is to be distributed according to legal tenure (which potentially excludes customary users). The stakeholders assessed different legal forest types for benefit sharing mechanism across country:

Government owned forests

a. Reserved forests

Primarily the owner of the Reserved forests is the Provincial government through Forest departments. However, when local communities and users contribute to reducing or transforming the use of forests, some compensation for them is well deserved. Users' benefits in Reserved forests are limited to usufruct rights. They have no official share in sale proceeds from Reserved forests. The respondents believed that incentives may be offered with agreed terms and conditions for contribution in sustainable resource management and protection. The respondents suggested considering a share of 10-40% carbon credit to go to the users through Joint Forest Management (JFM). Compensation may be managed through providing alternative energy sources (e.g., gas or other green energy sources), development projects (health, education, infrastructure development). The users may also benefit through jobs such as nursery raising and NTFP businesses and watch & ward. Figure 2 presents respondents suggesting for benefit sharing in Reserved forests.

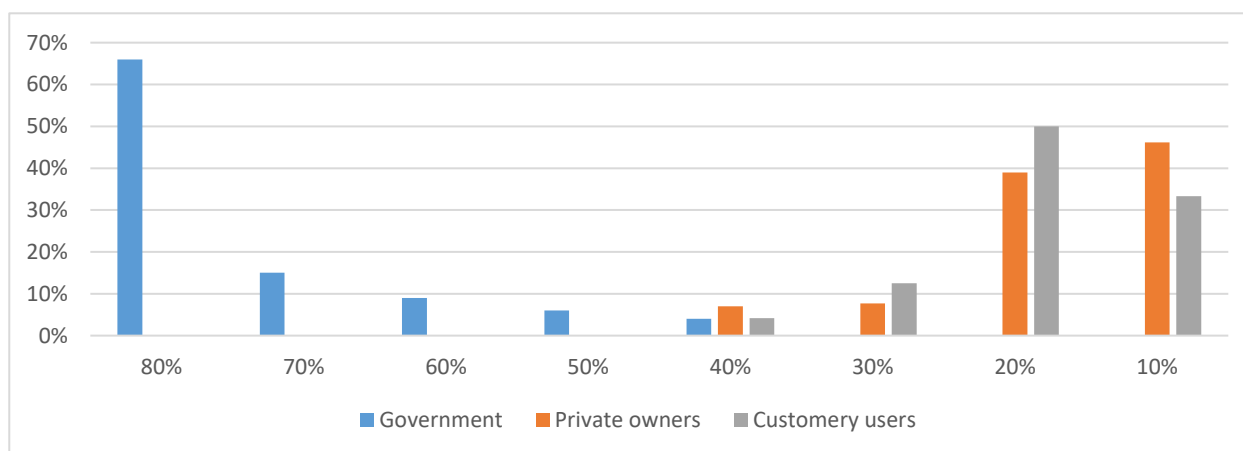


Figure 8: Owner¹ and User Share in Reserved forest

b. Protected forests

Protected forests are state-owned, and communities have legally admitted rights. Benefit sharing among these two actors will be in line with legal rights. In addition, however, the user communities may be eligible for incentives in the benefit sharing mechanism for forfeiting or transforming certain uses. While in Reserved forests, the Forest department is the only proprietary owner to accommodate users, in case of protected there are two stakeholders who need to jointly agree on users' roles. The right holders receive royalty from sale proceeds of the forests which may also apply in case of carbon. The respondents' proposal is to encourage joint forest management regime in these forests just like in case of Reserved forests. In addition, however, it is important to count on users' role just like in case of Reserved forests by allotting certain percentage to users out of government share in the same procedure as already in vogue for royalty distribution in KP. A compensation may be in the form of small jobs (e.g., watch and ward), and meeting their basic needs for education, health and energy. Sindh suggested that community or private lands are used for planting mangroves, certain percentage in carbon credits may be given to them. Figure 3 presents % respondents

Benefit sharing in Protected forests under the GILGIT-BALTISTAN FOREST ACT, 2019. As per section 39, the government may allow certain benefits to local communities in Protected forests and devise benefit sharing arrangements for such benefits. Section- 51 states that the net profit, if any, arising from the ecosystem services of Private Forests inter alia Carbon financing, shall be paid to the local resident communities or owners after deducting at source, the essential service charges deductible in such cases. The deductions so made shall be credited to the government Treasury (Gilgit-Baltistan Consolidated Fund) and, Forest and Wildlife Fund in the prescribed proportion.

suggesting share of government, Private and users share from REDD+ benefits generated in Protected forests.

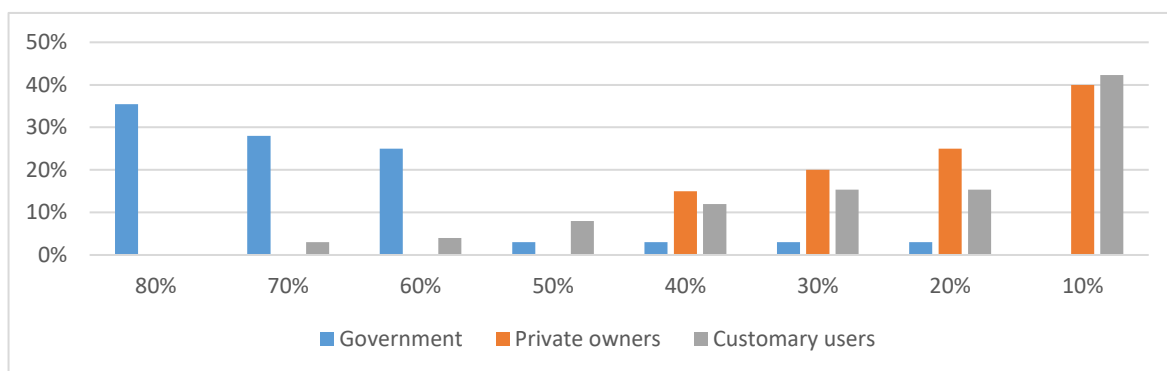


Figure 9: Owner and User share in Protected forest

Community / private forests

Guzara forests

The user community is the main right holder either individually or jointly in Guzara forests whereas the government through the Forest department manages the resources. The distribution of carbon benefits will take place as per the provision in guzara rules. The government share in these forests is 10-30%. Guzara forests are heavily loaded with rights, and users have a significant role in changing their practices in forest use for turning drivers of deforestation and forest degradation for reduced emissions. The third stakeholder is the non-owners / users. The Guzara owners need to be sensitized on the importance of including non-right holder users in REDD+ benefit sharing. A percentage of benefits needs to be allocated for them as an alternative benefit for playing a role in REDD+. A compensation may be in the form of small jobs (e.g., watch and ward), and meeting their basic needs for education, health and energy. The respondents from Sindh province suggested that plantations including mangroves can be established in private lands by motivating the owners and providing them attractive incentives.

Privately owned forests

Like Reserve forests, privately owned forests are straight forward in their legal tenure. Customary rights of non-owner users are documented in wajab ul arz. These forests may be highly complex in convincing owners to change their view towards forest from timber to carbon. REDD+ driven management, however, requires compensation for other actors too such as non-owner users, which may create some issues, and the Forest department, for management role. Through a partnership agreement, the government may deduct a specific share for its management and facilitation in marketing, and also for compensating non owner users after

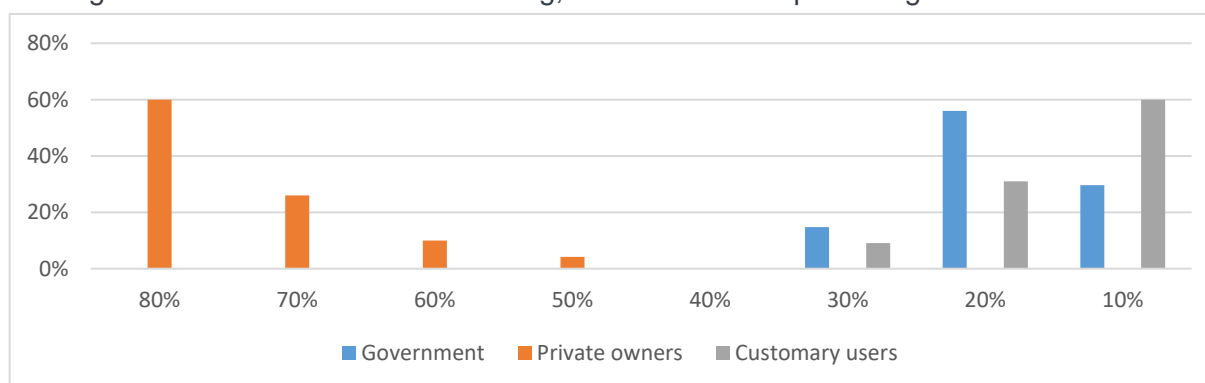


Figure 10: Owner and User Share in Guzara Forests

carbon stock assessment (up to 30%). The GB's Forest Act 2019 for private forests has defined these arrangements. Within the share of the government, a compensation for non-owner users may be defined (cash or provision of alternatives to wood products and grazing, development schemes etc.). Some of the respondents raised question on undermarketed private forests and suggested that it was not advisable to engage in REDD+ benefit sharing agreement in these forests.

Other legal categories

Several respondents were of the view that the legal provisions and histories of other forest types vary in provinces and therefore the topic of benefit sharing needs province-wise deliberation. The respondents suggested at least 10% share for the department agreed through a partnership arrangement with the concerned stakeholders or follow the course as per provision of the rules for the respective category.

The respondents further explained their responses as follows:

Suggestions:

- It is more advisable to adhere to existing benefit sharing mechanisms admitted in records of rights (*Wajibul Arz*) defined under different legal forest types and ensure these are systematically applied. Where things are vague, these are defined and made clear.
- It is important to include users in community institutions where REDD+ dialogues take place. On these forums, a clear deal needs to strike with the users. If they get some kind of benefits in the shape of cash income or alternative to timber / non-woody products, the chances of REDD+ success will be higher.
- Carbon may be owned by the owner of the property, whereas the benefits are beyond carbon's ownership. All the provinces support that appropriate incentives are essential for communities dependent on forest resources to compensate them for foregoing forest uses that are not consistent with sustainable management. In any dialogues with the owners, this aspect is necessary to highlight that it is not about taking the ownership away from the legal owner to the user. It is about sharing benefits with them so that their cooperation may be sought in addressing drivers and sustaining / enhancing resources.
- Forestry is a provincial subject and therefore benefit sharing will be devised by provincial forest departments.
- Community participation is a must for programme's success and to make all sorts of alternative options to avoid drivers work.
- Public private partnership should be promoted to find ways to amplify benefits from non-woody opportunities in the forests to reduce emissions and sustainable forest management.

Concerns:

- The share of users is not recognized by owners. However, the continued presence of users in forests has made their position stronger and no intervention may be undertaken successfully until the users are taken on board. It is therefore necessary that at least 10% from the share of owners should go to users.
- Some of the provinces are yet to finalize their new forest policies and fully integrate REDD+.
- The word "user" is vague, everyone would have a claim which will make it complicated to apply a benefit sharing mechanism

Defining a benefit sharing mechanism

53% respondents suggested defining a new system for carbon benefit sharing. As such benefit distribution will follow tenurial system. But a new system and rules are necessary to give clear

procedures and standards to avoid any confusions and to guide negotiation process. The respondents explained this as follows:

- The existing legal and customary arrangements may have to be revisited in certain cases to define new benefit sharing arrangements to facilitate new partnerships among the relevant stakeholders
- Whatever the system, it should be developed in consultation with all the stakeholders defining not just their benefits, but also their roles.
- A more recognized and effective set of incentives for rewarding users and peripheral communities for changing actions to reduce emissions and compensate them. Users otherwise are highly invisible players in reinforcing drivers or reversing degradation.
- The system should be based on legitimate agreements between stakeholders discouraging illegal activities while commercializing forest carbon. It is about stronger governance than continuing the same classical management which has historically not yielded the desired results.
- It should be based on roles and responsibilities of actors and not only on the basis of ownership!
- A new system must be based on channels through which financial as well as non-financial benefits are disbursed.

Where should be Carbon registry?

A majority of respondents (56%) believe that Carbon registry should be managed both at provincial and federal levels. In addition, 6% suggest that that the private sector should be made a partner in maintaining the registry. According to respondents a nested REDD+ approach, which provides technical guidance for registration of REDD+ projects nested within a jurisdictional accounting framework is appropriate for Pakistan. The nested REDD+ approach will provide registration requirements for project-level REDD+ activities – including conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks – following baseline, leakage, monitoring and other technical requirements developed at the jurisdictional level provided these meet certain minimum criteria. The approach must also define social and environmental safeguard requirements for registration of REDD+ projects. Jurisdiction³¹ is defined as any politically defined region delineated for the purposes of tracking carbon stocks, deforestation rates, and GHG reductions through REDD+ project activities (provinces in case of Pakistan).

A nested REDD+ project is one that is accounted and monitored in reference to the jurisdictional accounting framework (baseline, leakage assessment, monitoring requirements) in which the project takes place. This can have the benefit of reducing transaction costs for projects, allowing them to use the baseline and other requirements developed by the jurisdiction rather than having to develop these at the project level; meanwhile, creating such frameworks can help jurisdictions attract private capital for REDD+. To be confident that nested REDD+ projects registered in Pakistan meet the high-quality benchmark, it is important to establish the criteria and standards that jurisdictional baselines, leakage assessments, monitoring, and reversal risk mitigation must meet in order for projects to register. Such minimum criteria that must be met in order for a project nested within that framework to register carbon credits. Equally important is to have these standard specify how quality differences in jurisdiction-level performance may be reconciled.

Negotiating carbon credits and finances

Coordination across different scales of government is an important factor in integrating development and planning considerations to increase effectiveness. For comparison, payment for ecosystem services schemes often have targeted benefits at the household level, while

³¹ A jurisdiction may be a national or sub-national political entity (nation, state, province, district, etc.), though other ways of defining jurisdictional boundaries are also possible.

joint forest management approaches tend to focus community, and extractive initiatives often have taken a larger-scale approach that disburses funds to both governments.

Majority of respondents (53%) suggest that both federal and provincial actors can negotiate carbon trading with potential buyers and traders at national and international level. 22% respondents suggested that either the province or the federal Ministry of Climate Change (MoCC) to play central / lead role in such negotiations. Their arguments are presented below.

Negotiation only by provinces:

Forestry is a provincial subject and the provincial governments through Forest departments should be empowered to negotiate carbon trading with the markets. The provinces have managed and have local social and ecological knowledge and thus they know best where in the province is readiness for negotiation. This is further reinforced by the 18th Constitutional Amendment which makes forests a provincial subject and carbon as a forest product is the responsibility of the provinces to negotiate with potential national and international buyers. The Ministry of Climate Change (MoCC), however, should be engaged with their cross provincial knowledge and international mediation skills.

47% respondents suggest that only the province should charge certain % of management fee while 41% suggested that the province as well as MoCC should charge such a fee. Discussion in the provinces suggests that the provincial actors value the significance of services MOCC may provide to the provinces (e.g. MRV guidance, networking, mediation etc.) which need to be financed also through such negotiations.

Negotiations only by the Federal government:

Some of the respondents suggested that the negotiation mostly may take place between two countries and thus federal government may be in a better position to lead negotiation. Federal government enjoys a better interface with international organizations. Particularly in case of GB and AJK, Federal government is the competent forum to negotiate Carbon trading with international buyers as per provision of Constitution of 1973. It is responsible for signing treaties on behalf of AJK and GB governments with national and international funding agencies. AJK and GB with a special status have no authority to negotiate with foreign companies directly. 67% respondents stated that in case of federal government selling credits on behalf of the provinces in the international/national market, it will transfer the amount to the provinces and keep certain percentage as REDD+ negotiation management fee.

Joint negotiations both by the federal and provincial governments:

The negotiation may be subject to legal and constitutional provisions and the scope may be national, provincial or local. Both provincial and federal levels have respective roles in negotiations. There are different potential market sources where carbon credits may be traded, i.e., compliance markets and voluntary carbon markets. The carbon credits may be traded by the national and provincial governments in compliance markets whereas voluntary carbon markets may be accessed by either by projects developers or the provincial governments. Under compliance mechanism, the registered entity is federal government through the MoCC, therefore, all negotiations took place through the ministry. Whereas in voluntary mechanism, the provinces being custodians of the forests may go directly to negotiate in any bilateral market. However, the double counting of carbon credits needs to be avoided. If investors/buyers are interested at project or specific ecosystems base, the provincial governments may enter into negotiations and agreements. In case of international finance Federal government through the ministry may engage on behalf of provincial governments. As an option to ensure sustainability of the entire federal / provincial and local forest management systems, it is important to cover different expenses from the carbon credits earned from the REDD+ initiatives.

A consensus on provincial management fee is 15%. However, in cases where provincial management fee in certain legal tenure is already defined at a higher level (e.g., 20% or

higher), it will have a precedence on this percentage so that the department can manage its services in an optimal manner. The purpose of these funds is to:

- Maintain registry and MRV systems
- Offer competent human resource for participating in the carbon trading
- Implement the new concept, research and development
- Manage diverse affairs related to REDD+ management and address issues related to drivers
- Improve the existing human, technical and physical infrastructure of provincial forest departments

A wide range of 9-15% fee was suggested by the provinces for the MoCC from the REDD+ projects/programmes to support the provinces in the following areas:

- Manage registry at federal level and to avoid double counting
- MRV management, negotiation, technical advice
- Signing agreements on behalf of the AJK and GB governments
- Play coordination role with multi-actors
- Supplement or fulfil monitoring and reporting role
- For direct negotiations and supporting the provincial governments in negotiations and identifying potential buyers and resources for REDD+

Funding sources for REDD+ initiatives

Apart from management share from REDD+ credits, other highly likely sources include (Figure 11) provincial funds through PC1 documents (70%), other sources including international financed projects (37%), Public Sector Development Programmes (PSDP) funds (30%), and private sector (25%).

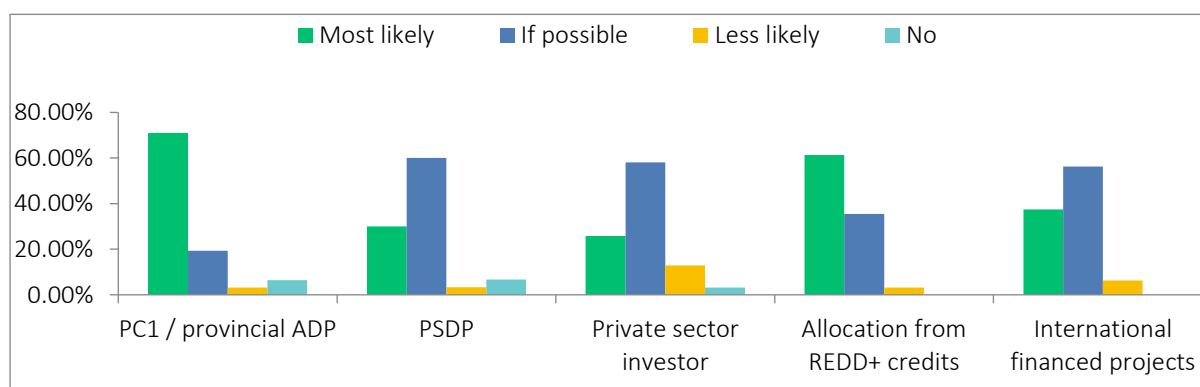


Figure 11: Source of funding for resource management

Monitoring, Reporting and Verification

53% respondents suggested that responsibilities and capacities for MRV should stay both with the province and federal levels while 16% respondents supported the idea of engaging 3rd party for MRV. They argued that MRV should be conducted in an objective and unbiased manner. MRV by the governments will fall in conflict of interest. The following arguments were made for engaging 3rd party for MRV:

- The private sector as an evaluator is independent and without any influence
- Third party monitoring is always welcomed to eliminate any possible chances of biases or misuse of authority or resources
- 3rd party monitoring may be more analytical and justified on causes of success or failure in increasing forest cover or any other benefit to forest ecosystems and suggest course correction and steps for improvement

- 3rd party may come as a validator rather than a monitor for quality assurance of our MRV systems
- In a jurisdictional system, Federal ministry should engage 3rd party and conduct verification in a collaborative manner
- Buyers of carbon credits from private sector can provide an independent assessment of the carbon sequestered.

Main challenges in managing REDD+ benefits

The respondents foresee certain challenges in REDD+ benefit sharing and security benefits (**Figure 12**). Availability of funds for pre-investment in restoring and managing drivers of deforestation and forest degradation was identified as a major challenge (59%). 34% respondents believe that REDD+ benefits accrued may not remain under the department's control for reinvestment in the forests. 59% respondents see leakage of resources in other areas. 56% respondents find community participation a challenge, especially in areas where participatory approaches have yet not been institutionalized. 47% believe monitoring and verification a challenge to be addressed by capacity building in technical and social aspects. 44% proposed that carbon needs to be defined as a product / service of the forest. Timber mafia was identified as a major challenge for success of REDD+ programmes (41%). Nearly 13% respondents suggested the need for introducing intensive forest management as business-as-usual may not be enough to keep pace with REDD+ demands.

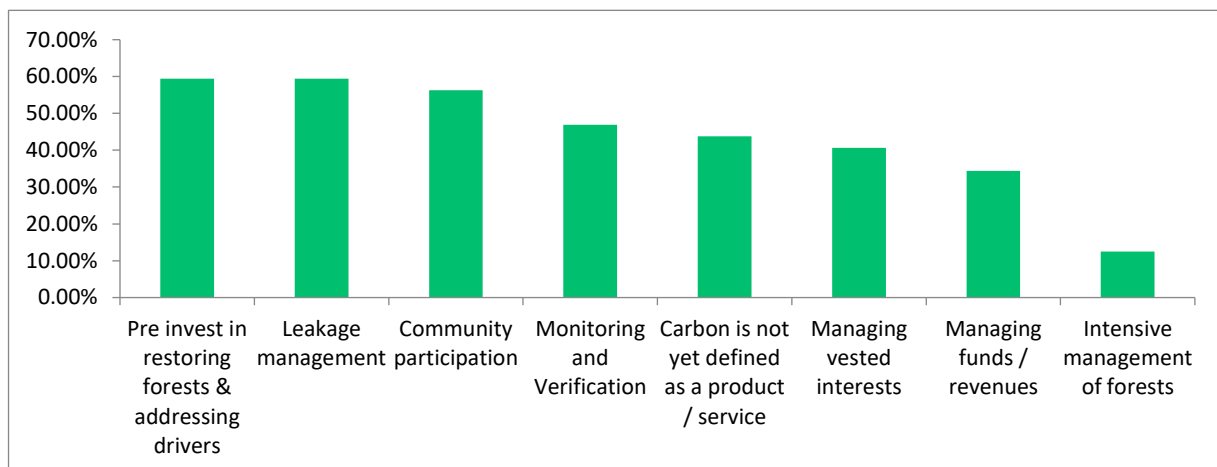


Figure 12: Challenges in Managing Benefit distribution

Summary of survey

The respondents suggested that REDD+ requires change of mindsets from traditional top-down management to community-based forest management which should aim at uplifting the socioeconomic conditions of the dependent communities to arrest deforestation and forest degradation. Regular capacity building programmes are needed for all primary stakeholders. In GB and KP with a history of community participation, implementation of REDD+ may be relatively simpler due to availability of vibrant community institutions. The forest departments in these areas are accustomed working with the community. While in other provinces the departments have to develop community participation approaches.

The survey results were shared with a panel of experts for analysis and interpretations. Their feedback on various aspect is summarized below:

Is carbon a forest produce?

It was consensus opinion that Carbon is a forest produce and benefits so accrued can be shared amongst the stakeholders as per forest/land tenure system and keeping in view the international, cultural and customary norms and obligations. And that the role of non-right-holders should not be ignored. Without their active participation and cooperation successful

implementation of REDD+ programme is not possible. This segment of community should get at least 10 % share in the accrued benefits so that they feel ownership of the REDD+ initiatives.

Suitable areas for REDD+ projects?

The respondents suggested that substantial quantity of productive land in Pakistan is lying unutilized either due to very small, fragmented land holding or absentee landlords. Efforts should be made to bring such lands under the REDD+ programmes.

Impact of REDD+ initiatives on user communities

The user community will be asked to stop/reduce extraction of forest products (timber, firewood, grazing). This will impact their livelihoods and income. This is especially true for customary users with no legally admitted rights in the forest. Without cooperation and participation of this segment of users, successful implementation of REDD+ initiatives may not be possible. Therefore, while devising mechanism of benefit sharing their stakes and losses should be taken care of.

Who should negotiate Carbon selling in international market?

The experts were of the opinion that the federal government should take the role of negotiator and should charge 5% as negotiation fee.

What should be the leakage control strategy?

If leakage is not controlled it may eat up the entire efforts of those cooperating and participating in the programme. A lot of education and awareness raising is required on the concept. Government should purchase the carbon credits from producers of the carbon credits and compensate for leakages from its own pool, so that the community participating in the programme may have confidence in the success of the programme and may not face losses due to unwise action of non-participating segments elsewhere in the country.

Where should be carbon registry?

It was suggested that a nested REDD+ approach, which provides technical guidance for registration of REDD+ projects nested within a jurisdictional accounting framework, is appropriate for Pakistan. The nested REDD+ approach will provide registration requirements for project-level REDD+ activities – including conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks. This suggests that the registry should be at both federal and provincial levels.

What is the appropriate strategy for benefit sharing?

It is quite obvious that the communities participating in the programme will face economic hardships during the early years of the programme implementation and till they devise appropriate adaptation. Therefore, some mechanism be developed to alleviate these hardships to ensure success of the programme. Without participation of all the *de-facto* users irrespective of their rights being legally admitted or not should be compensated for the restrictions and transformations they agree to observe for the implementation of the programme. The respondents suggest that carbon benefits should largely go to the community for their sacrifices and to incentivize them for using alternative or least degrading ways to use forests. The government does not lose any revenues by paying more credits to the communities since the timber capital stays intact. These dividends may be paid in cash or in the form of development schemes. Education, health, infrastructure and provision of alternate energy source are the important sectors for investments as incentives to communities for programme implementation.

Sindh's legal conclusions relating to the forest and forest produce is that the government of Sindh has legal title to the forests and forest produce by virtue of the 1958 and 2010 declarations, together and respectively. The government of Sindh has title to any carbon within the Project area because "carbon" falls within the definition of "forest produce" under the Act.

There is no specific definition of carbon within the Act. Therefore, the question becomes whether carbon stored within the forests can legally qualify as "forest produce".

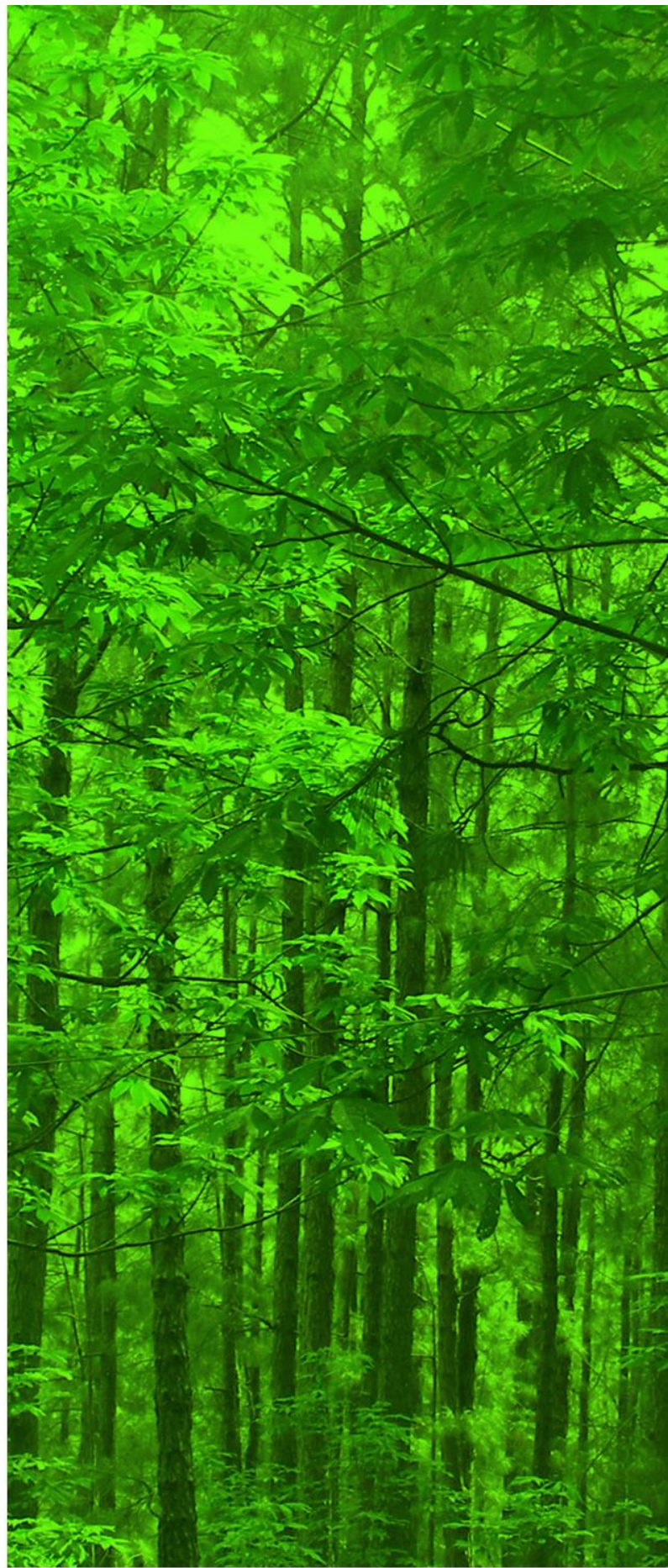
Section 2 of the Act defines "forest produce" as "tree ... and any other part or produce not hereinbefore mentioned, of a tree," and "plant not being a tree (including shrub ...) and any other part or produce of a plant." Mangroves and riverine forests fall within these definitions. Carbon is a "part" of both trees and shrubs. On that basis, it is safe to conclude that the government has title to any carbon within the Project area. However, we further note that the Act's definition of "forest produce" within section 2(h)(vii) also includes "any other produce which may be notified as forest produce by the government." While carbon may fall within the definitions of "forest produce" as written within the Act, it is safer to obtain a notification from the government to that effect and legalise it. This may either be an act of parliament to amend the current Act or prepare a separate set of rules.

As holder of legal title to the forests and forest produce - including carbon - within its territory, the government has the legal authority to enter a contract to generate and transact carbon credits resulting from activities within those forests. At present, there are no laws dealing with carbon at the national level in Pakistan. Government of Sindh, which has jurisdiction and ownership over the Protected forests within the province, has the legal authority and control over forests necessary to create and transact carbon credits.

The draft Forest Act 2012 has good prospects that it will be enacted at some point and impact REDD+ decisions on benefit generation and sharing. It would strengthen the government's authority over projects such as that created by the Agreement, for the following reasons:

The Draft Act specifically addresses public-private partnerships, providing in section 103(1) that, "Subject to any other law, the government may invite proposals from the private sector for the development of a forest, forest land or wasteland, hereinafter called forest."

Section 103(3) then provides, "Subject to the provisions of this Act, the government may permit any person to use a forest for ... (e) enhancing environmental services such as carbon sequestration." (Emphasis added). While that draft section does not specifically mention the generation of carbon credits, the clause "such as" allows for the inclusion of REDD+ projects. The Draft Act therefore contemplates the very type of arrangements that are created under the Agreement, namely a private-public partnership that enhances environmental services such as restoring mangroves to create and sell carbon credits.



**Assessment of Carbon Rights in
various types of forests based on
Legal Classification**

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