



## Ministry of Forests and Soil Conservation REDD Implementation Centre

Develop National Database of Basic Attributes of all Forest Management Regimes and Develop National REDD+ Information System or Registry

Contract No: (FCPF/REDD/S/QCBS-24)



---

### Technical Working Document n. 3 to Final Report Need Assessment of data acquisition from the field and reporting at the local, sub-national and national level in the forestry sector

April 2016

Authors:

Prayag Raj Tamrakar

The contents of this publication are the sole responsibility of Agriconsulting S.p.A and Prompt Infosolutions and can in no way be taken to reflect the views of the Nepal Ministry of Forests and Soil Conservation, REDD Implementation Centre

This publication is a property of the Nepal REDD Implementation Centre and is part of the Nepal REDD Readiness Preparation Program funded by the World Bank.

We would like to thank the whole staffs of Ministry of Forests and Soil Conservation, Department of Forests, Department of Wildlife and National Parks, REDD Implementation Centre, Western Regional Forest Directorate, District forest offices of Western Region and Members of REDD Technical committee in particular:

**Mr. Man Bahadur Khadka**, Joint Secretary REDD Implementation Centre  
**Mr. Rajendra Kafle**, Under Secretary REDD Implementation Centre;  
**Mr. Mohan Prasad Poudel**, Under Secretary REDD Implementation Centre;  
**Mr. Narendra Chand**, Under Secretary REDD Implementation Centre;  
**Mr. Kiran Dangol**, Under Secretary Ministry of Forests and Soil Conservation;  
**Mr. Gopal Prakash Bhattarai**; Under Secretary, Department of Wildlife and National Parks;  
**Mr Shiva Khanal**, Under Secretary Department of Forest Research and Survey  
**Mr. Yogendra Karna**, Under Secretary Department of Forests;

who provided insight and expertise that greatly assisted the project

## Table of Contents

1	Background.....	1
2	Objectives .....	3
3	Methodology .....	4
3.1	Approach and activity adopted .....	4
4	Findings of the “Need Assessment” activity.....	5
4.1	Forest Management Regimes in Nepal.....	5
4.2	Database practised by different Forest Management Regimes .....	6
5	Data Need Assessment for various management regimes and Parastatals .....	6
5.1	Private Forests.....	7
5.1.1	Private Forest Management Regime (PFMR) .....	7
5.1.2	Forest Based Enterprise .....	8
5.2	National/Public Forests .....	9
5.2.1	Community Forest management Regime .....	9
5.2.2	Leasehold Forestry Management Regime (LHFMR) .....	10
5.2.3	Collaborative Forest Management Regime (CFMR) .....	13
5.2.4	Religious Forest Management Regime (RFMR) .....	15
5.2.5	Protection Forest Management Regime (PrFMR) .....	16
5.2.6	Government Managed Forest Management Regime (RFMR).....	17
5.2.7	Protected Areas, National Parks and Wildlife Conservation .....	20
5.2.8	Buffer Zone Forest Management Regime .....	22
5.2.9	Ministry of Forest and Soil Conservation.....	23
5.2.10	Public Forest Management Regime (RFMR).....	24
5.2.11	Other support offices and Parastatals .....	24
5.3	Other general needs emerging from the assessment made .....	25
	Annex 1: People Consulted during needs assessment .....	27
	Annex 2: Field Schedule .....	30

# 1 Background

To reduce the threat from global climate change and its effect to the livelihoods of people worldwide, particularly in the context of a significant portion of the greenhouse gas emissions resulting from deforestation and forest degradation, the international community is in the process of developing a mechanism “Reducing Emissions from Deforestation and Forest Degradation (REDD+)” to provide positive incentives to help developing countries reduce emissions, to support conservation, sustainable forest management, and the enhancement of forest carbon stocks. Preparations for REDD+ also include enhanced human and institutional capacity to develop and coordinate relevant land use policies to mitigate future impacts on forest cover and quality.

The REDD mechanism was initiated at the 13<sup>th</sup> COP (Bali, 2007) and along with the UN-REDD Programme, consisting of representatives of FAO, UNDP and UNEP, the Forest Carbon Partnership Facility (FCPF) was launched by the World Bank, nine donor governments and TNC. Conservation, sustainable management and enhancement of forest carbon stocks, deforestation and forest degradation were agreed to be within the scope of REDD+ at COP 16 (Cancun, 2010). At COP 19 “Warsaw Framework on REDD-plus”, was accepted. The framework consisted of key methodological decision making for finance; implementation; national forest monitoring systems; safeguards; reference (emission) levels; monitoring, reporting and verification (MRV); and addressing the drivers of deforestation and forest degradation.

The objective of the Nepal Readiness Preparation Program is to prepare Nepal to engage in and benefit from the REDD+ program within the context of the international climate negotiations of the UN Framework Convention on Climate Change (UNFCCC). In the process of its national effort towards “REDD+ Readiness”, present initiative is related to developing National Forest monitoring system and safeguards system.

A functional information system is crucial for monitoring and reporting on REDD+ program and activities at both national and international levels. The system will also help in making information decisions at policy and field implementation levels. REDD Implementation Centre (RIC) aims to develop a National forest Database (NFD) and a National Forest Information Centre (NFIS) as an integrated system of coordinating forest management in Nepal. Though the present effort is focused on REDD+, NFD and NFIS will be valuable for the whole forestry sector with potential link to agriculture and land use planning in future.

In this process, RIC has already accomplished the process of developing major tools/documents such as Reference (Emission) Levels (REL); Monitoring, Reporting and Verification (MRV) and REDD+ Strategy for Nepal.

The NFD will incorporate comprehensive data on forest management based themes and collection mechanism related to forest resources, forest management regimes, carbon stocks, forest users and REDD+ activities. The database will also cover all forest types and management regimes of the country including community forestry, collaborative

forestry, leasehold forestry, national forestry, and government managed forests, forests under Protected Areas including buffer zones, private forests and religious forest. The NFIS will provide necessary infrastructure, interface, tools and links to the NFD. This will be a web-based information system enabling easy access and updating of data and information. The database will provide user requested information necessary for exploration, analysis, reporting and visualization on forest resources, carbon stocks and flows, management and users.

NFIS is basically a query system for both statistical and spatial data. NFIS facilitates the acquisition, integration, processing and dissemination of data/information in support of analyzing and reporting on matters relating to sustainable forest management in Nepal. NFIS thus has an important role to play in improving local resource management and informing the implementation of REDD+ regimes with local participation. NFIS should allow the locals to participate in data management, which also enhance transparency and ownership of data. The data outputs from the system could be directly feed into existing or new management or operational systems/plans in making it also useful in developing strategies in order to establish appropriate interventions. The services model/approach of the system, allowing the community to participate, would thus guarantee the continued operation of the system.

The NFIS, an overarching information management system that includes tools and protocols for system managers and interfaces for accessing data, information and maps from the NFD and other relevant databases, links to and between these databases, analysis, synthesis, tabulation and other thematic tools. The Inception Report (March 2015) visualizes to incorporate, in addition to tools for decision support, modules and user friendly graphical user interfaces for data query and reporting, GIS analysis and mapping, at least for the subject list as in list 1

### **List 1: Content of NFD/NFIS**

1. Home
  - a. NFD
  - b. NFD Partners
  - c. Important links
  - d. Glossary
  - e. Silvicultural Terms
  - f. References
  - g. Inquire
  - h. Comments
2. Forest resources,
  - a. Forest Inventory and statistics,
    - i. National Forest Inventory
      1. national Forest Inventory
      2. forest Inventory designs,
      3. Forest Statistics;
    - ii. Community Forest Inventory
      1. Contributors in CF – Donors,
      2. Designs, others
  - b. Natural resources remote sensing,

- c. Forests and Forest Types of Nepal
- 3. Forest Management Regimes
  - a. Government managed forests
  - b. Leasehold forests
  - c. Community forests
  - d. Private forests
  - e. Religious forests
  - f. Protected forests
- 4. Biodiversity Conservation
  - a. Habitat and connectivity restoration
  - b. Human Wildlife Conflict
- 5. Land use, Land-use Change, and Forestry (LULUCF),
- 6. REDD+ activities and Forest carbon/biomass, and
- 7. Social and environmental safeguard (SES) indicators.
- 8. Forest Fire
- 9. Forest Health/Insects
- 10. Forest working plan and programs,
- 11. Forest users and beneficiaries,
- 12. Silviculture of Important Species
- 13. Forest Product Sales and Revenue
- 14. Others

The objectives of the database and the information systems are to design and develop a comprehensive and integrated NFD and required user interface for data entry, management and access. The database shall include spatial information of the boundaries of forests under various management regimes. Among other objectives of the database is to develop a Standard Operating Protocol (SOP) for data entry, analysis and quality control.

## 2 Objectives

The objective of “Data Needs Assessment (DNA)” is to follow a process approach of comprehensive consultation with the important stakeholders involved in and/or supporting institutions/hands of the forest management process in various circumstances and level of participation by the public also called community/users and the civil servants. These levels of involvement have been a basis of differentiating between the forest management regimes.

The other objective of the DNA process was to identify the data or sources of existing data in addition to enquire about the data type, data flow and reporting the various levels in the hierarchy of a forest management regime and reporting requires to and are comfortable about.

## 3 Methodology

The methodology followed for the needs assessment is

- Review of existing guidelines and other relevant documents of different management regimes, and
- A process of comprehensive consultation with relevant stakeholders.

### 3.1 Approach and activity adopted

Given the proximity and functional links between NFD and NFIS the stakeholder's DNA for NFD and NFIS was carried out jointly.

#### a) Consultation with relevant stakeholders

This task was carried out through extensive consultation with stakeholders including:

- Ministry of Forest and Soli Conservation (MoFSC)
  - REDD+ Implementation Centre
- Department of Forest (DoF)
  - Community Forest Division
  - Leasehold Forest and Forage Development Programme
  - National Forest Division
  - Silvicultural Division
- Department of Forest Research and Survey (DFRS)
- Department of National Parks and Wildlife Conservation (DNPWC)

#### b) Relevant projects and programmes

The MoFSC counterpart institutions and relevant Project and Programs were also consulted for data collection and sharing:

- Forest Resources assessment of Nepal (FRA Nepal Project)
- Multi Stakeholder Forestry Program (MSFP)
- Development of a National REDD+ Reference Scenario (REL Project)
- Department of Soil Conservation and Watershed Management
- Department of Plant Resources
- Nepal Trust for Nature Conservation ((INGO)

## 4 Findings of the “Need Assessment” activity

### 4.1 Forest Management Regimes in Nepal

Categories of forests and protected areas as identified by Forest Act (1993), National Parks and Wildlife Conservation Act (1973) and Forest Policy (2000) are Private forests and National Forests. The National Forests has been categorised and handed over to various entities and partnerships for management under various names. The remaining national forest is managed as the government managed forests management regime. The detailed categories or regimes of forest management adopted in the country are as follows:

- 4.1.1 Private forest Management Regime
- 4.1.2 National Forest Management Regime
  - 4.1.3 Community Forest Management Regime
  - 4.1.4 Collaborative Forest Management Regime
  - 4.1.5 Leasehold and Livestock Development Management Regime
  - 4.1.6 Protection Forest Management Regime
  - 4.1.7 Religious forest Management Regime
  - 4.1.8 Government Managed Forest Management Regime
  - 4.1.9 Protected Area Management
    - 4.1.9.1 Buffer zone forest management
    - 4.1.9.2 Conservation Area

## 4.2 Database practised by different Forest Management Regimes

Most of the databases found were operating at a state of cut and paste, except the one at the Leasehold Forest and Livestock Development Programme (LFLD). State of database is cut and paste basis. The other two databases existed in the Community Forestry Division (CFD) of the Department of Forests; one of it is for community forestry programme and other for the Private forestry programme.

Community forest management regime has maintained a functional database. The system collected data using simple formats where data is entered and posted by the District Forest Office (DFO) to the Community Forest Division (CFD) in the Department of Forests. Data management of Community Forest Management Regime was done at CFD. The DFO could request for the information for the district. Some districts have tried to maintain a separate database also.

The system contends various data on social and community forests. To facilitate the process a guideline has been developed and various formats/models were developed to collect appropriate data. The Leasehold Forestry and Livestock Development Program has a similar database was in operation. The system of functioning was web-based. The system had provision for appropriate formats for field data collection, analysing and report on the status of management units and the programme as a whole.

## 5 Data Need Assessment for various management regimes and Parastatals

To know the status of the data collected, assembling, analysing and reporting on the state of the management regimes in practice various meetings were held with the stakeholders (annex 1). Meetings were held with district, regional and central level stakeholders. In the centre, various departments, Parastatals, forest development programs/donors and the Ministry of Forests and Soil Conservation were met to discuss on their data requirement, flow of data/information, data in possession and an efficient reporting system. The outcome of which is presented in list 1 above. List 2 shows the institutions met with.

List 1 expressed potential content of NFD/NFIS to be. The DNA for all the concerned institutions, not only shows what is needed in terms of data, but also the services those would be requiring from the system being developed. Both data need and services required of the NFD/NFIS are presented categorically in all the management regimes and the Parastatals. Some general ones are presented beyond these categories.

The findings are generally categorised as defined in the forest category, Private and National/Public. The national forests are being managed under different regimes including the national forests remaining as under the Government managed forests. Please find all the categories of forest management regimes being practice in the country.

## 5.1 Private Forests

### 5.1.1 Private Forest Management Regime (PFMR)

A database for the PFMR exists in the Community Forest Division of the Department of Forests. PFMR has a simple collection mechanism of cut and paste of the data send from the District Forest Offices (all 75 districts). The database intends to document and share the contribution of PFMR in employment, contribution to national forest product need and national economy and forest product like timber, fuel wood and others.

The collection of field level data is in different formats/forms, e-forms, hence requiring standardisation. Access is yet focused at the central level. At the district level a proper reporting should be made available. As of now, if the district needs to know the status, the district has to request for information from the centre.

The Private forestry database, required to be improvised with a view to ease the planning process with visual tools and data would like to have following in the data entry format:

1. Information of the Private forest Owner
2. Area of private forest
3. Species planted
4. Private forest
  - Stage of private forest
  - Periodic reporting system to district, and central levels (be formatted)
  - Kind of private forest plantations (
5. Social information
  - Status of Employment
    - inclusion of women
    - inclusion of other caste
  - Governance and inclusion trend (gender/other caste)
  - Training provision and happenings
  - Study living condition and enhancement/development
  - Contribution to the national employment status
6. Forest product and income/revenue
  - Forest product yield
  - yield of forest product by type
  - Revenue generated
  - Contribution to the national forest product need
7. Status of Private forest, needing help from the government (equipment, capacitating, others), Market promotion/standardisation and other information required.

### 5.1.2 Forest Based Enterprise

This is a new field of facilitation / support activity the government has focused on, though forest based enterprise is not new in the sector. Minimal data the government has so far documented and wanted that NFD/NFIS should incorporate are as listed below. The database needs to document the effect of community/social economics and development through the contribution of forest based enterprises. Leading on, the stakeholders wanted that there be an evaluation of the contribution made by these enterprises on employment, supply of value added forest products like timber, fuel wood and above all its contribution to the national economy.

1. Different kinds of enterprises like
  - a. Wood carving, furniture and Other wood based industries
  - b. Nursery and NTFP farming, processing and value adding activities/enterprise
  - c. Other kinds of enterprises
    - i. Rope (dooru damlo),
    - ii. Essential oil/fragrance (Sugandit tel),
    - iii. leaf plate/bowl, back carrier (Doko) etc
    - iv. Honey - bee keeping, Silk worm farming, LAHA (what is this?) farming
    - v. Allo and Lokta/handmade paper enterprise
    - vi. Wild fruit based - Churi, Aaselu, kafal, walnut, Bel, Lapsi, Amala, etc
    - vii. Juice (Sarbat),
2. Types of raw material used by different enterprises, eg Forest Nursery
3. Benefit/support of the FBE to the socio-economics and community development through forest product, employment and other benefits

## 5.2 National/Public Forests

### 5.2.1 Community Forest management Regime

Community forestry programme, in 1994 designed a database to monitor forest management, social inclusiveness and gender involvement in community forest management. However use of internet was not considered for reporting, analysis, assembly or collection of field level data. It was based on cut and paste basis from the hard copy or other e-forms send to the centre from the districts. The districts have to obtain its status in community forests from the centre, upon request.

The data entry format should be on an individual Community Forest User Group (CFUG) basis. There are some 20,000 CFUGs as reported. The format developed would also require to automatically generate some general information on ecological zones, districts, sector etc. Some specific needs visualised are listed below.

1. Improve the existing community forestry database
2. Forest Area - Extent and spatial distribution of the main forest types, by administrative units and ecological zones
3. System to allow collection, assembly and report according to annex 15 of the Community Forest Development Guidelines (2015), and Community Forest Inventory Guidelines (1999/2000)
4. New information of community forests generated during the hand over process should be designed in the format
5. Status of forest product demand and supply before and after CF handover.
6. Community efforts in - Forest Silviculture and Management
  - a. Forest Silvicultural activities carried
  - b. Changes in the status of forest - reported
7. Social Inclusion, governance and gender balance
  - a. Social Inclusion – increase in involvement of Poor, Lower Caste and Disadvantaged
  - b. Increase in involvement of women in decision making posts of the committee
  - c. Transparency
  - d. Good Governance – timely happening of general assembly, CFUG-C meetings
8. Forest Management
  - a. Forest OP details and periodic revision
  - b. Inventory of CF
    - i. Growing Stock
    - ii. Forest Carbon (biomass above ground)
9. Annual Forest Product Yield
  - a. Timber production
  - b. Firewood and charcoal production
  - c. Non Timber forest product
10. Forest products sales and revenue (Income and community development)
  - a. Revenue income
  - b. Expenditure

- c. Community development
- 12. Mapping of all the CFUGs and displayed in the web. Information to appear on growth, growing stock, yield potential, location of CF, area and "Recurrent Inventory Plots"
- 13. Pro-poor CF activities (Leasehold forests) to appear in CF database
  - a. Area
  - b. Condition of forest while handed over
  - c. Growing stock – while handed over and periodic change recording
  - d. Social information of families involved
  - e. Other, basic information as per leasehold database
- 14. Reporting made at local, sub-national and national levels (at least Main Format) and more if specified
- 16. Changes in community forests condition/area documented leading to degradation through illegal activities and natural disasters/calamities
  - a. Forest fires – occurrence
  - b. Illegal logging
  - c. Over harvesting
  - d. Forest pests and diseases
  - e. Overgrazing
- 11. Silviculture of important species in community forests – hills – terai – high hill
- 12. Information on Afforestation and Reforestation activities
- 17. Document encroachment
  - a. Digitise encroached area
  - b. Record all involved,
  - c. Houses and other infrastructure within the area
- 18. Community Forest Operational Plan (CFOP)
  - Traffic light systems for delay in CFUG OP revision
  - Community Forest Growing Stock in an revised state
    - i. Total volume
    - ii. Timber volume
    - iii. Firewood volume
    - iv. State of regeneration, sapling, pole and trees
  - Forest management treatments/ Silvicultural activities (CF as a whole) being proposed

### **5.2.2 Leasehold Forestry Management Regime (LHFMR)**

LHFMR has recently designed a database to monitor the pro-poor, employment and enterprising, social inclusiveness and gender involvement in the programme. The system is designed to operate in web base to collect, assemble data. However, it is yet to operate. Being web based the database analyses and reports on progress and status of the management regime is done automatically. Access to the database is available in the centre only as the new database is yet to operate.

Households having less than ½ a hectare of land, less than 19,000 per capita incomes a year can be a member of the LF group. The group size found is normally 5-15 household, with or without livestock. The objective of LHFMR is to rehabilitate the degraded forests, improve the livelihoods of the people and livestock, improve the

forest condition and crown cover and improve and establish the grass species planted in 5 year period.

1. A e-map should be available for and all leasehold forest area should appear/be web based
2. A query system with date and species details of trees species planted in the Leased forests should be available.
3. A format for periodic reporting of the state of plantation should be in place
4. Document capacity enhancement activity focusing on household level livelihood advancement
5. Reporting should be made at local, sub-national and national levels. A main format, specific to the district or a specific area should be available locally/district wise.
6. Information/data required on Leasehold forests at district level of individual Leasehold forest are
  - i. Growth of forests/forest types,
  - ii. Growing stock
  - iii. Nursery information with plants grown, and distributed
  - iv. Plantation records – date of plantation, area or number of trees planted, species of trees, fodder, grasses, bamboo, etc
7. Develop a digital map of encroachment/encroached area, including photos before and after
8. Periodic, including the time of handover, information of involved community on following
  - a. Livestock/birds Improvement
    - i. Type
    - ii. Number – before and after
    - iii. Fodder availability – before and after
    - iv. New fodder and species planted
      - Tree – species – no – yield – before/after
      - Grass – species – area – graze/cut – before/after
      - Open grazing – state – before/after
    - v. Improvement in income
      - Income status earlier through livestock
        - a. Amount in Rs
        - b. Commodity – milk/compost/hair/others
  - b. Rehabilitation of degraded site
    - i. Agro-Forestry
      - Tree species planted
      - Crown cover increase/decrease/static (reason)
      - Farming type
    - ii. Farm or agro-forestry techniques, tangiya system and others
  - c. Yield from Agro-forestry
    - i. Increased/decreased/no change(reason)

- ii. Consumed/Sold/distributed
- iii. Farm yard manure – increased/decreased/
- iv. Agro based Enterprise
  - Product type
  - employed/household involvement
  - Raw material – self sufficient/borrowed/Others
  - Improvement in income
  - Enhance the income status of the group
    - a. Increase/decrease in amount of income Rs
    - b. Commodity – milk/compost/hair/others
- d. Livelihoods and education
  - i. School going – increased/static/decreased
  - ii. Literacy class – run/benefitted
  - iii. Others social benefits increased/static/decreased
  - iv. Overall livelihoods enhanced/static/ decreased
- 9. Data on Leasehold Forest Area from Community Forests (**pro poor community forest area**) should be pulled together, from CF or a different database available in community forestry division.
- 10. Enterprise based Leasehold forests should be incorporated/ documented here
  - e. Forest area released for development activities
    - 1. Development project/activity
      - i. Roads/Highway passing through Forests
      - ii. Hydropower projects and high-tension lines passing through forests
      - iii. Tourism based
      - iv. Recreational
      - v. Others (Location of the project; Forest type; Area authorised to change land use)

### 5.2.3 Collaborative Forest Management Regime (CFMR)

It is very early state of management, hence the state of data assembly and documentation. The list below has been developed from the query made with the concerned at the centre and the district level.

1. General information
  1. CFUGs involved the Collaboration Forest management Group
  2. Location and four corners of the forests, area, forest type/s
  3. Objectives of forest management
  4. Approach and methods of forest management system
  5. Silvicultural system in practice
  6. Year wise proposed silvicultural activities
2. Forest resources assessment
  - a. Forest area
  - b. Main forest types with area, administrative units and ecological zones
  - c. Information to appear in e-map
    1. Growth potential
    2. Growing stock,
    3. Estimated yield potential,
    4. location of Recurrent Inventory Plots
  - d. Growing stock information - Total timber and firewood volume
3. New Forests and changes in forest area
  1. Afforestation and Reforestation
  2. Forest degradation and changes in forest area due to forest fires, Illegal logging, over harvesting, forest pests and diseases, overgrazing and others
4. Forest management
  1. Silviculture of important species related to the Collaborative forests
5. Forest production
  1. Timber production, firewood and charcoal production, non-timber forest product and forest products sales and revenue
6. Socio-economic value and importance of forests
  1. Employment generated annually
  2. CFM's contribution to the society
    - o Education,
    - o Health and hygiene,
    - o Drinking water and
    - o Irrigation in the villages,
    - o Others.
7. Encroachment
  - 7.1 Digital map of encroached area in the collaborative forests
  - 7.2 Date of occupancy
  - 7.3 Information on Encroached forests - area, location, forest type and forest name
  - 7.4 Social information of the encroacher community
    - 7.4.1 Household details – name of household head, caste, and ethnicity,
    - 7.4.2 Necessity or political influence/motivation (political, disaster, others)
    - 7.4.3 Comparison of encroachers' livelihoods – earlier and present
  - 7.5 Status of reclaimed area
    - 7.5.1 Protection of forest

- 7.5.1.1 Peoples' participation - Conservation committee formed,
- 7.5.1.2 Details of community involved - Village/s, VDC/ward, Number of Household involved, Purpose of conservation, Others
- 7.5.1.3 Only DFO involved - Barbed wire fencing – watchmen
- 7.6 Rehabilitation information
  - 7.6.1 Planted / Barren / Grazed / Fenced
  - 7.6.2 If Plantation- species, area planted, protection scheme, plantation management activity
  - 7.6.3 In natural rejuvenation - Species regenerating, Forest type, regeneration management activity carried?
- 8. Periodic reports
  - 8.1 Annual report
    - 8.1.1 Timber, Firewood, NTFP harvested and Charcoal produced
    - 8.1.2 Community income and revenue generated from forest product sold
    - 8.1.3 Expenses incurred in community development
  - 8.2 Silvicultural activities carried in different blocks/compartments/periodic blocks
  - 8.3 Reporting made at sub-national level (at least Main Format) and more if specified
    - 8.3.1 General information on Forest management Regimes at sub-national level
    - 8.3.2 Growing stock data from periodic/recurrent inventory
  - 8.4 Changes in forest condition/area due to
    - 8.4.1 Forest degradation
    - 8.4.2 Forest fires
    - 8.4.3 Illegal logging
    - 8.4.4 Over harvesting
    - 8.4.5 Forest pests and diseases
    - 8.4.6 Overgrazing
    - 8.4.7 Others
- 9. Forest management
  - 9.1 Silviculture of important species – hills – terai – high hill (Jakson's Manual)
  - 9.2 Silviculture of plantation species
- 10. Revision of Operational Plan
  - 10.1 Traffic light systems for delay in revision
  - 10.2 Full Survey of the forest block/compartments/periodic blocks
  - 10.3 A detailed inventory and reporting on total timber volume, Firewood volume and forest status of regeneration, sapling, pole and trees
  - 10.4 Details of forest management and silvicultural activities
- 11. Human Wildlife conflict
  - 11.1 Date of conflict
  - 11.2 Location of conflict
    - 11.2.1 Attacked in the village/house
    - 11.2.2 On the way to the village
    - 11.2.3 In the forest while collecting forest product
    - 11.2.4 Others
  - 11.3 Animal involved – animal, status, sex
  - 11.4 Human involved – name, status, sex
  - 11.5 Result of conflict
  - 11.6 Cure and compensation – name of hospital, state of the victim, compensation

#### **5.2.4 Religious Forest Management Regime (RFMR)**

RFMR has a simple collection mechanism of cut and paste and the data is documented in National Forest Division, DoF. The database requested intends to document, simply the forest distribution and social contribution of the forest. Through the system, product contribution and other values added to the society. Other contribution would be forest protection, employment, collection of forest product available like timber, fuel wood and others.

1. Forest type and condition
2. Forest area
3. Hand over period
4. Objectives
5. Forest management/silviculture activities to be carried
6. Name of Religious institution (handed over to)
7. Religion, that is managing the forests
8. Location
9. Purpose of forest management
10. Operational plan:
  - 10.1 Plan period,
  - 10.2 Date of handover
  - 10.3 Area of forest
  - 10.4 Operational plan revised date
  - 10.5 Type and quantity of forest and forest product available.
  - 10.6 Other benefits of the religious forests.
11. Biodiversity status and threat:

## 5.2.5 Protection Forest Management Regime (PrFMR)

### 1. General

- 1.1 Name of the Protected Forests
- 1.2 Date of PrFMR declared
- 1.3 Authority handing over the PtFMR
- 1.4 Area of the forests
- 1.5 Location – District/s, VDC/s etc
- 1.6 Special importance of the Protection Forest
- 1.7 Purpose of the Protection Forest
- 1.8 Benefit of the area to the community, environment and others
  - 1.8.1 Managing the corridor between the forests and physiographic (terai-siwalik-mahabharat or other)
  - 1.8.2 Name of all the Community, Private, Leasehold and Religious forests involved in and/or within
- 1.9 If PrFMR is a corridor, specify the Protected Area/s and/or physiographic zones it is connecting/serving

### 2. Forest encroachment

- 2.1 Develop a digital map of encroached area
- 2.2 Name, area, location (with four corners) and date of encroachment
- 2.3 Earlier forest type and present land use
- 2.4 Earlier and present livelihoods of the encroachers
- 2.5 Village the encroachers moved in from
- 2.6 Influence/motivation (political, disaster, others,) to encroach/move in
- 2.7 Forest reclaimed
  - 2.7.1 Name of protection committee formed
  - 2.7.2 Location of the community involved in protection – VDC/ward,
  - 2.7.3 Details of household involved - name, caste and ethnicity,
  - 2.7.4 Purpose of conservation
  - 2.7.5 Forest Conserved/Managed/Rehabilitation by DFO
  - 2.7.6 Fencing and watchmen deployed
- 2.8 Rehabilitation information
  - 2.8.1 Reclaimed area is Planted / Barren / Grazed / Fenced
  - 2.8.2 If plantation - Species, protection mechanism, management activity
  - 2.8.3 If rejuvenated naturally - Species, Forest type, Silvicultural/Forest management activity carried?

## 5.2.6 Government Managed Forest Management Regime (RFMR)

### A. General

- 5.2.1.A.1 Total district forest area
- 5.2.1.A.2 A detailed land use classification
- 5.2.1.A.3 Socio-economic status of the district communities
- 5.2.1.A.4 Forest management coordination
  - 5.2.1.A.4.1 Total district forests
  - 5.2.1.A.4.2 Community Forestry
    - 5.2.1.A.4.2.1 Potential Community Forests
    - 5.2.1.A.4.2.2 Prevailing CF area, number and others
    - 5.2.1.A.4.2.3 Issues in Community Forestry
    - 5.2.1.A.4.2.4 Prevailing mechanism to support and efficiency
    - 5.2.1.A.4.2.5 Details of support needed/perceived
  - 5.2.1.A.4.3 Collaborative forests area
    - 5.2.1.A.4.3.1 Collaborative forests in the district –prevailing and proposed
    - 5.2.1.A.4.3.2 Area under the management
    - 5.2.1.A.4.3.3 Management practices
    - 5.2.1.A.4.3.4 Forest product contribution to district need/national needs
    - 5.2.1.A.4.3.5 Revenue generation
    - 5.2.1.A.4.3.6 Employment generation and enterprising efforts
    - 5.2.1.A.4.3.7 Issues in Community Forestry
    - 5.2.1.A.4.3.8 Details of support needed/perceived
  - 5.2.1.A.4.4 Leasehold Forest Area
    - 5.2.1.A.4.4.1 Leasehold forests in the district –prevailing and proposed
    - 5.2.1.A.4.4.2 Area under the management
    - 5.2.1.A.4.4.3 Management practices prevailing
    - 5.2.1.A.4.4.4 Forest product contribution to district need/national needs
    - 5.2.1.A.4.4.5 Livestock development
    - 5.2.1.A.4.4.6 Forage development and forest product yield
    - 5.2.1.A.4.4.7 Location of tree/fodder/grass species planted
    - 5.2.1.A.4.4.8 Revenue generation
    - 5.2.1.A.4.4.9 Employment generation and enterprising efforts
    - 5.2.1.A.4.4.10 Issues and details of support needed/perceived
    - 5.2.1.A.4.4.11 Area leased/under various developmental activities and enterprises
  - 5.2.1.A.4.5 Area under Protection Forests, proposed and problems and issues
  - 5.2.1.A.4.6 Area under Private forests and proposed and problems and issues
  - 5.2.1.A.4.7 Area under Protected Area/Wildlife Management
  - 5.2.1.A.4.8 Other forest management activities/regimes and developmental efforts

- 5.2.1.A.4.9 Total Government forest being managed by the District Forest Office
  - 5.2.1.A.4.9.1 Forest Protection Mechanisms and coordination
  - 5.2.1.A.4.9.2 Actors involved in all the forest management activities
  - 5.2.1.A.4.9.3 Forest Management activities in progress
  - 5.2.1.A.4.9.4 Proposed protection forests, collaborative forests and area under different management regimes
  - 5.2.1.A.4.9.5 Proposed enterprising in the private forest management regime – forest product contribution of private forests – employment generated by private forests and other helps
- 5.2.1.A.5 Five Year District Plans
  - 5.2.1.A.5.1 Strategic approach of district forest management
  - 5.2.1.A.5.2 Objectives of forest management system
  - 5.2.1.A.5.3 Biodiversity specialty of the district – animal, bird, forest types, NTFP available
- B. Governance in Forest development
  - 5.2.1.B.1 Involvement of women in various aspects of decision making in managing forests
- C. Revenue and forest product contribution to district and national needs
  - 5.2.1.C.1 Total forest product yielded and distributed - TCN, FPDB, DDC, DFO
  - 5.2.1.C.2 Total revenue earned and contributed to national economy
  - 5.2.1.C.3 Employment in the Government Managed Forests
  - 5.2.1.C.4
- D. Forest degradation and management efforts
  - 5.2.1.D.1 Afforestation and Reforestation
  - 5.2.1.D.2 Forest Fire in the district
    - 5.2.1.D.2.1 Forest fire awareness campaign
    - 5.2.1.D.2.2 Capacitating in managing forest fire
    - 5.2.1.D.2.3 Mapping Forest Fire prone area/zone (link ICIMOD Fire Project)
    - 5.2.1.D.2.4 Document forest fires - Location of occurrence - date and time of occurrence - Type and size/area - Causes
    - 5.2.1.D.2.5 State of forest fire fighting – capacitating – equipment – relief and fund - System of supporting fire affected/victims
  - 5.2.1.D.3 Estimation of emission level of carbon
    - 5.2.1.D.3.1 Estimated future sequestration of carbon from National Forests
    - 5.2.1.D.3.2 Illegal logging
    - 5.2.1.D.3.3 Over harvesting
    - 5.2.1.D.3.4 Forest pests and diseases
    - 5.2.1.D.3.5 Overgrazing
  - 5.2.1.D.4 Forest Encroachment
    - 5.2.1.D.4.1 Location and other details
      - 5.2.1.D.4.1.1 Digitise/map encroached area
      - 5.2.1.D.4.1.2 Area, location, name and type of forest
      - 5.2.1.D.4.1.3 involved people from village/VDC/Ward

- 5.2.1.D.4.1.4 Date Encroached
- 5.2.1.D.4.2 Details of reclaimed area
  - 5.2.1.D.4.2.1 Location, area, name, earlier forest type
  - 5.2.1.D.4.2.2 Conserved or not conserved
  - 5.2.1.D.4.2.3 Conservation with peoples' participation
  - 5.2.1.D.4.2.4 Name of persons in conservation committee
  - 5.2.1.D.4.2.5 Village/s- VDC/ward; Number of Household; Purpose of conservation
  - 5.2.1.D.4.2.6 Conserved / Management / Rehabilitation by DFO (in case of community not being involved)
- 5.2.1.D.4.3 Rehabilitation of reclaimed area (from encroachment)– managed as
  - 5.2.1.D.4.3.1 Planted, Barren, Grazed/open, Fenced
  - 5.2.1.D.4.3.2 Plantation - Species, management activity, Protection scheme
  - 5.2.1.D.4.3.3 Natural regeneration – Species, Forest type, Silvicultural forest management activities

E. Forest area released for development activities

- 5.2.1.E.1 Name of development project/activity
- 5.2.1.E.2 Location, Forest type, Forest area being handed over

F. Human Wildlife Conflict

- 5.2.1.F.1 Enhancing the capacity of DFO staff to minimize/manage HWC
- 5.2.1.F.2 Equip the DFO to manage HWC
- 5.2.1.F.3 Timely channelize budget and safety measures
  - 5.2.1.F.3.1 Wildlife care – Wildlife Hospital
  - 5.2.1.F.3.2 Causality
  - 5.2.1.F.3.3 Injuries

## 5.2.7 Protected Areas, National Parks and Wildlife Conservation

### 5.2.7.1 General information

5.2.7.1.1 E-mapping of Protected Areas, National Parks and Wildlife Reserves

5.2.7.1.2 Forest types, Major Wildlife and birds, Aqua faunal life and others available

### 5.2.7.2 **BZ Forest Management Various**

#### 5.2.7.2.1 Wildlife Research/study details

5.2.7.2.1.1 Topic/subject matter of the study/research

5.2.7.2.1.2 Researcher

5.2.7.2.1.3 Institute/organisatio the researcher is affiliated to

5.2.7.2.1.4 Research site

#### 5.2.7.2.2 Wildlife and Forest Offences

5.2.7.2.2.1 Wildlife/Forest offences

5.2.7.2.2.2 Offence registered in

5.2.7.2.2.3 Role of Warden/ District court/ Appeal court

5.2.7.2.2.4 Proportion of male/female involved

#### 5.2.7.2.3 Wildlife and Forest Product smuggled/offended:

5.2.7.2.3.1 Details of punishment the court (Warden's office) has declared

5.2.7.2.3.2 Equipment/forest product/animal parts confiscated from the convict

#### 5.2.7.2.4 Human Wildlife Conflict

5.2.7.2.4.1 Victims - Casualties and injuries of Human and Wild animal

5.2.7.2.4.2 Mitigation measures, Human and animal hospitals

5.2.7.2.4.2.1 Health care

5.2.7.2.4.2.2 Rehabilitation

5.2.7.2.4.2.3 Compensatory measures/provisions and upcoming efforts

5.2.7.2.4.2.4 Hospital facility

5.2.7.2.4.2.5 Poaching and anti-poaching efforts – CBAPU - PA Army, Surveillance, other participatory approaches - Buffer zone Community Forestry Units

#### 5.2.7.2.5 Community based Anti-Poaching Units (CBAPU):

5.2.7.2.5.1 Contributed in Forest Conservation/Protection system

5.2.7.2.5.2 Forest Fire Management

5.2.7.2.5.3 Grassland management

5.2.7.2.5.4 Wetland management

5.2.7.2.5.5 Anti poaching

5.2.7.2.5.6 Discourage timber smuggling

5.2.7.2.5.7 Forest Management

#### 5.2.7.2.6 CBAPU is trained in -

5.2.7.2.6.1 Forest management,

5.2.7.2.6.2 Fire Management,

5.2.7.2.6.3 Grassland Management,

- 5.2.7.2.6.4 Wetland management,
- 5.2.7.2.6.5 Vulture Restaurant Management,
- 5.2.7.2.6.6 Anti-poaching of Major animals

5.2.7.2.7 Wild Animal Hunting Details:

- 5.2.7.2.7.1 Name of the Hunting Reserve:
- 5.2.7.2.7.2 Hunter:
- 5.2.7.2.7.3 Facilitating organization/institution:
- 5.2.7.2.7.4 animal hunted:
- 5.2.7.2.7.5 Revenue earning

5.2.7.2.8 Degradation and mitigating efforts in Protected Forests

- 5.2.7.2.8.1 Forest fires and management efforts
- 5.2.7.2.8.2 Illegal logging and control mechanism in advancement
- 5.2.7.2.8.3 Forest pests and diseases
- 5.2.7.2.8.4 Overgrazing/controlled grazing and Grassland management
- 5.2.7.2.8.5 Wetland Management and community efforts

5.2.7.2.9 Forest management activities

- 5.2.7.2.9.1 Biodiversity conservation
- 5.2.7.2.9.2 Habitat and connectivity restoration
- 5.2.7.2.9.3 Habits and their management – Important wildlife in Nepal -  
Endangered species and conservational efforts
- 5.2.7.2.9.4 Wildlife Protection and Conservation efforts - People's Participation in  
Wildlife Conservation (CBAPU) - Efforts of individuals - Efforts from  
the line agencies

5.2.7.2.10 Forest Encroachment

- 5.2.7.2.10.1 Encroachment in the protected area
  - 5.2.7.2.10.1.1 Area, location, forest type, date encroached, HH details of  
involved
- 5.2.7.2.10.2 Reclaimed forests:
  - 5.2.7.2.10.2.1 Location, Name, Earlier forest type and present state,
  - 5.2.7.2.10.2.2 Protection approach - peoples' participation, DFO or other  
mechanism
  - 5.2.7.2.10.2.3 Number of people involved in conservation committee,
  - 5.2.7.2.10.2.4 Details of HH involved - Village/VDC/ward, elderly of the HH,
  - 5.2.7.2.10.2.5 Purpose of conservation
- 5.2.7.2.10.3 Rehabilitation/Management of reclaimed area
  - 5.2.7.2.10.3.1 Institution involved in rehabilitation – Community/DFO/others
  - 5.2.7.2.10.3.2 If planted - Species, Protection schedule, management activities  
carried
  - 5.2.7.2.10.3.3 If naturally regenerated - Species, Forest type, Forest  
management activity carried

## **5.2.8 Buffer Zone Forest Management Regime**

Note: Databases at the department of wildlife and national parks: at a very early state and is being operated on an cut and paste basis – the Department has requested to develop a format compatible to the community forestry database.

### **5.2.7.3 BZ Community Forest Management Regime**

#### **5.2.7.3.1 General Information**

5.2.7.3.1.1 Name of the Park/Researve/Conservation area:

5.2.7.3.1.2 Code No of BZ – CNP-BZ/CF/District/Sector/0001

5.2.7.3.1.3 Total Area

5.2.7.3.1.4 Date of HO

5.2.7.3.1.5 Detailed address

5.2.7.3.1.6 BZCF forest composition in details

5.2.7.3.1.7 Social inclusion - committee details including gender and ethnicity

5.2.7.3.1.8 Employment in BZCF

5.2.7.3.1.9 Institutional Development (Good Governance):

5.2.7.3.1.10 Documentation of Forest, forst product growing stock, carbon stock with species and forest products details

#### **5.2.7.3.1.11 Forest management details**

5.2.7.3.1.11.1 Forest Protection

5.2.7.3.1.11.2 Silviculture and biodiversity Development activities

5.2.7.3.1.11.3 Forest product need and yield potential of BZCF

5.2.7.3.1.11.4 Income from Forest product sales and other activities

5.2.7.3.1.11.5 Expenses in community (including capacitating the group) and social development

### **5.2.7.4 BZ Leasehold Forest Management Regime**

5.2.7.4.1 LFUG Name:

5.2.7.4.2 Code and location

5.2.7.4.3 Area (ha) and date of hand over:

5.2.7.4.4 Social Inclusion in the decision-making, and institutional/built up

5.2.7.4.5 Documenting BZLHF, growing stock, livestock, birds and other assets

5.2.7.4.6 Documentation of forest plantations and forest / livestock production potentials

5.2.7.4.7 Community, Forest and Livestock development activities, pro-poor enterprises, capacitating activities

5.2.7.4.8 Enterprise and pro-poor based leasehold forestry

5.2.7.4.8.1 Development activities - Location, Forest type, Forest area, duration.

5.2.7.4.8.2 Forest based enterprise/Projects – Road/Railway/hotels, others

5.2.7.4.8.3 Eco-friendly enterprise: plantations, other forest based

5.2.7.4.9 Income from Forest product sales and other activities

### **5.2.7.5 BZ Private Forest management**

5.2.7.5.1 Information of owner and the private forest including location and size (surveyed)

5.2.7.5.2 Pvt forest type and forest inventoried with status of plants if planted or details of growing stock if forest

- 5.2.7.5.3 Forest Resource (growing stock) Statistics and detail analysis
- 5.2.7.5.4 Forest management Objectives and activities carried including forest product yield
- 5.2.7.5.5 Conservation and other forest management activities
- 5.2.7.5.6 Forest based employment and enterprising through private forestry, including its forest product contribution to national/local needs
- 5.2.7.5.7 Capacitating in private forestry

#### 5.2.7.6 **BZ Religious Forest Management**

- 5.2.7.6.1 Documentation of the religious forests - Name, Registered/handover date, religious institution, location, Area type of forest
- 5.2.7.6.2 Forest Conservation/Protection system, Forest product harvesting collection system
- 5.2.7.6.3 Forest product needed and availability, potential deficit backup system and surplus management system

### **5.2.9 Ministry of Forest and Soil Conservation**

The MIS database at MoFSC: to be improved, operate and link with the NFD/NFIS database. Link up with the policies, strategy documents, important guidelines, Reports

#### 5.2.7.7 The Prime Minister's office:

- 5.2.7.7.1 Serial no 3 – Forest conservation, improvement and utilisation
  - 5.2.7.7.1.1 Rehabilitation of Reclaimed area encroached earlier
  - 5.2.7.7.1.2 Area of the forest rehabilitated
  - 5.2.7.7.1.3 Species and state of the plantations
- 5.2.7.7.2 Scientific Management of Forests
  - 5.2.7.7.2.1 Area under Management
  - 5.2.7.7.2.2 Regeneration promotion
  - 5.2.7.7.2.3 Stem Mapping
  - 5.2.7.7.2.4 Marking of Trees for felling
  - 5.2.7.7.2.5 Fire Line maintenance and management
- 5.2.7.7.3 Forest Product Yield
  - 5.2.7.7.3.1 Timber distributed in cft
  - 5.2.7.7.3.2 Firewood yield/distributed in Chatta/stack
  - 5.2.7.7.3.3 Medicinal Herbs in Metric Tons
  - 5.2.7.7.3.4 Plant Production in lakh
  - 5.2.7.7.3.5 Plantation in ha
  - 5.2.7.7.3.6 Plant distributed to private plantations number in lakh
  - 5.2.7.7.3.7 On-going research on the subject
- 5.2.7.7.4 Serial no 5 – Biodiversity conservation
  - 5.2.7.7.4.1 Grassland management in ha
  - 5.2.7.7.4.2 Wildlife species study, Research and Monitoring and evaluation in number
  - 5.2.7.7.4.3 Support in Tourism development in Protected Area in person number

- 5.2.7.7.5 Serial no 6 – Study and research of herbal based, ex-citu conservation and Marketing
  - 5.2.7.7.5.1 Develop tissue-culture technique – species based
  - 5.2.7.7.5.2 Ex-citu conservation of rare and endangered plant species - species based
  - 5.2.7.7.5.3 Green employment enterprise development
  - 5.2.7.7.5.4 Study and research of high value medicinal herbs
- 5.2.7.8 Planning Commission:
  - 5.2.7.8.1 Acquire data to feed into the information needed by the Commission

## **5.2.10 Public Forest Management Regime (RFMR)**

1. One VDC one plantation and one municipality one garden approach
  - 1.2 Species planted
  - 1.3 Date of plantation
  - 1.4 Area planted
  - 1.5 Community involved
  - 1.6 Financial support from
  - 1.7 purpose of the plantation
  - 1.8 Silvicultural activity required to be carried
  - 1.9 Prevailing Management system / administration
    - 1.9.6 Management committee
    - 1.9.7 An established office
    - 1.9.8 Bank account
    - 1.9.9 Staff employed – number and sex
2. Survey information of the Public plantation
- 3.

## **5.2.11 Other support offices and Parastatals**

### **5.2.7.9 Forest Silviculture Division**

- 5.2.7.9.1 Tree Improvement
  - 5.2.7.9.1.1 Seed Stands and Breeding seedling orchards (BSO)
  - 5.2.7.9.1.2 Insitu and ewxsitu sites of forest genetic research
  - 5.2.7.9.1.3 Document all the BSC, Seed orchards and other tree improvement activities
- 5.2.7.9.2 Forest Silviculture
  - 5.2.7.9.2.1 Silviculture and forest management
  - 5.2.7.9.2.2 Community Forest Silviculture
  - 5.2.7.9.2.3 Forest production, markets and market management
  - 5.2.7.9.2.4 Natural Forest Silviculture and management Systems
- 5.2.7.9.3 Sharing information in Forest Silviculture
  - 5.2.7.9.3.1 Sharing Forest product and biomass yield from the community forests.
  - 5.2.7.9.3.2 Private Forest – tree planting techniques – plantation management and silvicultural techniques

- 5.2.7.9.3.3 Harvesting and hauling techniques
- 5.2.7.9.3.4 Yard management, grading of timber and logs,
- 5.2.7.9.3.5 Seasoning techniques for Poles, logs, timbers and other furniture wood
- 5.2.7.9.3.6 Silvicultural Demonstration Plots – data entry and reporting formats

#### **5.2.7.10 Parastatals organisations**

- 5.2.7.10.1 Timber Corporation of Nepal (TCN)
  - 5.2.7.10.1.1 Forest product yield/acquired in terms of – Timber/Pole/Fuel wood/Furniture wood/others
    - 5.2.7.10.1.1.1 Forest product acquired from?
    - 5.2.7.10.1.1.2 Availability and need of a management Plan
  - 5.2.7.10.1.2 Revenue generated and expenses/budget
  - 5.2.7.10.1.3 Forest Management, Forest development activities and other forest projects
- 5.2.7.10.2 Forest Product Development Board (FPDB)
  - 5.2.7.10.2.1 Forest product yield – Timber/Pole/Fuel wood/Furniture wood/others
  - 5.2.7.10.2.2 Revenue generated and expenses/budget
  - 5.2.7.10.2.3 Forest Management, Forest development activities and other forest projects
- 5.2.7.10.3 Contribution of PARASTATALs to National needs
  - 5.2.7.10.3.1 Employment
  - 5.2.7.10.3.2 Forest Product yield annual
  - 5.2.7.10.3.3 Economics
  - 5.2.7.10.3.4 Plantations
  - 5.2.7.10.3.5 Others

### 5.3 Other general needs emerging from the assessment made

- 5.2.7.11 The NFD/NFIS (database) should be a support tool in making decisions in forest silviculture and management,
- 5.2.7.12 The database should have client based reporting and facility for data query and analysis,
- 5.2.7.13 The database should e
- 5.2.7.14 sure access of these data to policy makers, planners, managers and researchers
- 5.2.7.15 The database should be a web based applications,
- 5.2.7.16 The database should ensure storage of all the data for a historical trend analysis. Some of these could be exemplified as
  - 5.2.7.16.1 forest resource inventory data collected periodically,
  - 5.2.7.16.2 formation and revisions of CFUGs,
  - 5.2.7.16.3 evaluate the impact of scientific forest management system (Irregular Shelterwood Forest Management system),
  - 5.2.7.16.4 CFUGs' approaches in managing community forests (growth, yield, quality of forests and others), etc
- 5.2.7.17 The database should allow access for reporting and improving, as needed, at local, sub-national and National levels,

- 5.2.7.18 Mapping of all community forests, spatial coordinates/geo-referenced, should be visible/web based,
- 5.2.7.19 Prevailing documentation of forestry data, at all levels, is scattered and heterogeneous. Different formats are found used, such as Excel files, Word documents, Paper documents. These needs to be converted into a single standard database/format.
- 5.2.7.20 For standardization and knowhow in using the database, available human resource at local, sub-national and national levels should be trained. The training will also address regularly feeding of data collected.
- 5.2.7.21 The database should standardise the data availability at public level/researchers and others interested.
- 5.2.7.22 Forest area under different management regimes should appear on the map.
- 5.2.7.23 A main format (at least) should be made available at sub-national level for various management regimes and other efforts of the districts:
  - 5.2.7.23.1 Private Forest Management Regimes
  - 5.2.7.23.2 Community Forestry
  - 5.2.7.23.3 Leasehold Forest and Livestock Development – Pro-poor and Enterprising
  - 5.2.7.23.4 Religious Forestry
  - 5.2.7.23.5 Protection Forest
  - 5.2.7.23.6 Government Managed Forests
  - 5.2.7.23.7 Protected area and Buffer Zone Forests
- 5.2.7.24 Silvicultural and other features of the district forests should be available:
  - 5.2.7.24.1 Growth data for all the forest types,
  - 5.2.7.24.2 Growing stock of all forests, broken into management regimes and others

## Annex 1: People Consulted during needs assessment

SN	Name	Designation and Organisation	Cell No / email
1.	Mr Krishna P Acharya	Chief Planning and Human Resources Development Division, MoFSC	<a href="mailto:Kpacharya1@hotmail.com">Kpacharya1@hotmail.com</a>
2.	Mr Resham Dangj	Chief Forest Based Enterprise Development Division, MoFSC	
3.	Mr Yam Bahadur Thapa	Director General, Department of Plant Resources	<a href="mailto:ybthapa46@hotmail.com">ybthapa46@hotmail.com</a>
4.	Mr Tika Ram Adhikari	Director General, Department of National Parks and Wildlife Conservation	<a href="mailto:tikaramadhikari.cw@gmail.com">tikaramadhikari.cw@gmail.com</a>
5.	Dr Rajan Pokhrel	Director General, Department of Forests	<a href="mailto:rajan-p@hotmail.com">rajan-p@hotmail.com</a>
6.	Mr Pem Kannel	DG, Department of Soil Conservation and Watershed Management	<a href="mailto:pemkandel@gmail.com">pemkandel@gmail.com</a>
7.	Mr Prakash Mathema	Director General, Department of Forest Research and Survey	<a href="mailto:Mathema7@yahoo.com">Mathema7@yahoo.com</a>
8.	Mr Mana Bahadur Khadka	Joint Secretary, REDD+ Implementation Centre	9841386015
9.	Mr Shanta Muni Tamrakar	Regional Director, Western Region, Pokhara	9851071417
10.	Mr Gauri Shankar Timila	Deputy Director General, Planning Division, DoF	<a href="mailto:tgaurishankar@yahoo.com">tgaurishankar@yahoo.com</a>
11.	Mr Krishna Pokhrel	Deputy Director General, Community Forestry Division	
12.	Mr Shiva Wagle	Deputy Director General, National Forest Division	9841738487
13.	Dr Akhilesh Karna	Regional Director, Western Region, Pokhara	9843131598
14.	Mr Deepak Kharal	Joint Secretary, Department of Forest Research and Survey	<a href="mailto:deepak_kharal@yahoo.com">deepak_kharal@yahoo.com</a>
15.	Mr. Rajendra Kafle	Under Secretary, REDD+ Implementation Centre	
16.	Mr Sagar Rimal	Under Secretary, Forest Based Enterprise Development Division, MoFSC	<a href="mailto:rimalsagar@yahoo.com">rimalsagar@yahoo.com</a>
17.	Mr. Gopal Prakash Bhattra	Under Secretary, Department of National Parks and Wildlife Conservation	<a href="mailto:snpwh@yahoo.com">snpwh@yahoo.com</a>
18.	Mr Kiran Kumar Dangol	Senior Monitoring and Evaluation Officer, MoFSC	9851092237
19.	Mr Tirtha Raj Joshi	Under Secretary, National Forest Division	9849466013
20.	Dr Nagendra Chand	Under Secretary, REDD+ Implementation Centre	<a href="mailto:narendrachand@gmail.com">narendrachand@gmail.com</a>
21.	Dr Mohan Paudel	Under Secretary, REDD+ Implementation Centre	<a href="mailto:mohanprasadpoudel@gmail.com">mohanprasadpoudel@gmail.com</a>
22.	Ms Renuka Chitrakar	Monitoring and Evaluation Officer, MoFSC	9843070312
23.	Rakesh Karna	District Forest Officer, Kapilvastu	<a href="mailto:Rakeshkarna107@yahoo.com">Rakeshkarna107@yahoo.com</a>
24.	Mr Balram Kanel	Chief, Leasehold Forestry Programme	<a href="mailto:balarankandel@yahoo.com">balarankandel@yahoo.com</a>
25.	Mr Shree Baral	Under Secretary, National Forest Division	<a href="mailto:Barals2002@yahoo.com">Barals2002@yahoo.com</a>
26.	Mr Buddhi Risal	Under Secretary, Forest Silviculture Division	<a href="mailto:buddhirijal@ymail.com">buddhirijal@ymail.com</a>
27.	Bindu K. Mishra	District Forest Officer, Baglung	<a href="mailto:Bindumishra@hotmail.com">Bindumishra@hotmail.com</a>
28.	Dr Indra Sapkota	DFO, DF Office Kathmandu	9841258928
29.	Dr Maheshor Dhakal	Extension Officer, Department of National Parks and Wildlife Conservation	9851142405
30.	Indra Prachhain	District Forest Officer, Rupendehi	<a href="mailto:iprachhain@hotmail.com">iprachhain@hotmail.com</a>
31.	Ms Madhuri Karki	Planning Officer, Department of Forests	<a href="mailto:thapa_madhuree@yahoo.com">thapa_madhuree@yahoo.com</a>
32.	Mr. Devi Chandra Pokhrel	Community Forest Officer, Community Forestry Division	9841951144
33.	Mr Badri Karki	Under Secretary, Forest Silviculture Division	<a href="mailto:karkibdr@yahoo.com">karkibdr@yahoo.com</a>
34.	Mr Pravat Sapkota	District Forest Officer, Kaski	<a href="mailto:sapkotaprabhat@gmail.com">sapkotaprabhat@gmail.com</a>
35.	Mr Shree Krishna Gautam	Under Secretary, Department of Forest Research and Survey	<a href="mailto:Shreek_gautam@yahoo.com">Shreek_gautam@yahoo.com</a>
36.	Bishal Ghimere	District Forest Officer, Tamghas, Gulmi	<a href="mailto:abghimire@gmail.com">abghimire@gmail.com</a>
37.	Mr Navin Raj Joshi	Conservation Officer, National Forest Division	9845269900
38.	Mr Kamal Jung Kunwar	Chief Warden, Chitwan National Parks, Kasara	<a href="mailto:kamalkunwar@hotmail.com">kamalkunwar@hotmail.com</a>
39.	Mr Prakash Lamsal	District Forest Officer, Palpa	<a href="mailto:plamsal@yahoo.com">plamsal@yahoo.com</a>
40.	Durga Bahadur Karki	District Forest Officer, Nawalparasi	<a href="mailto:Karkidb99@yahoo.com">Karkidb99@yahoo.com</a>
41.	Mohan Mishra	Asst Forest Officer, Kapilbastu	<a href="mailto:Mohan2015mishra@gmail.com">Mohan2015mishra@gmail.com</a>
42.	Lal Bahadur Kurmi	Planning, DFO Nawalparasi	<a href="mailto:Lalbkurmi43@gmail.com">Lalbkurmi43@gmail.com</a>
43.	Basanta Thapa	Asst Forest Officer, Rupendehi	<a href="mailto:Thapa.suwash@gmail.com">Thapa.suwash@gmail.com</a>
44.	Mr Yougendra Karna	Computer Officer, Department of Forests	9841781224
45.	Mr Khagendra Prasad Dulal	Extension Officer, Department of Forests	9841442528
46.	Dr Rajendra KC	NTPF expert, FAO/CFD	9851149420
47.	Mr Raj Kumar Rimal	Under Secretary, Forest Silviculture Division	014434504

SN	Name	Designation and Organisation	Cell No / email
48.	Mr. Khem Raj Bhattra	Computer/Information Officer, DNPWC	9804903774
49.	Mr Gobinda Kumar Shrestha	Under Secretary, National Forest Division	<a href="mailto:Gks.dof@gmail.com">Gks.dof@gmail.com</a>
50.	Mukunda Prasad Acharya	Computer Officer, Department of Soil Conservation and Watershed Management	9849591972
51.	Ms Neeru Thapa	Forest Management Officer, Annapurna Conservation Area Project, Pokhara	<a href="mailto:Neeruthapa11@yahoo.com">Neeruthapa11@yahoo.com</a>
52.	Ms Joanna Durbin,	Director, The Climate Change, Community, and Biodiversity Alliance, Arlington, USA	<a href="mailto:jdurbin@climate-standards.org">jdurbin@climate-standards.org</a>
53.	Dr Dhurba Acharya	REDD+ Strategy Development Project	<a href="mailto:dacharya@mos.com.np">dacharya@mos.com.np</a>
54.	Mr Ramu Subedi	Team Leader, MSFP/SSU	<a href="mailto:r-subedi@msfp.org.np">r-subedi@msfp.org.np</a>
55.	Mr Leela Paudel	Team Leader, RIMS/MSFP, Butwol	<a href="mailto:lilapaudyal@hotmail.com">lilapaudyal@hotmail.com</a>
56.	Kuldip Poudel	Team Leader, MSFP/EMPED, Parbat	<a href="mailto:kuldip.poudel@gmail.com">kuldip.poudel@gmail.com</a>
57.	Soni Shrestha	RIMS/MSFP, Butwol	<a href="mailto:sonisth@gmail.com">sonisth@gmail.com</a>
58.	Mr Paramanda Sharma	Chairman, Gaja Youth Club, Baglung	<a href="mailto:gajayc@gmail.com">gajayc@gmail.com</a>
59.	Mr Bishwa Rana	Planning and Monitoring Expert, MSFP/SSU	<a href="mailto:b-rana@msfp.org.np">b-rana@msfp.org.np</a>
60.	Mr Shankar Nepal	Rupantaran Nepal, Kathmandu	<a href="mailto:shankar.rupantaran@gmail.com">shankar.rupantaran@gmail.com</a>
61.	Mr Bishwo Nath Paudel	Executive Director, Environmental Resources Institute (ERI) Pvt Ltd	<a href="mailto:bishwa@eri.org.np">bishwa@eri.org.np</a>
62.	Jeevan Kasla	Li-Bird (Mustang)	<a href="mailto:Jeevan.sameer@gmail.com">Jeevan.sameer@gmail.com</a>
63.	Yam Bahadur Madhesi	Li-Bird	<a href="mailto:yamedhasi@gmail.com">yamedhasi@gmail.com</a>
64.	Suman Gupta	Li-Bird	<a href="mailto:sgupta@libird.org">sgupta@libird.org</a>
65.	Krishna Pd. Sapkota	Li-Bird	<a href="mailto:Krishna.sapkota@libird.org">Krishna.sapkota@libird.org</a>
66.	Ganesh Raj Acharya	Area Programme Manager, Li-Bird/MSFP	<a href="mailto:Gacharya@libird.org">Gacharya@libird.org</a>
67.	Karna Bahadur Pandey	REDD+ Assistant, DFO, Tamghas, Gulmi	<a href="mailto:Karnapandey2026@gmail.com">Karnapandey2026@gmail.com</a>
68.	Mr Yam Bahadur Medhasi	Chair, HUDECS, Mustang/Parbat	9857630209

**List 2: List of offices where meetings were held**

1. Monitoring and Evaluation Division, Ministry of Forests and Soil Conservation (MoFSC), Singha Durbar
2. Planning and Human Resource Development Division, MoFSC, Singha Durbar
3. Enterprise Development Division, MoFSC, Singha Durbar
4. Department of National Parks and Wildlife Conservation, Babarmahal
5. Department of Plant Resources, Thapathali.
6. Department of Soil Conservation and Watershed Management
7. Department of Forest Research and Survey, Babarmahal
8. REDD+ Implementation Centre, Babarmahal
9. Western Development Region, Pokhara
10. Forest Silviculture Division, Hatisar,
11. Community Forest Division, Department of Forests, Babarmahal
  - a. Non Timber Forest Product Development Unit
  - b. Community Forestry Unit
  - c. Private Forestry Unit
  - d. Forest Based Enterprise Development Unit
12. National Forest Division, Department of Forests, Babarmahal
  - a. Leasehold Forestry and Livestock Development Programme
  - b. Government Managed Forestry Programme,
  - c. Collaborative Forestry Programme,
  - d. Protection Forestry Programme,
13. Forest Product Development Board, Babarmahal
14. The Timber Corporation of Nepal, Babarmahal
15. District Forest Offices - Baglung, Gulmi, Kathmandu, Kapilvastu, Kaski, Nawalparasi, Palpa, Rupandehi,
16. Multi Stakeholder Forestry Program, SSU, Babarmahal
17. LiBird/MSFP Project Office, Baglung
18. RIMS/MSFP Project Office, Butwol

## Annex 2: Field Schedule

Months	Days	Days	Travel Schedule	Cell No / email
	Saturday	14	Travel to Pokhara	
	Sunday	15	Attain the Regional Planning Workshop at Pokhara	
	Monday	16	Attain the Regional Planning Workshop and travel back to Ktm	
	Thursday	23	Field activity - station Pokhara	
	Friday	24	Band day - Meeting with RD, West; EMPED/MSFP - station Pokhara (Dinner with RD, DFO Kaski, EMPED and their drivers (9 people))	
	Saturday	25	Meeting at Baglung - Libird/MSFP, DFO Baglung, DFO Parbat - station Pokhara (Breakfast with RD and Lunch with DFO Baglung, Gaja Youth Club and LiBird/MSFP-6)	
	Sunday	26	Meeting with ACAP, travel to Gulmi - station Tamghas, Gulmi (Dinner with DFO and DFO staff Gulmi-3)	
	Monday	27	Meeting with DFO Gulmi, DFO Palpa - Station Butwol	
	Tuesday	28	Meeting with DFO kapilvastu (lunch-2 and Dinner-6), halt Butwol	
	Wednesday	29	Band day - halt in Butwol	
	Thursday	30	Meeting with DFO Rupandehi (lunch with DFO and CBO - 6), Halt Butwol	
	Friday	31	Meeting with DFO Nawalparasi (Lunch with DFO-2) - halt Narayanghat	
	Saturday	1	Meet Chief Warden - Chitwan National Park, Kasara	
	Sunday	2	Travel back to Kathmandu	