

State REDD+ Action Plan Processes



Indian Council of Forestry Research and Education

(An Autonomous Body of the Ministry of Environment, Forest and Climate Change, Govt. of India)

P.O. New Fores, Dehradun – 248 006



Structure of the Presentations

- Overview of SRAP Processes: Preparation Stages, Ownership and SRAP Core Team Composition
- Identification of Drivers of Deforestation & Forest Degradation (D&FD), and Barriers for Carbon Enhancement
- Prioritization of Drivers of D&FD and Barriers of Carbon Enhancement Activities
- Development of Problem Tree
- Development of Solution Tree
- Verification and finalization of Problem Trees and Solution Trees
- Identification of Activities/ Intervention Packages (IPs) for Solution Trees
- Overview of Expert Consultation: Objective; validation and refinement of Solution Tree and IPs; prioritization and finalization and Feasibility analysis of IPs
- REDD+ Safeguards analysis for IPs

State REDD+ Cell

The strategy devolves major responsibility for execution of REDD+ activities to the State Forest Departments. States will create a REDD+ Cell in the State Forest Department

Constitution of State REDD+ Cell

- 1. Principal Chief Conservator of Forests & HoFF:
- 2. Principal Chief Conservator of Forests (Planning/Budget):
- 3. PCCF/APCCF (nominated by Chair):
- 4. APCCF/ CCF (Monitoring):
- 5. Regional APCCF, MoEFCC or his representative:
- 6. Two REDD+ Experts (Nominated by Chair):
- 7. Representative of prominent NGO:
- 8. APCCF/CCF/CF (In-charge of Afforestation):

Chair
Member
Nodal Officer

State REDD+ Cells Established by: Odisha, Mizoram, Meghalaya, Manipur, Haryana, Punjab, Bihar, Rajasthan, Tamil Nadu, Goa, Assam, Uttarakhand and Tripura

Terms of Reference of the State REDD+ Cell

- a. Facilitate the implementation of National REDD+ Strategy in the State
- b. Preparation of State REDD+ action plan, sub-national/State level reference emission level/reference level, forest monitoring system and safeguard information system
- c. Oversee REDD+ preparation and implementation by JFMCs, Community Forestry Groups, Van Panchayats/Village Forest Protection Committees
- d. Development of State REDD+ Learning/Knowledge sharing platform for exchange and sharing of knowledge
- e. Explore the possibilities of REDD+ financing, development of REDD+ projects and facilitate REDD+ benefit sharing mechanism
- f. Arrange technical and institutional supports for implementation of REDD+
- g. Monitoring of REDD+ implementation in the state
- h. To approve and submit the plans and projects for REDD+ implementation to the NDE-REDD+, Government of India for financial support
- i. To organize training and capacity building seminars and workshops for the officials of the State Forest Department and village level institutions
- j. To institutionalize data collection and management, and adherence to safeguards
- k. To devise mechanisms to absorb lessons from pilots, as an input to the national and international policy processes and development

State REDD+ Action Plans

 State REDD+ Action Plans for the states of Uttarakhand, Mizoram, Sikkim and Himachal Pradesh prepared by ICFRE









Need of State REDD+ Action Plans?

- India is a vast country with wide climatic variability and the drivers of deforestation and forest degradation vary from state to state.
- State-specific action plan on REDD+ will be helpful in identification and addressing the drivers of deforestation and forest degradation as well as barriers for enhancement of forest carbon stocks specific to the state.
- National REDD+ Strategy advocates the preparation of SRAP for implementation of the Strategy at state level.

What is new in State REDD+ Action Plans?

- Result Based Payment
- Countries must demonstrate measurable emission reduction and removal in GHG levels against a bench mark (Forest Reference Level)
- Maintain the multiple benefits of forests (Cancun safeguards)
- Accounts for sub-national differences (different forest ecosystems, different causes, different drivers, different opportunity cost, etc).
- Solutions need to be tailor made at local levels to address local specificities.
- Looks at the drivers of deforestation & forest degradation/ opportunities for removals from outside the forestry domain (most drivers lies outside the forest)

Theory of Change – SRAP Process

- Theory of Change (TOC) is a hypothesis or plan of how to overcome a problem and/or achieve an objective
- Cause and effect analysis promotes strategic design and attribution (indicators)
- TOC links strategies, activities, outputs, outcomes & impacts in a causal solution



• Process for developing State REDD+ Action Plan is based on the TOC

Working Processes of TOC in SRAP

- Describe/identify the 'problem' that needs to be addressed including main drivers and barriers.
- Define who are the target groups of people that the SRAP is designed to engage and benefit.
- Describe the specific activities and the level of participation of stakeholders in the SRAP that are needed to achieve desired outputs.
- State 2-3 or more measurable outcomes the SRAP aims to achieve.





1. Introduction

1.1 Forests and Climate Change 1.2 REDD+ Mechanism 1.3 Phases of REDD+ Implementation 1.4 National REDD+ Strategy 1.5 SRAP and its Need 1.6 Theory of Change – Foundation of SRAP 1.7 Development of SRAP 2. Stages for Developing State REDD+ Action Plan Stage A: Prepare Step A1. Ownership and SRAP Core Team Step A2. Preparatory Data Collection and Spatial Analysis Step A3. Selection and Training of Working Group Facilitators Step A4. Workshop Participants and Logistics Step A5. REDD+ Orientation for Workshop Participants Stage B: Analyse Step B1. Overview of SRAP Process and Problem Analysis Workshop Step B2. Preparatory Data Preparations Step B3. Prioritization of D&FD Drivers and Enhancement Activities Step B4. Problem Trees **Step B5. Solution Trees** Stage C: Plan Step C1. Identification of Intervention Packages (IPs) Step C2. Safeguards Analysis (risks and benefits) Step C3. Review of Intervention Packages **Stage D: Monitor** Step D1. Overview of Monitoring for REDD+ and SRAP Step D2. Targets and Indicators Step D3. Monitoring Plans Step D4. Budgeting of Monitoring Activities Stage E: Budget **Step E1. Targets and Activities** Step E2. Operational Plan References Annexes

Overview of SRAP Processes: Preparation Stages, Ownership and SRAP Core Team Composition

STAGES FOR DEVELOPING STATE REDD+ ACTION PLAN

Stage A: Preparation

Step A1. Ownership and SRAP Core Team

Step A2. Preparatory Data Collection and Spatial Analysis

Step A3. Selection and Training of Working Group Facilitators

Step A4. Workshop Participants and Logistics

Step A5. REDD+ Orientation for Workshop Participants

Stage B: Analysis

Step B1. Overview of SRAP Process and Problem Analysis Workshop

Step B2. Preparatory Data Preparations

Step B3. Prioritization of D&FD Drivers and Enhancement Activities

Step B4. Problem Trees

Step B5. Solution Trees

Stage C: Planning

Step C1. Identification of Intervention Packages

Step C2. Safeguards Analysis

Step C3. Review of Intervention Packages

Stage D: Monitoring

Step D1. Overview of Monitoring for REDD+ and SRAP

Step D2. Targets and Indicators

Step D3. Monitoring Plans

Step D4. Budgeting of Monitoring Activities

Stage E: Budgeting

Step E1. Targets and Activities

Step E2. Operational Plan

Framework for Developing SRAP

Stage 1: Preparation is purely institutional

Stage 2: Analysis involves multi-stakeholder consultation workshops i.e. 'Problem Analysis Workshop' and 'Solution Analysis Workshop' (Number of participants for stakeholder consultation workshop may be approx. 30 members) Stages 3, 4 and 5: Planning, monitoring and budgeting usually involve the core team of approx. 10-20 members for developing a SRAP.



Stage 1: Preparation

Step A1. Ownership and SRAP Core Team

Ownership of the SRAP process is vital for cross-sectoral collaboration among the departments which will be helpful in the identification of cross-sectoral causes of deforestation and forest degradation.

Who owns and takes responsibility for the SRAP planning process?

- > National REDD+ Strategy 2018 entrust major responsibility for the execution of REDD+ activities to the SFDs.
- States has to create a REDD+ Cell in the SFD, and to develop State Action Plan for REDD+, so ownership for SRAP planning process must be with SFDs.
- Cooperation among the state government line departments is needed in the SRAP planning process which will also be helpful in identification of cross-sectoral causes of deforestation and forest degradation, and collection of primary data and maps for spatial analysis.

Formation of the SRAP Core team is another important step for SRAP process which includes 10 to 15 relevant personals from SFD, other line departments, S&T organisation, NGOs and JFMCs

SRAP core team to have a GIS capacity, if not, then a GIS expert/technician need to be involved in the core team.

Stages for Developing State REDD+ Action Plan Contd.

Step A2. Preparatory Data Collection and Spatial Analysis

- **A2.1** Preparatory Spatial Analysis
- Spatial analysis has an important role in the integrated land-use planning so spatial analysis and maps have a vital role in the SRAP preparation process.
- Usage of GIS&RS information for the presentation of data in the form of fine-scale digitised maps and related statistics for getting a clear picture or an idea for preparing better plans/interventions for implementation of REDD+ activities during multi-stakeholder workshops is required.
- Maps are useful and help the workshop participants and support preliminary analysis such as change in forest covers and forest areas under deforestation and degradation.

Maps to be required for spatial analysis and SRAP process:

- Google earth images for identification of hotspots of deforestation and forest degradation
- Current status of land cover and land use map
- Forest cover change map (5-20 years)
- Current forest cover map
- Political/administrative boundaries map

Maps used for spatial analysis and SRAP process (e.g. UK SRAP)



A 2.2 Preliminary Analysis of D&FD Drivers and Enhancement Activities

- Preliminary analysis of available information/ secondary data on deforestation and forest degradation, and barriers for enhancement of forest carbon stocks in the state, should be assigned to a team of two experienced persons.
- Preliminary analysis of information and data thus collected should be linked to the preparatory spatial analysis and should also be used for presentation in the problem analysis workshop

Output of the preliminary analysis should be presented in three posters:

- 1. Drivers of Deforestation
- 2. Drivers of Forest Degradation
- 3. Barriers to Forest Carbon Enhancement

A.2.3. Preparatory Stakeholder Analysis

- An expert from the SFD should conduct the preliminary stakeholder analysis and make a presentation in the Problem Analysis Workshop, or participatory stakeholder analysis in the Problem Analysis Workshop
- Stakeholder group can be summarized on the basis of number of people/size of stakeholder group, dependency on forests for their livelihoods, economic status, status of land tenure, organisational or institutional basis, gender issues etc.
- Stakeholder analysis provides a list of such stakeholder groups who may be positively or negatively affected through implementation of SRAP (such as women/ farmers/local communities) or those who may influence the SRAP implementation design (private sector, state and national institutions).

Example of Stakeholder Analysis

Govt. Organizations GroupI · Poivate Sector/NGO Central Government GroupI TFRI Jabalpys FSI GroupTI Atate bost Institutions ·NGO (entral host Institutions SAC- ChhaffBeash Nov Asther JUNGO Ambikaphe Mining Dept. Biostress Management (ICAR) Raipur -20-= 25others Pratel Adhar Sera Sansthe NGO 2) (GCOST 3) Indravati Bachao Abhiyan Jop Non CG state watershed Management agoncy · Forest Dept. · CG Cost 2) Power Dept. 4) Pradan NGO (PCB · Tribal welfare Depl. 5) Agricon Raipur NGD . Transport Dept. Depostment of Agsialther Mining Dept Nationaltinguay tribal Affairs 6) wood Based Industries (3773) HILTY, Hosti Agriculture Dept . / Univ · state PWD/RES 3) Agriculture Dept. (Forest Duthosity of Indig Rural Development Sept. Horticultuse , wood based Insdustry · state Billution (on ho) Borro Vet. 8A+ Rusal Development Fishores Horticulture Dept. Envisonment 4) Forest Dept. Soil & water conservation. · LSEB (Electricity Dept) Industries PWD/MinIng NABARD Animal Husbandry F: - Energy/ CREDA 5) Water Resources Group IT COURTS Communities O SFRTI Indisa Gandhi Tsibal University, Amarkantak Fishsief State food Researched Training Institute KVKs / Univ/Respend Inst. · State Biddiversity Board Farmers 8 - Raipus 6 Rural Dent. PWD/CPWD Handloom, Handiesaft Indira Gandhi Krishi Xis hwavidhyala 2) Agriculture Univ. (ILIKU) 2) ((1), Boustons Univ. ULBS/Municipalitics ININF- Wildlife fund JFMC CREDA WDF - wilflife Trust of India. Wildlife Sos Grazier Issignation Dept. (contil_ BMO SHG JFMCs Panchayat Forest Right Committee NTEP Collectors Bidixersit Management committee Brick Kilm

Step A3. Selection and Training of Working Group Facilitators

The quality of outputs from the multi-stakeholder workshop for preparation of SRAP depends on the quality of participation as well as quality of Workshop Group Facilitators.

It is important that the Workshop Group Facilitators must be carefully selected and trained.

Working Group Facilitator should have the capability and quality to get the inputs from all the participants and also to conduct the proceedings of the working group in a balanced way.

Step A4. Workshop Participants and Logistics

A4.1 Selection of Workshop Participants

- The quality of SRAP process and its outcomes depend on the selection of participants for multi-stakeholder workshops. The SRAP team should select about 30 participants for the workshops.
- Representatives of: State Govt. Departments, S&T Organisations, Academic Institutions, local communities, JFMCs, NGOs and private sector

Balance Representation of the Participants								
State Govt. Departments	40%	S&T Organisations and Academic Institutions	20%	Private Sector	10%			
NGOs	20%	Local communities & JFMCs	10%					

 Women participants should be encouraged to attend the workshop. In order to ensure gender equity, approximately 30% of women participation should be considered for participation in the workshop.

A4.2 Workshop Invitations

Invitation letter to the participants:

- Objectives and importance of the workshop and SRAP process
- Commitment of the participants for stakeholder consultation workshops
- Any other person other than the invitee is not allowed to attend the workshop unless the substitute person proposed has a similar position or ranks or experience
- The participants should give their confirmation timely so that suitable arrangements can be done to select appropriate participant
- A certificate of participation will be given to the participants at the end of the stakeholder consultation workshops
- Information regarding reimbursement of travel expenses

A4.3 Workshop Venue and Materials

Suitable venue with the following basic amenities should be selected for the workshop:

- Workshop activities will include taping of flipcharts and posters, hence appropriate wall spaces needed. So, venue should have proper space and other facilities to tape or hang flipcharts and posters
- Each Working Group should have sufficient table space for working on the charts, thus every WG should be provided at least 2-3 tables
- The venue should be large enough for conducting plenary sessions as well as for all WGs to work
- Essential materials such as flipchart paper and stands, marker pens, masking and sticky tapes, cards of various colours, coloured pins, scissors and participant certificates needed for the workshop

Step A5. REDD+ Orientation for Workshop Participants

- Organisation a half-day session about REDD+ for enhancing the knowledge and level of understanding as knowledge and understanding of REDD+ may vary from participant to participant.
- This will be helpful in getting better inputs from the participants before the start of SRAP consultation process.

Identification of Drivers of Deforestation & Forest Degradation (D&FD), and Barriers for Carbon Enhancement

Stage B: Analysis

- **Step B1. Overview of SRAP Process and Problem Analysis Workshop**
- The Problem Analysis Workshop (SW1) is the first stage of the multi-stakeholder workshop.
- Main objectives of the Problem Analysis Workshop:
 - To identify the drivers of deforestation and forest degradation and barriers for forest carbon enhancement activities.
 - To prioritise identified drivers of deforestation and forest degradation and potential barriers for forest carbon enhancement activities.
 - To identify potential REDD+ intervention activities after developing a strong reason and consequence understanding the drivers of deforestation and forest degradation and barriers to carbon enhancement activities.

Suggested structure of the Problem Analysis Workshop

- Discussion of background data and spatial analysis
- Selection of priority drivers of deforestation and forest degradation and barriers for enhancement activities
- Development of problem trees, together with group exchanges

Workshop participants can be divided into three Working Groups :

WG 1. Deforestation Drivers' Group

WG 2. Forest Degradation Drivers' Group

WG 3. Carbon Enhancement Activities' Group

Working Groups can be structured as :

- It is the choice of the participants that which group they would like to join
- Participants with technical proficiency and well understanding of REDD+ are required in WG 3
- The number of participants in each group should be same
- Each group must include at least one representative from institutions or stakeholder groups
- Gender balance across working groups should be followed

Step B2. Preparatory Data Presentations B2.1 Poster Presentations

The posters prepared in Step A2 (Preparatory Data Collection and Spatial Analysis of Stage 1) can be presented after the introductory session

- **WG 1:** will present a poster on drivers of deforestation
- WG 2: will present poster on drivers of forest degradation and
- WG 3: will present a poster on the barriers to forest carbon enhancement



B2.2 Spatial Analysis and Maps

The maps presented should include the following:

- A basic map of forest resources showing current forest & land cover and administrative boundaries
- High-resolution Google earth images/ maps showing sign of forest gain and loss over a period of time (say 5-20 years) and maps should include the indication of forest quality or forest degradation. This map will indicate the likely hotspots of deforestation and forest degradation
- A map of current and planned land use such as developmental projects, mines, conversion of forest lands into agriculture fields /plantations etc.

Prioritization of Drivers of D&FD and Barriers of Carbon Enhancement Activities

Prioritization of Drivers of D&FD & Enhancement Activities

- Many drivers for Deforestation and Forest Degradation and potential carbon enhancement activities, but SRAP needs to be focused on 3-5 priorities
- Clarify difference between Deforestation and Forest Degradation [FAO definition : clearance of 0.5 ha forest (> 10% canopy cover)]
- Clarify difference between Direct Drivers and indirect or Underlying Causes Direct driver = specific land use that replaces or degrades forest
- Underlying cause or indirect driver = cause of direct driver
- National REDD+ Strategy may be starting point for identification of D&FD drivers –but could be different local drivers

Drivers of Deforestation and Forest Degradation as per NRS 2018

- (i) Planned Drivers (Direct Drivers) include developmental activities, management initiatives and projected uses such as road and railway construction; coal, iron and other mining activities; hydroelectric power and irrigation projects; industrial requirements; expansion of cities and towns and removals from forests as per silvicultural requirements.
- (ii) Unplanned Drivers (Indirect Drivers or Undelaying Causes) comprise mainly unauthorized activities, which include unregulated anthropogenic removals by nearby households for consumptive uses like extraction of fuelwood, small timber and NTFP; illegal logging and uncontrolled felling; social causes such as encroachment of forest land for agriculture and housing; unregulated livestock grazing and fodder collection; natural disturbances caused by forest fires, insect attack, disease outbreak, forest dieback; and illegal mining operations.

Step B3. Prioritization of Drivers of Deforestation & Forest Degradation and Enhancement Activities

B3.1 Identification and scoring of drivers and enhancement activities

A 'direct driver' is a specific land use that replaces or degrades the forests. Other causes of D&FD are indirect or underlying causes, such as poor governance, insecure land tenure, etc.

Example of direct drivers and indirect drivers of deforestation from Uttarakhand State REDD+ Action Plan						
Direct Drivers		Indirect Drivers				
	Diversion of forest land for non-forestry purposes	•	Unsustainable/unscientific collection of fuel wood, fodder and small timber			
•	Deforestation due to encroachment	•	Irresponsible tourism on high altitude zone			
-	Rapid urbanisation	•	Lack of awareness among people			
-	Change of land use	•	Landslide due to road construction			
•	Relocation and rehabilitation of project	•	Wrong or inappropriate policies			
	localities		Deforestation due to natural factors			

Working Groups 1 and 2: Drivers of Deforestation and Forest Degradation

WGs 1 and 2 (separately) should:

- Brainstorm 'direct drivers' in pairs. Red cards can be used by WG 1 for the drivers of deforestation whereas the WG 2 can use brown cards for the drivers of forest degradation.
- Select cards with similar meanings and rephrase them. Select nearly eight direct drivers
- Place coloured pins on 'basic planning map' to locate the identified drivers (use different coloured pin for each driver).
- Prepare seven columns on a flipchart paper for ranking the drivers of deforestation and forest degradation

Direct Driver	Actual or potential location[s]/ hot spots	Future threat [1-5]	Future biomass impact [1-5]	Future forest area impacted [1-5]	Total score	Plenary score

Scoring should be given from 1 to 5 where 1 = very low; 2 = low; 3 = medium; 4 = high; 5 = very high

WG3: The members of WG 3 need to have a clear understanding and basis for analysing the barriers for expansion of enhancement activities including a vital understanding of additionality i.e. REDD+ activities should be in addition to what will happen during normal course of time

Prepare six columns on a flipchart paper for ranking the of each potential enhancement activity

Forest carbon enhancement activities	Actual or potential locations	Future potential area [1-5]	Future biomass impact [1-5]	Total score	Significant barriers or challenges	Plenary score

Scoring should be given from 1 to 5 where 1 = very low; 2 = low; 3 = medium; 4 = high; 5 = very high
B3.2 Selection of priority drivers and enhancement activities

Three working groups (WGs) come together in the plenary session in order to select the priority D&FD drivers and forest carbon enhancement activities.

Following steps are suggested:

- All WGs will tape/hang their worksheets on the wall or on the space provided.
- One participant from each group will briefly present their ranking exercise.
- Five coloured pins (representing the top five priorities for each participant) will be given to each
 participant for placing them in the last column of three worksheets. The participant can place only
 one coloured pin on the identified driver/enhancement activity or can even place all of his/her
 coloured pins in front of one driver.
- Add the number of pins in the last column.
- Prepare a separate flipchart sheet by selecting only the top 6 to 8 scores. This should be a mixture of D&FD drivers and barrier to enhancement activities.
- Participants will discuss the scores to decide 3-5 priority drivers and enhancement activities. The scores can help this decision, but it is necessary to have a serious plenary discussion about each one.

How many priority drivers/enhancement activities should be selected?

There is no formula for deciding the number of priority drivers and/or enhancement activities, but experience suggests that five is probably the maximum for a coherent and focused programme of work.

Trying to do more than five activities might not be cost-effective as efforts become diluted across many problems and activities.

Every SRAP is different – the point is to discuss how many drivers and enhancement activities should be included in the SRAP, and which ones have the highest potential for GHG emission reductions or removals.

Defores Deforest	of ation _	GR	QUP	- 4 (Defor	erfiction) A
GroupA-DRIVERS OF DEFORESTATION						
Direct Drivers	Location in the State	Future	Riomass Biomass Impact,	Puture Forest	Total	Plenary
1. Forest fine 2. Shipping Custivation	NE and SN puse All eiching	3 4	3 4	2	8	Store
3 Developmental Banks	All districts Hamil, daughi,	81 1	T.		14	
to Neeme Colonian	distant a dangli	1	1	1	3	Moster .
& Guiden & NTEP.	at which	2	1	2		
1. grapij	Algorit & Campon	-	1		3	120
I cannot being	Sunty disin			La M		

DIRET DRIVER LOCATION	FUTURE THREAT (1-5)	FUTURE BIOMASS IMPACT	FUTURE FOREST AREA IMPACTED	FILL SC	NHARY ORE
DENT TING CLILTIV. ALL DISTRICTS	5	5	5	15	33615
ALL DISTRICTS	4	3	3	10	211
FILLED COLLEC- ALL DUTRICTS	3	3	3	9	002
SEVELSMENTAL ALANUL, LUNGLES, MORASIB, LANNASIM, STARA	3	2	2	7	
DENUBRYMENT ALL DISTRICTS	3	2	2	7	-SE
OJULIAN FELLING 4 BURNER DURATS \$	3	3	3	9	005
TATEP COLLECTION ALL DISTON IN CONT CAN	3	1	1	5	002
() NATOLIK CALAMITER MONTH, LUMARY CONVERS	2	2	2	6	• 1
	~~~~				

Plenary scoring of drivers of D&FD in Mizoram

#### **B3.3 Mapping of D&FD drivers and enhancement activities**

- Identification of 'hotspots' for D&FD drivers and forest enhancement activities on the 'basic planning map' prepared by the spatial analysis team is the first task of each WG.
- Different coloured pins/cards should be used by each WG member to indicate the extent of severity of deforestation or forest degradation due to the identified driver.
- Analysis of barriers for the expansion of an enhancement activity by WGs, will hold the most unrealised potential for expansion of the enhancement activity.







#### Maps of identified hotspots in Mizoram

**Development of Problem Tree** 

## **Step B4. Problem Trees**

#### Step B4.1 Explanation and practice

Development of a problem tree of prioritized drivers of deforestation and forest degradation or barrier to enhance activity is the first task of the WGs.

Following needs to be followed for development of Problem Trees:

- Take four flipchart sheets and tape them together
- At the top of flipchart sheet, write down the name of the problem tree
- Discuss and elucidate the problem that needs to be overcome
- Simplify or summarise the problem in less than ten words on a RED card and place it at the far right hand side
- Make sure that each group member should have same understanding of RED card
- Brainstorm causes of problem/challenge and note them on YELLOW cards
- Use black or blue marker pens only
- Rationalise the cards and arrange them in cause and effect order
- Take a pencil and draw arrows between cards
- Identify direct/ immediate causes and replace YELLOW cards with PINK cards
- Tape down the cards and use marker pen to mark arrows after the group exchange exercise.

#### **B4.2 Development of Problem Trees**



Problem tree of overgrazing & unsustainable fuel wood and fodder collection in Uttarakhand



Problem tree of encroachment forest land in Uttarakhand



# **B4.4 Museum visit**

- Participants are given a chance to examine all WGs posters of problem trees in a 'museum visit' for 30 minutes such that they may observe those problem trees they are not yet familiar with.
- Facilitator and one member of each WG have to remain seated at his/her working station to explain the problem tree to the visitors
- Visitors are not allowed to move the cards but can give suggestions on the problem trees which should be noted down by the facilitator or WG member and later should be discussed among the WG for any final addition of suggestions to the problem tree or not.
- After the museum visit, all final changes in the problem trees, maps and worksheets should be photographed and folded away very carefully since they will be needed for the Solution Analysis Workshop.

## **B4.5 Field verification of 'hotspots'**

If differences are found between identified hotspots in SW1 and preparatory spatial analysis on annotated workshop maps, field verification should be then conducted by SRAP team in the hotspots and priority locations for enhancement activities identified after the Problem Analysis Workshop

#### **B4.6 Problem Analysis Workshop report**

It is suggested to note down all the discussions and data. The lead workshop coordinator should take primary responsibility for this, supported by the SRAP core team and the WG facilitators. **Development of Solution Tree** 

## **Step B5. Solution Trees**

**B5.1 Overview of Solution Analysis Workshop** 

- The Solution Analysis Workshop (SW2) should be held after Problem Analysis Workshop (SW1) and necessary GIS maps (forest cover map, forest cover change map, administrative boundary etc.) needed for SW2 should be used.
- The main objective of the Solution Analysis Workshop is to develop a set of solution trees in response to the problems analysed in SW1.
- This acts as a ground for an expert group workshop (EW1) to define a set of REDD+ Intervention Packages (IPs).
- SW2 can be structured as:
  - **1. Development of Solution trees**
  - 2. Group exchange and museum visit

## **B5.2 Explanation and practice**

- The solution tree in the REDD+ context is a theory of change that explains how GHG emissions can be reduced from forests or how to GHG can be removed from the atmosphere through forests.
- Cause and effect analysis of solution trees supports strategic and costeffective REDD+ interventions.
- Solution tree should not be a mirror image of problem tree and it should focus on achieving the desired outcomes.
- During the process of developing a good strategy/plan, solution tree cards must be checked because of the strong possibility of getting some links between the cards, hence revealing key assumptions from a solution tree.

# Steps for developing a solution tree

- Take four flipchart sheets and tape them together
- Rephrase/rearticulate the problem statement or key challenge as desired outcome on a GREEN card in less than 10 words;
- Brainstorm solutions/interventions and note them on BLUE cards;
- Rationalise the BLUE cards and arrange them in cause and effect order;
- Check for assumptions between the cards;
- Write blue cards as solutions/results;
- Identify direct/immediate causes of desired outcome, rewrite them on PINK cards and discard the replaced blue cards;
- Take a pencil and draw arrows between cards;
- Tape down the cards and use marker pen to mark arrows after the group exchange exercise.
- At the top of flipchart sheet, write down the name of the solution tree.

# Additional guidance provided by the WG facilitators for developing the solution tree

- Cards should be written as achieved results/ solutions, not as activities.
- To achieve the desired outcome from solution tree, mirror image of the cards of problem tree should be avoided.
- Cards in the solution tree should not be written as exact opposite of cards in the problem tree.
- The WG should check missing links between the solution cards.
- A card will be needed at every step in achieving a solution, including intermediate steps.





# Form to identify key results, strategies and activities from solution tree

Key results	Strategies	Activities







# **B5.4 Group Exchange**

• Group exchange need to be done for validation and improvement of the solution tree.

# **B5.5 Museum Visit**

 Following the suggestions given by visitors, final solution trees should be prepared which will be later photographed and carefully folded up for processing and further use in Stage C.

# **B5.6 Solution Analysis Workshop Report**

• This report will be prepared by the workshop coordinator with the help of SRAP team and WG facilitators.

#### Verification and Finalization of Problem Trees and Solution Trees

Verification and finalization of Problem Trees and Solution Trees involves the final consultation in larger group (WG 1 + WG 2 + WG 3) on the Problem Tress and Solution Tress Developed by the Groups for Deforestation, Forest Degradation and carbon enhancement activity

Identification of Activities/ Intervention Packages (IPs) for Solution Trees

## **Stage C: Planning**

#### **Step C1. Identification of Intervention Packages**

#### **C1.1 Expert Planning Workshop**

- The experiences gained from SRAP preparation for the state of Mizoram and Uttarakhand revealed that small 'expert group' meetings are more beneficial and highly productive than large multistakeholder meetings.
- Hence, SRAP preparation stages viz. planning, monitoring and budgeting (except for safeguards analysis) should be done with smaller team of expert members.

# **C1.2** Identification and Mapping of Potential Intervention Packages

- A review of the solution trees is the first step for Expert Group Planning Workshop.
- It is possible to strengthen solution trees with cause and effect logic and assumptions.
- The expert group members should be careful in making any essential changes in the solution trees that have been developed through a participatory stakeholder process.
- The identification of Intervention Packages (IPs) from solution trees is preferred to be done in small teams (i.e. if EW1 has 10-20 people, 2-3 smaller teams can be easily made) and the outcomes can be later verified and improved through 'group exchange' exercise.

- An intervention package can be defined as a set of interlinked activities that form a logical strategy for addressing the drivers of deforestation and forest degradation or barriers to the expansion of a forest carbon enhancement activity. Following are some other important criteria for defining an IP:
- It should have a direct and measurable impact on the forest resource,
- It should be independent of other IPs (so that the carbon outcome of each IP can be separated)
- It should contain a practical strategy/incentive measures for changing the performance of stakeholders who at present are directly or indirectly deteriorating the natural resources or preventing expansion of an enhancement activity.
- The IPs will be covering such strategies/activities that can be operationalised at the state level.

#### **Development of Intervention Packages: Each IP requires a strategy and outputs** Intervention packages, strategies and outputs (UK SRAP)

Names of IPs	Strategies	Outputs
Effective implementation of forest laws/acts and prescriptions of working plans	Conservation of forest	Quality and health of forest improved
Preparation of comprehensive State Land use Plan	Effective protection of forest	Clearly defined land use plan developed, adopted and executed
Deforestation- free urbanization and other settlements	Planned urbanization and settlements in forest fringe areas	Reduced forest area encroachment from rapid expanding urbanization and developmental activities
Improved planning of development activities to avoid biodiversity rich areas (moist broadleaved evergreen trees) and hot-spots	Conservation of biodiversity hotspots	High value biodiversity hot-spots conserved
Discourage felling of trees by incentivizing agroforestry and horticulture with appropriate agriculture technologies	Increased area of agroforestry and horticulture practice using appropriate technologies	Loss of trees reduced through improved agroforestry and horticulture production
Sustainable management of forestproducts such as timber, fuel wood, fodder collection & NTFPs and grazing	Increased production of timber, fuelwood, fodder, NTFPs and grass	Sustainable and planned supply of forest products to local communities
Prevention of forest fire with provision of rewards	Frequency and area of forest fire reduced	Damage to forest minimized through community participation and incentive mechanism
Adaptation to extreme climatic conditions	Providing training to the local communities	Preparedness on outbreaks of pests & diseases, soil erosion and other natural calamities
Simplified approaches to promoting enhancement activities	Forest quality improved through ToF (urban, roadside, farmland); agroforestry (farmland) and enrichment plantation (within degraded forest)( Enhancement of Forest Carbon Stocks)	Increased area under ToF, agroforestry and through enrichment plantation in degraded forest areas

#### **Identification of Strategies and Activities**

#### Each IP requires a set of activities for achieving the strategies and outputs.

Strategies and activities for UK SRAP				
Name of IPs	Strategies	Activities		
Effective implementation of forest legislation/policies and prescription of forest working plans	Conservation of forest	Capacity building and awareness campaigns amongst stakeholders Timely preparation/revision of forest working plans Monitoring prescriptions of forest working plans and forest legislation/policies		
Preparation of comprehensive State Land use Plan	Effective protection of forest	Develop State Land Use Plan Implement the Plan Demarcation of forest and encroached areas Establish REDD+ Cell and state level working group under Principal Chief Conservator of Forests& Head of Forest Force Improve coordination between line departments and other agencies		
Deforestation-free urbanization and other settlements	Planned urbanization and settlements in forest fringe areas	Demarcation of urban boundaries with forest Permanent settlements for nomadic communities Eviction of forest encroachments Manage and regulate tourism activities <i>Note: All the activities should be developed according to State Land</i> <i>Use Plan</i>		

Overview of Expert Consultation: Objective; validation and refinement of Solution Tree and IPs; prioritization and finalization and Feasibility analysis of IPs

## **Objectives of the Expert Consultation**

The main objective of this workshop are:

- Validation and Refinement of Solution Tree
- Validation and Refinement of Intervention Packages
- Prioritization of Intervention Packages (IPs)
- Finalization of IPs & activities
- Identification of areas to implement the Ips
- Identification and mapping of potential Intervention Packages
- Feasibility analysis: Analyze the risks and obstacles in implementation of Intervention Packages

# **Stakeholders for Expert consultation workshop**

- Officials from Forest Department
- Official from Science and Technology Department
- Officials from Forestry Research Institutions
- Official from Land Resource, Soil and Water Conservation Department
- Officials from Agriculture and Horticulture Departments
- Officials from Rural Development Department
- Officials from Public Works Department
- Officials from State Planning Department
- Officials from forest-based industries
- Officials from NGOs
- Local community members of Joint Forest Management Committee

#### **C1.3 Feasibility Analysis**

- Feasibility analysis involves analysing the risks and obstacles to implementation, and then identifying risk mitigation measures to make each IP more cost-effective.
- It provides a basis for deciding which IP is more practical while separating less feasible and less cost-effective IPs.
- There are two main types of risks:
  - 1) Implementation risks that are internal to the SRAP process, such as management or technical capability, the political will of state government, governance problems, etc.
  - 2) External risks or threats, such as climate change, national policies conflicting with state policies or other sorts of national level interference, social breakdown, forest disease, etc.
- These judgements are purely qualitative and comparative and should only be rated as High, Medium or Low.

# **Example of Overall Feasibility Analysis of IPs in Uttarakhand**

Intervention Packages	Implement-ation risks/ obstacles (L=3, M=2, H=1)	Cost-effectiveness of risk reduction measures (L=1, M=2, H=3)	Implem-ntation cost (L=3, M=2, H=1)	Opport-unity cost (L=3, M=2, H=1)	Incentive measures (L=1, M=2, H=3)	Total score
Effective implementation of forest legislation/policies and prescription of working plans	1	3	1	3	2	10
Preparation of acomprehensive State Land use Plan	3	2	1	2	1	9
Deforestation- free urbanization and other settlements	1	2	1	1	3	8
Planning of development activities to avoid biodiversity rich areas (moist broadleaved evergreen trees) and hot-spots	1	2	1	1	1	6
Incentivizing agroforestry and horticulture with modern agriculture technologies to discourage tree planting	3	2	2	1	3	11
Sustainable management of forestproducts such as timber, fuel wood, fodder collection & NTFPs and grazing	2	1	3	1	3	10
Prevention of forest fire with provision of rewards	1	3	2	3	3	12
Adaptation to extreme climatic conditions	2	1	1	2	1	7
Simplified approaches for promoting enhancement activities	2	3	3	3	3	14

In feasibility analysis it is concluded that:

- A high score implies greater feasibility and/or cost-effectiveness of the IP
- A low score implies serious feasibility issues.

If an IP receives a low feasibility scoring then it should be discarded after discussing with EW1.

However, if the EW1 finds the IP more feasible and cost-effective, the IP should be kept.

Similarly, SRAP will be more effective if it focuses on a smaller number of wellresourced IPs rather than having a large number of IPs.
## Form for analysis of implementation risks and obstacles

Key results/IPs	Implementation risk or obstacle	Likelihood of risk [H/M/L]	Impact of risk [H/M/L]	Risk reduction measures

## Example of Implementation Risks and Obstacles of IPs in Uttarakhand

Key Results/IPs	Implementation Risk or Obstacles	Likelihood of Risk (H/M/L)	Impact of Risk (H/M/L)	Risk Reduction Measures
Effective implementation of forest legislation/policies and prescription of forest working plans	Low motivation for implementation, no incentive for implementation, long government procedures	М	м	Motivation and incentive for forest staff; simplification of government procedures
Preparation of comprehensive State Land Use Plan	Data deficit	L	н	Proper data collection; field sites visit, proper demarcations
Deforestation-free urbanization and other settlements	Unwillingness, unaware of the local population	н	м	Proper planning with priority on environment, awareness of local population and private sector builders
Improved planning of development activities to avoid biodiversity rich areas (moist broadleaved evergreen trees) and hot-spots	National government and State government prioritize land use conservation without considering biodiversity richness	L	L	Identification of biodiversity rich areas and hot spots. Public and policy makers made aware on biodiversity conservation needs
Discourage felling of trees by incentivizing agroforestry and horticulture with modern agriculture technologies	Lack of motivation and incentive for farmers to keep trees on farm. Low awareness at farmer level for maintaining agroforestry and horticulture	L	L	Simplified procedures for harvesting and marketing of trees on farm. Promote agroforestry, horticulture and modern agriculture technologies
Sustainable management of forest products such as timber, fuel wood, fodder collection & NTFPs and grazing	Lack of technical inputs for management pan development, over dependency and overexploitation of forest resources	М	н	Develop management plans for harvesting forest resources on a sustainable basis
Prevention of forest fire with provision of rewards	Low awareness and low interest of forest officials and local community members; anthropogenic fire for developing grasslands and clearing agriculture fields.	н	н	Mobilize community members and forestry staff; establish a reward mechanism
Adaptation to extreme climatic conditions	Low understanding of climate impacts	L	м	Develop comprehensive plan on ecosystem based adaptation based on climate impacts
Simplified approaches for promoting enhancement activities	Enhancement of forest is less of a priority	L	м	Identify enhancement activities on government forest, protected forest and private forest including agroforestry

**REDD+ Safeguards Analysis for IPs** 

# Step C2. Safeguards Analysis (Risks and Benefits)

## **C2.1** Provisional identification of risks and benefits

As per Cancun Agreements, REDD+ activities should promote and support a set of seven social and environmental safeguards for effective implementation of REDD+ actions which are also known as the "Cancun safeguards".

- a. Addressing and respecting of the following seven Cancun Safeguards will avoid, or at least minimize the negative governance, social and environmental impacts:
- b. Actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;
- c. Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
- d. Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;

# e. The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities;

- f. Actions are consistent with the conservation of natural forests and biological diversity, ensuring that REDD+ activities are not used for the conversion of natural forests, but are instead used to incentivise the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits;
- g. Actions to address the risks of reversals; and
- h. Actions to reduce displacement of emissions.

## **REDD+ Safeguards (Cancun Safeguards)**



Addressing and respecting these safeguards will avoid or at least minimise the negative governance social or environmental impacts

## **Objectives**

Identification of risk or threat to safeguard Identification of IP that could contribute to significant Forest Governance Social Safeguards Environmental safeguards

## **C2.2 Local safeguards analysis**

The safeguard analysis involves checking of each Intervention Package for governance, social and environmental or biodiversity related risks, and how to mitigate them in order to meet the Cancun Safeguards.

The analysis also refers to the contribution made by IPs for the enhancement of social and environmental benefits. One of the crucial criteria needs to be considered for social risk is: whether the IPs negatively impacts a targeted vulnerable group, and for an environmental risk whether it negatively impacts biodiversity and ecosystem services.

# **C2.3 Safeguards analysis workshop (EW2)**

- The necessity of holding third stakeholder workshop (SW3) arrives after answering certain questions like whether local safeguard analysis has desirable & effective participation and representation of local and multiple stakeholders.
- For analysing IPs, participants are suggested to form working groups (WGs) of 5-7 participants in each group along with equal distribution of stakeholder group representatives in each working group.
- Prioritization of risks and benefits identified in EW1 and local safeguard analysis is the first task of WGs.
- It should be noted that each IP should not have more than 10 risks but, if different views of WG members is found, voting is required.

Safeguards Analysis of the proposed Intervention Packages (IPs) against the 'Cancun Safeguards' need to be done

The formation of two teams is required for safeguards analysis.

- Team A should take care of social and governance issues (safeguards a–d)
- Team B should take care of environmental safeguards (safeguards e-g).
- Team A should consist of participants with social expertise keeping gender balance in mind.
- Team B should include participants with stronger technical and biodiversity understanding.

## Form for workshop analysis of risks (safeguards)

IP/Key result	Risks	Likelihood of risk	Impact of risk	Risk reduction measures

#### Form for workshop analysis of benefits

IP/Key result	Benefits	Likelihood of benefit	Impact of benefit	Benefit enhancement measures

# Implementation of Risks and obstacles analysis of intervention packages

IPs	Implementation Risks or obstacles Why it is a risk? If social include vulnerable social group/s affected	Likelihood of Risks (H/M/L)	Impact of Risk	Risk reduction measures
Effective implementation of forest legislation/ policies and prescriptions of forest working Plans	Low motivation for implementation, no incentive for implementation, long governance procedures	Μ	Μ	Motivation and incentives for forest staff; Simplification of government procedures

**Example : Uttarakhand SRAP** 

# Analysis of Social Risks of intervention packages

IPs	Social and Environmental Risk	Likelihood of Risk (H/M/L)	Impact of Risk	Risk reduction measures
Effective implementation of forest legislation/ policies and prescriptions of forest working Plans	More strict compliance for poor people that are forest dependent and mainly land less. Women could be marginalised	Η	Μ	Participation of poorest of the poor must be ensured in the local forestry plans. Pay special attention to women participation and engagements

**Example : Uttarakhand S-RAP** 

# Analysis of Social benefits of intervention packages

IPs	Social and Environmental benefits	Likelihood of benefit (H/M/L)	Impact of benefit	Benefit enhancement measures
Effective implementation of forest legislation/ policies and prescriptions of forest working Plans	Society benefits from better law enforcement	Η	Η	Benefits to accrue at State level

Example : Uttarakhand S-RAP

# Analysis of Environmental Risks of intervention packages

IPs	Environmental Risk	Likelihood of Risk (H/M/L)	Impact of Risk	Risk reduction measures
Effective implementation of forest legislation/ policies and prescriptions of forest working Plans	Leakages may happen in other areas	L	L	Improved coordination with department/ other departments
Example · Uttarakhand S-RAP				

# Analysis of Environmental Benefits of intervention packages

IPs	Environmental benefits	Likelihood of benefit (H/M/L)	Impact of Risk (H/M/L)	Risk reduction measures
Effective implementation of forest legislation/ policies and prescriptions of forest working Plans	Better Forest cover and biodiversity	L	L	Periodic monitoring

**Example : Uttarakhand S-RAP** 

## **Example of Implementation Risks and Obstacles of IPs in Mizoram**

Intervention Packages	Implementation Risk or Obstacles	Likelihood of	Impact of Risk	Risk Reduction Measures
		Risk (H/M/L)	(H/M/L)	
Sustainable land	Current unsustainable	н	н	Awareness, exposure to best practices,
management and cropping	management practices			motivation, incentives
pattern				
Adoption of horticulture	Lack of technologies and market	М	М	Research and extension, technological
crops	assurance			inputs, Improve market linkage
Creating habitat mosaic for	Lack of awareness and motivation	L	М	Public awareness and participation,
biodiversity conservation	Lack of sense of ownership			reduce human wildlife conflict
Livelihood improvement	Lack of skills, limited opportunities	н	н	Trainings and skills development, creating
				new employment opportunities
Forest fire control and	Carelessness, Lack of awareness,	м	н	Awareness campaigns
management				
Sustainable energy supply	Inadequate supply Transportation	L	М	More programs on sustainable energies
	and infrastructure, poverty			targeted to rural areas
Market linkages for	Transportation, distance to remote	Н	н	Improve connectivity, improve
agriculture produce	areas, Lack of support prices			infrastructure and communication,
				Assured prices
Demonstration of private	Lack of skills, good seedlings and	Н	н	Awareness campaigns
plantation and	willingness			
agroforestry				

#### **Example: Analysis of social and environmental benefits of Intervention Packages in Mizoram**

Intervention Packages	Social/environmental benefits	Likelihood of benefit (H/M/L)	Impact of benefit (H/M/L)	Benefit enhancement Measures
Sustainable land management and cropping pattern	Higher economic returns from	М	н	Target farmers with arable land
Adoption of horticultural crops	High value agriculture	М	M	Establish market linkage for horticulture produce
Creating habitat mosaic for biodiversity conservation	Increase in floral and faunal biodiversity	L	L	Reduce possibility of human wildlife conflicts
Livelihood improvement	Livelihood opportunities created	н	н	Develop programmes for targeted groups
Forest fire control and management	Wild and uncontrolled fires managed	М	н	Demarcations required supported by adequate awareness campaigns
Sustainable energy supply	Improved access to energy	н	н	Adequate finance available for promoting and adoption of sustainable energy supplies
Market linkages for agriculture produce	Value addition of farm products	М	M	Selection of appropriate farmers that adopt improved technology
Demonstration of private plantation and agroforestry	Appropriate use of unproductive lands, Economic benefits	Н	Н	Adequate finance for the establishment of demonstration sites and training program to manage the demonstration sites

## C 2.3.3 Group exchange and museum visit

- 'Group exchange' exercise among WGs is important to check the analysis of risks and benefits and make improvements accordingly.
- The process of the museum visit will be the same as in SW1 and SW2.
- The WGs will write down important suggestions and make final changes in their analysis tables accordingly.

#### C 2.3.4 Safeguards analysis workshop report

• The lead workshop coordinator should be primarily responsible for the report, supported by the SRAP core team and WG facilitators

#### **Step C3. Review of Intervention Packages** C3.1 Analysis of existing state plans and projects

A comparison of the proposed IPs with approved forestry linked projects/plans (approved or budgeted) is another important task for the SRAP team/Expert Group. Since most of the states have their own forest development plans/projects/working plans, hence make this comparison more important:

- To avoid repetition along with reducing costs of SRAP
- For checking out conflicts between SRAP and other state plans/projects

The cost and resource necessities of SRAP will automatically get reduced if the state existing plans/projects are enclosing most of the activities proposed in IPs which if so, can be approached for preliminary 'gap analysis'. However, a detailed gap analysis is needed to be done at Stage E (budgeting) as it will be helpful to estimate the fund requirements of SRAP.

# **C3.2** Selection of IPs for detailed planning

 Before proceeding to the monitoring and budgeting stages of the SRAP, a final review of IPs is necessary and needs to be done by the SRAP team or expert group members.

## **C3.3 Revision of IP location maps**

The location of IPs in the maps should be finally revised by the SRAP team or expert group such that no issues should be left even after following the feasibility and safeguards analysis. To overcome this, the spatial analysis team should be asked to place all the IPs on a computer generated map which will help the decision makers.

# **C3.4 Communication with multiple stakeholders**

All the participants should be communicated regarding the whole process and justification for the selection of IPs.

If the budget and time permits, all the workshop participants should be invited for a day meeting to discuss the selected IPs. If there are constraints of budget and time, at least a letter and/or email should be sent to each workshop participant.

Stage D: Monitoring Step D1. Overview of Monitoring for REDD+ and SRAP Step D2. Targets and Indicators Step D3. Monitoring Plans Step D4. Budgeting of Monitoring Activities



## **D1.2 Indicators**

- Being the core of any monitoring system, an indicator shows the progress towards achieving a target or objective.
- An indicator can be "a quantitative or qualitative factor or variable that provides a simple and reliable means to measure how well a desired outcome, value, or criterion is being achieved or fulfilled".

#### Indicators should be :

- Output indicators: immediate or short-term, easy to identify and have high levels of attribution;
- Outcome indicators: liable to be short to medium term, harder to identify and tend to have a moderate level of attribution; and,
- > Impact indicators: long-term, difficult to identify and low attribution level.

# **Examples of Output, Outcome and Impact indicators for Uttarakhand**

Indicator types	Examples			
Output Indicators	Number of forest staff receiving incentives			
	• Number of poorest of poor representatives taking part in the preparation of local forestry plans			
	Number of awareness programmes conducted each year			
	Number of monitoring activities per year			
	<ul> <li>Number of affected households supported with alternative livelihood options</li> </ul>			
Outcome Indicators	% of women participated and engaged in forest related activities			
	<ul> <li>% of communities receiving incentives to adopt agroforestry and horticulture practice</li> </ul>			
	% of encroached/conflict land identified			
	% of activities guided by State Land Use Plan implemented each year			
	Number of appropriate models of agroforestry and horticulture developed			
	% reduction in women's fuelwood collection time			
Impact Indicators	% of forest quality improved after effective implementation of forest legislation/policies and			
	prescription of working plans			
	% of demarcated state owned forest			
	Number of communities protected from natural disasters			
	• Area of biodiversity rich areas and hotspots conserved after streamlining the development activities			
	identified and documented			
	% increase in quality of forest after forest fire management			

# **Step D2. Targets and Indicators**

After the IPs get finalised (Step C3), the monitoring plan for SRAP is meant to be developed by an expert group workshop. However due to lack of funding, a monitoring expert can be invited/hired for developing the monitoring plan in the SRAP.

Two main tasks are involved in developing the monitoring system:

- Identification of targets and indicators
- Development of monitoring plans

Based on indicators needed, the process can be further divided into:

- Proxy indicators for carbon outcomes of IPs
- Implementation progress (IP output indicators)
- Implementation risk reduction measures
- Risk reduction and benefit enhancement measures
- Negative impacts

## **D2.2 Proxy indicators for carbon outcomes of IPs**

Verification of changes in forest biomass and area due to implementation of IPs are essential for targets and indicators which are further required by the proxy indicators.

Example of Target and proxy indicators for Mizoram		
Key results/IPs	Targets	Proxy indicators
Effective implementation of forest Legislation/policies and prescription of forest working plans.	Forest quality improved at least by 10%	Forest quality (after effective implementation of forest legislation/policies and prescription of
Preparation of comprehensive State Land Use Plan	100 % boundary between forest and encroached land in conflict areas demarcated	Length of boundary between forest and encroached land in conflict areas demarcated
	At least 30% of encroached forest in conflict areas restored	Area of forest land recovered after demarcation

## **Step D3. Monitoring Plans**

Monitoring plan scan be compiled in a standard monitoring plan form with following eight columns:

- 1. IP or key result
- 2. Target: risk reduction and benefit enhancement targets.
- 3. Indicator: each target can have more than one indicator for each target; however it increases the cost of monitoring.
- 4. Data collection method/Data source i.e. if data for the indicator is already present such as in a report, note down the source; if not, decide the method of data collection.
- 5. Identify: Where the data will be collected.
- 6. Decide: When or how frequently the data will be collected.
- 7. Establish: Who will be responsible for collecting the data.
- 8. Relative cost of data collection: High, Medium or Low.

#### Stage E: Budgeting

- The main aim of the budgeting workshop (EW4) is to develop a five year operational plan for the SRAP.
- Persons from finance or accounting staff should be engaged in this step.
- Well-established national budgeting system(s) and templates for developing the operational plan can be used.

# **General Structure for SRAP report**

Title	Contents needs to be included
Executive Summary	List of Intervention Packages, summary of budget
List of Abbreviations	List of acronyms and other abbreviations used in the report
Introduction	REDD+ National Strategy, REDD+ Readiness in the National Context, Evolution of the State REDD+ Action Plan Approach, Linking India's Nationally
	Determined Contributions and the SRAPs, etc.
Methodology	Summary of the SRAP approach, Workshops for the formulation of respective State REDD+ Action Plan
Diagnosis	Prioritization of D&FD drivers and enhancement activities; Development of problem and solution trees, development of Intervention Packages (IPs),
	Identification of Strategies and Activities, Feasibility analysis of IPs Map with the location of drivers/enhancement
	activities; Summary of solution tree analysis
Interventions	Summary of solution tree analysis and derivation of IPs; Table of IPs, including IP outputs and activities; safeguard analysis, Gaps Analysis, Monitoring
Safeguards analysis	Summary of safeguards analysis process; Table of (serious) risks and benefits, including risk reduction and benefit enhancement measures
Budget	Summary of budget and Operational Plan,
References	List of references or bibliography
Annexes	Lists of workshop participants
	List of members of SRAP core team, Expert Group, Spatial analysis team, Multiple Stakeholder Working Group, etc.
	Tables with ranking of D&FD drivers and enhancement activities
	Problem trees
	Solution trees
	Feasibility Analysis tables
	Safeguards Analysis tables
	Monitoring Plan tables
	Operational Plan and Budget





For further details, contact: Dr. R.S. Rawat. Scientist 'E', Biodiversity and Climate Change Division Indian Council of Forestry Research and Education (An Autonomous Body of the Ministry of Environment, Forest and Climate Change, Govt. of India)

P. O. New Forest, Dehradun, INDIA www.icfre.gov.in, Email: rawatrs@icfre.org