

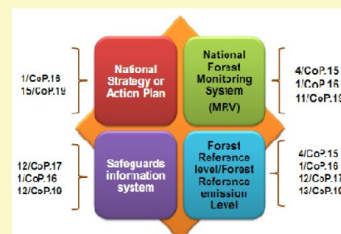
## REDD+ Himalayas: Developing and Using experience in Implementing REDD+ in the Himalayas (Capacity Building of the North East India)

Reducing Emission from Deforestation and Forest Degradation in developing countries (REDD) was introduced in UNFCCC negotiations as a potential approach for climate change mitigation. Later on with the inclusion of conservation and sustainable management of forests and enhancement of forest carbon stocks, REDD is referred to as REDD+.

### Evolution of REDD+ under United Nations Framework Convention on Climate Change

In Cancun, in 2010, Governments agreed to boost action to curb emissions from deforestation and forest degradation in developing countries with technological and financial support. (The decision text on REDD paragraph 70 of the decision 1/CP.16 of Cancun Agreements) "Encourages developing country Parties to contribute to mitigation actions in the forest sector by undertaking the following activities, as deemed appropriate by each Party and in accordance with their respective capabilities and national circumstances":

- (a) Reducing emissions from deforestation;
- (b) Reducing emissions from forest degradation;
- (c) Conservation of forest carbon stocks;
- (d) Sustainable management of forest;
- (e) Enhancement of Forest Carbon Stock



Presently, REDD+ is now widely recognized as financial incentive to the communities for their contribution in reducing greenhouse gas emissions from forests through reduction in deforestation, forest degradation and enhancement of forest carbon stocks through forest conservation and sustainable development of forests.

### REDD+ Opportunities to synergize between Mitigation and Adaptation

REDD+ is primarily a climate change mitigation effort. However, deforestation and forest degradation are accompanied by the loss of numerous vital ecosystem services which provide a variety of income possibilities, material welfare, livelihoods, security, resilience, social wellbeing. These ecosystem services, and their continuous supply, are becoming increasingly important in the context of adaptation to climate change. REDD+ programme and actions if implemented properly, has a potential to contribute towards mitigation and adaptation to climate change and at the same time providing financial incentives to the participating communities. In Paris (Conference of Parties, 21), the parties recognized role of forests as carbon sink for mitigation of climate change. Article 5 of Paris Agreement encourages all Parties, developed and developing countries, to take action to conserve and enhance emissions sinks and reservoirs, including forests. It also encourages countries to "take action to implement and support, including through results-based payments" REDD+ activities. The overarching conference of parties "decision" also recognised "the importance of adequate and predictable" finance for REDD+ activities.

### Scope of REDD+ Implementation in India

With nearly 200,000 villages classified as forest fringe villages in India inhabiting an estimated 350 million rural people constituting about 30% of India's population, there is obviously large dependence of communities on forest resources. About 25% of India's forests are being managed through more than 100,000 **Joint Forest Management Committees (JFMCs)**. There is ample scope and opportunities for integrating REDD+ initiative with the community controlled/managed forest and Joint Forest Management (JFM) programme of activities. JFM has enabled protection and regeneration of existing forests which will contribute in

conservation of forests and also the carbon stocks. This approach matches with the objectives of REDD+ programmes. Promoting and integrating REDD+ actions in JFM activities to increase sequestration of carbon stock will meet both national objectives of Climate Change mitigation and international obligations as a responsive member of international community.



### India's Readiness for REDD+ Implementation

Financial support for REDD+ at bilateral and multilateral level led many countries to initiate REDD+ readiness programme and pilot projects at domestic level. At national level Government of India has established a REDD+ Cell at the Ministry of Environment, Forest and Climate Change (MOEF&CC). The road map of actions that need to be for the REDD+ implementation in India is as follows:

- Development of National REDD+ strategy and action plans, Capacity building programmes. Identification of collaborating partners at national and international level.
- Development of Reference Emission Levels/ Reference Levels (REL/RL) and Monitoring Reporting and Verification (MRV) systems.
- Initiation of demonstration/pilot activities at sub national level.
- Quantification of REDD+ benefits, developing benefits sharing mechanism with REDD+ communities and a Safeguard information system (SIS) for REDD+.
- Finance for REDD+ actions. Performance based payments for emission reduction

India has recently joined United Nation-REDD Programme. The programme will help in capacity building for REDD+ at national level. Few isolated REDD+ are underway in different parts of the country Compensatory Afforestation Fund Management and Planning Authority (CAMPA) funds can also complement or contribute to REDD+ at national level.

The REDD + Himalaya project in collaboration with ICIMOD with a regional mandate, is implemented in Bhutan, India, Myanmar and India. In India this partnership is for REDD+ Capacity building focusing on NorthEast region

### REDD+ Himalayas: Developing and Using Experience in implementing REDD+ in the Himalayas

A REDD+ project with involvement of local communities can make a success at local (sub-national) and national level. Acknowledging the scope and opportunities for integrating the REDD+ initiative within the community controlled/managed forest conservation and management activities, Indian Council of Forestry Research and Education (ICFRE) with the active support of International Centre for Integrated Mountain Development (ICIMOD) of Nepal is working on a REDD+ pilot project in Mizoram. The overall goal of the project is to build the capacity of the REDD+ focal points for the development and implementation of National REDD+ Strategy and Action Plans, through conservation and sustainable use of natural sinks.

### Broad Objectives of the Project

- (a) **Methods:** Development of methods for calculating, modeling and forecasting carbon storage.
- (b) **Readiness:** Developing instruments in preparation for regional REDD+ readiness.
- (c) **Regional Learning Platform:** In working towards harmonization in the region, an exchange of experience and mutual learning on good REDD+ implementation practices

is established as South-South cooperation. The Platform especially deals with standards for calculating reference levels (RLs) and reference emission levels (REL) and the design of systems for measuring, reporting and verification (MRV), including social and environmental aspects (regional).

### REDD+ pilot for Mizoram

The project will endeavor to develop and REDD+ project of Mizoram and to get financial incentives for the participating communities through Green Climate fund voluntary carbon market.

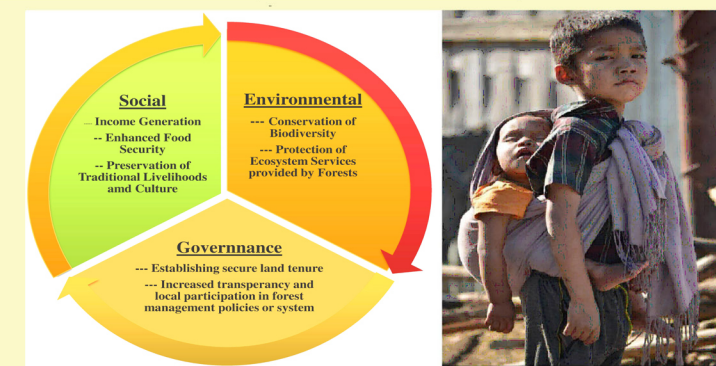
### Expected Project Outcome:

- A state REDD+ action plan for Mizoram
- Addressing drivers of deforestation and forest degradation
- Capacity building of relevant stakeholders and participating communities for development and implementation of REDD+ Strategy and action plan at each level (community and state level).
- Improved understanding of scientific knowledge for precise estimation of forest carbon stock.
- Develop protocols for REDD+ mechanism (Monitoring Reporting and verification (MRV) Guidelines, safeguards and Safeguard Information System (SIS) Guideline, REDD+ benefit sharing, data collection, estimation and validation, capacity building manuals, curriculum etc.

### District-wise Forest Cover of Mizoram (Area in Km<sup>2</sup>)

District	Ram zau zawng area	Very Dense Forest	Moderate Dense Forest	Open Forest	Total	% of Geographical Area
Aizawl	3575	28	1135	2022	3185	88.09
Champhai	3185	60	1042	1570	2673	83.92
Kolasib	1382	0	187	1027	1214	87.84
Lawngtlai	2557	0	705	1632	2337	91.4
Lunglei	4536	1	1186	2954	4141	91.29
Mamit	3025	43	654	2044	2741	90.61
Saiha	1400	0	551	696	1247	89.07
Serchhip	1421	6	398	807	1211	85.22
<b>Total</b>	<b>21081</b>	<b>138</b>	<b>5858</b>	<b>12752</b>	<b>18748</b>	<b>88.93</b>

### Non Carbon Benefits: Multiple Benefits from REDD+



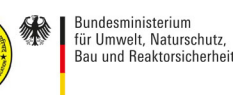
### ICFRE REDD+ Project Team

V.R.S. Rawat, Project Director  
Dr. R.S. Rawat, Project Coordinator  
Dr. Md. Shahid, Consultant  
Dr. Nemit Verma, Junior Consultant

M.Z. Singson, Director, ARCBB  
P.I. REDD+ Pilot Project, Mizoram

### For further details, please contact:

V.R.S Rawat, Assistant Director General  
Biodiversity and Climate Change Division  
Directorate of Research  
Indian Council of Forestry Research and Education (ICFRE)  
P.O. New Forest, Dehradun-248006, Uttarakhand, India  
M.Z. Singson, Director  
Advanced Researched Centre for Bamboo and Rattan (ARCBB)  
Bethlehem Vengthlang, Aizawl.





# **REDD+ Himalayas:** **Himalaya-a REDD+ hmanna tura tawnhriat awmsa hman** **tangkai leh tih changtlun** **(Capacity Building of the North East India)**

Ram thang mekte zingah ramngaw tih chereu nasat lutuk avangin nasa takin sik leh sa a lo inthlak danglam a. Chumi tih ziaawm nan chuan UNFCCC in REDD a lo duang chhuak tawh a. Chumi hnuaa REDD chuan ramngaw humhalh leh ramngaw siamthat leh carbon stock tih tam tumin hma a la tan leh a; REDD+ tih a lo ni ta a ni.

## **United Nations Framework Convention on Climate Change hnuiaa REDD+ lo** **indin chhoh dan**

Kum 2010 khan Cancun ramah sorkar chuan ram thang mekte zingah ramngaw tih chereu atanga boruak chhia lo insiam thin tihreh a lo nih theih nan nasa takin thiamna leh sum tam tak sen inhuamin hmalak a lo rel thlu tawh a.

“Ram thang mek te’n an mahni theihna ang tawh chin zela hma an lo lak ve theihna atan a hnuiaa mi ang te hi an zawm tura duan chhuah a lo ni bawk a”



- (a) Thing leh mau kihthluk nasat avanga boruak chhia (carbon) insiam tih tlem;
- (b) Ramngaw tih chereu atanga boruak chhia (carbon) insiam tih tlem;
- (c) Ramngaw a carbon in chhek khawlsa humhalh;
- (d) Ramgaw hausakna thiam taka hman leh tih pun dan;
- (e) Ramhnuai thing leh mau a carbon in chhek khawl tir dan;

Tun ah chuan REDD+ chu ramngaw chheh vela chengte; an ramngaw humhalhna kawng leh ramngaw siam belhna kawnga sum leh pai hmanga lo puitu anga hriat lar a ni deuh ber.

## **REDD+ in mite tan harsatna siam si lo va sik leh sa inthlak danglam a tih ziaawm** **theih dan tur.**

REDD+ hi sik leh sa inthlak danglam chak lutuk tur ven nana duan chhuah a ni a. Kan ramngaw-a kan thing leh mau te leh thlai chi hrang hrang te hi kan mamawhna a lo sang em em mai bawk si nen; thiam taka ram tana pawl tham si lovin kan mamawh zualpui te chauh kan lak thiam hi a pawimawh tan chho dawn hle a ni. REDD+ programme hi tha taka kalpui a nih theih chuan boruak lum chak lutuk hian ziaawm lam a lo pan thei ang a, sik leh sa inthlak danglam vak vak pawh a lo nep thei tawh dawn a ni. Tin, chumi atana tha lo thawh tute pawhin sum leh pai lamah an khawtlang mipui te tan tanpuina an dawng thei dawn a ni. Paris rama ram hrang hrang thukhawm (*Conference of Parties, 21*) chuan ramngaw hi sik leh sa nasa tak a inthlak danglamna siamtu carbon him taka a indah thatna hmun a ni a ti a. An thuthlukna (Article 5) chuan ram ropui leh ram thang mekte chu carbon boruak a chhuak lo tur a in dah thatna ramngaw te chu venghim tlai turin a ti a. Tin, chu mi kawnga REDD+ hmalakna te chu an theih ang anga thlawp tlai turin a ti bawk a ni.

### **REDD+ hi India ah a hlawhtling thei ang em?**

India-ah hian thingtlang khua, khaw 200,000 vel zet hi ramngaw hual vel kara awm kan ni a. Chutah chuan mihring maktaduai 350 vel zet cheng tura ngaih kan ni. Chu chu India population-a 30% vel zet a ni. Chuvangchuan, ei leh in, chakkhai leh mamawh hrang hrang lak nana ramngawa innghat chu kan tam hle dawn tih a chiang reng mai. India-a ramngaw zawng zawng 25% hi Joint Forest Management Committee (JFMC) nuaih khat chuangin a enkawl a. Chung ho nena tangrual chuan REDD+ hian nasa takin hma a lak theih ngei a rinawm a ni. REDD+ ang deuh thovin JFM hian ramngaw venhim leh ramngaw thar siam

lam a lo buapui chho reng tawh a, a sul sutu ang deuhin a lo awm tawh a. Chuvangchuan, REDD+ programme pawh hi hlawhtling takin a kal pui theih ang tih a rinawm hle a ni.



### **REDD+ Kalpui turin India a inpeih tawh em?**

REDD+ hian sum leh pai lama tanpuina a hmuh that em avangin ram hrang hrangin he programme hi an lo kalpui tawh a. India-ah chuan Ministry of Environment, Forest and Climate Change (MOEF&CC) -ah REDD+ Cell dah a ni ve tawh bawk. India rama REDD+ kalpui a nih theih nana thil pawimawh hmasa te chu a hnuiaa tarlan te hi an ni.

- REDD+ hnathawh dan tur leh action plan siam te, capacity building programme neih te, ram chhung leh pawn atanga hnathawhpui tur rintlak zawn hmuh te,
- Reference Emission Levels/Reference level leh Monitoring Reporting and Verification (MRV) systems siam te,
- Sub national level-a demonstration/pilot atana bul tan te,
- REDD+-in hlawkna a hmuh theih turte, a hlawkna hmuh REDD+ zawmtu te nena an insem theihna tur lo duan chhuah te leh Safeguard Information System (SIS) lo duan lawk te an ni.
- REDD+ finance lam leh a hnathawh mila tanpuina a hmuh theih dan tur lo duan te a ni. India ram chuan United Nation REDD programme hi tunhnai khan a zawm thar ve a. REDD+ Himalaya project leh ICIMOD hian ruahmanna felfai tak leh tum bik felfai tak neiin Bhutan, India leh Myanmar-ah te hna thawk turin an inthural a ni. India-ah chuan Northeast hi an hmalakna hmasa ber tur a ni.

## **REDD+ Himalayas: Himalaya a REDD+ hmanna tura tawnhriat awmsa hman** **tangkai leh tih changtlun**

REDD+ project hi ram neitu, khawtlang mipuite puihna nen chauha hlawhtling thei tur a ni a. Indian Council of Forestry Research and Education (ICFRE) chuan International Centre for Integrated Mountain Development (ICIMOD), Nepal puihnain Mizoram-ah REDD+ project a kal chhohpui ve tan dawn ta a. He project-in a tum bulpui ber pakhat chu kan ramngaw-a thing leh mau te venghim chung a renchem taka kan hman theih nana hmalak a ni.

### **Project thil tih tur lian tham zual te;**

(a) **Methods:** Thing leh maua carbon awm zat chiang taka chhut chhuah theihna tur lo duan chhuah.

(b) **Readiness:** REDD+ kalpui theihna tur leh hmun te lo hriat theihna tur lo duan chhuah.

(c) **Regional Learning Platform:** REDD+ hnathawhna huam chhunga chengte ti buai lo va, an thil hriat leh thiam te inhman tangkai tawn sak theihna tura thawhhona tha siam.

### **REDD+ pilot Mizoram tan**

He project hian REDD+ thil tumte tihlawhtlin theih nana hma la zelin, a hnathawhna hmuna chengte tan pawh Green Climate fund voluntary carbon market kal tlangin sum leh pai lamah tanpui a tum dawn a ni.

### **Project-in a hrin chhuah tura kan ngaih thil thenkhat te:**

- State REDD+ action plan Mizoram tana duan chhuah,
- Ramngaw ti chhe thei thil chi hrang hrangte hriatchhuaha inhriattir,
- REDD+ thlawp zawnga hma la a, tha lo thawh tawh zawng zawngtu mipui ten REDD+ kalphung tha taka an zawm theih nan tuai hriam,
- Ramngaw-a carbon stock awm zat dik tak kan hriat theih nana kan thiamna tihpun a lo ni bawk dawn a ni.

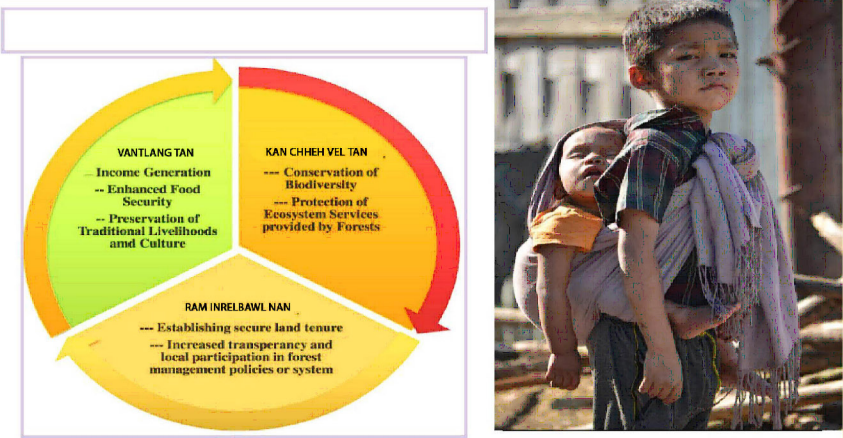
REDD+ mechanism (*Monitoring Reporting and Verification*), guidelines, safeguards leh Safeguard Information System (SIS) guideline, REDD+ benefit sharing, data collection, estimation and validation, capacity building manuals leh curriculum zawng zawngte kal dan phung mumal tak nei tura dan zawm tur duan chhuah a ni bawk dawn a ni.

### **District-wise Forest Cover of Mizoram (Area in Km²)**

District Aizawl	Ram zau zawng area	Very Dense Forest	Moderate Dense Forest	Open Forest	Total	% of Geographical Area
Aizawl	3575	28	1135	2022	3185	88.09
Champhai	3185	60	1042	1570	2673	83.92
Kolasib	1382	0	187	1027	1214	87.84
Lawngtlai	2557	0	705	1632	2337	91.4
Lunglei	4536	1	1186	2954	4141	91.29
Mamit	3025	43	654	2044	2741	90.61
Saiha	1400	0	551	696	1247	89.07
Serchhip	1421	6	398	807	1211	85.22
<b>Total</b>	<b>21081</b>	<b>138</b>	<b>5858</b>	<b>12752</b>	<b>18748</b>	<b>88.93</b>

Source ISFR, 2015

## **Carbon tih tlem atanga hamthatna: REDD+ atanga hamthatna**



### **ICFRE REDD+ Project Team**

V.R.S. Rawat, Project Director  
 Dr. R.S. Rawat, Project Coordinator  
 Dr. Md. Shahid, Consultant  
 Dr. Nemit Verma, Junior Consultant

M.Z. Singson, Director, ARCBR  
 P.I. REDD+ Pilot Project, Mizoram

### **For further details, please contact:**

V.R.S Rawat, Assistant Director General  
 Biodiversity and Climate Change Division  
 Directorate of Research  
 Indian Council of Forestry Research and Education (ICFRE)  
 P.O. New Forest, Dehradun-248006, Uttarakhand, India  
 M.Z. Singson, Director  
 Advanced Researched Centre for Bamboo and Rattan (ARCBR)  
 Bethlehem Vengthlang, Aizawl.

