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PARTNERSHIP FOR LAND USE SCIENCE (Forest-PLUS) PROGRAM

Report

**Training program on Climate Change, Greenhouse Gas Inventories,
Vulnerability, Mitigation and Adaptation**

November 28- 29, 2013

Shimoga, Karnataka



November 2013

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Training Report

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Vulnerability, Mitigation and Adaptation analysis

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DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

CONTENTS

CONTENTS	III
ACRONYMS AND ABBREVIATIONS	V
REPORT	1
1. INTRODUCTION TO FOREST-PLUS PROGRAM	1
2. BACKGROUND OF THE TRAINING PROGRAM.....	1
3. PARTICIPANTS IN THE TRAINING PROGRAM.....	1
4. PROCEEDINGS OF THE TRAINING PROGRAM	1
4.1. INAUGURAL SESSION	1
4.2. MODULE 1: WE AND OUR ENVIRONMENT.....	2
4.3. MODULE 2: GLOBAL CLIMATE CHANGE.....	3
4.4. MODULE 3: GREENHOUSE GASES AND THEIR ROLE IN GLOBAL CLIMATE CHANGE	4
4.5. RECAP OF DAY ONE	5
4.6. MODULE 4: FORESTS AND CLIMATE CHANGE.....	6
4.7. MODULE 5: GLOBAL CLIMATE CHANGE AND OUR LIFE AND LIVELIHOODS–VULNERABILITY AT GLOBAL, NATIONAL AND LOCAL SCALES	7
5. FEEDBACK SESSION:	8
6. VALEDICTORY SESSION	10
ANNEXURE 1: AGENDA	12
ANNEXURE 2: EVALUATION ANALYSIS	14
ANNEXURE 3: LIST OF PARTICIPANTS	16

ACRONYMS AND ABBREVIATIONS

DCF	Deputy Conservator of Forests
Forest-PLUS	Partnership for Land Use Science
GCC	Global Climate Change
GHG	Greenhouse Gas
REDD	Reducing Emission from Deforestation and forest Degradation
USAID	United States Agency for International Development
VFC	Village Forest Committee

REPORT

1. INTRODUCTION TO FOREST-PLUS PROGRAM

The **Partnership for Land Use Science (Forest-PLUS) Technical Assistance Program** is a five-year **USAID**-funded program to reduce emissions and enhance carbon sequestration in India's forests by developing and testing effective ways to take REDD+ actions to scale. Working in close collaboration with MoEF and State Forest Departments, Forest-PLUS will assist in developing and deploying scientific tools and methods for improved ecosystem management and carbon sequestration, forest carbon inventory and reference baselines, designing modalities/ programs to create better incentives for forest dependent communities to participate in REDD+ activities, and enhancing individual and institutional REDD+ capacity.

2. BACKGROUND OF THE TRAINING PROGRAM

This was the first training course on 'Climate Change, Greenhouse Gas Inventories, Vulnerability, Mitigation and Adaptation' organized for Village Forest Committee, Eco Development Committee, Panchayat Raj Institutions and Self Help Group member of Shimoga landscape in Karnataka. This two-day training program was conducted on November 28-29, 2013 in Shimoga, Karnataka. Forest-PLUS designed this course mainly for community based organizations.

Presentations were prepared to be relevant in the Karnataka context. This training program is an output of and contributes to Forest-PLUS Activity 2.3.2, which is focused on building capacity on climate change issues, in this case within the State Forestry Departments of Forest-PLUS' pilot landscape states.

3. PARTICIPANTS IN THE TRAINING PROGRAM

Details of participants (please see annex 2 for detail of participants) who attended this two days training program are as follows:

Sr No	Particular	Number
1.	President, VFC/EDC	12
2.	Members- VFC/EDC/RI/SHG	9
3.	Forest Motivator	12
4.	Facilitator	7
5.	NGO	1
6.	Total	41

4. PROCEEDINGS OF THE TRAINING PROGRAM

4.1. Inaugural session

Ms. Smita Bijjur, Chief Conservator of Forests, Shimoga circle chaired inaugural session. In the beginning Mr. Sandeep Khanwalkar, Training Coordinator, Forest-Plus welcomed all the guests and

trainees. He gave introduction of the two-days training program and briefly talked about resources people's expertise in the field of forest and climate change.

In her inaugural address she briefly spoke about Forest PLUS program and explained about the objectives of this training program. She told them to be attentive to all the sessions in two days and apply this learning in their VFC activities. She told them you might not have studied this subject earlier but those who are reading newspapers might have read about climate change in respect of cloud bursts, global warming, acid rains etc. In her motivational speech she requested all the participants to learn more and more with active participation and get benefit of this opportunity to know about climate change and its effects.



Figure 1: Inaugural speech by Ms. Smeeta Bijjur, CCF, Shimoga Circle

Mr. Sandeep Khanwalkar, Training Coordinator, concluded inaugural session by extending vote of thanks to chief guest, chair and participants.

4.2. Module 1: We and our environment

Session One: Understanding environment and its components

Dr. Sudarshan, Secretary, CRODEA, Davangere facilitated this session. He explained about the environment in detail. He stressed that everything around weather living or nonliving are part and parcel of the environment. Today the natural components of the environment are under the depletion and artificial components are increased. As every part of environment having its own role in maintaining the balance in the environment we need to first understand their contribution and conserve them. With increase in artificial components in the environment we are spoiling the natural balance.



Figure 2: Dr. Sudarshan taking his session on environment

Session Two: Screening of a short film on our environment:

After presentation and discussion one short film “We and our Environment” on environment in Kannada language was shown to the participants so they could link the previous session and get sensitized on the issues related to our environment.

Session Three: Open discussion

After screening of short film, participants asked questions. The objective of this session was to generate discussion so that participant could relate the concept with the local environment.

This module helped in understanding importance of environment in our life and also created learning environment for the participants.

4.3. Module 2: Global Climate Change

Session One:

Mr. Manjunath K. S., CEE, Bangalore facilitate the session. He explained about the changing climate. He explained the natural reasons for the change and also man made reasons for the change. In the environment everything is connected with one another. So disturbance of any one in the chain effects the entire environment. He showed a small film on Karnataka birds and animals impressing their roles in environment.



Figure 3: Mr. Manjunath taking his session on Climate Change

At the end of session one of the participants Mr. Jayanna Sang a song on environment.

4.4. Module 3: Greenhouse Gases and their role in Global Climate Change

Session 1: Greenhouse effect, Greenhouse Gases and their role in Global Climate Change, Greenhouse Gas inventories

Dr. Vasudeva R. took this session. He covered following topics in the session:

- Greenhouse effect, Greenhouse Gases and their role in Global Climate Change
- Greenhouse Gas Inventories

During the session he explained that in atmosphere the % of GHG is very small, but they are having big role in global climate change. Methane, carbon dioxide and nitrous oxide are the 3 main greenhouse gases. In the atmosphere 0.04% is carbon dioxide. But its increased to some more extent may cause our living difficult in this earth. Therefore we need to understand about role of Greenhouse gases and try to reduce its emission in the atmosphere.



Figure 4 Pro Vasudev making presentation on Greenhouse Gases

Session 2:

A short film on Greenhouse Gases in English was shown.

Session 3:

In Q&A one participant asked earlier it was told depletion of ozone layer is causing the global warming. But today you are telling GHG causes the global warming. Why it is so? For this he explained ozone layer has regained its normal condition in recent past and the adverse effect is minimized. So now the adverse effect of the GHG is critical.

Day Two: October 26, 2013

4.5. Recap of day one

Day started with recap of first day of training. Participants were given two cards to write their learning on two questions:

- What they learnt on first day about Climate Change?
- What are the topics on which they need more clarity?

Participants' learning

- Change has to come from me. I will convey my learnings from this training to my fellow villagers
- Learnt about GCC &GHG and also our role in protecting the forest. We can share this with the VFC members
- Understood about climate change & future disasters
- Understood about GCC and that by protecting and growing forests, we can have a better future
- Got the idea of disasters that might occur and also what could be done to avoid them
- Understood how to initiate people to protect the forest at the village level
- Understood how important my role is in protecting the environment
- Program was good. RPs guided well with live pictures

- From this training, I felt that greed and luxury life are the main causes for climate change. We have to limit our needs and adopt a nature friendly life style. Everyone should plant seedlings.
- It is important to implement whatever we have learnt and understood
- The responsibility of protecting this environment provided by God lies with all of us
- A good presentation on GCC. The films are very informative.
- Got good knowledge about CO2 and degradation of forests
- I will convey my learnings from here to people in our village, particularly on protection of forests and GCC
- Better RPs are needed
- Came to know about the measures to prevent GCC
- Learnt about GCC and its effects
- Subjects were worth knowing. I shall share the knowledge with VFC members, school children, SHG members, anganawadi workers and Panchayath members.
- Films are more appealing than reading. Good videos. I had some knowledge from newspapers and TV. But in these two days I learnt a lot & I can share with others.
- It was good to call VFC members to the training program
- Protecting and growing forests is our contribution to the future generation
- If we use this knowledge in the community it will be very useful.
- Program was good, better to inform villagers and create awareness through videos



4.6. Module 4: Forests and Climate Change

Session 1: Role of forests in Global Climate Change

Mr. Veera Basanth Reddy from TERI took forest and climate change session. He explained role of forest in climate change and present status of forest in the world and India. He explained the extent of forest in India. He also told that it is happy to know that recently there is no much depletion of forest in India.

However as presented by the Forest and Environment Ministry of India that Indian Forest decreased by 0.05% from 23.8% to 23.75% during 2009 to 2011 as per satellite imagery.

He said that unless we increase the forest wealth of the world, it is not possible to control the global climate change. He explained photosynthesis of the greenery reduces the environmental carbon. Burning of wood, forest, these again release all the carbon to the atmosphere. So protection of forest from fire is very essential.



Figure 5: Participants in training program

Session 2:

Short film on Global Warming in English was shown to participants. This helped them to understand links between forests and Climate Change.

Session 3:

In this session the participants raised questions on the issues linked with their work in their operational area. Resource persons tried to answer their most of the questions in open house discussion.

4.7. Module 5: Global Climate Change and our life and livelihoods–vulnerability at global, national and local scales

Session 1:

Mr. Narsimha Hegde, Life Trust, Sirsi facilitated the session. He dealt with various ways and means of vulnerability, mitigation & adaptation of GCC by human being. Participants agrees with this idea of lack of flowering in nelli, (*emblica officinalis*) uppage (*garcinia cambogia*) Rampathre (*Niristica magnifica*) in recent years may be due to GCC. People also agreed change in intensity of rainfall, change in quantity of rainfall, change in number of rainy days it's also due to GCC. So participants appreciated and connect their experience to his presentation.



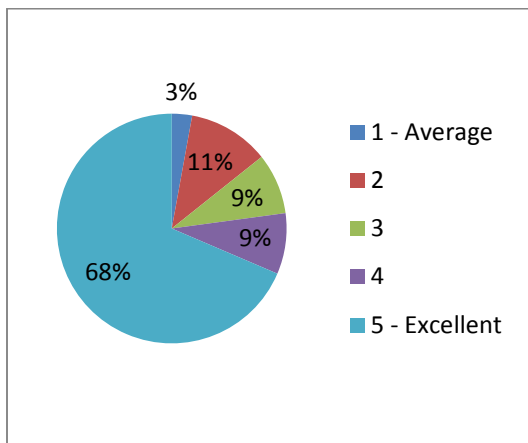
Figure 6: Mr. Hegde facilitating his session

Session 2:

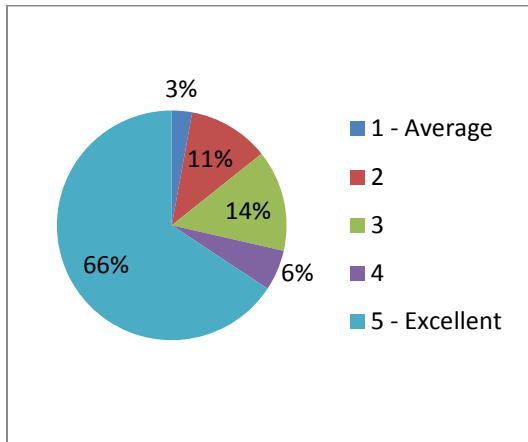
Screening of a short film on vulnerability to climate change was shown to the participants. The film was in English language and helped participants to link their field issues with the larger issues of climate change – adaptation and mitigation and how they can work on it.

5. FEEDBACK SESSION:

The training program was well received by the participants and this was a first kind of training program for them on this issue. Analysis of participant’s feedback is given in the annex 1.



Graph 1: Overall Assessment



Graph 2: About Facilities and Arrangements



Figure 7: Sarpanch sharing her experience after training program

Suggestions from community

- Program will be more effective and useful if we conduct at VFC level
- More opportunity should be provided for group discussion
- Local and Panchayat level training is essential
- Training should be done together for dept people and us
- Training has to be given for all VFCs
- If it is in local language, we will be able to learn more
- These trainings should be conducted in stages
- More questions should be asked to explore learning
- If the trainings go on continuously, it will be very useful
- This training should be compulsory for people's representatives
- Time was short. More time should be allotted for sessions

- Please do more trainings of this kind
- More awareness needed for people in cities
- All sessions appeared similar – need variety

Action plan from community

- Will dedicate ourselves to forest preservation
- Will extend full cooperation to forest department
- Will transfer the learnings to all fellow VFC members
- We will teach to our children and family on these subjects
- We will discuss these issues in Gram Sabha and SHG meetings
- We will do video shows for community
- We will plant more saplings around our houses
- We will encourage agro-forestry and through it, reduce dependence on forests
- We will take precautions about not contributing to forest fires and inform the department in case there is a fire
- Will encourage and motivate others to know about conservation and protecting wild life
- Will personally reduce usage of firewood and felling of trees and discourage others from doing it

Endangered species

- Plants – sandalwood, *suragi* flower, *tare mara*
- Animals – sparrow, eagles, weaver bird

6. VALEDICTORY SESSION

Smt Smita Bijjur addressed the participants and said that since the department will not be able to reach out to all the villages, she urged the participants to share their learnings with the community. She asked them to make good use of the CDs and other IEC materials given. She also said that we should step up the efforts to conserve the existing forests so that harmful effects of climate change are mitigated and that the department staff have a crucial role to play in this process. She expressed happiness that more ladies have participated in the program and commended Forest-PLUS for conducting the program successfully.

A few participants shared their impression about the training and also their experiences as VFC members. AT the end training coordinator Forest-PLUS program expressed sincere thanks to all participants, forest department and Forest PLUS team who helped in making this training program successful.



Figure 8: Group photo of participants

ANNEXURE 1: AGENDA

Training program on

“Global Climate Change (GCC), GHG inventories, vulnerability, mitigation and adaptation analysis” for Joint Forest Management Committee, Self Help Group members, Panchayati Raj Institutions leaders
Program Schedule

Date : November 28-29, 2013

Time: 11:00 AM – 05:30 PM

Day One- November 28, 2013		
Time	Session	Resource person
11:00 AM to 11:30 AM	Registration of participants	Training Coordinator
11.30 AM to 12.00 Noon	Introduction to the training course	
12.00 to 12.30 PM	Inaugural address	Ms. Smita Bijjur, CCF Shimoga Circle, Shimoga
12.30 to 01.00 PM	Group Photo	
1.00 PM to 2.00 PM	Lunch break	
Module 1. We and our environment		
02.00 PM to 02.45 PM	Session 1: Understanding environment and its components	Dr. Sudarshan G. T. Secretary CRODEA, Davangere
02.45 PM to 03.00 PM	Session 2: Screening of a short film on our environment	
3.00 PM to 03.30 PM	Tea break	
Module 2. Global Climate Change		
03.30 PM to 04.15 PM	Session 1: Our changing environment – natural causes Our changing environment – role of humans Basic concepts and facts about Global Climate Change	Manjunath K.S CEE, Bangalore
04.15 PM to 04.30 PM	Session 2: Screening of a short film on Global Climate Change	
Module 3. Greenhouse Gases and their role in Global Climate Change		
04.30 PM to 05.15 PM	Session 1: Greenhouse effect, Greenhouse Gases and their role in Global Climate Change Greenhouse Gases Inventories	Pro. Vasudeva R. Sirsi Forestry College, Sirsi
05.15 PM to 05.30 PM	Session 2: Screening of short film	
Day Two November 29, 2013		
9.30 AM to 10.15 AM	Recap - Interactive session on recapitulation of key points from Day 1	
Module 4. Forests and Climate Change		
10.15 AM to 11.00 AM	Session 1: Role of forests in Global Climate Change	Mr. Veera Basavanth Reddy TERI, Bangalore
11.00 AM to 11.15 AM	Session 3: Screening of short film on links between forests and Global Climate Change	
11.15 AM to 11.30 AM	Tea break	

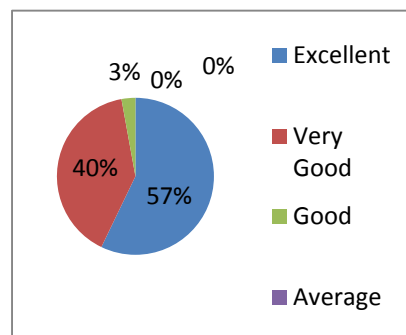
Module 5. Addressing Global Climate Change - vulnerability, mitigation and adaptation		
11.30 AM to 12.15 PM	Session 1: Global Climate Change and our life and livelihoods–vulnerability at global, national and local scales	Mr. Narsimha Hegde, Life Trust, Sirsi
12.15 PM to 12.30 PM	Session 2: Screening of a short film on vulnerability to climate change	
12.30 PM to 01.00 PM	Feedback session	
01.00 PM to 01.30 PM	Valedictory session	Ms. Smita Bijjur, CCF, Shimoga
1.30 PM to 2.30 PM	Lunch break	

ANNEXURE 2: EVALUATION ANALYSIS

Module 1: We and our environment - Understanding environment and its components

Participant's response

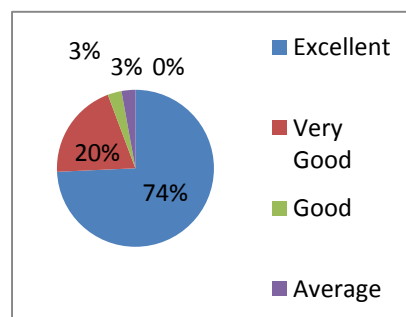
Excellent	20
Very Good	14
Good	1
Average	0
Poor	0



Module 2: Global Climate Change - Our changing environment

Participant's response

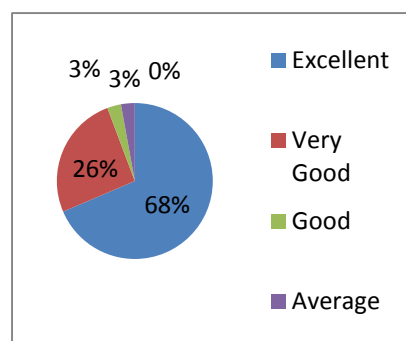
Excellent	26
Very Good	7
Good	1
Average	1
Poor	0



Module 3: Greenhouse Gases and their role in Global Climate Change –

Participant's response

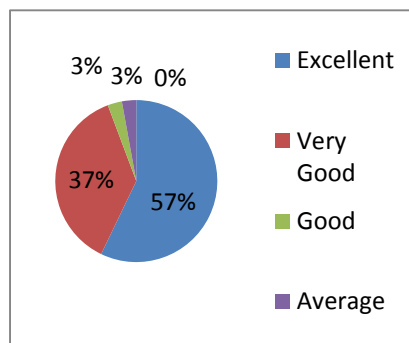
Excellent	24
Very Good	9
Good	1
Average	1
Poor	0



Module 4: Forests and Climate Change - Role of forests in Global Climate Change

Participant's response

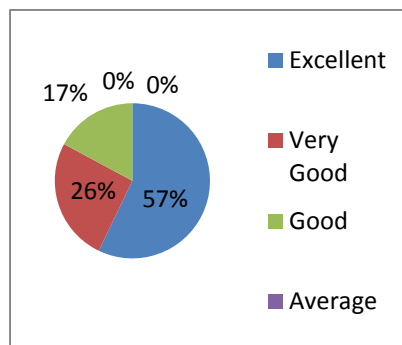
Excellent	20
Very Good	13
Good	1
Average	1
Poor	0



Module 5: Addressing Global Climate Change –

Participant's response

Excellent	20
Very Good	9
Good	6
Average	0
Poor	0



ANNEXURE 3: LIST OF PARTICIPANTS

S N	Name & Designation	Designation	Organization & Address
Guest and senior officials			
1.	Ms. Smita Bijjur	Chief Conservator of Forest	Shimoga Circle, Karnataka Forest Department. Shimoga
Resource person			
2.	Pro. Vasudeva R.	Associate Professor	College of Forestry, Sirsi
3.	Manjunath	Program Officer	CEE, South Bangalore
4.	Sudarshan GT	Secretary	CORDEA, Davangere
5.	Narasimha Hegde	LIFE Trust	Sirsi, Uttara Kannada
6.	Veerabasant Reddy	Associate Fellow	TERI, Bangalore
7.			
8.	Sandeep Khanwalkar	Training Coordinator	Forest-PLUS Program, New Delhi
9.	Damodar Shettigar	Regional Coordinator	Forest-PLUS Program, Shimoga
10.	Poshini B. T.	Regional Community & Outreach Coordinator	Forest-PLUS Program, Shimoga
Participants			
11.	S. R. Sadananda Gowda	VFC President	Bellur (Vanashree)
12.	K. M. Prasad	VFC President	VFC Guddha Hatti, Tarikere
13.	Anantha Padmanabha	VFC President	Tunga VFC, Tattapura
14.	T. S. Lakshmappa	VFC President	Kasturi Ranganatha, VFC Chandankere
15.	S. Thammaiah	VFC President	
16.	Ganeshamurthy	VFC President	Kunthagalale, Sorapa Taluk Shimoga
17.	B. M. Sudheer Rao	VFC President	
18.	H. Nagendra	VFC President	K. Hunasavalli
19.	K. S. Sunil Kumar	VFC President	
20.	Shardhamma	VFC President	Mudukoppa
21.	Ramakka	VFC President	Krishnarukmini, Byra camp Bhadravati Division
22.	Ravi M. S.	EDC President	Bellure
23.	Kavitha Nagraj	VFC Member	
24.	K.T Shashikala	VFC Member	
25.	Jayanthi	VFC Member,	Vanashree Sampigehalla
26.	B. S. Manjunath	VFC Member	Panchavati VFC NR Pura
27.	Parvathamma	VFC Member	Basarananandhihalli
28.	Mahesh V. Chamundeshwari	VFC Member	Mandagaddde
29.	K.Thippeswamy	VFC Member	VFC, Kasturi Ranganath, Yadehalli
30.	Tunyamma S.	VFC Member	
31.	Nagarathna	SHG Member	VFC-Byra camp, Bhadravati Division
32.	H. R. Srinivasiah	Forest Motivator	
33.	Banumathi T	Forest Motivator	Bhadravathi
34.	K. R. Bharthi	Forest Motivator	Bhadravathi

35.	Leelavathi	Forest Motivator	Matthigatta
36.	Savitha	Forest Motivator	Matthigatta
37.	N. K. Kalavathi	Forest Motivator	Shimoga
38.	Hemavathi C.	Forest Motivator	Birur Shimoga
39.	B. R. Gayathri	Forest Motivator	Koppa Range
40.	B. Bhaskara	Forest Motivator	Vidhyaranyapara VFC, Sringeri Range
41.	Veerabhadrappa H. R.	Forest Motivator	Kadar Range,
42.	V. Vasudeva	Forest Motivator	Bhadravati Range
43.	H. P. Revati	Forest Motivator	Sringeri
44.	Vishalakshi	Facilitator	Koppa Range
45.	Praveen Kumar	Facilitator	Koppa Chikmangalona, Davishion
46.	K.T Nagarathna	Facilitator	Bhadravati Division
47.	Manjappa M.	Facilitator	Sagar and Shimoga Division
48.	H. H. Nagaraja	Facilitator	sagar forest division
49.	Akhilesh B. N.	Facilitator	Sagar Division
50.	Suguna Satish	Facilitator	Outreach
51.	N. S. Jayanna	Coordinator	Out Reach – Traikere