
Training modules on integrative forest management

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Introduction

The following training modules on integrative forest management were developed within a collaboration between GIZ and the Public Organisation CAMP Tabiat. The content is informed by experts in the field that have participated at two workshops on integrative forest management in Dushanbe. The training modules have been tested in two villages in GBAO, and two villages in Penjikent district. The workshop material is freely available to other organisations through K-link or upon request.

The training modules aim at increasing awareness of local communities on the benefits of forests for the ecosystem, and building their capacity on climate change adaptation, with a focus on how forests can help to prevent disasters by reducing the vulnerability of the local communities. Further, the training provides practical information on sustainable forest and pasture management and informs the participants about the harm of forest grazing. Additionally, the aim of the training modules is to bring different actors together and provide a communication platform, so that sustainable land use practices can be jointly discussed, land use conflicts addressed, and potentially even agreements made between different land users.

Participants

The training is designed for local communities working in forest management. As the training modules are also aimed at providing a communication platform between different actors, members of the following groups should be invited:

- A representative mix of community members
 - Forest & Pasture Users
 - Village leaders
 - Youth committee
 - Women's committee
 - Other relevant groups
- A representative of the local forest enterprise
- An expert on pasture management or a botanical expert from the region
- A member of a Pasture User Union (PUU) from a neighbouring village – *optional*

When organising this event, it should be ensured that women equally participate in the workshop. Where needed, e.g. in a more traditional setting, female trainers should be involved.

Recommendations

A survey after the training resulted in the following recommendations from the participants:

- a) Involve the youth of the community in the workshop
- b) Incorporate small games to facilitate communication and engage the community more actively
- c) Actively involve women and youth in the workshop

Integrative Forest Management

The outlined integrative forest management training modules account for climate change impacts and pasture management in forest management planning. Primarily, climate change has severe impacts on forest areas and consequently on the livelihood of local communities. Additionally, the continuing deforestation in conjunction with climate change increases the frequency of natural hazards such as soil erosion, flooding, and droughts. Secondly, forest and pasture users are often competing over limited available land resources. Forests, and specifically young forests, are under additional stress from forest grazing. The training aims at addressing climate change impacts and at facilitating a dialogue between forest and pasture users to improve sustainable natural resource management.

The integrative forest management approach is a landscape approach. CIFOR defined ten principles for a landscape approach, listed below.

10 principles for a landscape approach (Source: CIFOR)

1. Continual learning and adaptive management
2. Common concern entry point: shared objectives & values
3. Multiple scales: external influences & constraints
4. Multi-functionality: multiple uses by different stakeholders
5. Multi-stakeholders: at various levels
6. Negotiated and transparent change
7. Clarification of rights and principles: negotiated & accepted
8. Participatory and user-friendly monitoring
9. Resilience: recognizing of threats & vulnerabilities
10. Strengthened stakeholder capacity

The integrative forest management approach builds on the Joint Forest Management (JFM) approach, that has been successfully tested in Tajikistan. JFM is a participatory forest management approach that allows the local population – either individuals or groups – to become involved in forest management and support the rehabilitation of degraded natural forests over the long term. These individuals sign a contract for the land use rights with the State Forest Enterprises for a period of 20 years, with the possibility for prolongation. This encourages the tenants to sustainably manage and rehabilitate their forest plot of usually 1-2 ha in size. In addition to the contract, management and annual plans serve as tools for forest management planning and for the monitoring of activities and results. They are developed jointly by the State Forest Enterprises and the respective tenant for each individual plot. Typical tasks specified in the annual plan are measures to protect the plot from livestock grazing, planting of trees, harvesting and pruning. Further, the annual plan specifies the harvest shares of the State Forest Enterprises and the forest tenant according to a fair sharing principle defined in the contract. The management plan, developed, for a 5 year period, specifies long-term goals, such as the installation of an irrigation channel or the diversification of the forest plot.

Training Objective

The training is designed for rural communities to address negative impacts due to climate change, find solutions for pasture and forest users to reduce the vulnerability of communities and ecosystems to natural hazards, and raise awareness on the importance of sustainable forest management. The training will take one and a half days following a prior village assessment. Further, the training serves as a platform for multiple stakeholders to address challenges in forest management and to implement sustainable land use practices.

Village assessment

Prior to the training, it is recommended to conduct a village assessment. This will help to adjust the training best to the peculiarities of the community and their major challenges. The following questions should be assessed:

1. Number of households in the village
2. Stakeholders
 - a. Types of existing village organisations
 - b. List of all types of land uses and users
3. Forest
 - a. Current ecological state of the forest
 - b. Tree species
 - c. Types of forest products that can be harvested
 - d. Experienced change of forest area since the introduction of JFM
4. Pastures
 - a. Current ecological state of pasture areas
 - b. Number of livestock
 - c. Areas where the cattle are grazing in summer, fall, winter, and spring
 - d. Existence of a pasture rotation system
5. Natural hazards
 - a. Frequency and type of disasters
 - b. Current coping strategies of the community
 - c. Assessment of the subjective need for adaptation
6. Conflicts over natural resource management
 - a. Assessment of current land use conflicts between different land users

Agenda

Time	Activity	Presentation and Material
Day 1		
9.00 -10-30	Workshop Introduction	<ul style="list-style-type: none"> - Agenda on flipchart paper - Movie 'our forest our future' - Post-it cards
<i>10:30 – 10:50</i>	<i>tea break</i>	
10:50 – 12:00	Natural Resource Assessment	Group work: <ul style="list-style-type: none"> - Flipchart paper, Markers, Post-it cards - Working aid 1 & 2
<i>12:00 – 13:00</i>	<i>Lunch break</i>	
13:00 – 14:00	Introduction to Climate Change	<ul style="list-style-type: none"> - Presentation: Climate change
14:00 – 14:30	Adaptive Forest Management Training	<ul style="list-style-type: none"> - DRR presentation with applicable training modules (soil erosion, drought, floods) - Working aid 3 & 4
<i>14:30 – 15:00</i>	<i>Tea break with continued group talks on climate change & potential activities</i>	
15:00 -16:00	Cont. Adaptive Forest Management Training	
16:00 – 16:30	Conclusion day 1 / Q&A	
Day 2		
9:00 – 10.30	Introduction to Forest and Pasture management	<ul style="list-style-type: none"> - Presentation: Forest & Pasture - Introduction of Pasture User Union (PUU) - <i>optional</i> - Flipchart/pinboard
<i>10:30 – 11:00</i>	<i>Tea break</i>	
11:00 – 12:30	Forest and Pasture Management: Group Work	<ul style="list-style-type: none"> - Working aid 4
12:30 – 13:00	Conclusion workshop / Q&A / Evaluation	<ul style="list-style-type: none"> - Evaluation from
<i>13:00 – 14:00</i>	<i>Lunch</i>	

Detailed description of the training

Day 1: Natural resource assessment & adaptive forest management

Introduction to the workshop (1.5 hours)

1. Welcome to the workshop and introduction of the participants
 - a. Introduction to the agenda and aim of the workshop
 - b. Introduction of the participants (every participant shall introduce him/herself by name and role in the village);
 - c. Definition of workshop rules together with the community ('golden rules');
 - d. Collection of expectations of participants on a pin board.

In the introduction session, the need for sustainable forest management shall be highlighted by:

- Documentary film "Our Forests, Our Future": A short video which shows the JFM experience in GBAO
- Short exchange on JFM experience made in the village
- A short introduction on the training content, purposes and benefits

Break – 20min

Natural Resources Assessment

Group work

The participants shall be divided into groups of 4-5 people, and given the following tasks:

1. Draw a map of their village and describe all the natural resources they have (forest, pasture, agricultural land, water sources, river, mountains, glaciers, etc.);
2. Description of the current condition of the identified resources and indication if and how these resources have changed in the past 20 years;
3. Identification of current problems with natural resources and description of each problem, its causes and potential solutions, as well as who could be the change maker.

Use working aid 1&2: Village map, problem tree and fill in resource analysis table. The resources analysis table should be filled by the workshop assistant while the map and problem tree can be drawn by the participants.

Lunch – 1 hour

Introduction to Climate Change

Group work

1. collect the participant's perception/ knowledge of climate change (30min)
Every group writes on a flip chart paper what they know about climate change and how they differentiate climate from weather.

Presentation

1. Presentation on climate vs. weather (30min)
Introduction to weather vs. climate, climate change impacts, and the importance of intact forests

Break – 20min

Adaptive Forest Management

Presentation

1. Adaptive forest management – 1,5 hours
Depending on the climate change impact and need of the village one or more of the below training modules can be used:

- Soil erosion
- Flooding
- Drought

1. Soil erosion

<https://www.youtube.com/watch?v=dvN6t6LA770>

Soil erosion is defined as the removal of the land surface by erosive forces such as water, wind, ice, and gravity. Erosion processes carry away soil particles and deposit them in another location. Erosion is an important contributor to landscape formation by wearing away mountains; filling valleys; and creating sandbars, islands and coastal planes. Erosion is a natural process, but in many places, it is increased by human land activities that disturb soil (e.g. grazing or deforestation). Soil erosion also leads to increased nutrient runoff and hence to further degradation of the soil.

Group activity to identify causes and solutions (working aid 3):

1. Discuss the occurrences of soil erosion in the village (potentially, bring pictures previously taken during the village assessment)
2. Identify and list causes for the soil erosion
3. Rank causes according to their impact on the soil
4. Identify potential solutions (consult LUP catalogue & CESVI bio-engineering brochure)*
5. Rank solution
6. Decide on solutions to be implemented
7. Develop an action plan

*potential solutions:

CESVI: live palisade, brush layering, contour line fascines, drainage fascines, live wattling, gabions, tripod for river works, keck dams

LUP: nitrogen-fixing, poplar trees for afforestation

2. Flooding

A “flood” is an unusual high-water state in which water overflows its natural or artificial banks onto normally dry adjacent land. Floods are normal and natural occurrences which we must adapt ourselves to. Floods may happen gradually or very suddenly without any warning, resulting in two types of floods:

- a) Predictable regular floods
- b) Flash floods

Group activity to identify causes and solutions (working aid 3):

1. Develop a timeline for all experienced floods
2. Identify potential adaptation measures to increase resilience
3. Rank adaptation measures according to their impact and feasibility
4. Decide on adaptation action
5. Develop an action plan

3. Drought

A generally accepted definition of drought is a temporary reduction in water or moisture availability significantly below the normal or expected amount (norm) for a specified period.

Potential causes for drought:

- a. Changes in climate patterns
- b. Short-term periodic fluctuations in rainfall levels
- c. Long-term climatic changes
- d. Desertification caused by loss of vegetation
- e. Subsequent land erosion caused by a combination of drought, overgrazing and poor land management.
- f. Deforestation
- g. Improper land use
- h. Extreme climatic events

Group activity to identify causes and solutions (working aid 3):

1. Develop a timeline for all droughts in the past
2. Rank droughts according to their impact
3. Identify potential adaptation measures to increase resilience
4. Rank adaptation measures according to their impact and feasibility
5. Decide on adaptation action
6. Develop an action plan

Drought monitoring

Drought monitoring can help identify first warning signals of an upcoming drought.

Day 2: Pasture and forest management

Pasture and forest management

Group work

1. Short brainstorming on the difficulties with pasture management in the village.
 - a. All difficulties/problems shall be listed.

Presentation

2. Presentation on pasture and forest management, that outlines the potential harm of grazing on forest land, solutions for protecting forest land, and introduces sustainable pasture management techniques.

Introduction to the Pasture User Union (PUU) - optional

A member of a close by PUU shall be invited to introduce the PUU, its benefits and to talk about their experiences with the PUU.

Can the PUU solve or reduce any of the prior identified problems?

Break – 20 min

Pasture & forest management

Group work

In this part of the workshop participants are encouraged to discuss problems and identify a way for introducing sustainable land management practices as well as for avoiding future conflicts over land resources a.

Suggested questions to discuss:

1. Is livestock grazed on forest land? When, how frequent and how many, why?
2. If there is not enough pasture land:
 - a. Does the village have too much livestock?
 - b. Is the pasture land not used effectively?

- c. Is a pasture rotation system in place?
- d. Is there forest area that could be used for grazing?
 - i. What time of the year could the forest plot be used for grazing?
 - ii. How can pasture be regulated and who monitors?
 - iii. Could a pasture rotation system be introduced on the forest areas used for grazing?
 - iv. Would the introduction of a payment system be useful?
- e. Can fodder be produced on forest plots?

As a result, the community shall decide on a pathway to reduce or avoid conflicts in the future. Additionally, responsible people are identified to take over monitoring and implementation tasks.

Repetition of identified difficulties and causes

Discussion with all participants – working aid 4

In a last step of the workshop, the identified problems with ecosystems and their use and the suggested solution shall be identified. Upon this, the participants shall decide which solutions they will implement and identify the resources needed for the implementation. It is recommended to simultaneously identify one or several responsible people for each action to be taken. The focus should be on low input solutions that the village can implement themselves. If there is a problem that requires support from the local government, the action could be the writing of a letter of request for support. No wish list shall be compiled!

An action plan (working aid 4) is recommended to be developed.

Conclusion of the workshop

The moderator will summarize the workshop findings and the discussions of the past one and a half days. We recommend that workshop participants formally sign the action plan (working aid 4) to increase commitment to the chosen activities. To all decisions, actions, and monitoring tasks at least one responsible person shall be assigned. The signed action shall be left available to all village members and stored at a for all accessible place (e.g. School, community house).

Appendix

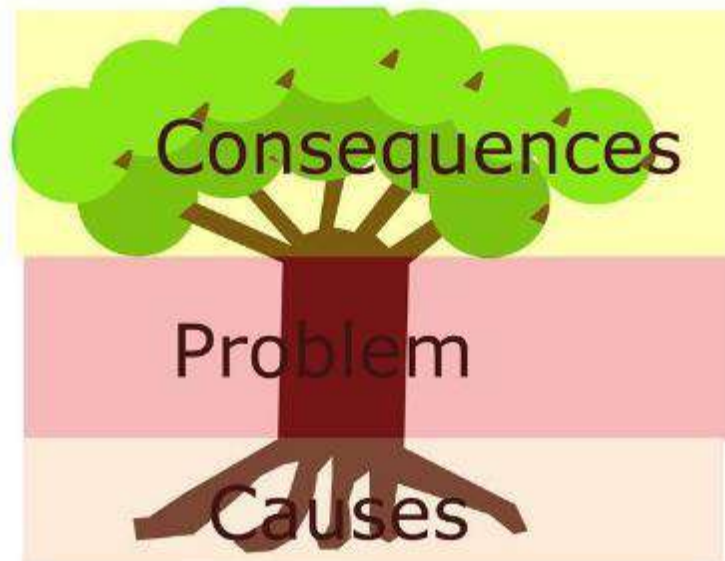
Working aids

Working Aid 1: Natural Resource Assessment (only as a note for workshop facilitators, but not for the community)

<i>Natural Resource Assessment</i>	
Type of resource	
State of the resource	
Cause of resource degradation or exploitation	
Potential solution	
Responsible person	
Involved institutions	

Working Aid 2: Problem tree

Draw a problem tree for 2-3 most severe problems with natural resources to identify causes and consequences.



Working Aid 3: Disaster Risk Reduction (for moderator use only)

<i>Soil erosion</i>				
Areas affected in the village				
Potential Causes				
Solutions*	effectiveness	feasibility	Costs	Needed material
Solution A				
Solution B				
Solution C				
<i>Decided adaptation action</i>		<i>Use of action plan to specify adaptation action</i>		

*potential solutions:

CESVI: live palisade, brush layering, contour line fascines, drainage fascines, live wattling, gabions, tripod for river works, keck dams

LUP: nitrogen-fixing, poplar trees for afforestation

<i>Flooding</i>				
Areas affected in the village				
Development over time		<i>Have the floods increased in frequency or severity?</i>		
Potential Causes				
Solutions*	effectiveness	feasibility	Costs	Needed material
Solution A				
Solution B				
Solution C				
<i>Decided adaptation action</i>		<i>Use of action plan to specify adaptation action</i>		

<i>Drought</i>					
Areas affected in the village					
Development over time		<i>Have the droughts increased in frequency or severity? Develop a timeline</i>			
Potential Causes					
Solutions*		effectiveness	feasibility	Costs	Needed material
	Solution A				
	Solution B				
	Solution C				
<i>Decided adaptation action</i>		<i>Use of action plan to specify adaptation action</i>			

Workshop Tips

Ten tips for workshop coordinators/facilitators/community animators in preparing for a community workshop (by CEDEMA)

1. The selection of the date and time of the workshop should be done in consultation with community members to ensure that key persons (the identified target audience) can attend. Particular attention should be paid to what suits the most marginalised (as a result of gender, age, poverty etc.) and to religious commitments. This can make it difficult to find a time that suits everyone and may mean delivering the workshop on weekends or evenings, and over an intensive or extended period.
2. The selected venue should be one that all participants feel comfortable with. For example, a school may have negative associations for people who did not do well in school; a venue that is associated with a particular organisation, particularly one run by elite factions within the community, may deter some people from attending. Consequently, the venue chosen may be less convenient for the facilitator (e.g. no air conditioning; inability to control the amount of light or noise that comes in) and s/he will need to be aware of this in advance in order to prepare accordingly.
3. Most people involved in community groups or activities are volunteers; very few community-based organisations have reached the stage where they employ staff. This means that if they give up two days of their time for a workshop, they are probably also giving up two days of earning a living, which places a heavy burden on people who are already living in poverty. The organisers of the workshop should be sensitive to this, consider whether to provide a stipend (though this should not be used to attract 'hangers-on' with no real interest in the learning), and certainly ensure that nobody is out of pocket for transport costs, food etc.
4. It is critical that linkages be created between the work that has already been done in the community in terms of disaster preparedness and this module. The coordinators of the workshop should ensure that the facilitator has all relevant materials and has had the opportunity to liaise with the facilitators of earlier processes.
5. The style and timing of community mobilisation will vary according to the community. It is disrespectful to give community members too little notice but equally they are likely to need a reminder 1-7 days before the workshop. Where specific individuals are being targeted, the most effective community mobilisation technique is likely to be a personal invitation (by phone, email or letter), with follow ups as needed. Where wider community participation is being solicited, effective techniques include putting up fliers in popular places; newspaper advertisements or press releases; radio announcements, particularly where there is a community radio station; coordinator or facilitator appearing on a TV show to describe the workshop; coordinating through a community-based organisation; use of popular 'champions' as intermediaries (e.g., the local calypsonian or star cricket player); and announcements at churches, mosques and temples.
6. Prepare for the 'unexpected' (which is often 'not-so-unusual') – for example, participants turning up late; participants who don't meet the established criteria (e.g. people with low literacy or no previous involvement in disaster preparedness planning); inter-personal or inter-organisational conflict; power outages; late delivery of food etc.
7. Gender and inter-generational dynamics vary considerably from community to community and from workshop to workshop. Ideally, the organisers should target a good balance of men and women, young and old, including representation from different 'communities of interest' within the wider community. The facilitator, therefore, needs to be prepared to find ways to engage people with diverse and divergent perspectives and to encourage them to listen to each other's points of view. In the Caribbean, unlike many other areas of the world, women are often in the majority in community workshops; and the least represented group is often young men.

8. Select a venue with plenty of wall or other space for hanging flip chart paper etc. and with space for small group/break-out work.
9. Set up the venue from the start in a way that signals that the facilitator is not the 'expert' or 'the sage on the stage' but 'the guide on the side' – all seating at the same level, no head table, U-shaped or herringbone arrangement so everyone can see everyone else and the screen.
10. Have plenty of 'energisers' up your sleeve for times when participants are flagging. It is not unusual for a participant to have got up extremely early to take care of the day's domestic duties (cooking, cleaning, washing, preparing children for school, wetting the garden etc.), so tiredness does not necessarily indicate lack of interest!

Workshop evaluation form

1. Did you find the workshop useful in understanding how climate change may affect the community and how pasture and forest management are interlinked?

Yes No

2. What is the most important thing that you learned from this workshop?

3. What did you like about this workshop?

4. What did you dislike about this workshop?

5. Did we meet your expectations? (If not, please indicate why)

6. Please indicate which units and sessions you found particularly useful resp. least useful:

Most useful:

Least useful:

7. Was the time sufficient for the workshop?

8. How could the workshop be improved?

9. How would you rate the following areas of the workshop? Please tick one box for each statement.

	Very Good	Good	Fair	Poor
Clarity of workshop objectives				
Content				
Workshop material (Land use catalogue)				
Facilitation				
Relevance to your needs				

Any additional comments on the above:

10. Which ideas from the workshop will you apply in your community?

11. What would prevent you from applying the ideas discussed in this workshop?

12. Do you or your village have any additional training needs?

13. What recommendations would you like to make to the training?

14. Any other comments:

Thank you!