

Sustainable Forest Management in a Changing Climate  
FAO-Finland Forestry Programme – TANZANIA

## Report

### Community Based Fire Management

### Regional Workshop

26-28 November 2012, Arusha, Tanzania



**Dar es Salaam  
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# 1 Introduction

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The workshop drew participants from Uganda, Zimbabwe, Kenya and Tanzania. Also, a representative from FAO Head Quarters in Rome participated in the workshop. The participants were a diverse group from government institutions (Ministries), Non Government Organizations, Private Companies and Higher Learning Institutions. They came together to share their practical experiences about Community Based Fire Management in their respective countries and institutions.

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## 2 Workshop Objectives

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The workshop objectives were to:

- Expose the CBFiM study on indigenous knowledge on fires to Tanzanian and non Tanzanian stakeholders and seek their input on refining and adding value to the work and next steps to extend and strengthen their appreciation and understanding of the role of CBFiM in Tanzania.
- Seek the views of practitioners and experienced colleagues on CBFiM in neighbouring countries; Kenya, Uganda and Zimbabwe, and potentially create a community of practice for CBFiM among these countries.
- Consider the elements in common and formulate them as guidance on methodology and practice while identifying the aspects of CBFiM that require further analysis and investigation.

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## 3 Day one: presentations

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The first day provided an opportunity for the participants to provide information and insights to the workshop from their experience in their respective countries and to hear of the work undertaken with communities on fire management and fire communication in Tanzania by FAO-Fin and the Government of Tanzania.

### 3.1 FAO perspective on CBFiM – Pieter van Lierop; FAO Rome

Pieter van Lierop briefly presented the CBFiM Global experience and FAO's perspective on the importance of effective fire management at the local level and the engagement of communities. He emphasized that it is critical to develop guidance and tools to support CBFiM implementation. It was noted that:

- There is need to integrate indigenous and imported knowledge systems in fire management.
- It was suggested to use the term "improved" other than "modern" in CBFiM because the issues which might be referred to as "modern" were borrowed from elsewhere hence they have been existing, in many cases for a long time. CBFiM may include the new and the old, so there may be new technology involved and there has been strengthening of existing practises.
- The issue of arson fires was considered in the discussion of CBFiM. It was agreed that there is need to identify the root causes of fires, including arson, rather than addressing symptoms of smoke, flames and negative impacts. Hence, communication of fire management issues is critical at all levels.

### 3.2 Findings and lessons learnt from CBFiM study in Tanzania – Dr. Christopher William

Christopher William presented the results on the fieldwork study carried out in Tanga, Morogoro, Rukwa, Kigoma, Tabora, Lindi, Ruvuma, Mbeya and Iringa. He highlighted that:

- The method used, a mix of one-on-one interviews, focus groups and village meetings, allows for natural flow of information from the villagers in their own setting and convenience and provides a starting point for a consistent [standard] approach of assessing CBFiM but does require patience and flexibility
- The similarities found between villages provide a basis for common elements for a guideline. The differences suggest appreciating that differences exist among communities and should be considered in guidance. Attitude variation among age groups suggest targeting these groups strategically is needed.
- Sacred places were identified as special and not supposed to be burnt, so they may be protected from burning and communities may have traditions and rules about fire and sacred places. Hence when planning for CBFiM, cultural values and norms must be taken on board.
- Information on fire incidents was not documented although people could still recall fire incidents and the damage associated with them. However, this information is somehow not reliable due to generation gap, exaggeration or misinterpretation and being reliant on human memory.

- Negative attitude towards fighting trans-boundary fires need to be discouraged as these can have adverse negative effects to the environment i.e. issue of global warming.
- Negative attitude towards fighting trans-boundary fires need to be discouraged as these can have adverse negative effects to the environment i.e. issue of global warming.

### 3.3 Communication Strategy for Integrated Fire Management: A case study of Kigoma in Tanzania

#### Dr. Jasson Kalugendo

Jasson Kalugendo presented on a four-month pilot project in progress on bottom up communication to implement integrated fire management at community level. He suggested that bottom up communication has proven to be an important tool in integrated fire management and other development and environment related issues at community level.

The Pilot confirmed the validity of the approach which is founded on the principles of “bottom-up” development which demands listening to intended beneficiaries before making policies or taking any action or implementing any initiatives related to their development.

The experience in Kazuramimba was instructive. At the outset of the Pilot it was virtually impossible to find anyone in the village with any interest in the environment – or in fires and burning, which were looked on as just part of the annual round of life. Less than four months later, when the Pilot ended, there had been a dramatic turn around. The work had been implemented through a strategy to Engage Community, Local Authorities and Partners to Manage Fire, which had as steps:

1. Involve Villagers, Local Authorities, and other Partners in Broad Discussions
2. Broaden Stakeholders’ Knowledge on Fires Impacts on People and Environment
3. Strengthen Communities and their Partners’ Actions related to Natural Resources and Environment
4. Increase the Taking of “Ownership” of their Development and Environment Initiatives including Fire Management by the Community

The means and methods applied, developed and adapted during the pilot were described during the presentation.

### 3.4 Designing CBFiM Research: Elements and ideas – Dr Hambati Herbert

Hambati Herbert proposed participatory approaches which appreciate what people have and involves the people. The use of local knowledge systems is critical because survival of rural communities is predominantly dependent on traditional ecological knowledge systems for their livelihoods. Adoption of practices includes users of environmental knowledge and appropriate set of practice, tools and techniques. Also, he emphasized that the use of fire should be connected to land utilization and improvement as this shapes the traditional perceptions and giving meanings to observations of the practices experienced. The target of integrated fire management should be to improve the productivity of land resources and human populations over time and space. Consistent with the experience of FAO-Fin at Kazuramimba he noted that the approach should include:

1. Appreciative Inquiry
2. Participatory Approaches on realities
3. PRA (Focus Group Discussions, Interviews, Participant Observation, Questionnaires)
4. Integrated approaches on land resources (Forest, Water, Soils, Atmosphere)

### 3.5 Experience sharing: CBFiM practises, challenges, successes and recommendations – Zimbabwe

Zimbabwe developed a national fire strategy in consultation with the communities and other stakeholders. This was in response to devastating wild fires. Other factors contributed to the success of fire management in Zimbabwe:

- Using the existing structure. For example, the community based fire crews were utilized as volunteers to mobilize community on the issue of fires.
- Increased involvement in fire management by communities often results in the communities being better informed and more likely to use fire cautiously and to adhere to local policy and legal regulations.
- Complimentary projects to support fire management like beekeeping, conservation farming, mushroom farming, allowing grazing within gazetted forests and use of other non-timber forest products.
- If communities have formal and legally recognised ownership of resources and enjoy the long term benefits of land they manage, they will tend to be concerned with the protection and sustainable management of the resources.
- Campaigns and training empower traditional leaders to appreciate the importance of fire management and the use of traditional environmental law enforcement mechanisms
- The local communities best know the major causes of fire and as such are best placed to come up with the most effective solutions.
- Traditional leaders craft and harmonise local by-laws in relation to cultural norms, values and set penalties and implementation of the bylaws.
- Collaboration with traditional leaders has facilitated the formation and training of community based fire management committees.
- Communities' values, beliefs and norms are considered as important as the ecological values in fire management.
- Traditional knowledge and skills are applied in avoidance of fire.
- Community involvement in fire management provide an environment for improved collaboration among communities, government and private sector.

An integrated CBFiM Strategy was developed on existing institutional structures and tailored to each Province. Controlled (Prescribed) Burning was a key with the elements being; decentralization to community; Property specific fire management programs and Collaborative management linking the Programs. The institutional structure involved National, Provincial and District Development Committees; District CBFiM Facilitators (FC & EMA); Community Fire Management Brigades and importantly a Permit to Burn System. The Permit to burn system involved the steps of registering a Fire Management Area and developing a Fire Management Plan to acquire a Permit to Burn. In parallel Capacity Building, Decentralization and Fire Management Awareness were carried out.

At the local level the work in a case study presented of Hurungwe District has involved an approach that uses the “5Rs” as the framing headings:

- Research (identification of fire causes, mapping of most fire prone areas and resources of importance in fire management).
- Risk reduction (fire prevention and suppression through traditional beliefs, fire breaks 4.5m – 9m wide)
- Readiness (Training on prevention, suppression, fighting, fire incident report writing- establishment of fire committees and the making of fire beaters from local resources).
- Response (fire fighting and traditional laws enforcement).
- Recovery (afforestation projects and sustainable bee keeping).

### 3.6 Experience sharing: CBFiM practises, challenges, successes and recommendations Uganda– Herbert Kyaligonza

In Uganda, CBFiM initiatives included creation of fire buffer zones through establishment of community woodlots around commercial woodlots and awarding timber harvesting tenders to communities as a public relations strategy. Provision of seedlings to communities around plantation forests during rainy (planting) seasons is encouraged so the local communities see the value of protecting forest resources around them.

### 3.7 Experience sharing: CBFiM practices, challenges, successes and recommendations Kenya – Charles Ngunjiri

For the Kenya Forest Service fires continue to be one of the biggest forest health hazards. Within the Kenya Forest Service, the Enforcement and Compliance Division is tasked with managing fires and the Director of forests is ultimately mandated to deal with forest fires. The major issues for the Forest Service are in relation to plantations.

Community Involvement in Fire Management Activities commence from the perspective that the communities are the “villains, victims and fixers” and efforts are focused on how to involve communities in fire management in plantations that are near villages. The KFS endeavor to bring the communities to find solutions for posterity, not in isolation but considering the communities competing needs for livelihoods. Forest fire campaigns are rolled out through public meetings, organised before the declaration of the fire danger season to create awareness in the need to prevent any forest fires and action to be taken in case a fire is detected.

Challenges for the Kenya Forest Service in fire management including with communities include:

- Competing needs for scarce resource allocation
- Access to fire prone areas
- Community participation and remuneration
- Equipment
- Fire breaks
- Acquisition of fire fighting gear for forest rangers

Successes and solutions have included the Economic stimulus programme dubbed “kazi kwa vijana” providing employment for youth over two years, which was utilized extensively for establishing fire breaks and other forest works and the forestry sector established Memoranda of Understanding with committees hence communities feel they own the process.

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# 4 DAY TWO: DISCUSSION ON guidance and tools to support CBFiM

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The second day saw a recap of day one, which highlighted the key ideas and insights from the presentations on Day One,. The first session of Day Two used Group Work to discuss and identify among the participants Common Elements; Tools and Guidance for CBFiM. This was followed by a Plenary session to share Feedback from the Working Groups. The final session was of Breakout Groups to consider Key Ideas, Opportunities and Next Steps and reporting back.

## 4.1 Plenary Group Results

In considering the presentations and experiences of the workshop participants it was identified that there were aspects in common between communities and across national boundaries. These included the means and approaches (Methodology); elements of local people and their self-arrangements (Communities) and the identification of needs for Multi-sectoral engagement and consistent and reliable Fire Recording. The points raised in discussion are set out below under the relevant headings.

### 4.1.1 Methodologies

- Multiple approaches to CBFiM, no one size fit all
- Beginning small is good, especially where the fire is outrageous
- First listen and then influence and not deliver a pre-determined message as the people know their environment
- Interaction of environmental elements is very important
- Put the human being at the centre, as s/he is very important
- Ownership of the process is the key, but it must go along with benefits (economic activities friendly to the environment should be considered)
- Consider alternative energy sources as a part of CBFiM strategy
- Be careful with imported technologies that do not suit the local people
- Avoid negative and accusative approach. Promote good use of fire as a resource so it is utilised in a good way
- Community people are the most affected economically, socially by the fire. Avoiding loss due to fires should be part of the message to be communicated to the local communities.
- Facilitators should listen, understand and build on the existing knowledge.

### 4.1.2 Communities

- Communities are the custodians of the resources so it is critical to engage them so that they engage the local government which will involve the central government. For a full engagement of the communities, there is need to: value their ideas, show signs of appreciation of their input, use their structures, listen but suggest new ideas
- Community people have been using fire from time immemorial. They know the causes of fires and are the best to come up with sustainable solutions

- Involvement of communities in the whole project cycle instils ownership and pride, and hence leads to project sustainability
- Use Government officials and other stakeholders as animators but not as the base because they are often too far away to address fire emergencies.
- Empower the community to fully manage and enforce by-laws on forestry resources and environment in general.

### 4.1.3 Multisectoral Engagement

- Involvement of the civil sector in environmental issues (Environment Africa, Timber Producers Federation).
- Exploiting structures from national, provincial, district, village levels.
- Use legal tools such as Forest Act, Environmental Management Act, Rural District Council Act, Traditional Leader Act, by-laws at village level.

### 4.1.4 Documentation

There is a need for documentation of fire incidents as this will assist in the project planning, information, impact evaluation, and followup. Documentation may include the following: Date of incident, location, area burnt, cause of the fire, extent of damage, procedures taken to suppress fire, whether culprit was identified (If identified, supply the name and action taken), and map of the area.



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# 5 Closing

Pieter VanLierop on behalf of FAO HQ and Charles Ng'atigwa on behalf of the Tanzania Forest Service and the government of Tanzania gave closing remarks, respectively. Both speakers emphasised on the importance of sustaining the effort on Integrated Fire Management that has started in Tanzania.

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