

Community surveys on fire preparedness in Mt Kenya ecosystem

Objective: To determine the level of community preparedness for wildfires in Mt Kenya, so as to build their resilience to impacts of climate change

The project: Staff from Machakos University are conducting a survey to determine how communities living adjacent to Mt Kenya forest are prepared for wildfires. Your response will help identify knowledge gaps and inform future trainings on fire management at the community level and beyond.

Survey Date:/...../.....

Part One: General Information on respondents

1. Respondent's Gender: (Male/Female)	
2. Age group: (18-35; 36-49; 50-60; over 60 years)	
3. Level of education (Primary, Secondary, Diploma, University)	
4. Occupation: (Farmer, student, trader, government staff, NGO staff, etc)	
5. Name of village:	
6. Name of county:	
7. Other information not listed above:	

Part Two: Benefits & Threats to forest resources

Please provide answers to the following questions:

Benefits

1. What kind of benefits do you obtain from the forest? Please circle the most relevant ones.
 - A- Harvesting firewood
 - B- Harvesting fruits and other edible forest products
 - C- Collecting medicinal herbs
 - D- Crop cultivation (PELIS)
 - E- Cultural and religious benefits, e.g., as prayer point
 - F- Aesthetic and well-being purposes
 - G- Water
 - H- Grazing
 - I- Ecotourism
 - J- Tree nursery establishment /collecting wild seeds for sale
 - K- Ecological benefits
 - L- Other

Threats

2. Are wildfires a major threat to the environment and community? (Y/N)
3. Are you at risk of wildfires in your farm? (Y/N)
4. If the answer is yes to either question, how great is the risk of wildfires to your community?
 - 1- Low risk
 - 2- Moderate risk
 - 3- High/very high risk
5. What are the main causes of wildfires in your local area? Choose the most relevant ones.
 - A- Arson
 - B- Farmland burning
 - C- Illegal logging and charcoal production
 - D- Military operations
 - E- Game poaching
 - F- Harvesting of forest products (e.g., honey, herbs)
 - G- Grazing of animals
 - H- Fire escape from prescribed burning
 - I- Lightning and extreme weather
 - J- Cigarette
 - K- Friction between objects, and animals and plants
 - L- Water pipe repair
 - M- Campfires
 - N- Other
6. To what extent does the local community contribute to the wildfires in your area?
 - 0- None
 - 1- Some
 - 2 - Large
 - 3- Very large
7. Do people in your area believe that burning forests brings rain? (Y/N)
8. If yes, to what extent does this belief contribute to wildfire incidents in your area?
 - 0- None
 - 1- Small
 - 2 - Large
 - 3- Very large
9. What is the most challenging aspect of fire control (or management) in your area?
 - A- Extreme weather

- B- Community not being aware of their actions
- C- No appropriate fire management policy/law
- D- Inadequate enforcement of forest-related laws
- E- Impunity
- F- Inaccessible roads /transportation challenges
- G- Other

10. What other forest-related threats exist in your area? Choose from below the most likely threats to forest resources.

- A- Agriculture expansion and forest encroachment
- B- Illegal logging and charcoal production
- C- Military operations
- D- Human-wildlife conflict
- E- Invasive species and pests
- F- Geological events (earthquakes, landslides)
- G- Extreme weather
- H- Wildlife damage
- I- Poaching
- J- Illegal grazing by pastoralists
- K- Inaccessible roads
- L- Other

Part Three: Promoting fire management practice

Knowledge

11. Any knowledge on wildfires and fire management?

- 0 - None
- 1 - Some
- 2 - Good
- 3 - Substantial

12. If so, what kind of knowledge?

13. Is traditional knowledge part of that knowledge? (Y/N)

14. What are the examples of traditional knowledge on fire management? Circle the most relevant ones.

- A- Traditional creation of fire breaks
- B- Respecting and safeguarding sacred areas/trees within the forest
- C- Knowledge of when to burn the land /traditional weather forecasting
- D- Building effective social networks within the community during fire preparation and response
- E- Planting fire retardant trees (exotic or indigenous) as buffer against fire
- F- Using branches and sand to put out fires

G- Any other? Please specify.....

Fire training

15. Any previous participation in conservation and management of the forest in general?

16. Any previous involvement in managing wildfires locally and in other areas? (Y/N)

17. If so, what role did you play?

18. Any previous training/ education on fire management in your community?

0- None

1- Some

2 - Good

3- Substantial

19. If you have received training, which agency coordinated the training?

20. What was the training about?

21. Do you feel better prepared for a wildfire after the training?

0- No

1- Little prepared

2- Moderately prepared

3- Very prepared

22. If the answer is no, what is the reason?

23. Are there incentives provided to communities and firefighters from the communities, to manage wildfires? (Y/N)

24. If yes to the above, what are examples of the incentives?

A- Financial incentives during fire outbreaks

B- Food (ration) and transportation during fire outbreaks

C- Certificates of attendance after trainings

D- Allocation of farm/land as an appreciation for fighting fires

E- Any other?

25. Are there adequate firefighting equipment and facilities?

0- Little/none

1- Some but inadequate

2 - Good but with a few gaps

3- Adequate

26. If the answer is no, what kind of equipment are needed?

27. Please indicate what kind of training is required by community to improve fire preparedness, and what is the most important to them.

Training	Not Important	Little Important	Important	Very Important
Fire simulations (fire drills)	☐	☐	☐	☐
Proper communication and coordination during a fire outbreak	☐	☐	☐	☐
Early fire detection and reporting	☐	☐	☐	☐
Firefighting, especially on using firefighting tools before fire control team arrives	☐	☐	☐	☐
Creating and maintaining fire breaks	☐	☐	☐	☐
Evacuation and fire safety	☐	☐	☐	☐
Responsible harvesting of forest products	☐	☐	☐	☐
Any other	☐	☐	☐	☐

28. Do community members have input into fire management decisions?

0- No input at all

1- Some input but no direct involvement in final decisions

2- There is direct involvement in some decisions

3- They are directly involved in all decision-making

29. If the community is not involved in fire management, what could be the reason?

Part Four: Recommendations

30. What actions are you willing to take as an individual to reduce fire risk in your community, and which among them is the most important to you.

Individual Action	Not important	Little important	Important	Very important
Creating firebreaks around the house and reducing accumulation of grass and farm debris	☐	☐	☐	☐

Responsible burning of litter	☐	☐	☐	☐
Participating in planting indigenous trees with known fire-resistant benefits	☐	☐	☐	☐
Being involved as a firefighter or forest scout	☐	☐	☐	☐
Sharing wildfire warnings and related information with other community members	☐	☐	☐	☐
Fireproofing the house with fire-resistant building materials	☐	☐	☐	☐
Reporting to government agencies when a fire-related crime is committed	☐	☐	☐	☐
Any other	☐	☐	☐	☐

31. What could be done by the government and/or community to reduce fire impacts to the forest and community, and which among them is the most important to you.

Government Action	Not Important	Little Important	Important	Very Important
Inform/warn the public when fire risk is high during the fire season	☐	☐	☐	☐
Increase/improve community participation in fire management	☐	☐	☐	☐
Conduct timely fire suppression whenever a fire breaks out	☐	☐	☐	☐
Prosecution of suspected arsonists	☐	☐	☐	☐
Establish and regularly maintaining the fire breaks	☐	☐	☐	☐
Reduce fuel in the landscape through clearing of vegetation debris	☐	☐	☐	☐
Conduct fuel reduction through controlled/prescribed burning	☐	☐	☐	☐
Enhanced protection of habitats that host threatened plants and animals	☐	☐	☐	☐
Any other	☐	☐	☐	☐