Greater Mahale Ecosystem
Conservation Action Planning Meeting 2

Mahale Mountains National Park
February 5th – 8th, 2008

Executive Summary

The second Greater Mahale Ecosystem Conservation Action Planning (CAP) meeting was held at Mahale Mountains National Park, from the 5 – 8th February, 2008. This second meeting built on the achievements of the first CAP meeting held in Kigoma in December 2007. The meeting was attended by 18 representatives from 9 organisations from local and central government and private institutions and NGO's.

This report is a summary of the meeting and documents the activities, discussions and decisions made during the second meeting, its purpose is to remind participants about the meeting events and document the planning process.

The objectives of the meeting were:
1. To continue to familiarize the Core Planning Team with The Nature Conservancy's Conservation Action Planning (CAP) process.
2. To provide an opportunity to review the selected focal targets, their key ecological attributes, indicators and critical threats to the ecosystem.
3. To complete a situation analysis of the Greater Mahale Ecosystem including: probing the factors that both positively and negatively affect targets, and determining who the key stakeholders linked to each of these factors are.
4. To further develop a set of ecosystem objectives that specifically and measurably describe what success looks like.
5. To brainstorm and prioritize the strategic actions that will be undertaken to achieve success.
6. To identify what work needs to take place prior to the final CAP workshop and who will do what.
7. To ensure that any queries about using the CAP Excel Workbook are addressed.

Meeting participants were introduced to situation analysis by the CAP facilitator, the initial task in the second CAP meeting was to review and discuss the linkages between our targets and their direct threats. We discovered that:
- A single threat can affect more than one target.
- Some threats are both direct and indirect.
- Some threats are actually causing, or are linked to, others and therefore begin to describe a chain of causation.

We then divided into groups explored the "situation" (contributing factors, stakeholders, and opportunities) surrounding the following threats: Incompatible (rapid, unplanned) agriculture; Uncontrolled burning (inside and outside of protected areas); Planned and unplanned settlement expansion; Infrastructure development; Refugee camps/settlements; Mining; Livestock keeping; Poaching (illegal hunting) and hunting; Rapid human population growth; Diseases; Incompatible fishing practices; Firewood collection and timber extraction.

The findings and discussions of the group work were combined into a single situational analysis diagram (see Figure 4, page 5).

The group then reviewed the objectives developed at the first CAP meeting and developed strategic actions for those objectives. A short presentation about strategic actions was given by the CAP Facilitator. Strategic actions were defined as: broad or general courses of action undertaken by a project team to reach one or more of your project's stated objectives. Collectively, the strategic actions should be sufficient to accomplish the objectives. A good strategic action meets the criteria of being:
- *Linked* - directly related to a specific objective(s).
- *Focused* - maximizes the effectiveness for achieving the objective(s).
- *Feasible* - accomplishable in light of the project's resources and constraints.
- *Appropriate* - acceptable to and fitting within project-specific cultural, social, and ecological norms.

Objectives derived from the second CAP meeting

1. Threat - Uncontrolled burning
Objective: By 2018 there is no burning within evergreen forest, and the frequency and extent of *uncontrolled* fire is reduced to acceptable levels[*] in all other habitats.   *To be determined

2. Threat - Deforestation (excluding Commercial Logging)
Objective: By 2015 the total deforestation rate (of evergreen forest and woodland) is reduced by X*% from the 2007 baseline   *To be determined

3. Threat - Logging
Objective: By 2018 illegal logging in the GME is stopped and timber extraction is within designated areas that have sustainable harvesting management plans.

4. Threat - Pathogen Introduction (to Chimpanzees)
Objective: By 2012 the rate of chimp mortality from diseases transmitted by humans is reduced by 90% within Protected Areas, and is zero in all new chimp habituation projects.

5. Threat - Refugee Camps
Objective: By 2009, relationships are established with refugee agencies and NGOs to ensure best and most environmentally sensitive use of land within areas that are currently designated as refugee settlements.

6. Threat – Incompatible Fisheries
Objective: By 2012 fisheries management is improved, the use of illegal fishing methods is progressively declining and the rate of extraction of fish is at a sustainable level.

7. Threat - Mining
Objective: All future mining activities use the most environmentally and socially sensitive methods available and are subject to rigorous EIA processes according to the highest global standards.

8. Threat – Incompatible Agriculture
Objective: By 2015, more than 75% of agricultural activities take place *in designated areas* (as laid out in the Greater Mahale Conservation Plan) and agricultural productivity is increasing.

9. Threat - Livestock Keeping
Objective: By 2018 livestock keeping is within designated areas and does not exceed the carrying capacity of those areas.

10. Threat – Settlements (expansion) including planned and unplanned, outside of PA's
Objective: By 2013 VLUMPs (which are in accordance with GME priority areas) are developed for all villages within the GME and by 2018 are fully implemented.

11. Threat - Infrastructure Development
Objective: From 2013 onwards all infrastructure development within the GME is compatible with land-use plans and the conservation of key priority conservation areas (as laid out in the GME Priority Conservation Areas Plan (PCAP).

12. Threat - Hunting (commercial)
Objective: Hunting in the GME is sustainable and generates benefits that are shared between communities and wildlife protection by 2018.

13. Threat - Poaching
Objective: By 2018 poaching in the GME is reduced by 50% and poaching in newly designated Protected Areas is reduced by 75% within 5 years of their establishment.

14. Threat – Loss of Habitat Connectivity
Objective: By 2018 connectivity of key areas within the GME is protected, maintained and/or restored (as appropriate).

15. Threat – Rapid Human Population Growth
Objective: By 2012 develop relationships with relevant partner organisations, and work together to reduce population growth from 2007 baseline levels to 2.6% (the national average) by 2030.

For each objective, working groups were formed to brainstorm, record, and present strategic actions. As a large group these strategies were then discussed and refined or added to. Strategic actions for each of the objectives are presented in the results section of this report.

A short, personal brainstorming session was also held, during this session, participants were asked to think about strategies that might be missing from the existing list. Missing strategies listed by participants included: Investigate/facilitate application of new "corridors" legislation/protection to improve/protect connectivity; Microfinance as a tool to support fisheries/farming and general development; Provide alternative protein sources to communities to reduce the demand for bushmeat; Reconsider a snare-specific strategy (i.e. hiring former poachers to locate and remove snares); Provide alternative livelihood options (to reduce pressure on natural resources); Information, education and awareness

Due to time constraints, a thorough prioritization process was not possible, instead a rapid prioritization exercise was employed. A more systematic process is to be carried out by a smaller group prior to the third CAP meeting.

During the discussion of the threats, objectives and strategic actions the group often came back to the question of **WHO** is this plan for, and who will be implementing it? This Conservation Action Plan is being developed by a Core Planning Team selected by a wide range of stakeholders. It has been clearly stated from the start that **this plan is for all the Core Planning Team members and the institutions they represent**.

A list of information requirements and tasks to be completed before the third meeting was prepared (see Table 1, page 15).

Acknowledgement

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1 Introduction

The second Greater Mahale Ecosystem Conservation Action Planning (CAP) meeting was held at Mahale Mountains National Park, from the 5 – 8th February, 2008. This second meeting built on the achievements of the first CAP meeting held in Kigoma in December 2007 (see meeting separate meeting report GME CAP 1 Meeting Report, MEMP 2008).

The meeting was attended by 18 representatives from 9 organisations, see Appendix 1 for a full list of meeting attendees. Apologies for absence due to logistical difficulties were received from Kigoma and Rukwa Regional officers.

This report is a summary of the meeting and documents the activities, discussions and decisions made during the second meeting, as the process is not finalised (a third and final CAP meeting is planned for May 2008) this is not a final CAP report. The purpose of this report is to remind participants about the meeting events and document the planning process.

1.1 Objectives

The objectives of the meeting were as follows:

Greater Mahale Ecosystem CAP Objectives: Workshop 1

1. To continue to familiarize the Core Planning Team with The Nature Conservancy's Conservation Action Planning (CAP) process.

2. To provide an opportunity to review the selected focal targets, their key ecological attributes, indicators and critical threats to the ecosystem.

3. To complete a situation analysis of the Greater Mahale Ecosystem including: probing the factors that both positively and negatively affect targets, and determining who the key stakeholders linked to each of these factors are.

4. To further develop a set of ecosystem objectives that specifically and measurably describe what success looks like.

5. To brainstorm and prioritize the strategic actions that will be undertaken to achieve success.

6. To identify what work needs to take place prior to the final CAP workshop and who will do what.

7. To ensure that any queries about using the CAP Excel Workbook are addressed.

2   Situation Analysis

Situation Analysis

This step asks you to describe your current understanding of your project situation - both the biological issues and the human context in which your project occurs. This step is not meant to be an unbounded analysis, but instead probes the root causes of your critical threats and degraded targets to bring explicit attention/consideration to contributing factors - the indirect threats, key actors, and opportunities for successful action. Specific questions that this step answers include:

"What factors positively & negatively affect our targets?"
"Who are the key stakeholders linked to each of these factors?"
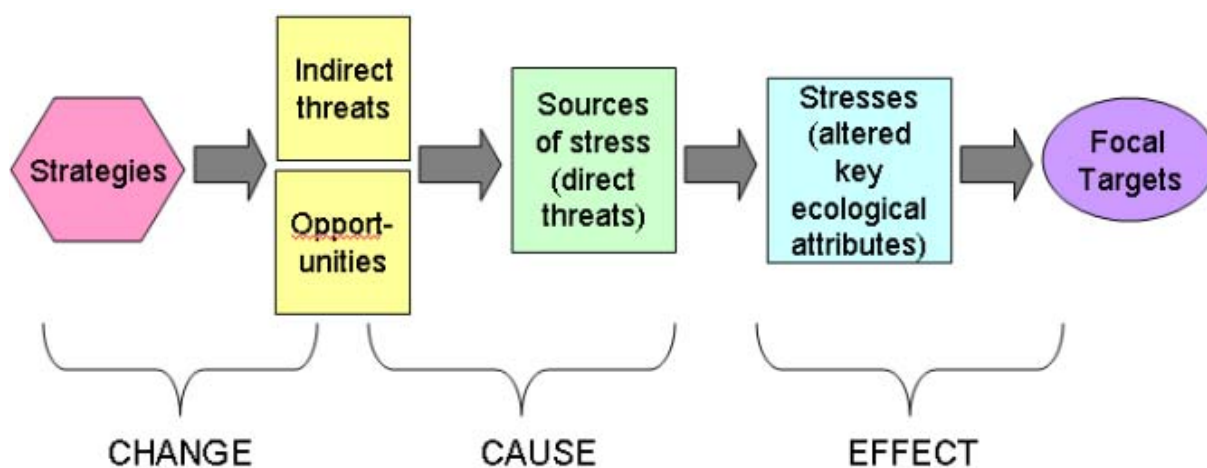
Figure 1: Elements of a situation analysis, and how they can be placed visually to help describe their relationship to one another.

Approach:

Meeting participants were introduced to situation analysis by the CAP facilitator. Completing a situation analysis is a process that will help us create a common understanding of the Great Mahale context - including the biological environment and the social, economic, political, and institutional systems that affect the targets we want to safeguard.

A complete situation analysis involves assessing the key factors affecting our targets, including direct threats, indirect threats, and opportunities. In our first CAP meeting, we selected focal targets and conducted a threat analysis. Thus, our initial task in this second CAP meeting was to review and discuss the linkages between our targets and their direct threats. This was done orally and visually, by placing cards representing targets and threats on a wall, in relationship to one another (see Figure 1 above).

As a whole group participants were asked to the list the factors contributing to incompatible agriculture.

We discovered that:
- A single threat can affect more than one target.
- Some threats are both direct and indirect. For example, poor farming practices can result in uncontrolled burning which is a threat to several targets; yet poor farming practices themselves are a direct threat to our target of agricultural productivity.

- Some threats are actually causing, or are linked to, others and therefore begin to describe a chain of causation. For example (see Figure 2 below): lack of awareness about farming practices can lead to poor practices and management on the ground, which can result in issues such as uncontrolled fire; uncontrolled fire, especially near fire-sensitive (rather than fire-driven) ecosystems, can degrade targets such as evergreen and bamboo forests, and chimpanzee and elephant habitat. Another chain of causation is the development of infrastructure (e.g., roads), leading to the expansion of settlements and agriculture (at times on marginal lands or with poor practices), resulting directly in the loss of habitat (through deforestation in example below).
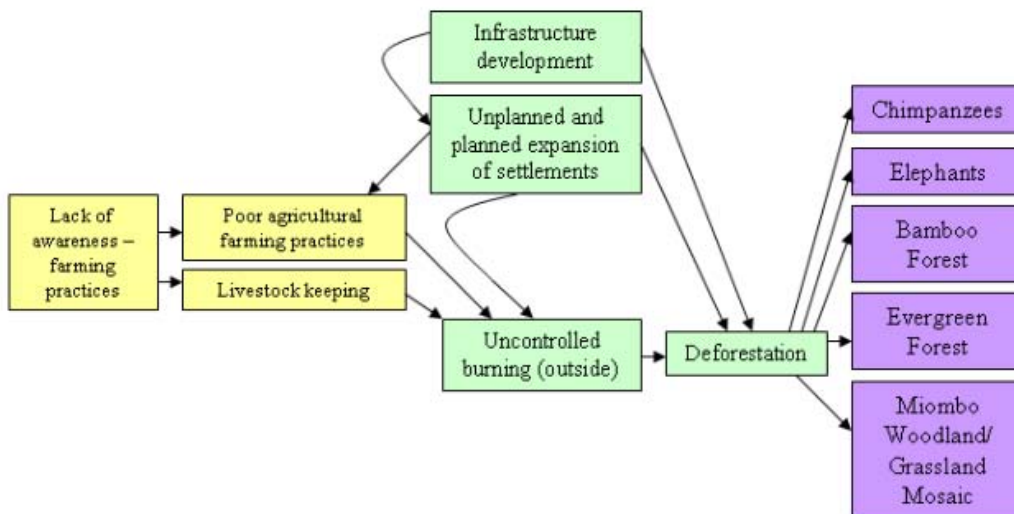
Figure 2: An example of how threats can be linked to one another, as well as to targets.

After placing all of the cards representing targets, key ecological attributes, and critical threats from our December CAP meeting, we selected a single critical threat (rapid or unplanned agricultural expansion outside of protected areas) to work on as a large group. To begin probing the situation around this threat we asked the simple question: What is going on? What factors are contributing to, or driving, this threat? Meeting participants were also asked to picture the current undesirable situation – rapid and/or unplanned agricultural expansion – and then to imagine a different scenario: one where agricultural development happened in planned, strategic locations; was compatible with other land use, livelihood, biodiversity and ecosystem requirements; and was productive. What would need to happen to cause this shift in scenario from a negative situation to a positive one? After a period of brainstorming, participants offered their interpretation of the current situation, including: contributing factors, stakeholders, and opportunities. As a group, we discussed which factors were the primary, or most important, ones ("drivers") to address if we are to change the situation.

We then divided into groups to address each of the other critical threats in more detail. Each group was asked to brainstorm the factors contributing to their threat, to agree on the key factors (drivers), and to write these on cards or on a flip chart sheet, along with the relevant stakeholders. Each group then had an opportunity to report back and discuss their conclusions with the larger group. An example of the results for the threat of uncontrolled burning is given below (Figure 3). The boxes on the far left (shaded pink) represent a suite of interrelated socio-cultural factors which contribute to the current situation.
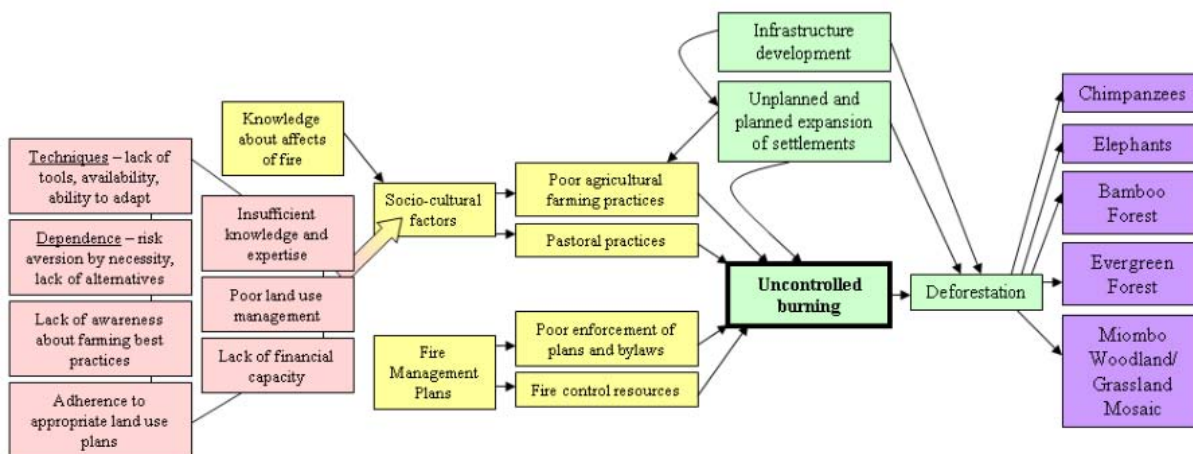
Figure 3: **An example of the factors contributing to the threat of uncontrolled burning.**

Results:

We explored the "situation" (contributing factors, stakeholders, and opportunities) surrounding the following threats:

- Incompatible (rapid, unplanned) agriculture
- Uncontrolled burning (inside and outside of protected areas)
- Planned and unplanned settlement expansion
- Infrastructure development
- Refugee camps/settlements
- Mining
- Livestock keeping
- Poaching (illegal hunting) and hunting
- Rapid human population growth
- Diseases
- Incompatible fishing practices
- Firewood collection and timber extraction
- Deforestation. Note: We decided that this was not a threat (or perhaps a redundant threat) so much as a description of the stress to the targets – i.e., loss of habitat/area/large trees or specific species – and that the more direct threats are things like: incompatible agriculture, human settlements and infrastructure; uncontrolled burning; and incompatible firewood and/or timber extraction. All of which were addressed separately.

The detailed results for each of the threats listed above are given in Appendix 3: Results of situational analysis (individual group work) below.

The findings and discussions of the group work were combined into a single situational analysis diagram presented in Figure 4 below.

This process exposed many factors contributing to threats in the Greater Mahale Ecosystem -- both direct threats and underlying issues, and also the wide variety of stakeholders who have an interest in the ecosystem and its resources. These present us with a large number of opportunities for taking action and affecting the future of the GME, as well as some concerning obstacles. Several issues deeply accentuate and influence almost all factors identified. These are: the general lack of education, poverty (at local and national levels), corruption, and rapid human population growth in the region. But they certainly do not stand in the way of making real and tangible progress towards biodiversity conservation, sustainability, and improved livelihoods in the GME.

Figure 4: GME Situation Analysis Diagram
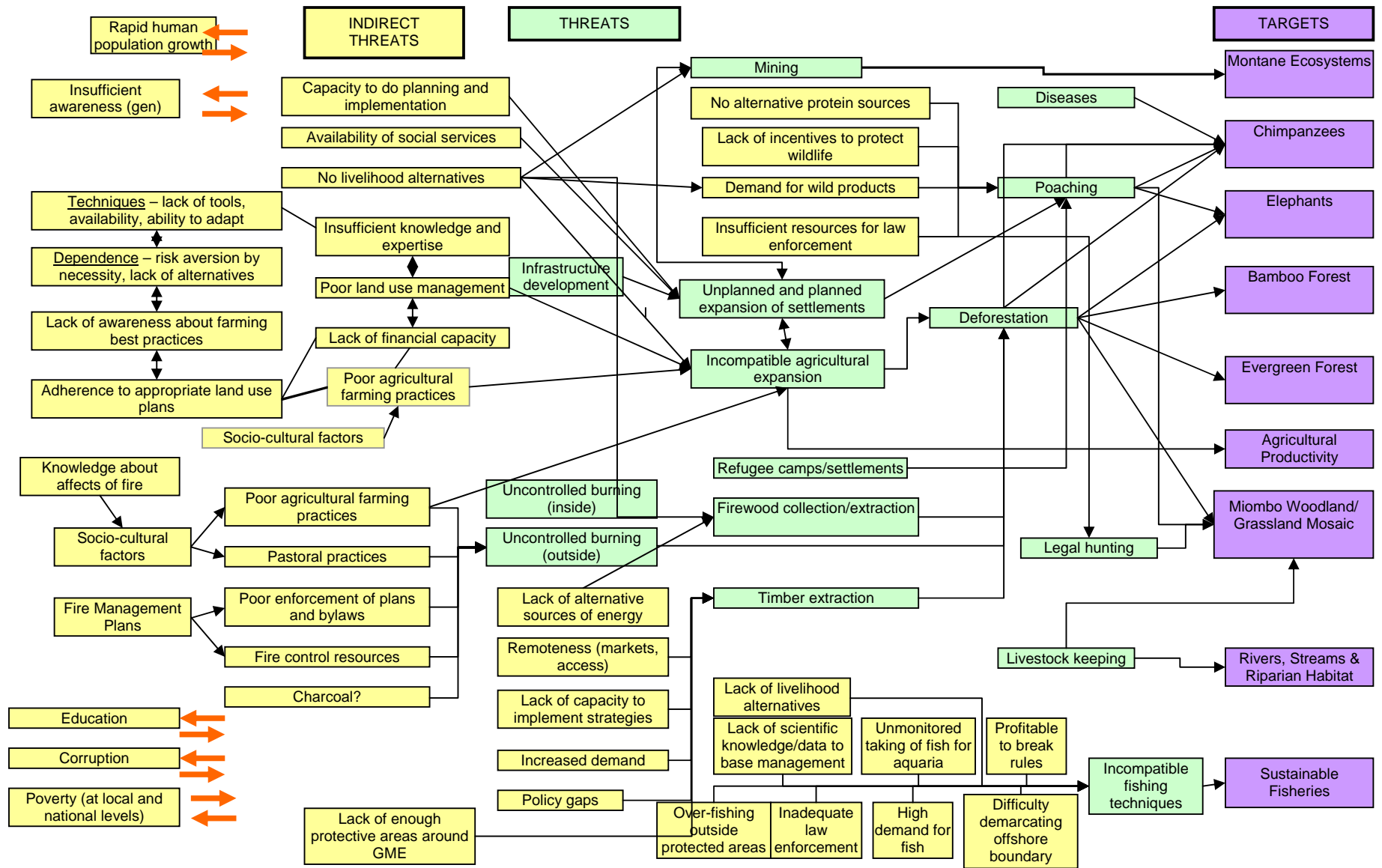
3   Review Objectives and developing strategic actions

3.1   Objectives

> Objectives are specific and measurable statements of what you hope to achieve. They represent your assumption as to what you need to accomplish and as such, become the measuring stick against which you will gauge the progress of your project. Objectives can be set for and linked to the abatement of threats, restoration of degraded key ecological attributes, and/or the outcomes of specific conservation actions. A good objective meets the criteria of being: specific, measurable, achievable, relevant, and time limited.

Approach:

Draft objectives were recorded at the end of the December CAP meeting in Kigoma. In this February meeting, we began by briefly revisiting the concept of objectives and how they are developed. We also reviewed our draft objectives and acknowledged which critical threats or key attributes they address, and for which targets. After doing this we were able to see which of our critical threats or key attributes have no associated objective -- that is, no statement of what we hope to achieve in the way of changing or mitigating the situation surrounding the threat or attribute. Having identified these gaps, we were able to agree on a general and comprehensive set of topics (either direct or indirect threats, opportunities, or ecological attributes) that our objectives must address.

A small working group was assigned to each topic and tasked with developing an objective that meets the criteria of being specific, measurable, achievable, relevant, and time limited. After 40 minutes the group wrote their objective statement on a clean sheet of paper and rotated to another group's work station. At the new station, the objective left by the previous group was read, discussed, and edited or commented on. After 15 minutes groups were rotated again, and so on, until each group returned to their original workstation/objective where they had time to review all of the comments and finalize their objective statement. Each group then presented back to the large group.

Working groups were assigned the following objectives for review.

Group 1
1. By 2013, Land Use Management Plans (which are in accordance with the/a Greater Mahale Conservation Plan) are developed for all villages (settlements?) in the Ecosystem, and by 2018 are fully implemented.
2. From 2013 onward, all infrastructure development is compatible with land use plans and the conservation *of key areas* (as laid out in the Greater Mahale Conservation Plan?).
Group 2
3. By 2018, the regional population growth rate has fallen to the National average (2.6%).
4. By 2018, connectivity *of key areas* within the ecosystem is restored and maintained.
Group 3
5. By 2015, more than 75% of agricultural activities take place *in designated areas* (as laid out in the Greater Mahale Conservation Plan?).
Group 4
6. By 2012, the frequency and extent of uncontrolled fire is reduced *by 50%* (or "to acceptable levels" – and we need to define "acceptable" in the viability assessment for each major terrestrial habitat type).
7. By 2015, the total deforestation rate (of evergreen forests and woodlands; hectares per year) is reduced *by 60%** from the 2007 baseline. (*Needs to be linked to a size KEA (key ecological attribute) of the individual systems, or the combined extent of evergreen forests and woodlands).

Objectives can also be designed to address resource and capacity issues. The lack of resources and capacity in the GME was certainly noted in our situation analysis, and will be addressed separately in the third CAP meeting in May. Developing resource objectives relies on first understanding our threat-based objectives (an outcome of this meeting), and assessing what they require in terms of resources, particularly in relation to what resources are available (next CAP meeting).

The results and discussion points from this group work are presented in section 3.3 below, along with the strategic actions for each achieving objective.

3.2   Strategic Actions

Strategic actions are broad or general courses of action undertaken by a project team to reach one or more of your project's stated objectives. Collectively, the strategic actions should be sufficient to accomplish the objectives. A good strategic action meets the criteria of being:

- *Linked* - directly related to a specific objective(s).
- *Focused* - maximizes the effectiveness for achieving the objective(s).
- *Feasible* - accomplishable in light of the project's resources and constraints.
- *Appropriate* - acceptable to and fitting within project-specific cultural, social, and ecological norms.

Approach:

A short presentation about strategic actions was given by the CAP Facilitator. The presentation emphasized that strategic actions are about what we will do to achieve our objectives and that often there are multiple "pathways" of action. For example, we can protect our resources by acquiring a direct interest in them (owning land, mineral rights, etc.), or by direct management of them. Alternatively, we could influence they way they are regulated or other decisions made regarding their protection or management. A third option is to act indirectly through providing alternatives, incentives for behavioural change, or impacting underlying factors such as education.

Whatever path of action is decided on, it is imperative that it be directly linked to one of our stated objectives, has sufficient focus, can feasibly be accomplished by one of the Core Planning Team members, member institutions, or partners, and is appropriate to the Greater Mahale Ecosystem.

For each objective, working groups were formed to brainstorm, record, and present strategic actions. As a large group these strategies were then discussed and refined or added to. Afterwards, a short, personal brainstorming session was also held. During this session, participants were asked to think about strategies that might be missing from the existing list. For instance, activities already taking place in the GME that are proving successful and should be continued or improved upon, or that have worked under similar circumstances in other places and hold great promise for the GME context. The result of these two sessions was a long list of potential strategies. Yet clearly not all strategies can, nor will, be implemented. Rather all strategic actions need be evaluated to determine which will most effectively and efficiently accomplish our objectives. This is done via a prioritization process in which criteria regarding the benefits, feasibility, and cost of each strategy are scored and compared.

Due to time constraints, however, a thorough prioritization process was not possible. Instead a rapid prioritization exercise was employed, and the more systematic process is to be carried out by a smaller group prior to the third CAP meeting. The rapid prioritization involved each participant receiving a set of "yes" votes (green dots) and "no" votes (red dots). The "yes" votes were placed next to actions that the individual felt we would be remiss not to implement (because they will have

a significant positive impact, are highly affordable, appropriate, feasible, etc.), and the "no" votes next to actions that were felt to be unimportant, unnecessary, not worth the effort, not feasible, etc..

The results of this rapid prioritisation are listed next to each of the strategic actions below. Remember:

Yes - Green Dots = will have a significant positive impact, are highly affordable, appropriate, feasible.

No - Red Dots = were felt to be unimportant, unnecessary, not worth the effort, not feasible.

3.3   Results

3.3.1   Threat - Uncontrolled burning

Objective: By 2018 there is no burning within evergreen forest, and the frequency and extent of *uncontrolled* fire is reduced to acceptable levels[*] in all other habitats.

*To be determined

Strategic actions
1. Develop an adaptive fire management plan for the GME, using definitions of acceptable levels of burning that are based on sound scientific data concerning the effects of burning on different habitat types
   Who - NGOs, District Councils, specialist experts
2. Engage VECs and VCs in discussion forums to raise awareness about the effects of uncontrolled burning and about prevention measures   (1 GREEN DOT)
   Who - Education/environmental officers from DC; NGOs and specialist experts
3. Ensure that all land-use plans include by-laws dictating the manner and locations in which burning can be carried out
   Who - District Councils
4. Strengthen the capacity of VECs and VCs to enforce by-laws
   Who - NGOs, District Councils, District extension officers   (1 GREEN DOT)
5. Investigate potential regeneration programmes for areas where evergreen forest has been cleared by burning, and implement any strategies found to be appropriate
   Who - NGOs, District Councils, specialist experts, FBD?   (4 RED DOTS)

3.3.2   Threat - Deforestation (excluding Commercial Logging)

Objective: By 2015 the total deforestation rate (of evergreen forest and woodland) is reduced by *X*[*]% from the 2007 baseline

[*]To be determined

Strategic actions
1. Hold training workshops for villagers concerning best practices for improving fuel efficiency (e.g., fuel efficient stoves)
   Who - NGOs; District Councils
2. Supply resources to villagers to enable them to be more fuel efficient (e.g., provide alternative fuel sources such as coal)
   Who - NGOs?
3. Ensure conservation priority areas are captured as VLFRs in VLUMPs   (2 GREEN DOTS)
   Who - NGOs and District Councils
4. Hold training workshops for VECs/VCs regarding the enforcement of by-laws governing VLFR's
   Who - District Councils   (1 GREEN DOT)
5. Hire specialists to provide guidance on sustainable harvesting regimes
   Who - District Councils NGO's   (4 RED DOTS)
6. Strengthen Forest Reserves as a tool, for example by demarcating boundaries and enforcing associated laws
   Who - District Councils NGOs, FBD
7. Use remote sensing data to monitor the annual rate of deforestation and inform decision makers
   Who – NGOs   (1 RED DOT)
8. Pursue higher level protection status for areas of especially high conservation priority
   Who - NGOs; TANAPA?
9. Establish tree nurseries and conduct training workshops for villagers concerning reforestation
   Who - NGOs; District Councils   (2 GREEN DOTS and 1 RED DOT)

10. Make the salt factory fuel-resource sustainable   (4 RED DOTS)

3.3.3 Threat - Logging
Objective: By 2018 illegal logging in the GME is stopped and timber extraction is within designated areas that have sustainable harvesting management plans.

Strategic Actions
1. Identify, map and demarcate areas suitable for logging and timber extraction
   Who - NGOs; District Councils; FBD?   (3 GREEN DOTS)
2. Enforce regulations restricting logging to designated areas
   Who - District Councils
3. Establish acceptable harvesting limits for designated areas and enforce those quotas
   Who - NGOs; District Councils; specialist experts; FBD?
4. Provide incentives to local people to encourage them to stop illegal logging (e.g., carbon credit schemes)
   Who - NGOs; District Councils; FBD?
5. Build capacity at village and District level to implement harvesting plans and enforce environmental laws
   Who - NGOs; District Councils; FBD?   (6 GREEN DOTS)
6. Develop a fair trade/conservation certified business model for GME timber
   Who - NGOs?   (4 RED DOTS)

COMMENTS
- Approved harvesting plan: who writes it, and who approves it?
- Perhaps need a new strategy related to the conservation need to address the threat
- Incentives, such as a carbon market?

3.3.4 Threat - Pathogen Introduction (to Chimpanzees)
Objective: By 2012 the rate of chimp mortality from diseases transmitted by humans is reduced by 90% within Protected Areas, and is zero in all new chimp habituation projects.

Strategic Actions:
1. Enforce codes of conduct for tourists, staff and researchers within the PA
   Who – TANAPA   (8 GREEN DOTS)
2. Decrease pressure on habituated chimps by diversifying tourist activities within the PA
   Who - TANAPA
3. Develop and enforce employees' health programme for chimp trackers and guides within the PA
   Who – TANAPA   (2 GREEN DOTS)
4. Provide assistance and advice to Wildlife Division concerning protocols that should be followed by projects habituating chimps outside the PA
   Who - TANAPA; NGOs
5. Consolidate/reduce human settlements within the habitat of the habituated chimps in the PA (specifically, remove the old researchers' camp)
   Who - TANAPA
6. Enforce regulations concerning cleanliness in and around tourist camps in the PA
   Who - TANAPA
7. Regulate chimp viewing by tourists in the PA via a permit booking system that limits daily numbers, and if successful, ensure the model is followed by any ecotourism operations developed outside the PA
   Who - TANAPA, NGOs

COMMENTS
- Needs to reflect chimps outside of Protected Areas as well
- Needs a new objective?
- Current habituation outside the park is not encouraged – habituating chimps outside protected areas is risking populations.
- Measures can be recommended
- How and why are people habituating chimps in areas that are not protected? Is this a strategy?

- To minimise risk of diseases transmission and its impacts from human disturbance on chimps populations by enforcing tourism code of conduct (researchers and trackers)
- Need actions at higher level – lower actions are known
- Enforce and demonstrate Chimp viewing permit booking system
- Make it more expensive to view the chimps to limit the number of tourists who have exposure to them
- Who will implement this? TANAPA inside the park; WD outside
- Who issues permission to habituate chimps (TAWIRI or Director of Wildlife)? Do we need a strategic action relating habituating chimps outside parks?

3.3.5 Threat - Refugee Camps

Objective: By 2009, relationships are established with refugee agencies and NGOs to ensure best and most environmentally sensitive use of land within areas that are currently designated as refugee settlements.

Strategic Actions
1. Hold meetings with representatives from UNHCR
   Who - NGOs; District Councils?   (1 GREEN DOT)
2. Determine who has governing responsibility for refugee settlements (before, during and after the closure process)
   Who - NGOs; District Councils?
3. Gather information concerning plans for closure
   Who - NGOs; District Councils?
4. Gather information concerning previous "success stories" (other camps or settlements that have closed and been successfully rehabilitated)
   Who - NGOs; District Councils?   (2 RED DOTS)
5. If/when settlements close, hire specialists to advise on the best land-use strategies for different areas
   Who – NGOs   (5 RED DOTS)
6. Conduct land-use planning exercises for settlement areas if/when they close
   Who - NGOs; District Councils   (1 GREEN DOT)
7. Work with appropriate government agencies to support implementation of land-use plans
   Who - NGOs; District Councils
          (4 GREEN DOT)
8. Determine or find partners to drive this process (JGI?)   (4 RED DOTS)

3.3.6 Threat – Incompatible Fisheries

Objective: By 2012 fisheries management is improved, the use of illegal fishing methods is progressively declining and the rate of extraction of fish is at a sustainable level.

Strategic Actions:
1. Establish a pilot programme to demonstrate good fishing techniques
   Who - District Councils; fisheries officers; NGOs   (4 GREEN DOTS and 1 RED DOT)
2. Strengthen the enforcement of fishing regulations
   Who - District Councils; fisheries officers   (2 GREEN DOTS)
3. Hold training workshops for fishing communities to raise awareness of regulations
   Who - District Councils; fisheries officers; NGOs
4. Provide equipment and incentives to communities to facilitate use of best practices
   Who - District Councils; NGOs

COMMENTS
- Measuring reduction – how do we measure a reduction?
- Sustainable – where is the mention of this? (Included in revised version – Ed.)
- Steer clear of numbers until we have a better idea (i.e. put to be determined)
- Baseline data – where is it?
- Who will implement this?
- Look for a partner
- What about overcoming the problems - helping people to actually do the improved methods (Included in revised version – Ed.)

3.3.7 Threat - Mining

Objective: All future mining activities use the most environmentally and socially sensitive methods available and are subject to rigorous EIA processes according to the highest global standards.

Strategic Actions
1. Develop relationships with mining companies
   Who - NGOs   (1 GREEN DOT)
2. Encourage mining companies to use low impact techniques   (1 GREEN DOT)
   Who -NGOs
3. Gather information concerning environmentally and socially sensitive methods for mineral extraction
   Who - NGOs
4. Convene forums that facilitate discussion between representatives from mining companies and communities
   Who - NGOs
5. Hire a specialist team to conduct an independent environmental impact study (in addition to any mandatory EIA conducted by the developer) if/when a mining proposal is tabled
   Who – NGOs   (1 GREEN DOT and 5 RED DOTS)
6. Monitor mining activities to ensure accordance with EIA and highest global standards
   Who -NGOs; District Councils?; central government?   (5 GREEN DOTS and 1 RED DOT)
7. If other avenues fail to ensure use of low impact techniques, seek media outlets to generate PR incentives
   Who –NGOs
8. Identify partner to play advocacy role
   Who – NGOs

COMMENTS
- We can tap into existing networks to do some of these things
- We can work as advocates rather than take direct action

3.3.8 Threat – Incompatible Agriculture

Objective: By 2015, more than 75% of agricultural activities take place *in designated areas* (as laid out in the Greater Mahale Conservation Plan) and agricultural productivity is increasing.

Strategic Actions
1. Gather information concerning the ecological and agricultural value of different areas, along with the current land-use status of each
   Who - NGOs, VCs, District Councils
2. Facilitate development of VLUMPs
   Who - NGOs, District Councils
3. Ensure that VLUMPS designate appropriate areas for agriculture – i.e., land that has been assigned a high agricultural value but that is not of high conservation priority
   Who - NGOs, VCs, District Councils
4. Conduct training programmes for farmers and local government officers to raise awareness of environmental laws, improved agricultural practices (1 GREEN DOT – improved agric. practice)
   Who - NGOs, District Councils, regional and central governments?   (4 GREEN DOTS)
5. Facilitate/improve enforcement of environmental laws
   Who - NGOs
6. Find partner organisation/s with expertise in agricultural development including development of and access to markets   (1 RED DOT – access to markets)
   Who - NGOs
7. Strengthen the capacity of current agricultural extension officers to ensure that farmers use best practices   (5 GREEN DOTS)
   Who – NGOs
8. Provide capital equipment/materials to farmers (e.g., fertilisers, tractors, seeds)
   Who – NGOs   (4 RED DOT)
9. Hire specialists to determine the most appropriate seed varieties, given local topography and soil types, and combine with local knowledge to generate an agricultural development plan for the GME
   Who - NGOs; District Councils?   (4 RED DOT)
10. Interlink all of the above
    Who - NGOs??
11. Find partner organisation/s to drive these actions   (1 GREEN DOT)

3.3.9 Threat - Livestock Keeping

Objective: By 2018 livestock keeping is within designated areas and does not exceed the carrying capacity of those areas.

Strategic Actions
1. Identify, map and demarcate areas for livestock keeping
   Who - NGOs; specialist experts; villagers; District Councils   (1 GREEN DOT and 4 RED DOTS)
2. Determine carrying capacity for designated areas
   Who - NGOs; specialist experts; District Councils   (2 GREEN DOTS and 1 RED DOT)
3. Build capacity to develop and implement VLUMPs and enforce existing legislation
   Who - NGOs; District Councils   (1 GREEN DOT)
4. Link to building capacity of agricultural officers (under agriculture objectives)
   Who - NGOs; District Councils

3.3.10 Threat – Settlements (expansion) including planned and unplanned, outside of PA's

Objective: By 2013 VLUMPs (which are in accordance with GME priority areas) are developed for all villages within the GME and by 2018 are fully implemented.

Strategic Actions
1. Review the GME conservation priority areas prior to undertaking PLUMP
   Who - District PLUM teams; NGOs   (3 GREEN DOTS)
2. Develop and undertake PLUMP in all GME villages
   Who - Kigoma Rural and Mpanda Districts
3. Implement VLUMPS in all GME villages
   Who - District PLUM teams; villages   (3 GREEN DOTS)
4. Provide human and financial resources to facilitate development and implementation of VLUMPs in all GME villages
   Who - NGOs
5. Ensure GME conservation priorities are incorporated into existing District Development Plans (5 year plans and annual plans)
   Who - District Councils; NGOs   (2 GREEN DOTS)

3.3.11 Threat - Infrastructure Development

Objective: From 2013 onwards all infrastructure development within the GME is compatible with land-use plans and the conservation of key priority conservation areas (as laid out in the GME Priority Conservation Areas Plan (PCAP).

Strategic Actions
1. Analyse existing data to prioritise conservation areas in the GME
   Who - NGOs; specialist experts; District Councils   (3 GREEN DOTS)
2. Review/adapt District Development Plans
   Who - NGOs; specialist experts; District Councils
3. Work with District/Regional engineers to ensure District infrastructure development plans are compatible with identified conservation priorities
   Who - NGOs; District Councils; RCs
4. Build the capacity of appropriate local institutions to adopt environmentally sensitive infrastructure development procedures
   Who - NGOs
5. Work with wards to ensure ward development plans are compatible with GME conservation priorities
   Who - NGOs; Ward officers; District Councils   (1 GREEN DOT)
6. Publicise GME conservation priorities to key decision makers
   Who - NGOs; District Councils; RCs
7. Establish a stakeholder group to immediately engage with the Rukoma to Kalya road route discussions and demonstrate possible impacts of different options
   Who - NGOs; District Councils   (4 GREEN DOTS)

3.3.12 Threat - Hunting (commercial)

Objective: Hunting in the GME is sustainable and generates benefits that are shared between communities and wildlife protection by 2018.

Strategic Actions
1. Determine wildlife population baselines and establish population monitoring programmes, to ensure hunting quotas are based on sound scientific data
Who - NGOs, specialist experts, TAWIRI, District Councils, WD   (1GREEN DOT and 4 RED DOTS)
2. Facilitate dialogue and implementation of benefit-sharing systems between hunting concession holders and communities
Who - NGOs, District Councils, WD   (4 GREEN DOTS)
3. Restrict legal hunting to designated areas that are outside of wildlife corridors and conservation priority areas
Who - NGOs, District Councils
4. Investigate how revenue from hunting licences can be directed into improving wildlife protection
Who - NGOs, District Councils, WD
5. Encourage the establishment of WMAs or other appropriate community-managed wildlife protection areas
Who - NGOs, District Councils, WD
6. Strengthen the capacity of District Councils to monitor and enforce hunting quotas and licence restrictions, for both tourist and local hunting
Who - NGOs, WD

COMMENTS
- Importance of TAWIRI and WD as partner institutions in monitoring
- Enforcement of quotas with other agencies?
- Facilitate WMA's – are WMA's the best way forward?
- Ensure corridors have no hunting
- Need a separate strategy to interact with government agencies, possibly facilitating between government and other actors

3.3.13 Threat - Poaching

Objective: By 2018 poaching in the GME is reduced by 50% and poaching in newly designated Protected Areas is reduced by 75% within 5 years of their establishment.

Strategic Actions
1. Establish the resource requirements of different authorities in different GME locations
Who – NGOs   (1GREEN DOT and 1 RED DOT)
2. Strengthen law enforcement
Who - NGOs, District Councils   (4 GREEN DOTS)
3. Support the assignation of PAs of appropriate types in appropriate locations
Who - NGOs, District Councils   (3 GREEN DOTS)
4. Ensure PAs have management plans that are implemented
Who - NGOs, District Councils, WD?
5. Improve benefit sharing to local communities, to provide compensation for reduced access to natural resources, e.g., support enterprise development
Who – NGOs, District Councils   (5 GREEN DOTS)
6. Improve key stakeholders' awareness of environmental regulations
Who - NGOs, District Councils, WD?
7. Gather information concerning existing WMAs, to ascertain whether they represent an appropriate model for the GME
Who – NGOs

COMMENTS
- Get information on the establishment of WMA's and any reports of success
- Develop and implement GMPs
- Improve alternative use of forest products
- How to channel benefits into wildlife protection?

3.3.14 Threat – Loss of Habitat Connectivity

Objective: By 2018 connectivity of key areas within the GME is protected, maintained and/or restored (as appropriate).

Strategic Actions

1. Identify areas of key importance in terms of structural and functional habitat connectivity
   Who - NGOs, specialist experts, DC land planning teams   (2 GREEN DOTS)
2. Identify areas important for connectivity that require restoration
   Who - NGOs, specialist experts, DC land planning teams
3. Ensure no new settlements are developed in priority conservation areas and corridors
   Who - NGOs, District Councils, VECs/VCs
4. Ensure all corridor areas are gazetted as VLFRs within VLUMPs
   Who - NGOs, DC land planning teams, VECs/VCs   (7 GREEN DOTS)
5. Work with partner organisations to inform government authorities about the importance of corridors
   Who - NGOs
6. For areas requiring protection that are outside village jurisdiction, work with central government to obtain appropriate protection status
   Who - NGOs, District Councils, FBD?
7. Facilitate voluntary relocation of people already located in key conservation areas and corridors, e.g., by providing financial incentives
   Who - NGOs, District Councils?

COMMENTS
- Facilitate voluntary relocation of people already located in key conservation areas or corridors - How? How to monitor/determine where this occurs?

3.3.15 Threat – Rapid Human Population Growth

Objective: By 2012 develop relationships with relevant partner organisations, and work together to reduce population growth from 2007 baseline levels to 2.6% (the national average) by 2030.

Strategic Actions
1. Determine current population growth rate in the GME
   Who - NGOs, District Councils
2. Develop partnerships with donors/development organisations/health organisations that have experience implementing strategies to reduce population growth
   Who - NGOs, District Councils   (2 RED DOTS)
3. Gather information concerning population growth reduction strategies that have been proven successful in an African context
   Who – NGOs   (2 RED DOTS)
4. Ensure that all conservation strategies take into account expected population growth rates
   Who - NGOs, District Councils   (1 GREEN DOT)
5. Investigate strategies to manage, limit or discourage immigration into the area
   Who - NGOs, District Councils
6. Implement awareness raising programmes for women, e.g., concerning family planning
   Who - NGOs, District Councils

COMMENTS
- Need to revise the objective so that the timeframe for "developing relationships with development organizations" is sooner than 2030 - DONE
- Need to add an action related to immigration – DONE
- Need to add an action related to women's education, and the role that plays in reducing family sizes - DONE

3.4   General Discussion

During the discussion of the threats, objectives and strategic actions the group often came back to the question of **WHO** is this plan for, and who will be implementing it?

This Conservation Action Plan is being developed by a Core Planning Team selected by a wide range of stakeholders. It has been clearly stated from the start that this plan is for all the Core Planning Team members and the institutions they represent. Given the range of institutions involved in the Core Planning Team (Central Government, Local Government, and NGO's) it became particularly important when considering the strategic actions, to consider who should implement each activity. You will note from the results above that the preliminary ideas of who should be implementing each activity are noted.

4   Final Discussion - Day 4

The final morning of the meeting was spent discussing preparations for the next planning meeting. It was agreed the following meeting should be held in Mpanda, in May. Dates will arranged with Mpanda District and forwarded to all participants.

It is envisaged that during the final meeting core planning team members will take on responsibility for various actions laid out in the CAP, in order to facilitate this process it was decided that it would be beneficial to invite District Executive Directors to the last meeting, as they are in a better position to commit to certain activities.

During discussion it was noted that when we are editing / crafting / communicating our CAP we need to be sure that the human side is accurately reflected. We need to be careful to not to overemphasise the development activities (we have limited this process to a narrow range of development targets) but similarly we need to be clear that it is not *only* a conservation plan.

4.1   Information Requirements and Tasks

Throughout the meeting a list of outstanding information requirements and tasks was developed, during the final session the various items were discussed and assigned to a core planning team member, see table below for details.

Table 1: Tasks to review and improve the following:

	Task / Deadline	Who
1.	Incorporate homework finding into CAP (ongoing)	Kathryn Doody and working groups for each target
2	Review threats analysis particularly in reference to livelihoods and snares	Magnus Mosha, Lilian Pintea, Zoe Balmforth, Rob Sassor, TANAPA HQ, Kathryn Doody, Sood Ndumuligo
3.	Group to review objectives (re-wording and polishing etc). By end of March	Magnus Mosha, Markus Borner, Lilian Pintea, Zoe Balmforth, Rob Sassor, Anna Lawuo, TANAPA HQ, Pius Ng'walali, Kathryn Doody
4.	Review strategies Incorporate Feedback from meeting Complete prioritisation exercise By end of April	Abel Mtui, Kathryn Doody, Zoe Balmforth, DN, Rob Sassor, Sood Ndumuligo, Josephine Rupia
5.	Mpanda Data Re: settlements and roads classification By end of March (to Lilian)	Josephine Rupia Muok Saka (Kathryn to discuss logistics)
6.	'Map' Develop Conservation Priority Area Map to include suitable development areas. Before next meeting	Lilian Pintea Kathryn Doody Genevieve Pence ? Eric Lonsdorf?
7.	Review and improve the viability assessment of the following Key Ecological Attributes and Bench Marks	
	▪ Elephants	Magnus Mosha
	▪ Montane Ecosystems	
	▪ Rivers Wetlands and Riparian habitats	
	▪ Chimps	
	▪ Evergreen Forest	Kathryn Doody
	▪ Fire ▪ Ignition sources (to investigate) ▪ Overall	Zoe Balmforth
8.	Review status of progress of WMA's in Tz	Pius Ng'walali
9.	Ask for TAWIRI mammal census data relevant to GME	Kathryn Doody Magnus Mosha

4.2   Missing Strategies

Participants were encouraged during the last two days of the meeting to consider the strategic actions developed and think about which if any vital strategies are missing. These were written onto a flip chart and reviewed briefly on the final day. The missing strategies listed by participants were:

- Investigate/facilitate application of new "corridors" legislation/protection to improve/protect connectivity.
- Microfinance as a tool to support fisheries/farming and general development
- Provide alternative protein sources to communities to reduce the demand for bushmeat
- Reconsider a snare-specific strategy (i.e. hiring former poachers to locate and remove snares)
- Provide alternative livelihood options (to reduce pressure on natural resources)
- Information, education and awareness

4.3   New Name Ideas – alternatives to Greater Mahale Ecosystem

It was noted in the first stakeholders meeting that we might need an alternative name for the Ecosystem as the 'Greater Mahale Ecosystem' might lead some people to believe we are trying to expand the national park. Participants were asked to consider alternative names for the area and make suggestions on a flip chart. These were briefly reviewed during the last day, no alternative has emerged as an obvious choice yet, but the suggestions given for alternative names or ideas to incorporate into the name were:

- Wilderness
- Nkungwe Shadow
- 'No Man's' Land
- Katavi-Mahale Ecosystem
- Eden on Earth
- Western Tanzania
- Ugalla-Mahale Ecosystem
- Mahale-Tongwe Ecosystem

4.4   Closing

The meeting was closed by Mr Njau and 10.30am, who thanked everyone for their hard work, hoped they had a nice stay in Mahale Mountains National Park and welcomed them to visit again soon.

5   Appendices

5.1   Appendix 1: Meeting Participants

Facilitator
Genevieve Pence

Wildlife Division HQ
Pius Ng'walali

Forestry and Beekeeping Division HQ
Anna Lawuo – Catchment Division

TANAPA HQ
Fransisca Kanuti

TANAPA Mahale
Abel Mtui – Park Ecologist
Domician Njau – Chief Park Warden

Mpanda District Council
Josephina Rupia – District Game Officer
Muok Saka – District Planning Officer

Kigoma Rural District Council
Mr. Silulapwa – District Forest Officer

Jane Goodall Institute*
Lilian Pintea
Sood Ndumuligo – Masito Ugalla Programme
Rob Sassor – CAP Co-ordinator
Dr. Shadrack Kamenya –

Frankfurt Zoological Society
Kathryn Doody – Community Conservation Advisor
Dr. Zoe Balmforth – Ecologist
Magnus Mosha – Jr. Wildlife Officer
Dr Markus Borner – Country Director

NOMAD
Nicola Hawes

Apologies for absence from WCS, Kigoma Regional Secretariat and Rukwa Regional Secretariat.

5.2 Appendix 2: Greater Mahale Ecosystem CAP Workshop 2 4 – 8th February, Mahale Agenda (Updated)

DAY 1 - Tuesday 05th February – SITUATION ANALYSIS		
Timing	Activity	Who
8.30 am - 9:00	Welcome Introductions House keeping	Njau Genevieve Kathryn
9:00-9:15	Brief review of CAP process	Genevieve
9:15 – 10:15	Brief review of December workshop – homework reports Presentation	Kathryn Rupia and Saka
10:15 -10:30	Presentation: Introduction to Situation Analysis	Genevieve
10:30 -10:45	Begin building situation diagram: place focal conservation targets, key ecological attributes, and critical threats	Whole group
10:45-11:30	Tea Break and continue situation diagram	
11:30 -12:30	Brainstorm contributing factors to the threat of rapid/unplanned agricultural expansion outside of protected areas. Determine key factors. Add to situation diagram.	Whole group
12:30-13:30	Work on other critical threats or explanatory chains in Working groups: Brainstorm contributing factors Determine key factors and record on cards Place cards as a "story"	Working groups
13:30 -14:30	Lunch	
14:30 - 15:00	Group presentations	Working groups
15:00-16:00	Work on a second set of critical threats or explanatory chains in Working groups Brainstorm contributing factors Determine key factors and record on cards Place cards as a "story"	Working groups
16:00-16:30	Group presentations	Working groups
	Afternoon Tea	

DAY 2 – Wednesday 06th February - OBJECTIVES		
Timing	**Activity**	**Who**
9:00 – 10:00 am	Continue situational analysis – looking at factors	Whole group
10:00 - 11:30	Group presentations	Whole group
	Tea Break	
11:30 – 12:30	Introduction to strategies	Genevieve
12:30 – 13:30	Working groups to review existing objectives and develop strategic actions	Working groups
13:30 – 14:30	Lunch	
14:30 – 15:30	Develop New Objectives Round 1 – 30 mins to develop new objective relating to the critical threat Round 2, 3, 4, - 10 mins to review for each group to rotate and review every other groups objective	Working groups
15:30 – 17:00	Develop strategic actions for new objectives	Working groups

DAY 3 – Thursday 07th February OBJECTIVES AND STRATEGIC ACTIONS		
Timing	Activity	Who
8:30-8:30	Break into new groups for developing new objectives	Working groups
8:40-9:00	Develop new objective relating to Critical threats	Working groups
9:00-10:00	Rotate between each groups objectives and then finalise the objective your group originally developed	Working groups
10:00 – 11:00	Develop strategic actions for the new objective	Working groups
11:00 -11:15	Tea Break	Whole group
11:15 – 12:00	Develop strategic actions for the new objective cont.	Working groups
12:00 – 1:15	Present and discuss strategic actions	Working groups
1:15-1:30	Rank strategic actions in terms of: Benefit Feasibility Cost	
13:30-14:30	Lunch	
Afternoon	Field trips - Chimp trekking Visit COCOBA training in Buhingu	

**DAY 4 – Friday 08th February – IMPROVEMENTS**
Timing	Activity	Who
8:30-9:30	Review	
8:00 – 10:00	Really flesh out next steps: Information gaps Necessary homework Who will do what, by when	
10:00 – 10:15	Workshop evaluation	
10:15 – 10:30	Workshop Summing Up and Close	

5.3 Appendix 3: Results of situational analysis (individual group work)

5.3.1 Incompatible farming - Contributing factors

- Lack of / insufficient agricultural extension services
- Lack of byelaws
- Lack of awareness about ecosystems functions and environment
- Lack of enforcement of existing laws
- Lack of tools and equipment
- Lack of incentives to use best practices
- District is large and resources are spread too thin
- Willingness to adapt / change to new technology
- Harmonisation of laws and policies
- Seed varieties – not using the best
- Lack of access to markets
- Insufficient development and implantation of village land use plans.
- Insufficient awareness of environmental laws and polices
- Insufficient capacity of the district
- Lack of alternative livelihood/income strategies
- High human population growth
- Lack of agricultural policy/strategy for GME i.e. that is detailed and relevant to GME
- Lack of value adding / processing of crops (contributing to low incomes)
- Lack of availability of appropriate inputs
- Risk aversion – as people are highly dependent on crops as there main source of food trying new products with an unknown result is a more risky strategy, one can expect therefore there might be unwillingness to try new untested crops
- High dependence on rain-fed agriculture – can be unreliable

A working group was tasked with looking at the contributing factors, highlighting the key factors and arranging them into 'a story' explaining the situation relating to incompatible agriculture in the GME. Figure 5 below shows the results of the groups' work.
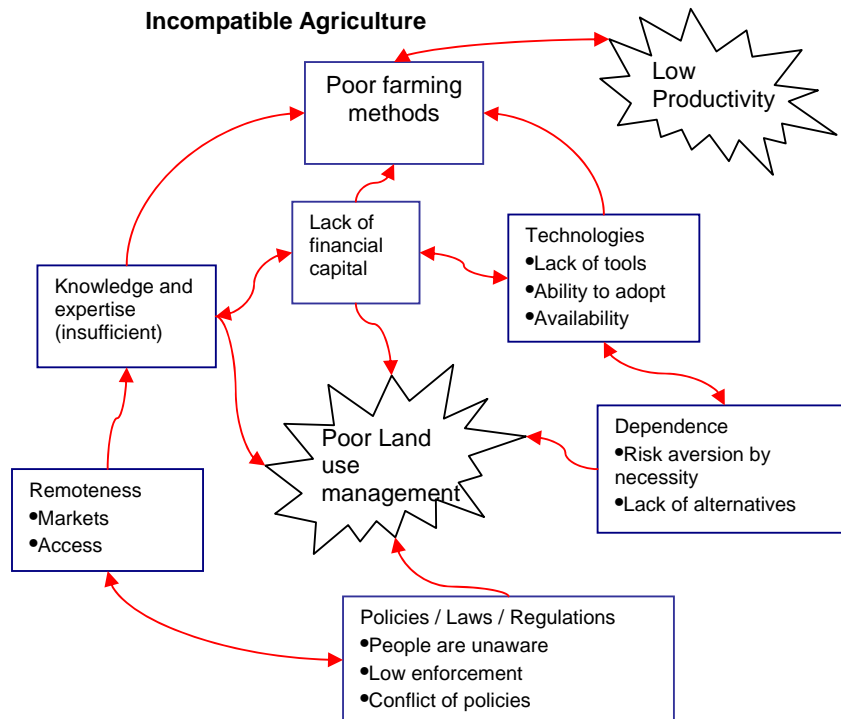

Figure 5: Key factors that lead to Incompatible Agriculture

Discussion points
- It's a vicious cycle – so many of the factors are interlinked.
- Policy – conflicts no conflict of policy but instead the interpretation of policy conflicts
- Agricultural policy – advocates the expansion of agriculture without mention of the environmental regulations. Perhaps a problem of lack of holistic approach between different sectors.

Questions
What is the difference between poor farming methods and poor land use management? Ans. Poor farming is bad farming not in-filling, not using soil-conservation measures etc, poor land use management is farming in inappropriate places.
What about Oil palm? Currently Oil palm in GME is an example of all these things.

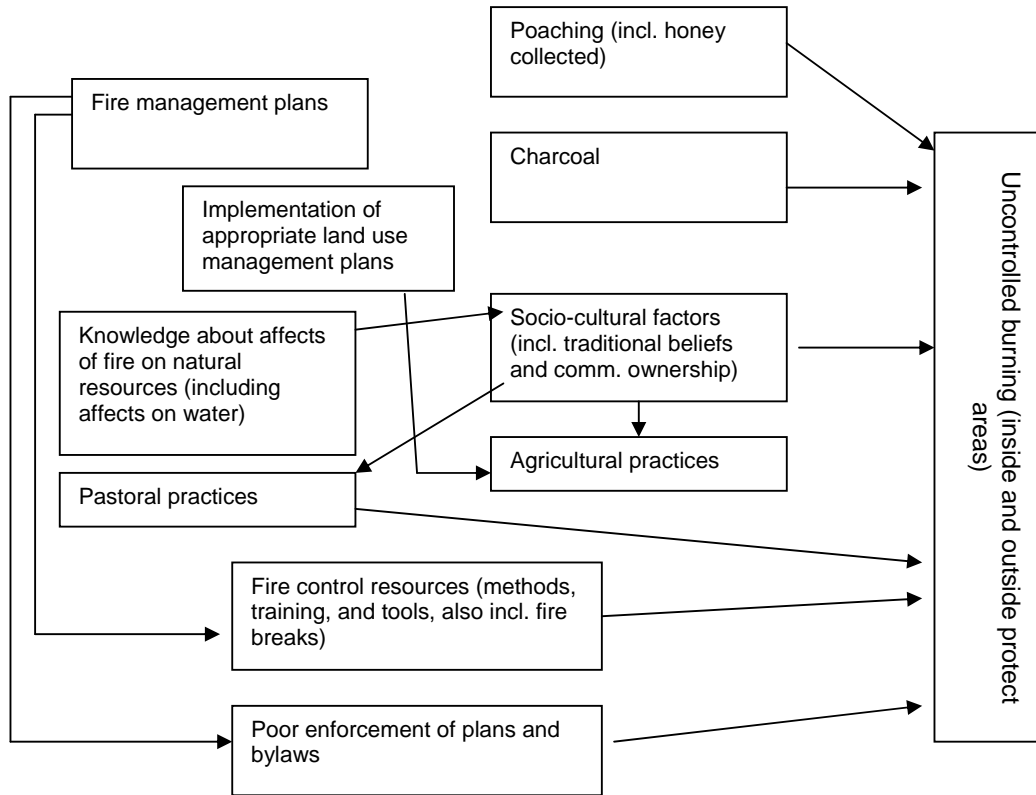### 5.3.2   Uncontrolled burning presentation – key factors and story

Figure 6: Key factors that lead to uncontrolled burning

Discussion
Uncontrolled burning – note that this refers to human ignited fires. The lack of fire management plans means there are limited resources for training, tools etc.
Poor agricultural practices can lead to uncontrolled burning.
There is lack of knowledge of effects of fires on watershed, agricultural (due to social factors, beliefs and sense of ownership – not their responsibilities to deal with fire
Pastoralists may use fire to encourage fresh shoots, and to control pests such as ticks and tsetse.
Lack of fire control resources (relates to fire mgt plan) a plan would facilitate tools, resources.
Poor enforcement of plans and byelaws, villages have byelaws but there are not fully enforced.

Questions

Regarding poor enforcement of plans and byelaws, are there laws that relate to the control of fires. **Ans.** Yes there are several laws and guidelines e.g. not to burn farms indiscriminately but to gather farm waste into a pile and burn. Villages themselves have some byelaws relating to fires. Is charcoal a source of fires – it could be in the future. **Ans.** Not across the GME at present but is likely to be problem within 10 yrs, particularly in Masito Ugalla in the northern areas closer to Kigoma town.
Burning for honey is a potential source of fires, it is not known how frequent, its apparent low level is a potential opportunity for better fire management.

5.3.3 Fire wood extraction and Timber extraction

Table 2: Factors, Opportunities and Stakeholders relating to Firewood and Timber extraction

Factors	Opportunities	Stakeholders
– Lack of alternative sources of energy	– Remoteness of the area (lack of roads)	– Village Councils
– Increases demand	– Carbon sequestration projects	– Forest Dept
– Increased infrastructure development	– New land use policy that encourages PLUM	– Local Government
– Policy gaps	– Interest of NGO to fundraise money for protection	– NGO
– Lack of capacity to implement the current policy	– Lack of settlements around forest areas	– Pollutants
– Lack of enough protected areas around GME	– The forest resources in the area are still large	– Water Department
– Increased population		– Timber traders
– Corruption of and Poverty		
– Lack of capacity to implement		

Questions
Is PFM an opportunity? **Ans.** Yes
Why is there a forest reserve with only a quarter of the forest left? **Ans.** although legally protected on the ground protection is extremely limited.
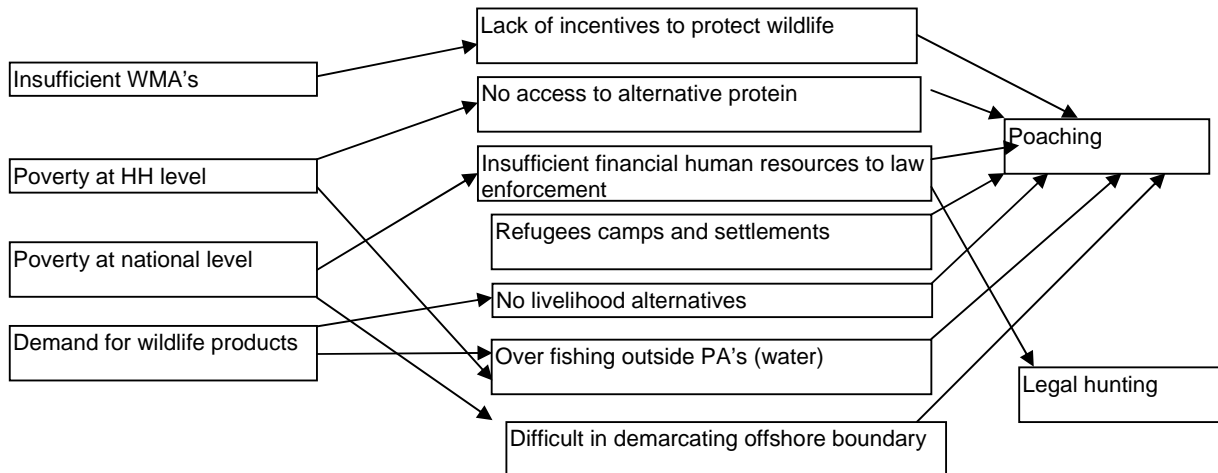
5.3.4 Poaching / hunting

Figure 7: Key factors that lead to poaching / hunting

Discussion
Snares – should these be separate? Snares can use different strategies - at the moment left as separate threat.
Corruption has been mentioned in other situations, is it an issue for poaching or hunting. **Ans.** Not thought to be an issue – no definite examples.

What is the limit of hunting in protected areas? i.e. depends on census data.
How are the quota's set? Reproductive behaviour is taken into account to give quota's. Quota's are based on census results. TAWIRI does the census data.
Are there any issues relating to insufficient capacity to survey ?? No census is done thoroughly (?).
Is there legal hunting of elephants in TZ? **Ans.** There is culling of elephants.
Mahale GME falls into two WD ecosystems – get TAWIRI info from survey and census data.
WMA's – there are difficulties of implementing WMA's however there are plenty of areas in the ecosystem where WMA's might be appropriate. This is one of the few opportunities for poaching/hunting.

5.3.5   Mining

Threats:
• Market value of minerals
• Inadequate law enforcement (Zonal office capacity)

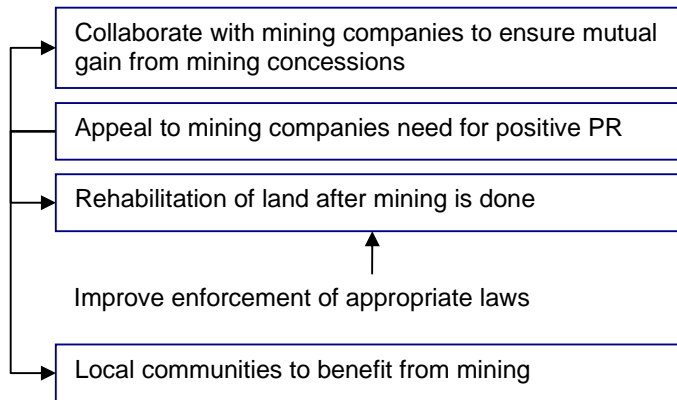Incompatibility of mining / environmental laws

Opportunities:

Collaborate with mining companies to ensure mutual gain from mining concessions

Appeal to mining companies need for positive PR

Rehabilitation of land after mining is done

Improve enforcement of appropriate laws

Local communities to benefit from mining

Figure 8: Factors related to mining

Discussion
Currently mining is not managed at the district level, it is managed through Zonal mining offices, the one for the GME area is Mpanda.
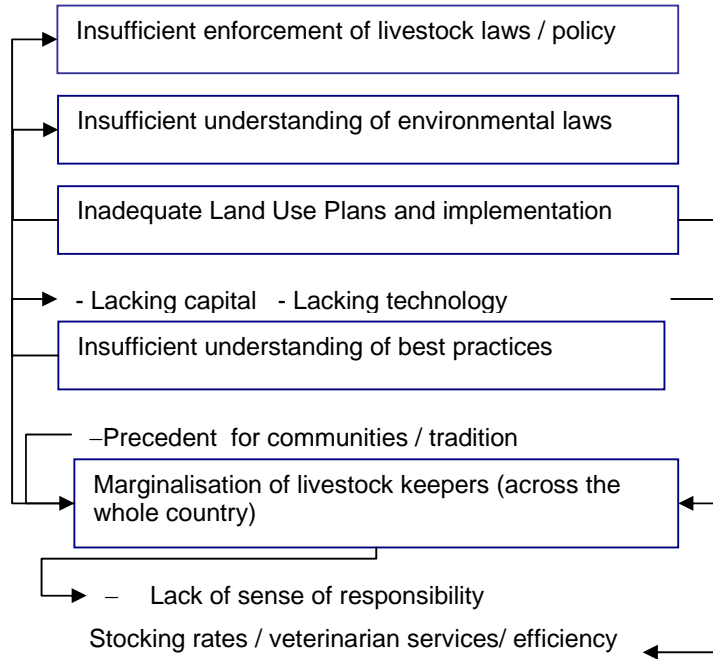
5.3.6 Livestock Keeping

Figure 9: Factors relating to incompatible livestock keeping

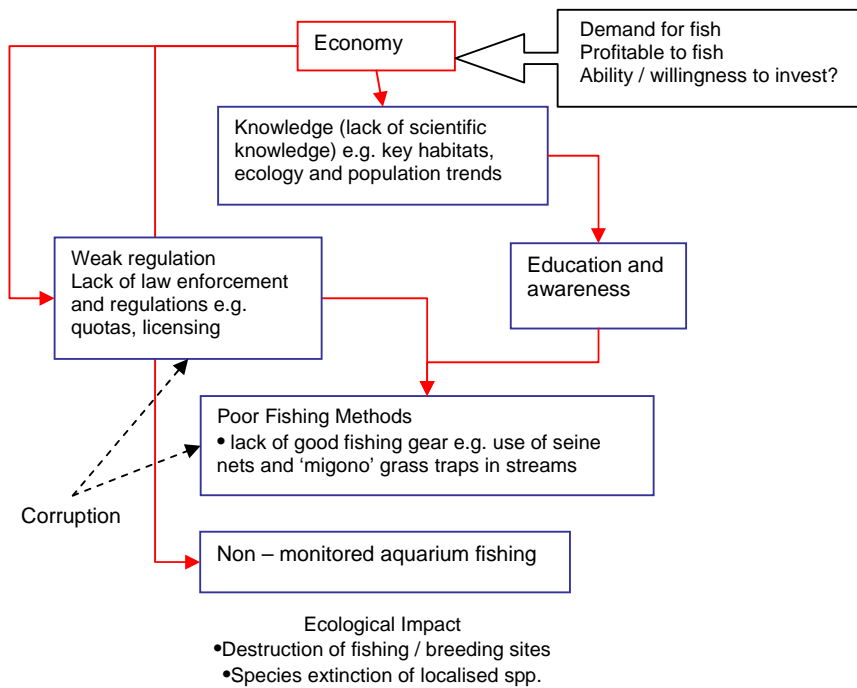### 5.3.7 Incompatible fishing techniques

Figure 10: Factors relating to incompatible fishing techniques

Discussion

Currently because of the low levels of enforcement of existing regulations it is unlikely that fishers using illegal fishing methods will be caught. In the short term it can be more profitable to use illegal fishing gears, so currently there is an economic incentive to use illegal methods. Maximising short term economic gain over long-term productivity is the priority for some fishers at present.
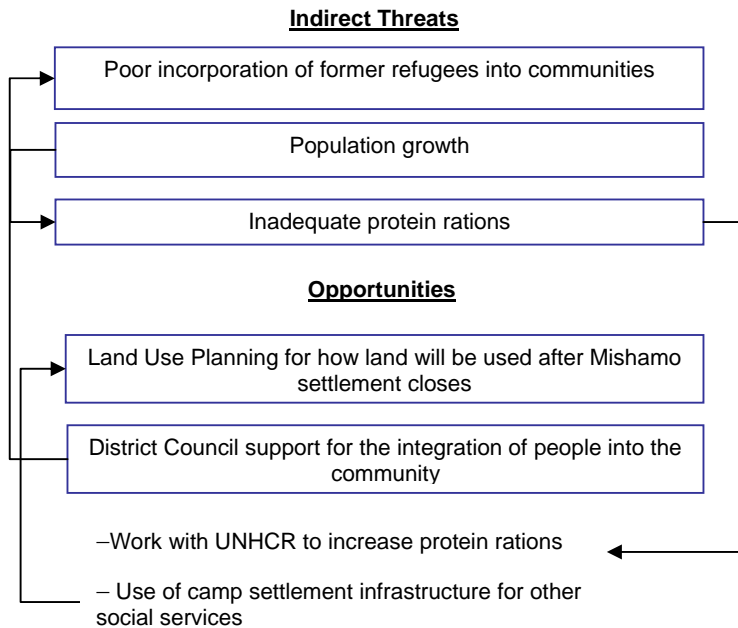
5.3.8 Refugee camps / Settlements

Indirect Threats

Poor incorporation of former refugees into communities

Population growth

Inadequate protein rations

Opportunities

Land Use Planning for how land will be used after Mishamo settlement closes

District Council support for the integration of people into the community

−Work with UNHCR to increase protein rations

− Use of camp settlement infrastructure for other social services

Figure 11: Factors relating to refugee camps and settlements

5.3.9 Planned and unplanned expansion of settlements

Planned and **Unplanned** expansion of settlements

Capacity to do planning and implement

Weak

Increasing human population density

Environmental degradation

NR availability

Infrastructure Roads etc

Availability of social services i.e. schools and clinics etc.

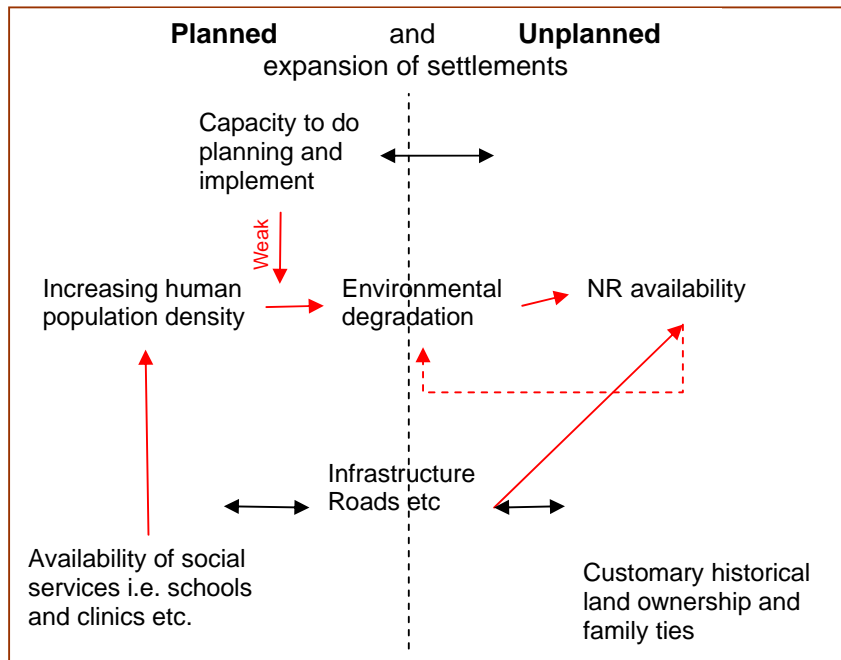Customary historical land ownership and family ties

Figure 12: Factors relating to planned and unplanned expansion of settlements

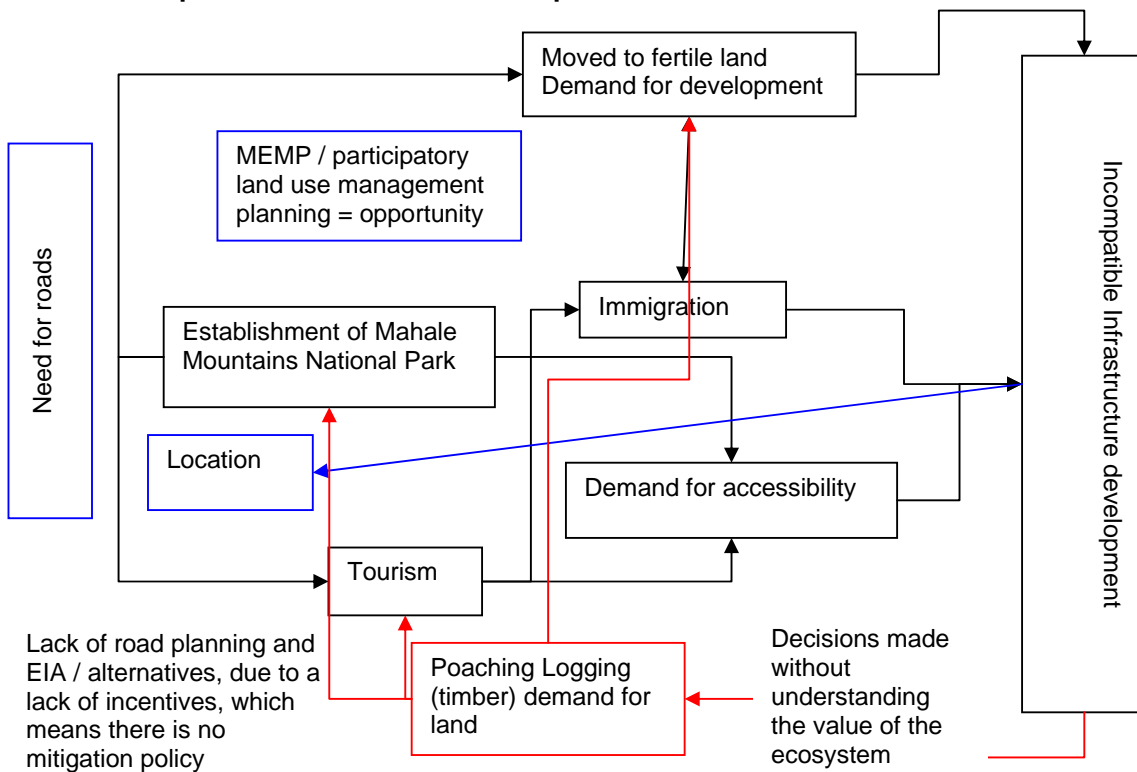### 5.3.10 Incompatible Infrastructure Development

Figure 13: Factors relating to Incompatible Infrastructure Development

Discussion points:
- Recommendation that TANAPA engage in process/policy that decides route of the road
- The need for the road would exist with or without the national park in the area, so it is important not to over emphasize the role of the park and tourism. The main need for the road in the area is the people.