CRITICAL ECOSYSTEM PARTNERSHIP FUND

CEPF Final Project Completion Report

Organization Legal Name:	Wildlife Conservation Society - EAM
Project Title:	Designing Management and Monitoring Plans for the Livingstone Mountain Forests
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CEPF Region:	Eastern Afromontane
Strategic Direction:	2 Improve the protection and management of the KBA network throughout the hotspot.
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Implementation Partners

List each partner and explain how they were involved in the project

Major stakeholders involved during the project implementation were;
Tanzania Forest Service (TFS) provided experties for steering the management plan process, advice on the methodologies of collecting forest baseline information and have finalization of the management plans for Madenge, Sakaranyumo, Madilu and Mshora forest reserves.
Regional and District Councils (Rungwe, Ludewa and Mbeya) they worked with villagers and local NGOs in training and advising on conservation activities. They closely monitored activities done by HIMARU,LUDA, and ECODETA
Local organizations (NGOs) sub-granted to implement community based conservation activities. HIMARU, LUDA, and ECODETA worked with communities in conservation education, tree planting, awareness in beekeeping and agroforestry.
Local communities were very supportive in implementation of the project activities, engaged in patrolling through village environmental committee (VEC), and participated in tree planting and conservation awareness. Project success was influenced by communities' willingness to collaborate with WCS, TFS and other stakeholders.

Conservation Impacts

Summarize the overall impact of your project, describing how your project has contributed to the implementation of the CEPF ecosystem profile

Provision of seedlings to communities around the protected forests has encourage engagement in forest protection. VEC were given equipment's for tree nursery to motivate their engagement in patrols.
The established fire management system has directly involved the communities and they are happily taking actions to reduce fire incidences. The plan has highlighted forest fire preventive measures taken by the community during fire susceptible season (dry season) which has significantly contributed to the reduction of unmanaged fire occurrence.
Increased community involvement in fire management has results to cautiously use of fire and adhere to local policy and legal regulations.
In collaboration with TFS, the management plans for the four forests reserves were completed. The management plan will help the management of the reserves for the next five years.
Village environmental committees shown commitments in patrolling the forests. This has built a good relation with forest management authorities as they report all illegal incidences in the forest. VEC are still willing to continue with patrols under the supervision of TFS.
Capacity building to local organization through working together in conservation issues. They have gain experience of project management, awareness raising and build relation with other stakeholders.

Planned Long-term Impacts - 3+ years (as stated in the approved proposal)

Impact Description	Impact Summary
Improved forest protection by implementation of effective management plans, and increased capacity for long-term forest protection from the TFS, including robust monitoring plans	Four forest management plans for Mdandu, Mshola, Sakarayumo and Madenge was developed and presented to stakeholders at Ludewa district. Presentation meeting of forest management plans was attended by village leaders, NGOs, TFS and district representatives. The aim of the meeting was to discuss the final draft of the management plans before approval. Participant inputs were inserted in the final draft and agreed the implementation of the management plans to improve forest protection.
The current forest area remains intact with habitat quality improvement (regeneration and recovery of primary forest species) over time	Each village environmental committee is conducting patrols in all four adjacent forest reserves. The patrols are conducting in collaboration with TFS staffs, village leaders, local community and traditional chiefs. During the patrols village environmental committees divided into groups and each group use GPS and data sheet to collect and recording data which later downloaded for analysis. Update all collected data it shows there is quality improvement of forest habitat and species.
Increased biological diversity and abundance, and ecosystem services over time	Meetings were conducted in all seven villages around four forests of Mdandu, Mshola, Sakarayumo and Madenge. Meetings were conducted by WCS in collaboration with TFS, District, NGOs and other stakeholders. The meeting in each village were aim to

	discuss ways of protecting adjacent forest as well as to see the contribution of each forest to adjacent local community through ecosystem services like water. All inputs from attended participants has already added into the developed four forest management plans which later it will show how the forest will be govern for increase biological diversity and ecosystem services.
Functional corridors connecting the 3 adjacent forest reserves, allowing faunal movement and more resilient and larger populations	In all three adjacent forests, village assembly was conducted by WCS in collaboration with District, TFS, Village leaders, and local community to discuss ways of improves corridors for allowing faunal movement. After village assembly meeting, survey of each forest was conducted in collaboration with VEC, TFS, and District to see those corridors which are present in all three forests. However, the survey end up by find that in all three forests there is blocking of corridors because of farm cultivation and according to CEPF policy it does not allow to use fund for replacement/relocation of those farmers. Update forest policy is used to protect all functional corridors connecting the three adjacent forest reserves.
Continued community support and cooperation with TFS for long-term forest protection strategies, with a sustained reduction / zero incidence of human-driven threats inside the forest	TFS staffs conducting meeting in all seven villages around four forests to discuss ways of conducting patrols in collaboration with village environmental committees of each village. Update TFS and village environmental committees has come up with good mechanisms of patrols every three days per week. Each village environmental committees have good relationship of working closely with village government, District and TFS to monitor the illegal activities inside the forest reserves. Since August 2016 update village environmental committee in collaboration with TFS, District and village leaders has conduct patrols in all water sources which threaten by human through cultivation, planting of exotic tree and grazing.
Continued community support and cooperation with TFS via continued effective function of the village environmental committees	TFS in collaboration with village environmental committee has succeeded to conduct community awareness based on provision of ecosystem services and tangible products. Currently TFS and village environmental committees are working together with those local communities by involving in different activities such as planting tree on water source and collection of fallen trees for schools/hospital construction materials.
Continued understanding and awareness of forest conservation and the importance of sustainable natural resource utilization by local	WCS in collaboration with District and TFS conducted an environmental education in all targeted villages and schools. There were several agenda discussed during

communities, as demonstrated by permanent behavioural and attitudinal changes	environmental education provision such as participation of local communities in conservation, distribution of seedlings and importance of village environmental committees in planning, decision making and implementation of village environmental by-laws. In addition, the importance of conserving adjacent forest reserves as a source of water to lake Nyasa, habitat of endemic species as well as a tourism destination were addressed. The environmental education provision involved different stakeholders such village government, chiefs, village environmental committees and representative from NGOs.
Improved quality of life to 7 village communities by stable and sustainable ecosystem service provision from the forests	WCS conducted training on values of forest conservation and beekeeping practices to all adjacent local communities as an alternative source of income. The aim of the training was to raise awareness about the value of forests and engage people in conscious protection, conservation and sustainable resource management. When people are aware about the valuable contribution of bees to the life of humans, they will respect bees and try to protect them, their habitat and forage area.
Improved sustainability of local conservation activities via capacity building of local organization	WCS conduct meetings with local NGOs of HIMARU and ECODETA. The meeting was attended by a total of 30 participants where 18 males and 12 females. The aim of the meeting was to discuss on how to prepare daily working plan of the implemented project. However there is still a challenge on the performance of the activities by the local NGOs especially HIMARU.

Planned Short-term Impacts - 1 to 3 years (as stated in the approved proposal)

Impact Description	**Impact Summary**
Comprehensive socio-economic baseline database established on community natural resources and livelihoods from 280 households from 7 participating villages (months 1-3)	Structured questionnaire and focus group discussion was used to collect information on community natural resource use and needs, socioeconomic and livelihoods, as well as community understanding of forest and natural resource protection. Seven villages were surveyed including 280 households (2% of the surrounding population) . Of the respondent 94% of communities are small scale farmers. Agriculture is considerably more important to people's livelihoods as a source of income and food. However, animal husbandry, logging and small businesses are also key income generation activities. About 73% of the interviewed community's members understand the natural resources and regulations governing the forest reserves. Forest dependency is high, over 72.9% collect fuel wood from the reserve and 25% from planted

	exotic trees. Communities depend 100% on water from rivers, streams and other water sources within the forests reserves. Non timber forest products include medicine, wild fruits, honey and vegetable. Hunting primates, antelopes and cane rats is still practiced. Hunting is by 10% although a number of household observations declare hunting has decreased as well as fire occurrences. Conversely, primates, bush-pig, and rodents inflict damage to crops.
Comprehensive baseline database on ecological, human impact and ecosystem service provision for 4 forest reserves (Madenge, Mdandu, Mshola and Sakaranyuma) in the Livingstone Mountain Forests KBA (months 1-6)	Baseline data on ecological, human impact and ecosystem service provision collected in the KBA. Ecological information and ecosystem service provision has helped to raise awareness to the communities on the important values of the forest which has impacted communities on positive participation in forest protection and management. Human impact data has shown communities how their activities in the reserve can threaten the health of the forest and deprive them from benefiting from ecosystem services.
Improved community buy-in and engagement to forest conservation activities and a reduction to direct and indirect threats via environmental education activities, aiming to reach at least 50% of each village (totalling ~7300 people across 7 villages) (month 3 onwards)	This project has helped environmental awareness raising in seven villages around four forests of Mdandu, Mshola, Sakarayumo and Madenge. Environmental awareness programme targeted at village environmental committee, primary and secondary schools and decision makers reaching more than 10000 of which 6000 were females and 4000 males. Communities were trained and encouraged to practice environmental friendly income generating activities such as beekeeping, tree nursery, sustainable farming. These were done through village environmental committees meetings, teachers' seminars, participatory teaching through role of plays, village assembly meetings, environmental club gatherings and environmental film shows. Environmental provision has raise awareness to communities on the values of the adjacent forest; this has motivated more community members to engage in conservation and reduced forest threats by 62.4 percent.
Improved community engagement via establishing 7 village environmental committees [VEC] (1 per village) with 14 members each (a total of 98 people) to work with TFS and the communities in joint activities (month 5 onwards)	WCS has established 7 village environmental committees (VEC) with a total of 98 members each committee has 14 members. The selection was done by village government and then approved through village assembly. VEC members were trained and equipped to patrols the forests. Illegal activities were monitored during the patrols and reported to TFS . VEC engagement in forest protection has improved and more community members were encouraged to participate in forest conservation activities. The efforts

	were significant in forest fire control and prevention as they lead the all process.
Corridor protection initiated by identification of potential corridors between 3 forests (Madenge, Mshola and Sakaranyuma) by month 6, and rewilding process initiated as a community and TFS venture from month 13 onwards	The possible links between the three reserves were identified. These areas (Corridors) are village farms and settlement. The farms are either cultivated with food crop, planted trees or thickets. However the areas support animal movement. Surveys have shown similarities of some species (such as small mammals and herptiles) between the corridors and the reserve. TFS in collaboration with District, NGOs and village government conducted meetings with communities on the importance of the existing corridors and agreed on the their conservation. TFS will continue raise community awareness about protection of corridors and provision of indigenous trees to plant.
Reduction in direct threats (human activity) to the forest by training and equippping the VEC to conduct monthly forest patrols (month 6 onwards)	Village Environmental committees (VECs) were trained on the use of GPS, data recording on illegal incidences and sign or sightings of animals in the reserves. To make their work more effective VECs were equipped with working gears. Forest patrols were carried out to stop illegal incidents by reporting the illegal incidences and locations to specific authorities. In the four forest reserves illegal incidence encountered were hunting, trees felling, grazing, saw pit, fires, honey collection, encroachment, Mining, Human trails, tree debarking, and black soil collection. Percentage of some illegal incidences occurred were Grazing (28%), logging (22%) and tree felling (21%). Data shows a reduction of illegal incidences by 62.4% during project period which is contributed by the patrols, awareness raising and training on the forest values and endemic species that inhabit in the reserves. The understanding of the value of the forest and benefit that it can bring to the communities has helped in reduction of human activities in the forest and hence communities participation in conservation of the KBA's.
Improved forest protection and management by developing (months 7-10) and finalising (month 12) one management plan per forest reserve (4 in total) via expert and consultative process	The project has facilitated the development of forest management plans for Madenge, Mshora, Sakaranyumo and Mdandu forest reserves. The plans have milestones implementation strategies for the sustainable forest management in a period of 5 years. Relevant stakeholders were included in the development of the forest management and their contribution in implementing identified activities. Community engagement in the process has built good relationship with forest authorities and created awareness on participation in conservation. The existence of these plans will enable forest authorities to

	manage the forests following the directives shown in a General Management Plan (GMP).
Improved forest protection and management by robust and standardized monitoring system established for 4 forest reserves, and carried out by joint teams of TFS and community members - ecological data evaluated year 2 (compared to year 1 baseline) and LEM patrols quarterly (starting from month 9)	Forest protection and management was a joint effort between the village environmental committees, TFS, District and WCS. Biodiversity and illegal incidences in the forest were monitored by VEC who recorded illegal activities and patrol data in the forest reserves which was later reported to the authorities (Village government, TFS and District). From the record, illegal incidences in these forests have declined by 62.4%. Animal's sightings and signs have improved; animals that were not easily sighted in previous years (baseline) are now easily sighted. Communities are actively engaged in all issues related to forest conservation. The involvement of VEC in patrol has shown positive impact to the health of the forests where TFS are actively using the VEC established under this project in reserve patrol and management activities.
Increase capacity of to-be-determined organization by training, equipment provision, and support for their conservation activities	This project has engaged three Local NGOs in the implementation of conservation activities in Njombe and Mbeya region. The NGOs were supported in training and equipment's for conservation activities. Received funds were used to establish tree nursery, provide environmental education on agro forestry and beekeeping in communities adjacent KBAs. Under their supervision a total of 80,000 tree seedlings were given to communities and benefited 1000 people. Equipment's support has enable ECODATA and HIMARU to perform their activities during the project time frame.

Describe the success or challenges of the project toward achieving its short-term and long-term impact objectives

Success

- **Environmental education provision has help to reduce fire incidents which caused by hunters, honey collectors and during farm preparation**
- **The frequently campaign of gender awareness has help to increase women's participation in conservation activities**
- **Good link of communication between environmental committees and TFS has help to increase participation of local communities, traditional leaders and village government in conserving adjacent forests**
- **Increase demanding of communities in establishing tree nursery and beekeeping. This has shown community willingness to engage in environmental friendly activities.**

Challenge

- **Unsustainable ways of getting equipment's for village environmental committee (VEC). Most of the VEC are willing to conduct patrols freely if they are supported with equipment's but TFS has no resources to provide equipment's. WCS has started building VEC capacity through tree nursery developments.**

Were there any unexpected impacts (positive or negative)?

Complementary projects like beekeeping and tree nursery were established to support forest fire controls, and promote community engagement in conservation.
Community involvement in forest fire management has improved collaboration among communities, government and private sector.
Improved relationship between communities and TFS during the project implementation by WCS

Project Components and Products/Deliverables

Describe the results from each product/deliverable:

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
1	Baseline surveys and data review (Year 1, Quarters 1 and 2)	1.1	Compilation of baseline information of ecological data for each forest, based on previously collected data, satellite data and ground-based surveys	Ecological data for the four forests was reviewed and biodiversity importance and threats were identified. The forests are Afromontane rain forest with forest grassland mosaic. Forest edges are covered with either grassland or bush land with scattered cropland. The trees in these forests are all relatively widespread afromontane species and none of the typical Eastern Arc species were seen. The forests are important for fauna and flora. Fauna found in the area are either southern highland endemics or restricted to the particular forest. It is also among Important Bird Area in Tanzania comprising Sakaranyumo, Mshora and Madenge with bird species of restricted range. Recent discoveries such as Kinyongia msuyae found in three forests Madenge, Mdandu and Sakaranyumo; Hyperolius davenporti which is found only in Sakaranyumo and Atheries matildae ,Galago sp. found only in Madenge, Sakaranyumo, Mdandu and Mshora has maped the forests as important area to be conserved. Some species are waiting to be scientifically identified. Afrixulus uluguruensis (Vulnerable) and Kinyongia msuyae with occurrence in Eastern Arcs and Livingstones sheds more light on non-existence of makambako gap zoologically as similarities of fauna between the two regions.
1	Baseline surveys and data review (Year 1, Quarters 1 and 2)	1.2	Meeting minutes and attendance lists for stakeholder discussions in each village	WCS in partnership with TFS conducted meetings in seven villages with 35 stakeholders from village government and other sectors. The meetings discussed ways of designing forest management plan, protection of adjacent forest as well as improving of local community's livelihood. Minutes and actions of responsibilities were recorded and shared with relevant stakeholders.
1	Baseline surveys and data review (Year 1, Quarters 1 and 2)	1.3	280 household interviews conducted to produce baseline information of community natural	Structured questionnaire and focus group discussion was used to collect information on community natural resource use and needs, socioeconomic and livelihoods, as well as community understanding of forest and natural resource protection. Seven villages were surveyed including 280 households. Majority of the communities were small scale farmers.

			resource use and needs, socio-economic and livelihoods, as well as community understanding of forest and natural resource protection.	Agriculture was considerably more important to people's livelihoods as a source of income and food. However, animal husbandry, logging and small businesses were also key income generation activities. The reliance on forest reserves was significant as they depending water freely from rivers, streams, or other water sources within the forests, collect fire wood and graze in grassland patches inside the forests. The interviewed community's members understand the regulations governing the forest reserves. They knew village environmental committee work in the protection of the forests and engage with stakeholders in economic incentives projects, environmental awareness and forest patrols.
2	Data evaluation and management plan design (Year 1, Quarter 3 and 4)	2.1	Evaluation of direct and indirect threats for each forest	Threats in all four forests are almost similar. Direct and indirect threats were identified in each forest; causes, how to overcome, severity and scope were also evaluated. For Sakaranyumo and Mshora the threats rank as follows Fire, grazing, poor agriculture practices and tree felling. In Madenge threats rank as logging, grazing, hunting, fires, and tree felling and poor agricultural practices. Mdandu forest the threats rank as grazing, fire, logging, hunting and mining. In all four forests the indirect threats are pollution due to use pesticides and chemical inputs that are used in varieties of crops like irish potatoes, coffee, maize, beans and tea. Most of the farm plots are in the slopes which pollute water sources. The causes of these threats are poor agriculture practices, lack of proper land use plan or implementation of plan, need for energy like fuel wood, improper ways of honey harvest, food and lack of law enforcement. During the working period WCS discussed with different stakeholders on how to manage threats in these forests. Stakeholders proposed action to be taken in: awareness on good agriculture practices, establish land use plan, implementation and enforcing of existing land use plan and review of land use plan that are phasing out. And provision of sustaina
2	Data evaluation and management plan design (Year 1, Quarter 3 and 4)	2.2	Review of existing management plan for each forest	Madenge, Mshola, Sakaranyumo and Mdandu forests were declared as Catchment forest reserve in colonial times. The four forest reserve had no management plans. Previous studies have indicated the importance of these forests as water catchment and habitats of numerous important animal and plant species. The forests were managed by Ludewa district councils and then

				management transferred to Tanzania Forest Reserve (TFS). The forests were threatened by unsustainable land use practices and inappropriate resource extraction. These forests continues to be managed by TFS, through forest patrols, law enforcement, and community engagement. However TFS have insufficient resources to well manage the forests.
2	Data evaluation and management plan design (Year 1, Quarter 3 and 4)	2.3	Production of draft management plan for each forest	The forest management plans were structured based on guideline for preparation of management plan of natural forests in Tanzania. Forest information was gathered through stakeholders meetings with TFS and district natural resource office in Ludewa. Then a team of six people comprises 3 TFS foresters of southern zonal office and 3 WCS researcher were selected to steering the management plan process. The team designed a first draft of management plan from forests baseline information and research results. Drafts of management plans for each forest were submitted to district forest office and TFS in Ludewa.
2	Data evaluation and management plan design (Year 1, Quarter 3 and 4)	2.4	Minutes on consultative meetings to discuss the draft management plans with relevant stakeholders	Stakeholders' meeting was organized in Ludewa district to share the management plans of Madenge, Sakaranyumo, Mdandu and Mshora forest reserves. The meeting included 14 village representatives, 4 TFS staffs , 12 head of departments, 3 NGOs, and district leaders in Ludewa districts. Management plans drafts were presented in Swahili and the attendees had group discussion to add their inputs. Meeting sessions were successful and all stakeholders contributed their input to improve the plans. The information collected on forests site were verified after field visit done in collaboration with adjacent village, TFS and WCS then inserted in the management plan draft.
2	Data evaluation and management plan design (Year 1, Quarter 3 and 4)	2.5	Finalization and approval of new forest management plans for four forests	The proposed management plans were finalized by adding all inputs that were collected on each forest. Meeting with all stakeholders was held in Ludewa and attended by TFS, village representatives, NGO and Ludewa district representatives. The meeting aimed at sharing the final management plan draft and the implementation strategies from TFS. The plans of Madenge, Sakaranyumo, Mdandu and Mshora forest reserves were completed and submitted to TFS southern zone for reviewing and thereafter sent to the forestry and beekeeping division for approval.
3	Designing a monitoring	3.1	Monitoring database is set	WCS has established a database to record and keep collected information during forest patrol surveys done

	system (Year 1, Quarter 3 and 4; implementation from end of Quarter 4 onwards)		up	by TFS, VEC and WCS staff.
3	Designing a monitoring system (Year 1, Quarter 3 and 4; implementation from end of Quarter 4 onwards)	3.2	Yearly monitoring reports on species status and habitat condition	Monitoring of key species such as Kinyongia msuyae, Hyperolius davenporti, Atheries matildae, Galago sp was done. Their presence over time has revealed the current presence in forests after they were last recorded in 2011. No killings of animals by hunting have been recorded in these forests during the programme period. Animal that were recorded between 2008 and 2011 have also being recorded 2016 and some that were not recorded in previous years were current recorded. Animal's sightings and signs have improved; animals that were not easily sighted in previous years (baseline) are now easily sighted. Condition of wildlife habitat is now improving as illegal incidences has declined by 62.4%. This was through enforcing bylaws by Village Environmental Committee through forests patrols and monitoring. WCS ensured TFS, Ludewa District and Village government are governing in the interests of communities. Communities were taken into steps by step procedure of developing management plan by raising awareness on the values of the forest as biodiversity and water reservoir; and how they can participate in conservation of the forests. In addition frequent awareness raising on various environmental issues were carried out, motivation with accordance to TFS rules and regulation were identi
3	Designing a monitoring system (Year 1, Quarter 3 and 4; implementation from end of Quarter 4 onwards)	3.3	Quarterly reports on illegal incidences	Illegal activities in the forests were monitored by village environmental committees (VEC) and TFS authority. The established village environmental committees were trained and equipped to conduct patrols in the adjacent forests. Each team patrolled on designated forest areas. After patrols, VEC directly reported illegal activities to village authority and forest authorities (TFS, District council). Compiled data have shown reduction of Illegal incidences by 62.4% during the project timeframe. The most recorded illegal incidences were grazing, logging and tree felling. WCS process VEC data and compiled a report that was shared with TFS and Ludewa district councils. Forest managers of each forest acted on all reports that were directly reported by VEC to enforce laws and penalties when poachers were apprehended.

4	Management plan implementation: community participation (Year 1 and Year 2)	4.1	Minutes of sensitization meetings	Sensitization meetings were conducted in each village and attended by different age groups and gender. During the meetings, environmental education was provided focusing on raising conservation awareness on forests and participation of local community in forest protection and management.
4	Management plan implementation: community participation (Year 1 and Year 2)	4.2	Environmental committees established and trained	Meetings were conducted in seven villages with the purpose of establishing village environmental committees. Meetings involved village government members, agriculture and livestock officer, WCS and representative from TFS and District. During the meeting, concept of having an environmental committee within the village was introduced with purposes of conducting forest patrols. The selection of environmental committee members criteria were structured with consideration of age group and gender. Each environmental committee has 14 members who were approved through village assembly. VEC has selected leaders including chairperson, vice chairperson, secretary and treasurer. The environmental committee members have received training on roles and responsibilities towards forest protection and uses of GPS during forest patrols.
4	Management plan implementation: community participation (Year 1 and Year 2)	4.3	Environmental committee members selected, trained and conducting patrols	All village environmental committee members have received training on roles and responsibilities towards forest protection as well as uses of equipment's and data recording. Patrols were conducted in the forest and in water sources, data were recorded in GPS and designed forms.
4	Management plan implementation: community participation (Year 1 and Year 2)	4.4	Equipment procured for patrols – boots, uniforms, GPS	Forest patrol equipment's were procured and distributed to seven village environmental committees of all targeted villages. Each village environmental committees received raincoat, bush knives, boots, and GPS which used during forest patrols.
4	Management plan implementation: community participation (Year 1 and Year 2)	4.5	Reports of forest patrols to TFS and District Councils	Data collected from village environmental committees patrols were compiled and results was shared with TFS and district councils. Community patrols enabled TFS and Ludewa to identify major forest issues in each forest.
4	Management	4.6	Community	Forests under the project have been categorized as

	plan implementation: community participation (Year 1 and Year 2)		access to legally utilized resources maintained	catchment forest which restricts the use/collection of flora and fauna inside the reserves. TFS has ongoing discussion with villages to propose the joint forest management plan. Meetings with local communities were done to prepare community engagement in joint forest management. Communities were also familiarized with forest by-laws and regulations which govern the reserves. All targeted local communities were encouraged to participate in alternatives conservation activities such as tree planting, beekeeping and good agro forest practices rather than dependence of forest reserve products.
4	Management plan implementation: community participation (Year 1 and Year 2)	4.7	Community fire management system is active	Community fire management plans were designed in all seven villages that are adjacent forest reserve. The plan was prepared in collaboration with village governments, VEC and forest authorities. It has highlighted the fire prevention measures and procedures of handling fire incidences. The plan has included fire regulation and bylaws to be enforced by village authority. Also the plan has identified a fire reporting system that included a fire task force team selected within a village. A fire taskforce team is responsible for coordinating fire management activities, communicate fire incidences, mobilizing community in fire suppression and manage fire use procedure in supervision of village leaders. WCS in partnership with TFS conducted training to fire teams focusing on forest fire possible causes and suppression techniques. The team was linked with different stakeholders including NGOs and other influential people around the forest reserves.
4	Management plan implementation: community participation (Year 1 and Year 2)	4.8	Protected area boundaries cleared and maintained by community	TFS in collaboration with VG and VEC has started to resurvey all protected area boundaries in order to be cleared and replanting indigenous tree around the reserve
5	Community outreach (Year 1 and Year 2)	5.1	Report on environmental education activities in target areas	WCS in collaboration with TFS and District provides an environmental education to all targeted villages and schools around four forests. The focus were to increase public awareness, communities' participation in conservation, sustainable use of adjacent forest reserves and understanding of the worth and threats facing the adjacent forest reserves, as the habitat of endemic species such as Maltidae viper as well as the source of water to lake Nyasa.

				In schools, environmental education was conducted through participatory teaching and environmental film shows. There was a very good response in both primary and secondary schools since most of pupils and students were so eager to discuss on environmental problems such as environmental pollution, land degradation and loss of biodiversity such as plants and animals. This activity was done inside and outside the classes through environmental songs and environmental role plays. These methods were used to make pupils/students aware, and able to participate in environmental conservation. The global climate change issues were discussed through participatory teaching, focused on the causes, impacts and how to mitigate in relation to forest degradation, and deforestation as the source of greenhouse gases such as carbon dioxide (CO2) which res
5	Community outreach (Year 1 and Year 2)	5.2	Report on experiential learning	WCS in collaboration with village government has been conducting an experiential learning in all targeted forest reserves. The experiential learning was conducted by walking inside/outside the forests to learn different threats which caused by human through overgrazing, farm expansion, forest burning, and water source degradation and logging. The walking visitation was involved village environmental committees, village government, TFS District officers and other potential people like chiefs and traditional leaders. This has assist participants to learn direct through observation and suggest possible solutions to mitigate anthropogenic causes inside/outside the forest reserves.
5	Community outreach (Year 1 and Year 2)	5.3	Report on performed special events	Special events were celebrated during world environmental, Water and farmers day targeted to create awareness on the values and relation of ecosystem services and conservation. The overall purpose was to emphasize the importance of conserving adjacent forest reserves as a source of water to Lake Nyasa, habitat of endemic species like Maltidae viper as well as a tourism destination. In addition, climate change and forest fire causes, effects were discussed and efforts to be taken in protecting the forests. Local dances, drama, choir was used to send message to communities during the events followed by film shows carrying conservation messages. Through films communities were able to learn from other areas around Tanzania and the world.
5	Community	5.4	Minutes of	WCS organized a one day workshop to create awareness

	outreach (Year 1 and Year 2)		meeting and workshops with decision makers	on the unique biodiversity and importance of Ludewa forests. The workshop was attended by head of departments and partners, district leaders and village leaders. During the workshop conservation initiatives and challenges facing the forests in Ludewa were discussed. TFS, WCS and local organization presented their work in conservation and protection of the Ludewa forest. Among the initiatives that was discussed were; communities engagement in protection, ecosystem services, and community incentives projects. Suggestions were made to improve the implementation of stakeholders projects on conservation and challenges discussed. Attendees agreed to work with the communities in addressing the major challenges facing Ludewa forest such as grazing, logging, uncontrolled fire and tree felling.
6	Sub-grantee management (Year 1 and 2)	6.1	Sub-grantee agreement between WCS and to-be-determined local organization	WCS had an agreement with two Local non-governmental organization (NGO) working on environmental conservation projects in Mbeya region. HIMARU and ECODETA signed a two year contract to work in four villages adjacent Rungwe Nature Reserve and Mporoto Forest Reserve. Each organization selected two villages and identified target groups. Both HIMARU and ECODETA were funded to procure office equipment, establish trees nursery, provide environmental education and train community on agro forestry and beekeeping techniques. The organizations were required to submit quarterly work plan showing planned activities and budget. Activity performance were monitored and evaluated by WCS supervisors. In addition, WCS introduced the local organization to district authority and the planned project activities.
6	Sub-grantee management (Year 1 and 2)	6.2	Report on financial and technical progress of the sub-grantee	Performance of several activities was reported by both organizations quarterly; tree nursery establishments, environmental education provision and training community on agro forestry and beekeeping. a) Tree nursery establishments: A total of 70,000 tree seedlings were raised and distributed in villages by HIMARU and ECODETA. Exotic and indigenous tree seedlings raised were Podocarpus sp, Pinus patula, eucalyptus sp, Grevillea robusta, and Syzygium cordatum. Awareness raising on the tree planting were done before distribution. Tree planting was done in households, village and institutions farms. b) Environmental education: awareness meetings were done in Syukula, Ilolo, Wimba and Nsenga attended by

				members of village environmental committees, village councils. The purpose of the meeting was to create awareness on environmental issues focusing on forest values, nature tourism, water sources protection and community role in conservation. c) Community training on agro forestry and beekeeping: local beekeepers were organized and trained in four villages. Training focused on improved beekeeping techniques that are in support of environmental conservation. The training provided has helped the beekeepers to use and adapt modern hives (Tanzania Top Bar Hives), this has enabled the gr
6	Sub-grantee management (Year 1 and 2)	6.3	Increased efficiency and effectiveness of local organization through training	WCS organized three training to HIMARU and ECODETA members to build capacity in beekeeping, agroforestry and project supervision. The training was conducted in collaboration with Ministry of Agriculture Training and Research Institute- Uyole (MARTI) and Beekeeping experts from Mbeya district councils. Training was attended by 15 members from both organizations. Organization members were firstly trained on agroforestry techniques by expert from Ministry of Agriculture Training and Research Institute- Uyole. The training highlighted agroforestry practices that favorable to their particular working villages in Rungwe and Mporoto. Second training was on beekeeping techniques and good practices. Last training was on project management including preparing activities planning, organizing and capture information for report writing and sharing of data collecting tools.
6	Sub-grantee management (Year 1 and 2)	6.4	Increased involvement of local organisation in community-based conservation activities	WCS has been closely worked with local organization across the region in implementing various conservation activities. This project has work with four local organizations; ECODETA and HIMARU in Mbeya region, and LUDA in Njombe region. Both organizations are working in conservation projects that are contributing to the protection of the Key biodiversity areas (KBAs). ECODETA and HIMARU were project sub grantees while LUDA was contracted to raise tree seedling for community living adjacent four Ludewa forests. Local organizations were engaged throughout the project implementation in various activities. They were part of team that implemented most of the activities that engaged communities including tree seedlings raising, environmental education and forest management plan development.

7	Appliction of CEPF Safeguards	7.1	Prepare, implement, and monitor safeguard on involuntary resettlement (involuntary restriction on access to resources) per the description in the Process Framework	During implementation of the project there was no involuntary resettlement
7	Appliction of CEPF Safeguards	7.2	Prepare, implement, and monitor safeguard on indigenous peoples per the consultations outlined in the Social Assessment	The project was implemented in the area where there is no indigenous peoples

Please describe and submit any tools, products, or methodologies that resulted from this project or contributed to the results.

The best tools that came out of this project are the Forest Management Plans for the four forest reserves; Village Fire Management Plans The project produce data sheets for VEC patrols in the forest where data will continue to be collected in organised manner Conservation awareness material for education were produced and distributed to the communities. To the end of the project the materials will still in the walls of homes and offices.

Lessons Learned

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building.

Consider lessons that would inform:

- Project Design Process *(aspects of the project design that contributed to its success/shortcomings)*
- Project Implementation *(aspects of the project execution that contributed to its success/shortcomings)*

- Describe any other lessons learned relevant to the conservation community

-Complementary projects like beekeeping and tree nursery were established to support forest fire controls, and promote community engagement in conservation.
-Community involvement in forest fire management has improved collaboration among communities, government and private sector.
-Improved relationship between communities and TFS where during the project implementation more awareness was raised to introduce TFS to the communities.

Sustainability / Replication

Summarize the success or challenges in ensuring the project will be sustained or replicated, including any unplanned activities that are likely to result in increased sustainability or replicability.

Success

- **Environmental education provision has help to reduce fire incidents which caused by hunters, honey collectors and during farm preparation**
- **The frequently campaign of gender awareness has help to increase women's participation in conservation activities**
- **Good link of communication between environmental committees and TFS has help to increase participation of local communities, traditional leaders and village government in conserving adjacent forests**
- **Increase demanding of communities in establishing tree nursery and beekeeping. This has shown community willingness to engage in environmental friendly activities.**

Challenge

- **Unsustainable ways of getting equipment's for village environmental committee (VEC). Most of the VEC are willing to conduct patrols freely if they are supported with equipment's but TFS has no resources to provide equipment's. WCS has started building VEC capacity through tree nursery developments.**

Safeguards

If not listed as a separate Project Component and described above, summarize the implementation of any required action related to social, environmental, or pest management safeguards

The project has no any required action which related to social or environmental safeguards

Additional Comments/Recommendations

Use this space to provide any further comments or recommendations in relation to your project or CEPF

Additional Funding

Provide details of any additional funding that supported this project and any funding secured for the project, organization, or the region, as a result of CEPF investment

Total additional funding (US$)
$54,000.00

Type of funding
Please provide a breakdown of additional funding (counterpart funding and in-kind) by source, categorizing each contribution into one of the following categories:

A Project Co-Financing (other donors or your organization contribute to the direct costs of this project)
B Grantee and Partner Leveraging (other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF funded project)
*C Regional/Portfolio Leveraging (other donors make large investments in a region because of CEPF investm*ent or successes related to this project)

A
$26,000 - from USAID for salary support; $13,000 from USAID for logistics support in fuel, food and accomodation $15,000 from USAID for support on the collection of information for the three management plans

Information Sharing and CEPF Policy

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned, and results. Final project completion reports are made available on our Web site, www.cepf.net, and publicized in our newsletter and other communications.

1. Please include your full contact details (Name, Organization, Mailing address, Telephone number, E-mail address) below