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KULERA BIODIVERSITY PROJECT

FY 1 Annual Technical Report: October 2009 - September 2010
4th Quarter Technical Report: July-September 2010

Prepared by:

Total Land Care

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The Malawi Kulera Biodiversity Project is being implemented by Total Land Care as the prime implementing organization in partnership with selected local and US organisations with funding from the United States government through the United States Agency for International Development(USAID) under Cooperative Agreement No. 674-A-00-09-00140-00

Project Name: Kulera Biodiversity Project
Reporting Period: October 2009 – September 2010 and July-September 2010
Obligation Funding Amount: US\$3.324 million
Project Duration: 3 years
Evaluation Dates:
Person Responsible for Drafting this Report: Mwirihira V. Kapondamgaga, KBP M&E Officer
Project Objectives: <ul style="list-style-type: none"> - Improved governance of PAs through a participatory, decentralized structure that provides economic incentives to support sustainable natural resource management. - Improved rural livelihoods around the borders of protected areas under a framework that promotes increased food security, diversification, sound resource management, village savings and loans, and incomes. The ultimate goal is to transform livelihoods from subsistence survival to thriving rural enterprises that are self sufficient. - Increased rural incomes from ecotourism and enterprises among local producers and entrepreneurs to produce process and market agricultural and natural products. A value chain approach will be used to evaluate the progress and status of products and enterprise initiatives to date to target interventions that address critical weaknesses or gaps.

The following report summarizes both the activities and results of the 4th quarter of FY1 and the cumulative results of the 4 quarters of FY1 as the annual report of the Kulera Biodiversity project. Fourth quarter results are presented with a green background to set them apart from annual report results.

I. Overall Progress of the Project in Year 1

During the first year of the Kulera Biodiversity project, most of the activities under operational setup were completed. A significant number of activities under the three result areas were started and are in progress.

Key activities carried out during the first year (those highlighted in green occurred in the 4th quarter) included the following:

1 Operational Setup Activities

Activities on operational set up were mostly done during the first and second quarter of the reporting period. Completion of most of these activities occurred in the third and fourth quarters. The following activities were achieved under operational set up during first year of the project.

- **Preparation of PMP and work plan:** 2010 annual work plan and PMP for the 3-year program were drafted and submitted to the AOTR in the second quarter. Both documents have been finalised with comments from the AOTR incorporated.

- **Agreement on roles and targets for Kulera partners:** Discussions and agreement on roles and responsibilities among all nine Kulera partners occurred during the first quarter. All partners understand their roles for the implementation of the project.
- **Specialist, field and support staff positions filled:** All specialist, field and support staff positions were advertised and recruited both in the first and second quarter.
- **Chief of Party was identified and recruited:** The Kulera Biodiversity Project Chief of Party was identified and recruited. Approval was given by USAID. The Chief of Party commenced his duties in the second quarter.
- **Establishment of field operation offices:** Both field offices were established in Rumphi and Nkhatakota during the first quarter of the project.
- **Sub-agreements with key partners completed:** Sub-agreements were completed between TLC and Washington State University, Terra Global Capital, CARE, SSLPP and Mzuzu Coffee. Also sub-agreements between Washington State University (WSU) and Renewable Energy Solutions (RES) and between WSU with StrawJet were completed in third quarter. Consultants from both RES and StrawJet were on site and completed contractual obligations for the first year.
- **Collaborative agreements with key partners:** Collaborative agreements between TLC and all nine collaborative partners were completed in the first quarter as scheduled.
- **Financial System for procurement, accounting and reporting among partners:** A financial system was set up after TLC finance staff attended the financial management training by USAID during the second quarter of the project implementation. Finance personnel for all partners were trained in April (third quarter).
- **Common reporting structure, format and timeframe for all partners:** All partners were made aware of reporting requirements for the project during the first quarter.
- **Procurement plan for vehicles and office, field equipment and supplies:** The procurement plan was developed and all vehicles as well as office, field equipment and supplies were purchased in the first and second quarter using this plan.
- **Committees and task forces to oversee project management and field activity:** Committees to guide project implementation were defined and initiated in the third quarter. Requisite first quarter activities had to be completed prior to establishment of these committees.
- **Brief target district assemblies and other stakeholders on Kulera activities and approach:** The briefing of all the targeted districts on Kulera projects occurred in the second quarter. The 8 target districts, through their respective District Assemblies were briefed on Kulera project activities and approach. These districts included the following: Kasungu, Ntchisi, Nkhatakota, Rumphi, Mzimba, Karonga and Chitipa except for Nkhatabay. District Assemblies provided resounding support for Kulera with the exception of Nkhatabay where there was a request for clarification from the Department of Forestry representative on the role of the project in Mkuwazi Forest Reserve. Clarification on Kulera role in carbon development in Mkuwazi remains unresolved with the Department of Forestry. Conversation with the Malawi Environmental Endowment Trust (MEET) occurred in the third quarter over MEET Plan Vivo activity and

carbon management collaboration seems possible, but remains unresolved at the close of Year 1 of the project.

- **Project Steering Committee Meeting:** During the third quarter, the Project Steering Committee composed of leadership from Kulera partners and agency collaborators, met to devise organizational structures and strategies to facilitate collaboration and enhance smooth operation of the Kulera project. This meeting was followed up by an additional steering committee meeting designed to address specific issues of collaboration including allowance harmonization, project reporting lines, project safety planning and allocation and distribution of project resources.
- **Project Management Task Force Meeting:** The Project Management Task Force, including Zone Managers, mid-level managers from partner organizations and agencies also met to address logistical and planning issues for staff on the ground. A key element of this discussion focused on the need to operate as a single Kulera unit as opposed to a federation of independently operating partner groups.
- **Creation of Field Implementation Committees:** The creation of Field Implementation Committees for both Nkhotakota and Rumphi Zones was initiated in the third quarter, to facilitate smooth implementation of field operations among project partners in these two zones. Partner field coordinators, zone managers and central TLC office staff comprising members from the steering committee, management committee and the field implementation committee met in Kasungu on 20-22 August (4th quarter) for a project-wide induction meeting to ensure a clear and common understanding of project goals, interventions, communications, responsibilities and expectations across all project levels and among all project partners. This meeting assisted in providing the field implementation committees with their charge.
- **Briefing stakeholders on Kulera activities.** CARE International briefed ADCs and VDCs on technical aspects of VSL, Micro enterprise development, VUC, DRR, Gender and HIV and AIDS issues. During the meetings, 2412 VDC and ADC members (1392 male, 1020 females) participated.

Table 1(A): Summary of operational setup activities for October 2009 - September 2010

1	OPERATIONAL SETUP	2010 TARGET	Achieved targets 4th Quarter	Achieved targets Year 1	Remarks
1.1	Prepare the Annual Work plan and PMP for FY1 with contributions from all project partners	1	0	1	Work plans done together with the partners in the first quarter
1.2	Agree on partner roles, responsibilities and targets with development of a project organogram	9 partners	0	9 partners	Done with all the partners in the first quarter
1.3	Advertise, recruit & fill positions for specialist, field & support staff	40	0	40	Recruitment done for all positions
1.4	Advertise, recruit & fill position for new Chief of Party	1	0	1	Recruited and started work in the second quarter
1.5	Advertise, recruit & fill positions for Community Extension workers	40	0	20	Completed. Target was reduced by half.
1.6	Establish field operation offices (1 in Rumphi & 1 in Nkhotakota)	2	0	2	Offices set up in the first quarter
1.7	Prepare sub-award agreements with key partners	WSU, TGC, CARE, SSLP, Mzuzu Coffee	0	TGC, CARE, SSLP, Mzuzu Coffee	All agreement prepared and signed by TGC, CARE, SSLPP, Mzuzu Coffee in the first quarter and WSU in the second quarter
1.8	Establish Project Management Task Force specifying composition and functions	1 task force	0	1 task force	Completed
1.9	Establish Project Steering Committee specifying composition and functions	1 committee	0	1	Completed
1.10	Establish 2 Field Implementation Committees specifying composition and functions	2 committees	0	0	Initiated and in progress. Completion planned for 5 th quarter
1.11	Establish collaborative agreements with selected partner organizations	9 partners	0	9 partners	Collaborative agreements with 9 partners are in place.

1.12	Establish Financial System for procurement, accounting, and reporting with all partners	9 partners	0	9 partners	The system is in place, TLC finance personnel were trained during the second quarter. All partner finance teams were trained in the third quarter. Procurement, accounting and reporting systems were established and are in place.
1.13	Establish reporting structure, format and timeframe with all partners	9 partners	0	9 partners	Reporting structure, format and timeframe established, discussed and agreed with all partners.
1.14	Develop & initiate procurement plan for vehicles and office/field equipment & supplies	1	0	1	Procurement of all materials (vehicles, and office/field & supplies equipment done using procurement plan through procurement committees
1.15	Brief target district assemblies & other stakeholders on Kulera activities/approach	8 DAs	4	8 DAs	Zone managers met with all District Assemblies in project zones. CARE International briefed ADCs and VDCs on technical aspects of VSL, Micro enterprise development, VUC, DRR, Gender and HIV and AIDS issues. During the meetings, 2412 VDC and ADC members (1392 male, 1020 females) participated. A second meeting with the Nkhatabay District Assembly will be required to address issues over Mkuwazi Forest Reserve.
1.16	Conduct a launch of the project with Govt Officials, USAID, Partners & Stakeholders	1	0	0	Planned for Second Quarter—Year 2

2. Intermediate Result # 1: Improved Governance of Protected Areas

The main activities under improved governance of protected areas that took place during first year of the project included the following;

- **Target area identification and demarcation.** TLC has mapped approximately 450 villages within 10 km border of the Nyika Vwaza complex. The exercise is still in progress and is expected to be finalized in FY 2 (5th quarter). Identification and targeting of priority communities for project activities was completed in the 4th quarter and included communities in the Bolero, Kotowo and Mpherembe EPA as well as communities in the Achenachena area.
- **Target area identification and demarcation.** TLC mapped approximately 150 villages within the 10 km border of the Nyika Vwaza complex in the 4th quarter of the project.
- **Co –management agreements.** Co-management documents were discussed in 3rd quarter and will again be discussed in the 5th quarter with the Department of Parks and Wildlife. Co-management agreements are being drafted by Terra Global Capital partners. Legal review will likely be completed in the fifth quarter.
- **Awareness campaigns.** Awareness campaigns were initiated in both the Rumphu and Nkhotakota zones. These have largely been associated with Area Development Committees (ADC) meetings. More extensive awareness activities are planned for FY 2
- **Stakeholder analysis to identify existing CBO/NGOs involved in IV/AIDS/DRR:** CARE International conducted stakeholder analysis to identify existing CBOs/NGOs involved in HIV/AIDS and DRR activities Report to be circulated to partners early in FY2.
- **Training needs assessment for identified CBOs/NGOs on gender, HIV/AIDS and DRR:** This activity was conducted by CARE around 1 PA in the 4th quarter. Assessment took place around the Nkhotakota Wildlife Reserve towards the Dwangwa area and Mkuwazi Forest Area. Other such assessments will be conducted in the FY2 of the project.
- **Preparation of training materials/tools on Gender/HIV/AIDS and DRR:** The training materials for gender/DRR and HIV/AIDS were finalised and 16 leaflets were also produced ready for distribution. Partner comments and pretesting of the training materials will be done in the 5th quarter.
- **Conduct awareness meetings on gender, HIV/AIDS and DRR:** An initial sensitisation meeting was done in 4th Quarter in all the 4 protected areas (Nkhotakota, Nyika, Vwaza and Ntchisi) by each of the seven field officers with support from Technical Advisors. This meeting intended to inform the communities what the project will address and what strategies it will take in terms gender, HIV/AIDS and DRR. The other 3 meetings have been rescheduled to FY2.

Table 2: Results achieved under IR # 1: Improved Rural Governance of Protected areas during the quarter

2 INTERMEDIATE RESULT # 1: IMPROVED GOVERNANCE OF PROTECTED AREAS					
2	ACTIVITIES	2010 Targets	Achieved targets 4 th Quarter	Achieved targets Year 1	Remarks
2.1.1	Identify/demarcate target areas and communities in the border zone around the PAs	10,000 ha; 300 villages	150 villages	450 villages	Have mapped approximately 450 villages within 10 Km border of the Nyika and Vwaza. The exercise is still in progress. Identification and targeting of priority communities for project activities was completed in the 4th quarter With key priority areas in Bolero, Kotowo and Mphermebe EPA in addition to the Achenachena area.
2.1.2	Facilitate zoning/re-zoning of the PAs in collaboration with all the stakeholders	50 zones	0	0	Meeting is being scheduled with the Department of Parks and Wildlife and the Nyika-Vwaza Association to initiate discussion of PA committees and other governance issues between Parks and Wildlife and project target communities
2.1.3	Facilitate formation of functional democratically-elected PA committees at different levels	3 PAs; 50 zones; 300 VNRMs	0	0	
2.1.4	Support the legitimization of NRM governance structures (constitutions, by-laws & registration)	3 PA Associations	0	0	
2.2	Co-management Agreements				
2.2.1	Identify key natural resources and areas for developing co-management agreements	1 study completed for 2 PAs	0	0	In progress. Co-management documents were discussed with the Department of Parks and Wildlife and are being drafted and reviewed by Terra Global Capital partners. Legal review is planned in the 5th quarter.
2.2.2	Facilitate production of management plans for identified resources and areas within and outside Pas	2 Mgt Plans for 2 PAs	0	0	
2.3	Build Capacity of PA Governance Structures				
2.3.1	Recruit & train comm. workers to support NRM institutions in law enforcement, training & other needs	40 community workers	0	0	Awareness campaigns were initiated in both the Rumphu and Nkhotakota zones. These have largely been associated with Area Development Committees (ADC) meetings. In the second revision of Work plan that was conducted with all Kulera partners in the third quarter of the project, these
2.3.2	Conduct awareness campaigns and environmental rallies	200 campaigns/rallies	0	0	
2.3.4	Strengthen local CBOs, NGOs and other service providers in delivering CBNRM services	10 organizations	0	0	
2.3.5	Train PA officials and counterparts in community mobilization, participatory	20 PA Executives;	0	0	

	law enforcement, etc.	10 Orgs			activities were deferred to second year of project
2.3.6	Provide logistical support to PA officials to improve communications and mobility	25 PA Officials	0	0	
2.3.8	Train primary school teachers in environmental education	70 primary teachers	0	0	
2.3.9	Facilitate establishment of youth conservation clubs	10 clubs	0	0	
2.3.13	Form VUCs in selected villages	60 groups	0	0	
2.3.14	Train VUCs and VDCs on village umbrella committee development	60 groups	0	0	
2.3.15	Incorporate a system to address cross-cutting issues related to gender, HIV/AIDS, and DRR	4 PAs; 20 executive members	0	0	
2.3.16	Provide training /preparation in cross-cutting issues of gender, HIV and disaster risk reduction				
	Conduct stakeholder analysis to identify existing CBO/NGOs involved in HIV/AIDS/DRR activities	4 PAs	0	4 PAs	Activity completed. Finalised the stakeholder analysis in all the protected areas in the third quarter of project. The project is compiling the report will be circulated in the 5 th quarter.
	Conduct training needs assessment for identified CBOs/NGOs on gender, HIV/AIDS and DRR	4 PAs	1	1	The activity was conducted in Nkhotakota Game reserve towards Dwangwa area and Mkuwazi Forest Area. The other assessments will be conducted in the FY2 of the project.
	Prepare training materials/tools on Gender/HIVAIDS and DRR	3 booklets	0	3 draft booklets	Partner feedback not yet provided on the content of manuals, scheduled for FY2
	Conduct awareness meetings on gender, HIV/AIDS and DRR	4 meetings	1	1	An initial sensitisation meeting was done in all the 4 protected areas of by each of the seven field officers with support from Technical Advisors. This meeting intended to inform the communities what the project will address and what strategies to take in

					terms gender, HIV/AIDS and DRR. The other 3 meetings have been rescheduled to FY2.
	Train field implementing staff on Gender/HIVAIDS and DRR	10 field staff	0	0	The activity has been rescheduled to FY2 of the project because delayed induction training for Kulera and needed funds not arriving as anticipated.
	Train PA executive members on Gender/DRR/HIVAIDS	20 members	0	0	Planned for 5th quarter
	Train local organizations on Gender/DRR/HIVAIDS	10 organizations	0	0	
	Link CBOs and other groups to service providers on HIVAIDS care and support services	10 organizations	0	0	
	Train local governance structures on how to use community scorecard	4 training sessions	0	0	
2.3.17	Institute a system for Natural Resource Monitoring				
	Identify key areas and resources within the PAs and in the border zone for monitoring	Key areas & resources mapped	0	0	Planned for 5th quarter
	Identify methodologies for monitoring resource change over time based on the PMP indicators	Methodologies developed	0	0	
	Establish baselines for target areas and key natural resources (vegetation, wildlife, soils, water)	Baselines established	0	0	

3. Progress on Intermediate Result # 2: Improved Rural Livelihoods and NRM Practices/Carbon Development

Overall, the activities in the Improved Rural Livelihoods and NRM Practices/Carbon Development went very well. Key among these are:

- **Awareness Meetings with Technology Assessment, Training & Extension Support:** Sensitisation meetings are in progress. To be continued 5th quarter and throughout project.
- **Sustainable agriculture and NR interventions:** TLC identified EPAs for crop diversification, conservation agriculture, soil and water conservation practices, soil fertility improvement, natural woodlands under community management and new technologies tested and available for transfer were started in the third quarter.

Irrigation activities are under way and distribution of materials was done in the fourth quarter. In addition, a total of 9 hectares between Nkhotakota and Rumphi zones are now under irrigation with Kulera funding. A total of 64 households are impacted by these new projects. Treadle pumps have been procured were distributed in 4th quarter.

Tree planting activities were also undertaken in the 4th quarter. A total of 876,128 seedlings were out planted impacting a total of 2801 households in Nkhotakota and Rumphi zones.

Significant progress in both the Nkhotakota and Rumphi zones was made in the last two months of 4th quarter in the establishment of tree nurseries for preparation of tree seedlings for out planting in community woodlots and around individual homesteads.

Activities under conservation agriculture will be done prior to and during the 2010-2011 growing season provided approval for use of Roundup and Harness from USAID is given in time for the rains. This will likely be in the first and second quarter of Year 2.

- **Coffee production and processing:** Activities that have taken place during FY 1 included training of farmers and staff, maintenance of a mechanized hand pulper, and the formulation of board of trustees and procurement and distribution of beehives.

During the first year, Mzuzu Coffee identified and trained 68 farmers in beekeeping. 400 beehives were procured and distributed to farmers. In addition, 20 different farmers were trained in cooperative development. Also, target farmers were trained in the use and maintenance of 2 hand pulpers.

Mzuzu Coffee facilitated selection of a board for the cooperative as well as creation of 5 zonal boards and 12 business centre boards.

During the 4th quarter, 1 of 4 projected extension visits to coffee growing sites with successful growers was organized and took place.

Also during the 4th quarter, 1 of 2 projected review meetings was conducted with local coffee growers.

During the 4th quarter, the following processing equipment was procured for the coffee production and processing component of the project: hessian, plastic, wire, sacks and scales.

In the 4th quarter, 40 farmers received 400 beehives, protective gear and smokers from Mzuzu Coffee field staff.

The scheduled board meeting was conducted in the 4th quarter.

The baseline survey for the coffee production and processing component was conducted during the 4th quarter.

- **Small Livestock Promotion:** In FY1, activities under livestock production included sensitisation meetings, staff training, farmer contract agreements, familiarization visits to Kulera sites, briefing of DEC's and VDC on Kulera project, preparation of training material, farmer groups formation and trainings.

A total of 453 farmers participated in sensitisation meetings. 1 staff training session was conducted on piggery, poultry and goats and 17 staff members were trained.

A total of 650 out of the projected first year total of 2000 farmers were selected for participation in the livestock component of the Kulera Biodiversity project based upon set criteria.

The District Executive Committees and Village Development Committees in the 5 districts where Kulera Project is being implemented were briefed on the Kulera Biodiversity project. All 4 of the projected briefings occurred in the 4th quarter.

Members of staff comprising of the Executive Director, Program Officer and Livestock Development Officer conducted a field visit to new Kulera project sites in 3 of the 5 implementing districts. This activity occurred in the 4th quarter.

Training materials for all livestock species were prepared and are ready for distribution to all partners.

44 out of 50 livestock committees were formed and trained in the 4th quarter of the project.

271 farmers out of a total of 2000 were trained in livestock production in the 4th quarter.

Three contract agreements with farmer groups have been drafted in the 4th quarter and are to be signed during the 5th quarter.

100 out of 300 vials of vaccine were ordered in the 4th quarter to conduct a Newcastle disease vaccination campaign.

- **Carbon development:** Questions and data requirements and some remaining open issues were resolved during the field visit in the 3rd Quarter.

A draft version of the first two feasibility studies was developed and reviewed during the Terra Global Capital team field visit in the 3rd Quarter. The other two project types were studied at the same time, and the combined feasibility study was presented to TLC at the end of the 3rd Quarter.

To prepare for carbon development of the first project, the methods, sampling design, and standard operating procedures for conducting baseline social appraisals, preliminary biomass inventories, and boundary demarcation were tested during the TGC team field visit during 3rd Quarter. They were completed and sent to TLC for further testing and use during the 4th Quarter.

The design of the first beta version of the web-based monitoring system was developed, and the network and hardware requirements for project use were assessed. Some test and challenges were performed in the field, and actual software development can commence in the 4th Quarter.

- **Biomass and Energy Alternatives:** Under this project activity two Washington State University partners, Renewable Energy Solutions and StrawJet, conducted work on solar energy, RAM pump irrigation and potable water technology as well as use of agricultural residues and river reeds for alternative construction materials.

Renewable Energy Solutions (RES) and TLC explored an alternative improved woodstove design in collaboration with Ripple Africa.

RES identified and designed 1 solar site in Nkhotakota Wildlife Reserve zone (Kasamba Secondary School) and 1 RAM pump irrigation site in Ntchisi Forest Reserve zone.

RES identified and shipped components not available in Malawi and sourced available additional materials from Malawi for use on the irrigation and solar projects.

RES began installation of 1 solar system in 3rd quarter at Kasamba Secondary School and work was completed in the 4th quarter. 1 RAM site identified in 3rd quarter and installation was completed in the 4th quarter.

Monitoring of both the solar and RAM pump systems began in 4th quarter.

StrawJet selected an initial village to pilot the manufacture agricultural residue building materials. This village was Chipelela, in Zidyana EPA. Villagers were trained in use of the technology. Sufficient residue building materials were collected to build a goat enclosure, a granary and provide fencing materials. Both grass and river reeds were used in the construction materials.

- **Village Savings and Loans**

CARE International began assessment of potential for village savings and loan (VS&L) schemes in the target areas in the 3rd quarter. The following activities on VS&L were conducted in the fourth quarter and these also constitute the cumulative activity in VS&L for FY1:

In the 4th quarter, 68 sensitisation meetings on VS &L were held at group village headman level representing more than 68 villages, as a GVH has more than two villages under his/her jurisdiction. Community members who attended to these meetings numbered 2412 (1392 men and 1020 women).

In the 4th quarter, fifty-five (55) Village Savings and Loans groups have been formed and participated in intensive training in VS&L. Of the 55, thirty five (35) have started saving and interest on loans varies from 10% to 20% by group. In these groups, 78.4% of participants are women.

Also in the 4th quarter, 8 follow up visits to VS&L groups to assess performance and address bottlenecks were done in all seven implementing field advisors areas.

Table 3: Results achieved under IR # 2: Improved Rural Livelihoods and NRM Practices/Carbon Development

3 INTERMEDIATE RESULT # 2: IMPROVED RURAL LIVELIHOODS AND NRM PRACTICES					
3	ACTIVITIES	2010 Targets	Achieved Targets 4th Quarter	Achieved Targets Year 1	Remarks
3.1	Awareness Meetings with Technology Assessment, Training & Extension Support				
3.1.1	Conduct awareness meetings on potential interventions & responsibilities of project vs. Beneficiaries	15,000 farmers from 400 villages in 4 PAs including 40% female HH and 20% PLWHA			Sensitisation meetings are in progress. To be continued into 5th quarter and throughout project. Data to be extracted from sensitisation meetings for specific project interventions and to be reported in 5 th quarter report in this section.
3.1.2	Identify & assist villages/households with the capabilities/interest to establish different interventions				Data to be extracted from specific sensitisation meetings and to be reported in 5 th quarter.
3.1.3	Evaluate potential markets and related linkages for marketable products from interventions				
3.1.4	Organize villages/households into clubs by intervention to facilitate extension & training				
3.1.5	Procure and distribute materials/inputs/equipment on loan to support targeted interventions				Treadle pumps have been procured. Distribution to occur in 5th quarter.
3.1.6	Provide training & extension support on each intervention to targeted villages/clubs/households				Data to be extracted from specific sensitisation meetings and to be reported in 5 th quarter.
3.2	Sustainable Agricultural and NR Interventions (to be implemented in 2010/11 rainy season)				
3.2.1	Promote targeted interventions broken down by type in terms of quantity, HHs, gender & PLWHA:				

	Crop diversification	500 ha; 4000 HHs			Planned for 5 th and 6 th quarters of FY2 (targeting the rainy season of 2010-2011)
	Conservation agriculture	400 ha; 1000 HHs			
	Soil and water conservation practices	50 ha; 1000 HHs			
	Soil fertility improvement	50 ha; 500 HHs			
	Irrigation	250 ha; 2000 HHs	9 ha 64 HHs	9 ha 64 HHs	Some treadle pumps (plus kits) were procured, distributed and put in operation in the 4 th quarter.
	Tree planting	1 million trees; 10,000 HHs	876,128 2801 HHs	876,128 2801 HHs	To be continued during 5 th quarter and beyond.
	Natural woodlands under community management	1000 ha; 100 communities			In progress.
	New technologies tested and made available for transfer	2 new technologies			Planned for 5 th quarter
3.3	Coffee Production and Processing				
3.3.1	Coffee Planting/Production				
	Facilitate production of coffee seedlings with identified growers	120,000 poly pots/200 kgs seed	0	50000 poly pots and 80Kg coffee seeds	The remaining polypots and seed will be bought in 5 th quarter
	Train new field staff in Coffee Husbandry and business development	1 course; 6 staff			Scheduled for FY2
	Train farmers in Coffee Husbandry and business development	4 Courses; 110 growers			Scheduled for FY2
	Organize extension visits to sites with successful growers	4 visits	1	1	
	Conduct review meetings	2 meetings	1	1	
3.3.2	Promote Quality Processing of Coffee				
	Train staff in Coffee processing	1 course	1	1	Completed
	Train farmers in Coffee processing	4 farmer/entrepreneurs	4	4	Completed
	Maintain hand pulpers in all Zones	4 hand pulpers	2	2	The large hand pulper has been carried to Mzuzu for major repairs
	Procure processing materials	hessian, plastic,	hessian, plastic,	hessian,	Bought

		wire, sacks, scales	wire, sacks, scales	plastic, wire, sacks, scales	
	Conduct a tour to Union and Cooperative	1 Tour			Planned for 5 th quarter.
3.3.3	Promote Bee Keeping with Coffee				
	Procure and distribute beehives, suits and smokers	400 hives; 40 farmers	400; 40	400; 40	Completed
	Train farmers in beekeeping	2 courses; 40 farmers	0	1 course 68 farmers	Completed
	Provide extension support services	Monthly visits	0		Planned for 5 th quarter and beyond.
3.3.4	Promote formation of sustainable coffee growers organization				
	Train farmers in Cooperative Development and Management	1 course; 20 selected growers	0	1 course 20 farmers	Completed.
	Elect board for the Cooperative	1 Board	0	1	1 cooperative board, 5 zonal boards and 12 business centre boards
	Conduct board meetings	3 meetings	1	1	Completed
	Train farmers in M&E	1 course, 20 growers	0	0	Planned for 5 th quarter
	Conduct census	Various	0	0	Planned for 5 th quarter
	Conduct baseline survey	1	1	1	Done and report is out
3.4	Small Livestock Promotion				
3.4.1	Planning, Awareness Meetings, Area Assessment, Training & Extension Support				
	Conduct baseline studies on livestock production in all sites	3 areas around the 4 Pas	0	0	Planned for 5 th quarter under the overall baseline survey for all Kulera Biodiversity project activities.
	Evaluate and document availability of local extension services for livestock including vet medicines	5 areas around the 4 Pas	0	0	Planned for 5 th quarter.
	Train frontline staff in piggery, poultry/G fowl production, goats and rabbits production	4 training sessions	0	1	Trained 17 staff. The training was on piggery, poultry, and goat management. Need to train more staff so as to cover the EPAs around the PAs

	Conduct familiarization of staff to projects sites	3	3	3	The team comprising the Executive Director, Program Officer and Livestock Development Officer visited the three districts where the Kulera Biodiversity project is being implemented.
	Brief respective districts assemblies & communities on livestock intervention in Kulera project	4	4	4	All the districts where the livestock component is being implemented i.e. Nkhotakota, Ntchisi, Rumphu and Mzimba were enlightened on how SSLPP intended to implement its activities under this project.
	Identify and select farmers based on established criteria	2000 farmers	650 farmers	650 farmers	This number could increase as more than 2000 farmers have expressed interest in this project especially the livestock component. However, first year procurement restrictions on livestock created a situation where it is best to choose a small number to start with so as to avoid disappointments on the part of farmers.
	Form and train livestock committees	50 committees	44 committees	44 committees	44 groups and their committees have been formed and trainings in group dynamics and livestock production are under way
	Train farmers in piggery, poultry/G fowl production, goats and rabbits production	2000 farmers	271 farmers	271 farmers	So far 271 farmers have been trained in poultry, pig and goat production. There had been delays in trainings due to delays

					in disbursement of funds and fuel crisis that the country faced. The trainings are continuing.
	Conduct visits to successful small and large livestock producers	3 visits; 50 committee members	0	0	Preparations are under way. To take place soon after trainings have been finished and animals have been distributed.
	Mount demonstrations in Kholo; construction for respective livestock classes	12 demos	0	0	Trainings are in progress and farmers are assembling materials for khola construction. The activity was delayed due to lack of resources that could have been used during training and demonstrations.
	Develop contracts of agreement with farmer groups regarding care of animals and pass on	50 committees; 2000 farmers	3	3	SSLPP has drafted some contracts of agreement regarding the care for animals and is just waiting for input from "beneficiaries to be" to finalise it. Consultations are under way.
	Conduct Newcastle Disease Vaccination campaign	300 vials	100 vials	100 vials	Vaccine has been booked. Will be purchased and administered end by October.
3.4.2	Procure and distribute livestock under loan schemes for farmers with extension packs/vet kits:				
	Poultry/ G-Fowls	2000	0	0	Purchases planned for 5th quarter.
	Rabbits	200	0	0	
	Goats	375	0	0	
	Pigs	180	0	0	
3.4.3	Support proper care, feeding and management of livestock to improve production				

	Train farmers on proper care, feeding, feed sources, veterinary care & diagnosis of common diseases	2000 farmers	0	0	Activities were carried forward due to delayed in disbursement of funds, procurement restrictions and logistical problems.
	Provide start-up vet kits with information on local suppliers of veterinary medicines	50 club committees	0	0	
	Procure seed of fodder trees and legumes	10 kgs	0	0	Planned for 5th quarter
	Procure planting material for Napier grass and other fodder species	5000 sticks	0	0	
	Facilitate establishment of fodder banks	1000 banks	0	0	
	Conduct review meetings, supervision and monitoring visits	4	0	0	
3.5	Carbon Development				
3.5.1	Project Identification, Planning and Design				
3.5.1.1	Identify questions and data requirements	Identification of potential AFOLU carbon projects for feasibility	Achieved in 2 nd Quarter	Achieved in 2 nd Quarter	During a series of phone calls and email conversations, the missing elements to understand the scope and extent of the carbon projects were identified: Mainly <ul style="list-style-type: none"> • Identifying the areas • Defining area size and key activities in avoided deforestation, forest management on woodlands and woodlots and agroforestry with <i>Faidherbia albida</i> • Land tenure and management agreements • Census data • Financial planning of long-term project actions
3.5.1.2	Provide any additional required data/information		0	Achieved	About half of the missing elements were clarified in

				Quarter 2. Second half were clarified in Quarter 3. Such as: <ul style="list-style-type: none"> • Plan for achieving government agreements on carbon • Timing of field measurement procedures • Priority setting among the identified project types • Field testing of SOPs • Clarification of partner communication • Draft carbon agreements
3.5.1.3	Define discrete project activities (Faidherbia, REDD, woodlots, Cons Ag systems)	Achieved in 2 nd Quarter	Achieved in 2 nd Quarter	Discrete project activities are mapped out and reported in the draft feasibility study.
3.5.1.4	Identify specific GPS polygons for implementation of Faidherbia planting	Rescheduled to be continued for years 1-3	Rescheduled to be continued for years 1-3	TLC Task. <i>Updated estimate is: general locations of <u>Faidherbia albida</u> identified by end of 2010 and specific locations by year 3.</i>
3.5.1.5	Provide exact GPS polygons of identified Protected Areas and other Forest areas for REDD	High priority areas estimated with RS – finalisation rescheduled to 5 th Quarter	High priority areas estimated with RS – finalisation rescheduled to 5 th Quarter	TGC prepared first draft of high priority areas, <i>TLC will complete task based on high risk areas. Updated estimate is REDD polygons identified by end of 5th Quarter.</i>
3.5.1.6	For each project parcel with GPS work, include planned actions, community ID, picture, historic practice statement, tenure/mgt scheme, and for REDD ranking of drivers	Rescheduled across years 1-3 in sync with project area identification	Rescheduled across years 1-3 in sync with project area identification	TLC task. Updated estimate is: general locations identified by end of 2010, specific locations by year 3. TGC completed SOPs for boundary demarcation of broad areas of F. Albida and specific project parcel areas.

					Details see SOP: Year 1 record village governance information; Years 1-2 record broad level conservation agriculture boundaries; Years 1-3 record village and co-management area boundaries; Years 2-3 record parcel level conservation agriculture boundaries
3.5.1.7	Conduct initial social appraisals with involved communities		0	0	TLC and TGGC task: postponed to 4 th quarter due to resource flow issues
3.5.1.8	Begin to negotiate / secure any necessary Government approvals		0	50% achieved	<i>TLC Task (with TGC support) (understanding and verbal agreement achieved in most areas, except Mkuwazi, written agreements pending.)</i>
3.5.1.9	Develop carbon agreements with communities		0	10% achieved	TLC and TGC task: Developed framework for agreements. Still need to be signed. Appropriate government agency and local entities still need to be identified. Identified 2 potential in-country attorneys to develop legal language in carbon agreements. TGC still needs the names of group village heads. The first carbon agreement was drafted and discussed with TLC in 3 rd Quarter.
3.5.2	Prepare 4 feasibility studies (REDD, FA, woodlots, ALM)				
3.5.2.1	Identify target standard(s) for registration for each project activity	4 Carbon Feasibility Assessments	0	Achieved. Feasibility study contains all 4, (two of which are 3 months ahead	The feasibility studies indicate the likely standard for project activities eligible for carbon credits, mainly for the first two project types.

3.5.2.2	Identify risks of project eligibility under target standard(s)		0	Achieved.	The feasibility studies have identified the key risks, which were confirmed in the field visits and following the finalisation of the first two studies in the 3 rd Quarter.
3.5.2.3	Conduct initial remote sensing analysis for feasibility		0	Achieved	
3.5.2.4	Determine land-eligibility of Protected Areas and other REDD areas		0	Achieved	
3.5.2.5	Field visits by TGC specialists		0	Achieved	4 TGC specialists visited the project in April
3.5.2.6	Generate high-level net carbon estimates, with project costs (using available data)		0	Achieved	
3.5.2.7	Finalize feasibility studies		0	Achieved	A draft version of all 4 feasibility studies was submitted in one integrated document to TLC for comments in the 3 rd Quarter. Final edits will be completed in early 5 th Quarter. As much depends on the actual locations and implementation progress by TLC, TGC offers to review the feasibility studies in early 2011.
3.5.2.8	Deliver feasibility studies (1&2) to TLC		0	Achieved	
3.5.2.9	Review feasibility studies and provide any questions		0	Achieved	
3.5.2.10	Make any necessary changes and finalize feasibility studies (1&2)		0	Achieved	
3.5.3	Methodology Development				
3.5.3.1	Determine if existing methodology can be used, or if a new methodology must be developed	1 methodology submitted for validation and 1 draft methodology	0	Achieved	REDD: TGC's mosaic methodology is partially usable IFM: new methodology required
3.5.3.2	Determine relative extent of project actions to mitigate emission from deforestation & degradation		0	Achieved	Dependent upon TLC identification of parcels and actions
3.5.3.3	Determine spatial extent of reference region and validate similarity with project area		0	Achieved	Dependent upon TLC identification of parcels and

			actions
3.5.3.4	Purchase or acquire satellite data for the reference region and pre-process as needed	0	0 Data will be purchased step by step in sync with location identification on a quarterly basis
3.5.3.5	Acquire ancillary spatial information (roads, settlements, water, elevation) for the reference region	0	Achieved
3.5.3.6	Perform land classification and forest stratification within the reference region	0	50% Dependent upon TLC's identification of parcels and actions
3.5.3.7	Perform preliminary estimate of current carbon stocks in project area based on initial inventory plots	0	30% Dependent upon TLC's identification of parcels and actions
3.5.3.8	Perform preliminary estimate of annual carbon stock changes in project area under baseline scenario	0	50% Dependent upon TLC's identification of parcels and actions
3.5.3.9	Perform preliminary estimate of annual carbon stock changes for each project scenario	0	50% Dependent upon TLC's identification of parcels and actions
3.5.3.10	Develop leakage definition and develop protocols to monitor emissions from leakage	0	75% Dependent upon TLC's identification of parcels and actions
3.5.3.11	Determine the spatial extent of the leakage area, and preliminarily quantify emissions from leakage	0	75% Dependent upon TLC's identification of parcels and actions
3.5.3.12	Identify, quantify, and estimate all potential project-related emission sources	0	85% Dependent upon TLC's identification of parcels and actions
3.5.3.13	Calculate initial net carbon estimates, including leakage & emissions sources	0	85% Dependent upon TLC's identification of parcels and actions
3.5.3.14	Develop monitoring system to quantify on-going carbon stock changes in the project area & leakage losses	0	50% Dependent upon TLC's identification of parcels and actions
3.5.3.15	Identify all other on-going data requirements from project participants	0	50% Dependent upon TLC's identification of parcels and actions

3.5.3.16	Provide technical assistance with full biomass inventory sampling		0	50%	Dependent upon TLC's identification of parcels and actions
3.5.4	Carbon Development for feasible projects		0	20% Achieved	Procedures of biomass assessments, socioeconomic surveys and boundary demarcation have been developed.
3.5.4.1	Develop method for conducting baseline social appraisals	1 Project submitted on Faidherbia or REDD	0	Achieved	Procedures for social appraisals developed. Ready for field testing and refinement.
3.5.4.2	Identify group/organization to carry out baseline social appraisals		0	To be integrated with other assessments	
3.5.4.3	Execute baseline social appraisals to determine drivers of deforestation		Planning started	Planning started	
3.5.4.4	Develop SOP and sampling design for preliminary biomass inventories		0	Achieved	A biomass procedure has been developed. Ready for field testing and refinement.
3.5.4.5	Execute preliminary biomass inventories		Planning started	Planning started	
3.5.4.6	Develop detailed collaborative work plans for each project with all actions and conditions		0	Draft collaborative work plan discussed during 3 rd Quarter visit	
3.5.6	Prepare beta version of web-based monitoring system for release		0	50% Achieved, ready to be contract out to software consultants	Structure and design principles of the system developed and presented. More work in-country is needed to understand band width limits and infrastructure
3.5.6.1	Purchase web server equipment and software	Basic monitoring tool to support AFOLU carbon	0	Not yet purchased	Purchase can be initiated immediately after software development is complete.

3.5.6.2	Install hardware and software in Terra's California office	projects	0	Not Achieved. Postponed until field trip and technical assessment.	Purchase can be initiated immediately after software development and assessment of data and processing needs are conducted.
3.5.6.3	Design system functionality and review system with stakeholders		0	Draft assessment of functional specifications are completed	
3.5.6.4	Initial testing of system				Testing and roll-out can begin as soon as software development is complete
3.5.6.5	Completion of beta-version				Testing and roll-out can begin as soon as software development is complete
3.5.6.6	In-country training				After software development
3.6	Biomass and Energy Alternatives				
3.6.1	Introduce improved kitchen stoves to reduce firewood consumption & impacts of deforestation	5,000 HHs			Exploration with Ripple Africa on new brick woodstove.
3.6.2	Introduce and evaluate small scale solar systems and RAM pumps				
	Conduct initial assessments of potential applications/sites	4 Pas			Renewable Energy Solutions identified 1 solar site in Nkhotakota Wildlife Reserve zone and 1 RAM pump irrigation site in Ntchisi Forest Reserve zone.
	Design systems	1 Solar System; 2 Ram pumps			Designed 1 solar site in Nkhotakota Wildlife Reserve zone and 1 RAM pump irrigation site in Ntchisi Forest Reserve zone.
	Identify and ship components not available in Malawi				Identified and shipped components not available in Malawi.
	Source additional materials in Malawi				Sourced additional materials from Malawi.

	Identify suitable testing sites/beneficiaries		0	Partially Achieved	Identified suitable pilot sites for solar (Kasamba Secondary School—Nkhotakota Wildlife Reserve zone) and RAM pump (Ntchisi Forest Reserve zone)
	Identify & train individual(s) to help with the projects, and begin capacity building	1 community centre; 2 entrepreneurs; 2 irrigation farmers			In progress.
	Install and test 1 Solar Powered Community Centre, 2 Mini Solar Units & 2 Ram Pumps		1 community centre/school; 1 irrigation farmer	1 community centre/school; 1 irrigation farmer	Began installation of 1 solar system in 3 rd quarter at Kasamba Secondary School and completed in 4 th quarter. 1 RAM site identified. Installation completed in 4 th quarter.
	Monitor the systems with TLC and farmers, and make improvements				Began in 4 th quarter and is ongoing.
	Conduct resource assessments in other PA areas		4 Pas		Planned for 2 nd year in two other protected areas.
3.6.3	Evaluate Biomass Alternatives to Wood for Construction Purposes				
	Initial selection of and training of target villages	1 study	0	1	Completed. StrawJet selected and trained in initial village, Chipelela, in Zidyana EPA
	Construct & evaluate drying racks from river and lake reeds	50 drying racks	0	1 demonstration rack completed	Planned for Year 2
	Construct & evaluate animal enclosures, fencing, and market stalls, from river and lake reeds	5 villages			Partially completed. Constructed goat fort, granary and fencing in Chipelela.
	Construct & evaluate tobacco drying sheds from tobacco stalks	5 sheds	0	0	Planned for Year 2.
3.6.4	Identify sites and communities to establish Jatropha plantations to evaluate biofuel production/income	3 sites; 9 Communities	0	0	Planned for Year 2
3.7	Village Savings & Loans				
3.7.1	Assess potential for village savings and loan scheme in the target areas	1 study	0	1	Assessments done in all the villages surrounding all the 4 Protected Areas and sensitization meetings have

					started in prioritised areas. The activity is continuing through to FY2.
3.7.2	Sensitize 300 ¹ villages in village savings and loans	100 meetings	68	68	68 sensitisation meetings were held at group village headman level representing more than 68 villages as a GVH has more than two villages. 2412 (1392 males and 1020 female) community members participated in the meetings. The activity is continuing through the next quarter.
3.7.3	Facilitate establishment of 100 village savings and loan schemes for selected villages	100 groups	55	55	55 Village Savings and Loans groups have been formed and they have participated in the VSL first week intensive training as follows: 7 in Ntchisi; 18 in Nkhotakota; 5 in Karonga; 20 in Mzimba and 5 in Rumphu. Of the 55, 35 have started saving and interest on loan varies from 10% to 20% per groups. In these groups, 78.4% participants are women. The activity is continuing through to FY2.

¹ This was revised to 100 as target for year one.

3.7.4	Train 50 village saving and loan group in VS&L methodology.	50 groups	55	55	Though the activity was rescheduled to FY2 of the project, the trainings have started with all the 55 groups benefiting.
3.7.6	Conduct periodic follow ups to VS&L groups to assess performance and address bottlenecks	4 visits	8 visits	8 visits	The activity was done, 8 visits were done to all the 7 implementing field advisors' areas. The activity is continuing through to FY2.
3.7.8	Select / train community agents in the methodology for scaling up and sustainability	30 village agents	0	0	Activity not done, rescheduled to FY2 because the agents are to come from established VSLs and we have not reached that stage so it will happen in the FY2 of the project. This was already communicated during the revision of the work plan in May 2010.

4. Progress on Intermediate Result # 3: Increased incomes from enterprise development activities

Under the Kulera Biodiversity work plan most of the following activities will commence in FY2 since most of the activities under operational set up have been finalised, project monies are flowing as needed, field coordinators are in place and the needed transportation is in place to work in target project sites.

- **Enterprise Development:** Activities under this result area did not take place in the third quarter as planned. The following activities will begin seriously in the 5th and 6th quarters with the WSU value chain analysis consultancy of Dr. Tom Byers.
- **Micro finance/Credit facilities:** Activities in microfinance and credit began late (4th quarter) largely due to delay in distribution of motorbikes. However, 3 out of the 20 projected MSMEs were begun. These enterprises include mushroom, beekeeping; food drying and juice extraction and these are aligned mostly to VS&L groups.
- **M&E, Reports & Meetings:** Designed both internal and community-based M & E systems for the 3 different result areas. These will be documented and circulated for reporting in 5th quarter.

TLC developed three data base structures of inputs and analysis of results for each result area based on partner responsibilities because each partner has special activities. This will likely change with the adoption of the new village-based M & E system.

Relevant M & E staff members were involved in design of a new village based M & E system in the 4th quarter. This system will likely replace the current system in the 5th quarter. Staff members have been and will be trained in the village-based system. Three meetings have been held to date.

TLC, with partner input, produced quarterly technical and financial reports for Quarters 1, 2 and 3. This report constitutes the 4th quarter and annual report for the Kulera Biodiversity project.

Participated in Project Steering Committee meetings on 27 May and 7 June 2010.

Table 4: Results achieved under IR # 3: Increased Incomes from Enterprise Initiatives

4 INTERMEDIATE RESULT # 3: INCREASED RURAL INCOMES FROM ENTERPRISE INITIATIVES					
4	ACTIVITIES	Year 1 Target	Achieved 4 th Quarter	Achieved Target Year 1	Remarks
4.1	Enterprise Development				
4.1.1	Assess potential for natural resource & agro-based enterprises in PA (3- beekeeping, 3- mushroom, 3- fish farming, 3- fish cages; 3- groundnuts, 3- soya, 1- food dryer, 1- cassava)	1 study	0	0	Planned for the 5 th or 6 th Quarters to correspond with the harvest schedules of mangoes, wild mushrooms, tomatoes and bananas. In addition, this activity is waiting for WSU team consultant, Dr. Tom Byers.
4.1.2	Evaluate the value chains of the selected enterprises and identify intervention points	2 studies	0	0	
4.1.3	Train producer groups in production and processing skills (soya, groundnuts, beekeeping, fish farming, fish cages, food dryer, mushrooms, cassava)	20 groups	0	0	
4.1.4	Determine sustainable harvest/use limits for the selected products with viable markets	1 study	0	0	
4.1.5	Train producer groups and MSMEs in business skills and marketing with power to negotiate prices	20 groups	0	0	
4.1.8	Facilitate employment/venture opportunities with private tour operators for eco-tourism/NR enterprises	3 groups	0	0	
4.2	Micro finance/Credit facilities				
4.2.1	Identify 20 potential MSMEs (3- beekeeping, 3- mushroom, 3- fish farming, 3- fish cages; 3- groundnuts, 3- soya, 1- food dryer, 1- cassava) for credit/microfinance linkages	20 MSMEs	4	4	Work in progress, that is, some of the enterprises currently identified include mushroom, beekeeping; food drying and juice extraction and these are aligned mostly to VSL groups.
4.2.2	Develop a credit worthiness assessment tool for MSME to facilitate access to credit from MFI	1 tool kit	0	0	Scheduled for FY2

4.2.3	Evaluate financial and credit needs of 20 MSMEs (3- beekeeping, 3-mushroom, 3- fish farming, 3- fish cages; 3 -groundnuts, 3- soya, 1-food dryer, 1- cassava)	1 study	0	0	
4.2.4	Identify viable micro finance institutions for support services	4 Institutions	0	0	
4.2.5	Facilitate linkages/contracts between credit worthy MSMEs and Micro finance institutions	15 MSMEs	0	0	
5	M & E, Reports and Meetings				
5.1	Design Internal and Community based M&E Systems for the 3 different result areas	1 Internal; 3 CB M&E Systems	1 internal; 1 village-based system	1 internal; 1 village-based system	Both systems have been designed. To be documented and circulated for reporting in the 5th quarter.
5.2	Develop data base structure for inputs and analysis of results for each result area	3 data bases	3	3	Data bases have been developed but will likely be changed with adoption of new M & E systems.
5.3	Conduct M&E training for relevant staff on different components of the project	6 M&E sessions	3 sessions	3 sessions	Began in 4th quarter and will be ongoing to refine the M and E system
5.4	Produce quarterly technical and financial reports	4	1	3	Have so far produced the 1 st , second and third quarter reports.
5.5	Participate in meetings of project steering committee	4	0	2	Participated in Project Steering Committee meetings on 27 May and 7 June 2010.

Table 5: Results of studies and evaluations achieved

Study/Evaluation	Objective / Outputs / Activities	Approach / Method of Study	Remarks
Baseline survey	Gather and analyze socio-economic data of PAs; prepare socio-economic profiles; and specify key program M&E benchmark indicators to be used for project progress tracking and impact assessment	Consultancy	Baseline preparations underway. Actual survey likely to be in 6 th quarter.
Carbon Feasibility study	Feasibility study of 4 types of project actions for carbon offsets, to select and prepare for full carbon offset development	Terra Global Capital analyses from US and in field visits	Terra Global Capital completed studies for 4 project types started in 1 st and 2 nd Quarters. Result: carbon projects feasible.
Value chain analysis of selected enterprises	Identify key players/BDS; identify constraints & opportunities; identify intervention points; establish markets; etc	Short-term TDY – Washington State University- Dr. Tom Byers	Quarter 6
Resource assessment	Inventory/Quantification of NRM products and harvest limits in co-management areas	Biomass inventory activity in conjunction with Terra Global Capital inventory	Begin in Quarter 6
Vegetation analysis	Establish tree species & density in co-management areas	Biomass inventory activity in compliance with Standard Operating Procedures submitted by Terra Global Capital	Begin in Quarter 6
Development & testing of fuel efficient fruit/mushroom dryer	Evaluate prototype fuel efficient fruit/mushroom drying systems; construct/build using local materials	Short-term TDY – WSU- Dr. Tom Byers	Quarter 6
Small scale solar systems and RAM pumps	Evaluate appropriateness of different small scale solar systems and RAM pumps for household and community use	Short-term TDY – WSU- Renewable Energy Solutions	Completed Year 1 activities in Quarters 3 and 4
Biomass Study	Evaluate biomass alternative to wood for construction purposes	Short-term TDY – WSU	Completed Year 1 activities in Quarter 3 and 4
Environmental Monitoring	Evaluate environmental impacts of some interventions –fruit/mushroom drying, etc	Consultancy	End of Year 2
Impact studies of project interventions	Evaluate impacts of key project interventions on people's livelihoods, levels of poaching, etc	Consultancy	End of Year 3
End of project evaluation	Assess the impacts of the project	Consultancy	End of Year 3

Table 6 Results of Negative Environmental Impacts and Mitigation measures as a result of sustainable agriculture and natural resource interventions

NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURES	MITIGATION MONITORING INDICATORS	REMARKS
Introduction of herbicides to suppress weed growth may have negative effect on people during spraying	a) Train farmers on handling of herbicides (safety measures) b) Procure recommended pesticides	a) 3,000 farmers trained on herbicides safety measures b) Round-up (1liter bottles) and Harness (1liter bottles) procured	Ongoing training and sensitisation throughout the project.
Too much herbicide can damage emerging plants	Train farmers on recommended methods of mixing and spraying	3,000 farmers trained in recommended methods of mixing and spraying	
Excess use of treadle pump irrigation can cause the water table to be lowered	a) Sensitize farmers on proper usage of wetlands b) Practice Conservation Agriculture to help recharge ground water table.	a) Attendance records during irrigation sensitisation meetings b) 50% of irrigation farmers practicing Conservation Agriculture	
Reduced downstream water availability due to irrigation using river diversion	Facilitate formation of Water User Groups	# of functional Water User Groups	

Table 7: Results of Negative Environmental Impacts and Mitigation measures as a result of sustainable agriculture and natural resource interventions

NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURES	MITIGATION MONITORING INDICATORS	REMARKS
Deforestation due to timber used for kraal construction.	Encourage all participating farmers to plant trees around homesteads and in the fields	At least 100 trees planted by each benefiting farmer per year	Ongoing training and sensitisation throughout the project.
Improper usage of drugs by farmers which can have a health hazard.	Train farmers on safe drug use including dosage, container washing and disposal of used containers and other materials	All 1346 participating farmers trained in drug usage.	
Goats as browsers cause damage to environment	a) Train farmers on proper goat management b) Encourage community participation in management of goats through the formation of community groups c) Establishment of fodder trees fields	a) 50 participating farmers trained in goat management b) At least 5 community groups formed c) At least 12.5 ha of fodder established.	

II. Table 8: Challenges, Solutions and Actions Taken

No	Challenges	Solutions	Action taken
1	Delays in funding resulted in subsequent delays in field operations. Funds were not received until May 2010.	The stream of USAID monies for Kulera partners needed to flow on a regular basis to cover TLC and partner expenditures and to support field activities.	Collaboration and conversations with USAID resulted in a process in which TLC, Kulera partners and USAID are creating a smoother and timelier system for disbursement of funding.
2	Unclear understanding of USAID advance policy created a cumbersome process for partners opting to operate using advances rather than reimbursements. TLC and partners were unclear about the requirements associated with the monthly advances and liquidation/accounting of expenditures.	Meeting with USAID in the 4 th quarter to understand the requirements and to set up systems that operate smoothly in compliance with these requirements.	A meeting with TLC, Kulera project, project AOTR and USAID finance personnel resulted in development of a clearer understanding of the system. This problem should be resolved at this point.
3	Developing an organizational structure that understands and can facilitate the numerous and complex activities of the Kulera Biodiversity Project. This includes comprehensive understanding of the project as a whole, understanding what all partners are tasked to do, creation of a system of communication, a system of resource disbursement, creation of a Kulera Biodiversity project identity, development of an effective monitoring, data collection and reporting mechanism as well as a system that ensures the safety and wellbeing of all Kulera Biodiversity project staff regardless of which partner is the direct employer. The challenge is to create an organization that operates as an integrated whole to the benefit of target communities and the conservation of biodiversity in project protected areas.	Clarify and improve the role and function of the Steering Committee and the Field Implementation Committee as well as strengthen the field organizational structure centring on the project zone managers.	The steering committee met twice over the course of 3 rd Quarter. The Field Implementation Committee met once to set priorities. The induction meeting held in the 4 th Quarter created a common understanding of the goals and objectives as well as organization of the Kulera Biodiversity Project and permitted field coordinators to better understand project interventions and establish better communication on the ground.

III. Lessons, Best Practices and Recommendations

Following availability of funds in May 2010, the first priority of the Kulera Biodiversity Project was establishing a functional operational setup. Equipment including 4x4 vehicles and motorbikes were secured, licensed, insured and sent to the field. Early project operations like understanding and adapting financial requisitioning and reporting structures based on USAID project requirements were needed to create smooth and timely funding streams. The project is still in the process of refining its organizational structure to ensure a complete understanding of the goals and objectives of the Kulera Biodiversity project among its partners and staff. However, significant progress was made in meeting this end at the project-wide induction meeting held in Kasungu on 20-22 August. Structures to address distribution of resources, ensuring accurate and timely communications and providing a safe and healthy working environment for Kulera staff have been developed but are still being honed. This process will be continued throughout the project. Also communication will be essential over the course of the project to ensure that all Kulera partners from administrators to field staff are familiar with the goals, objectives, targets, assessment mechanisms and organizational identity and structure of the Kulera Biodiversity project.

The successful conversations that occurred in the Steering Committee and Field Implementation Committee and induction meetings all highlighted the importance of dialog among all partners at all levels in trying to understand and mobilize forward movement as a collective team on project goals and objectives (as opposed to operating as independent partners). These are groups that will be critical to the overall successful implementation of the project in the next two years.

IV. Success Stories

The Kulera Biodiversity Project had a number of key success stories over the first year. Carbon development activities are being implemented by Kulera partner, Terra Global Capital (TGC). TGC completed the four carbon development feasibility studies which have been reviewed by TLC. The feasibility studies included clarification of data requirements and the definition of the scope and kind of suitable project activities. TGC is continuing to develop the first actual carbon development activity, (REDD) based upon the recommendations of the feasibility study. Members of the TGC team also completed development and review of the Standard Operating Procedures (SOPs) for Boundary Demarcation, Biomass Inventories and for Participatory Rural Appraisal. These documents outline step by step procedures for data collection in the baseline inventories and surveys will meet the carbon standards specified in the Kulera Biodiversity Proposal. The SOPs also include recommendation on training needs. These documents outline procedures that are defining the new standards in the field of carbon development.

Renewable Energy Solutions introduced solar energy to the Kasamba Secondary School in Nkhotakota. This affordable and renewable source of energy is going to allow faculty and students to use the school for activities after hours by furnishing a source of power to provide lighting and will also provide energy to run computers to assist in the administration of the school as well as in providing educational programming. Delays in the import of solar panels will put completion of the project into the 4th quarter but the school was electrified with inexpensive state of the art solar energy equipment by the fourth quarter. Completion of this project has positively impacted the quality of 225 secondary and 40 primary level students. They can now study at night and the school is now open to evening community events and activities as well as to teachers preparing lessons.

StrawJet staff visited Malawi from June 19 to July 13. During this period, they set up and tested their equipment for fabricating farm structures using local crop residues, grass, and river reeds as substitutes for wood to reduce

deforestation. Trainings and demonstrations were conducted with villagers and TLC staff in Chipelera and Chilowoko of Zidyana EPA in Nkhotakota District. Participation was dominated by women and youths. Structures built included an elevated goat shelter made from river reeds, two granaries made of grass, and one drying rack for cassava flour made from reeds. Other potential structures include tobacco sheds, pens for pigs, chicken coops, and fences, all of which use significant quantities of wood. StrawJet's innovation compresses these annually renewable materials into poles, posts and beams which are bound together with plastic or cotton twine. This material is lightweight, strong and locally available. A key focus of StrawJet staff was building capacity by training villagers and TLC staff in using the equipment and materials to construct these types of structures.

Key Kulera partner, Mzuzu Coffee, made significant progress in changing the governance structure of coffee production. Mzuzu worked with local farmers to convert a local association to a cooperative. This cooperative is awaiting registration with the Malawi government and will strengthen the position of farmers in coffee production and marketing. Mzuzu Coffee extension personnel assisted future coffee farmers in developing local business centres and provided support for farmers to successfully grow coffee seedlings that will be out planted during 5th quarter. Mortality rates of the seedlings have been extraordinarily low even though seedlings are kept in the nurseries for over a year.

In the USAID spirit of leveraging available funds to the benefit of the rural poor of Malawi, TLC used human and material resources from different projects to maximize the impact of these donor programs. For example, the MACC project, funded by the Norwegian government, is being implemented by TLC in the Nkhotakota region. The Kulera target areas around Ntchisi Forest Reserve and Nkhotakota Wildlife Reserve overlap with the MACC project areas in many places. In order to ensure that reforestation and woodlot efforts in this heavily degraded area were not disrupted until the Kulera Biodiversity project was fully implemented, tree nurseries, seedlings and field extension expertise were provided to continue planting woodlots, restore village woodlands and alleviate illegal harvesting of wood from the adjacent Protected Areas. Resources were also leveraged from two other TLC projects in Rumphi and Mzimba Districts, namely Enhancing Rural Livelihoods and the Reforestation and Community Support Project. Water and sanitation elements of the Kulera Biodiversity project are being leveraged through the activities of the USAID/Coca Cola funded WADA project.

In spite of delays due to funding and resource distribution in the first 8 months of the project, farmers in target regions are making incredible progress in the development of tree nurseries, treadle pump irrigation, Village Savings and Loan groups, mud stove construction, and preparation of conservation agriculture site in anticipation of herbicide approval. Farmers who have been chosen to participate in the small livestock component of the project have also undertaken training in animal husbandry and have constructed the livestock kholas. A great deal was accomplished in these areas in the final quarter of the first year.

V. Management Issues in Year 1

The primary management issues in the first year centred on timely funding allocation and on efficient management of the advances. With clarification from USAID on these issues in the third quarter, these issues are no longer a significant implementation issue.

The issue of organizing the work of many partners into a consolidated whole has been, is and will likely continue to be a major management challenge. This is the nature and the value of integrated livelihood projects. Making this complex project successful will entail excellent communication, a clear common understanding of what each

partner does and how it all fits together as well as consistent and efficient flow of resources. We are moving in this direction as we refine our project structure and concentrate our efforts on the priorities that we have set. Meetings held with the steering committee, field implementation committee and the field coordinators have gone a long way in creating a common understanding. This kind of communication will need to continue and include USAID as well as partners in Malawi government and the local NGO sectors.

The approval of procuring livestock for the small-scale livestock promotion component of the project will enable the project to move forward very quickly in this important project dimension. End of the year site visits highlighted the extreme demand among farmers for livestock including: goats, pigs, chickens and guinea fowl.

A remaining obstacle to full implementation of project activity is the pending approval of Harness and Roundup for use in conservation agriculture activities. Currently, farmers interested in this innovation have prepared their fields and have gathered the agricultural residues required. However, beginning conservation agriculture activity on the Kulera Biodiversity project will be on hold until approval for the herbicides is provided by USAID. TLC requests that approval be made before the commencement of the rains so that Kulera farmers can begin conservation agricultural practices in this growing season.

VI. Update of the PMP

No	OUTPUT INDICATORS	2010 Targets	Achieved targets this Quarter	Cumulative Result	Remarks
INTERMEDIATE RESULT # 1: IMPROVED GOVERNANCE OF PROTECTED AREAS					
2.1.1	Indicator 1.1: Number of hectares in areas of biological significance showing improved biophysical conditions as a result of USG assistance.	0	0	0	Baseline Inventory required first; Inventory to begin 6 th Quarter
2.1.2	Indicator 1.2: Number of hectares in areas of biological significance under improved management as a result of USG assistance	10000	0	0	Baseline Survey required first; Survey to begin 6 th Quarter
2.1.3	Indicator 1.3: Number of hectares of natural resources showing improved biophysical conditions as a result of USG assistance	0	0	0	Seeking clarification; Request for exclusion as indicator
2.1.4	Indicator 1.4: Number of hectares under improved natural resource management as a result of USG assistance	10000	1195	1195	
2.1.5	Indicator 1.5: Number of people receiving USG supported training in natural resources management and/or biodiversity conservation	10000 (M=7000,F=3000)	12,126 (M=6,294,F=6,832)	12,126 (M=6,294,F=6,832)	
2.1.6	Indicator 1.6: Co-management agreements signed between Government Departments and Pas	0	0	0	Agreements are drafted, target villages are being identified; Anticipated co-management meetings with villagers will begin 5 th quarter; Signatures also begin 2 nd year.
2.1.7	Indicator 1.7: Number of policies, laws, agreements or regulations promoting sustainable natural resource management and conservation that are implemented as a result of USG assistance	0	0	0	Indicator valid at close of project in Year 3

INTERMEDIATE RESULT # 2: IMPROVED RURAL LIVELIHOODS AND NRM PRACTICES					
3.1.1	Indicator 2.1: Number of households acquired new knowledge/skills in improved livelihoods & NRM practices	10000 M=7000 F=3000	0	0	Baseline survey required first; Impact assessment slated for end of years 1, 2 and 3
3.1.2	Indicator 2.2: Number of farmers, processors & others who have adopted new technologies or management practices as a result of USG assistance	10000 M=7000,F=3000	0	0	Baseline survey required first; follow on impact assessment at end of years 1, 2 and 3
3.1.3	Indicator 2.3: Number of MSMEs acquired new knowledge/skills in business administration & value-added processing	0	0	0	Baseline survey required first; follow on impact assessment at end of years 1, 2 and 3
3.1.4	Indicator 2.4: Number of hectares under sustainable agriculture practices	1000	495	495	
3.1.5	Indicator 2.5: Number of hectares under reforestation	1500	700	700	
3.1.6	Indicator 2.6: Number of households with access to small livestock for nutrition and income (includes pass on)	2000	0	0	Baseline survey required first; follow on impact assessment at end of years 1, 2 and 3
3.1.7	Indicator 2.7: Area under irrigation	250	9	9	
3.1.8	Indicator 2.8: New technologies made available for transfer	2	0	0	Baseline survey required first; follow on impact assessment at end of years 1, 2 and 3
3.1.9	Indicator 2.9: Number of households / schools / individuals accessing alternative energy sources/fuel efficient systems	5000 M=3500, F=1500	265 students	265 students	Renewable Energy Solutions worked at the Kasamba Secondary School to electrify with solar energy in Quarters 3 and 4
3.1.10	Indicator 2.10: Number of communities/ groups engaged in village savings and loan	100	55	55	CARE began in Quarter 4;
3.1.11	Indicator 2.11: Number of carbon projects developed	0	0	0	End of project evaluation

3.1.12	Indicator 2.12: Quantity of greenhouse gas emissions (GHG), measured in metric tons of CO ₂ equivalent, reduced or sequestered as a result of USG assistance	TBD	0	0	End of project evaluation
INTERMEDIATE RESULT # 3: INCREASED RURAL INCOMES FROM ENTERPRISE INITIATIVES					
4.1.1	Indicator 3.1: Number of producer groups and MSMEs trained in production, processing, business and marketing skills	20	0	0	CARE began in Quarter 4; implementation was delayed awaiting motorbikes in Quarter 3
4.1.2	Indicator 3.2: Number of MSMEs accessing loans from commercial banks / lending institutions / DCA facility	20	0	0	Interviews with MSMEs in year 2
4.1.3	Indicator 3.2: Volume of NRM and agro-based products produced and sold	1047	0	0	Results will start from Year 2
4.1.4	Indicator 3.4: Percentage increase in revenue from eco-tourism	0	0	0	Baseline data required in year 1; results reported in years 2 and 3

VII. Planned Activities for Next Quarter (Year 2--Quarter 5)

The plan includes all activities that were scheduled to take place in the first year of the Kulera Biodiversity project implementation period but have been moved into Year 2—Quarter 5. (Activities that were achieved or are scheduled exclusively beyond 5th Quarter are omitted in the table that follows.) A full revised work plan for Year 2 of the project will be developed early in Quarter 5, forwarded to project personnel and included in the 5th Quarter Report to USAID.

5 th Quarter(October - December 2010)		
No.	Activities	Targeted Outputs
1	<i>Operational Setup</i>	
1.15	Brief target district assemblies & other stakeholders on Kulera activities/approach	One out of 8 remaining
1.16	Conduct a launch of the project with Govt Officials, USAID, Partners & Stakeholders	Project Launch tentatively scheduled for Quarter 6
2	<i>Result Area 1: Improved Governance of Protected Areas</i>	
2.1	Strengthen Governance Structures	
2.1.1	Identify/demarcate target areas and communities in the border zone around the PAs	10,000 ha; 300 villages
2.1.2	Facilitate zoning/re-zoning of the PAs in collaboration with all the stakeholders	50 zones
2.1.3	Facilitate formation of functional democratically-elected PA committees at different levels	3 PAs; 50 zones; 300 VNRM s
2.1.4	Support the legitimization of NRM governance structures (constitutions, by-laws & registration)	3 PA Associations
2.1.5	Facilitate review of legal/institutional frameworks for compatibility with PA governance structures	
2.2	Co-management Agreements	
2.2.1	Identify key natural resources and areas for developing co-management agreements	1 study completed for 2 PAs
2.2.2	Facilitate production of management plans for identified resources and areas within and outside Pas	2 Mgt Plans for 2 Pas
2.2.3	Facilitate the transfer of rights and access to natural resources, including where appropriate revenue sharing in the PAs from Govt to local communities through co-management agreements	1 Co-Mgt Agreement Developed
2.2.4	Develop a community-based system for monitoring and evaluating the performance of the governance structures/groups in the administration of the co-management agreements/management plans	1 CBM&E system for evaluation with 1 PA
2.3	Build Capacity of PA Governance Structures	
2.3.1	Recruit & train comm. workers to support NRM institutions in law enforcement, training & other needs	40 community workers
2.3.2	Conduct awareness campaigns and environmental rallies	200 campaigns/rallies
2.3.3	Train PA NRM institutions in corporate governance, team building, fund raising, project write-ups, resource assessments/problem analysis, basic NR rights and conflict resolution	20 Executive members of PA Institutions trained
2.3.4	Strengthen local CBOs, NGOs and other service providers in delivering CBNRM services	10 organizations
2.3.5	Train PA officials and counterparts in community mobilization, participatory	20 PA Executives; 10 Orgs

	law enforcement, etc.	
2.3.6	Provide logistical support to PA officials to improve communications and mobility	25 PA Officials
2.3.7	Conduct a study tour to neighbouring countries with best practices in CBNRM	1 tour, 20 participants
2.3.8	Train primary school teachers in environmental education	70 primary teachers
2.3.9	Facilitate establishment of youth conservation clubs	10 clubs
2.3.10	Organize PA visits by youth clubs	10 visits
2.3.11	Initiate environmental education curricula development for primary schools and adults	1 for primary schools; 1 adult
2.3.12	Provide linkages for NRM institutions to access better facilities for communication	3 NRM Institutions
2.3.13	Form VUCs in selected villages	60 groups
2.3.14	Train VUCs and VDCs on village umbrella committee development	60 groups
2.3.15	Incorporate a system to address cross-cutting issues related to gender, HIV/AIDS, and DRR	4 PAs; 20 executive members
2.3.16	Provide training /preparation in cross-cutting issues of gender, HIV and disaster risk reduction	
	Conduct stakeholder analysis to identify existing CBO/NGOs involved in HIV/AIDS/DRR activities	4 PAs
	Conduct training needs assessment for identified CBOs/NGOs on gender, HIV/AIDS and DRR	4 PAs
	Prepare training materials/tools on Gender/HIVAIDS and DRR	3 booklets
	Conduct awareness meetings on gender, HIV/AIDS and DRR	12 meetings
	Train field implementing staff on Gender/HIVAIDS and DRR	10 field staff
	Train PA executive members on Gender/DRR/HIVAIDS	20 members
	Train local organizations on Gender/DRR/HIVAIDS	10 organizations
	Link CBOs and other groups to service providers on HIV/AIDS care and support services	10 organizations
	Train local governance structures on how to use community scorecard	4 training sessions
	Facilitate scorecard processes between community structures and service providers	4 PAs
2.3.17	Institute a system for Natural Resource Monitoring	
	Identify key areas and resources within the PAs and in the border zone for monitoring	Key areas & resources mapped
	Identify methodologies for monitoring resource change over time based on the PMP indicators	Methodologies developed
	Establish baselines for target areas and key natural resources (vegetation, wildlife, soils, water)	Baselines established
	Secure assistance from specialists to train staff for data collection	10 Staff trained by specialists
	Monitoring system developed for each area and resource over the life of the project and beyond	M&E Plan developed
3	Result Area 2: Improved Rural Livelihoods and NRM Practices/Carbon Development	
3.1	Awareness Meetings with Technology Assessment, Training & Extension Support	
3.1.1	Conduct awareness meetings on potential interventions & responsibilities of project vs. Beneficiaries	15,000 farmers from 400 villages in 4 PAs including 40% female HH and 20% PLWHA
3.1.2	Identify & assist villages/households with the capabilities/interest to establish different interventions	
3.1.3	Evaluate potential markets and related linkages for marketable products from interventions	

3.1.4	Organize villages/households into clubs by intervention to facilitate extension & training	
3.1.5	Procure and distribute materials/inputs/equipment on loan to support targeted interventions	
3.1.6	Provide training & extension support on each intervention to targeted villages/clubs/households	
3.2	Sustainable Agricultural and NR Interventions (to be implemented in 2010/11 rainy season)	
3.2.1	Promote targeted interventions broken down by type in terms of quantity, HHS, gender & PLWHA:	
	Crop diversification	500 ha; 4000 HHs
	Conservation agriculture	400 ha; 1000 HHs
	Soil and water conservation practices	50 ha; 1000 HHs
	Soil fertility improvement	50 ha; 500 HHs
	Irrigation	250 ha; 2000 HHs
	Tree planting	1 million trees; 10,000 HHs
	Natural woodlands under community management	1000 ha; 100 communities
	New technologies tested and made available for transfer	2 new technologies
3.3	Coffee Production and Processing	
3.3.1	Coffee Planting/Production	
	Facilitate production of coffee seedlings with identified growers	600,000 seedlings/200 kgs seed
	Train new field staff in Coffee Husbandry and business development	1 course; 6 staff
	Train farmers in Coffee Husbandry and business development	4 Courses; 110 growers
	Conduct demonstrations of coffee production/husbandry	4 Demonstrations
	Organize extension visits to sites with successful growers	1 visits
	Conduct review meetings	1 meetings
	Hold farmers field days and open days	2 field days & open days
3.3.2	Promote Quality Processing of Coffee	
	Train staff and farmers in coffee processing	1 course
	Train farmers in Coffee processing	4 farmer/entrepreneurs
	Maintain hand pulpers in all Zones	4 hand pulpers
	Procure processing materials	Hessian, plastic, wire, sacks, scales
	Conduct a tour to Union and Cooperative	1 Tour
3.3.3	Promote Bee Keeping with Coffee	
	Procure and distribute beehives, suits and smokers	400 hives; 40 farmers
	Train farmers in beekeeping	2 courses; 40 farmers
	Provide extension support services	Monthly visits
3.3.4	Promote formation of sustainable coffee growers organization	
	Train farmers in Cooperative Development and Management	1 course; 20 selected growers
	Elect board for the Cooperative	1 Board
	Conduct board meetings	1 meetings
	Train farmers in M&E	1 course, 20 growers
	Conduct census	Various
	Carry out business performance analysis	30 Courses
3.4	Small Livestock Promotion	
3.4.1	Planning, Awareness Meetings, Area Assessment, Training & Extension Support	
	Conduct familiarization of staff to projects sites	3 visits; 5 staff
	Conduct baseline studies on livestock production in all sites	3 areas around the 4 PAs

	Brief respective districts assemblies, communities on livestock interventions	4 areas around the 4 PAs
	Evaluate and document availability of local extension services for livestock including vet medicines	5 areas around the 4 PAs
	Identify and select farmers based on established criteria	2000 farmers
	Form and train livestock committees	50 committees
	Train frontline staff in piggery, poultry/G fowl production, goats and rabbits production	4 training sessions
	Train farmers in piggery, poultry/G fowl production, goats and rabbits production	650 farmers
	<i>Conduct New Castle Disease vaccination campaign</i>	<i>All areas in the EPAs where chickens are going to be distributed</i>
	Conduct visits to successful small and large livestock producers	3 visit; 50 committee members
	Mount demonstrations in Kholo; construction for respective livestock classes	4 trainings
	Develop contracts of agreement with farmer groups regarding care of animals and pass on	50 committees; 2000 farmers
3.4.2	Procure and distribute livestock under loan schemes for farmers with extension packs/vet kits:	
	Pigs	66
	Poultry/ G-Fowls	5000
	Rabbits	200
	Goats	100
3.4.3	Support proper care, feeding and management of livestock to improve production	
	Train farmers on proper care, feeding, feed sources, veterinary care & diagnosis of common diseases	650 farmers
	Provide start-up vet kits with information on local suppliers of veterinary medicines	50 club committees
	Promote improved stocks of vet drugs with local stockists/suppliers	6 stockists/suppliers
	Procure seed of fodder trees and legumes	10 kgs
	Procure planting material for Napier grass and other fodder species	5000 sticks
	Facilitate establishment of fodder banks	1000 banks
	<i>Facilitate use of livestock manure</i>	4
	Facilitate proper use of animal manure to improve crop production as a benefit of raising livestock	12 ha
	Conduct review meetings, supervision and monitoring visits	4
3.5	Carbon Development	
3.5.1	Project Identification, Planning and Design	
	Identify specific GPS polygons for implementation of Faidherbia planting	Identification of potential AFOLU carbon projects for feasibility
	Provide exact GPS polygons of identified Protected Areas and other Forest areas for REDD	
	For each project parcel with GPS work, include planned actions, community ID, picture, historic practice statement, tenure/mgt scheme, and for REDD ranking of drivers	
	Conduct initial social appraisals with involved communities	
	Begin to negotiate / secure any necessary Government approvals	
	Develop carbon agreements with communities	
3.5.2	Prepare 4 feasibility studies (REDD, FA, woodlots, ALM)	
	Review feasibility studies and provide any questions	
	Make any necessary changes and finalize feasibility studies (3&4)	

3.5.3	Methodology Development	
	Purchase or acquire satellite data for the reference region and pre-process as needed	1 methodology submitted for validation and 1 draft methodology
	Perform land classification and forest stratification within the reference region	
	Perform preliminary estimate of current carbon stocks in project area based on initial inventory plots	
	Perform preliminary estimate of annual carbon stock changes in project area under baseline scenario	
	Perform preliminary estimate of annual carbon stock changes for each project scenario	1 methodology submitted for validation and 1 draft methodology
	Develop leakage definition and develop protocols to monitor emissions from leakage	
	Determine the spatial extent of the leakage area, and preliminarily quantify emissions from leakage	
	Identify, quantify, and estimate all potential project-related emission sources	
	Calculate initial net carbon estimates, including leakage & emissions sources	
	Develop monitoring system to quantify on-going carbon stock changes in the project area & leakage losses	
	Identify all other on-going data requirements from project participants	
	Provide required data	
	Capacity building for remote sensing and carbon credit quantification	
	Provide technical assistance with full biomass inventory sampling	
	Perform QA/QC on data from full biomass inventory sampling	
	Adjust estimate of current carbon stocks in project and leakage areas based on inventory plots	
	Submit first methodology to Validator	
	Complete draft of second methodology	
3.5.4	Carbon Development for feasible projects	
	Identify group/organization to carry out baseline social appraisals	1 Project submitted on <i>Faidherbia abida</i> or REDD
	Execute baseline social appraisals to determine drivers of deforestation	
	Execute preliminary biomass inventories	
	Develop detailed collaborative work plans for each project with all actions and conditions	
3.6	Biomass and Energy Alternatives	
3.6.1	Introduce improved kitchen stoves to reduce firewood consumption & impacts of deforestation	5,000 HHs
3.6.2	Introduce and evaluate small scale solar systems and RAM pumps	
	Conduct initial assessments of potential applications/sites	4 PAs
	Design systems	1 Solar System; 2 Ram pumps
	Identify and ship components not available in Malawi	
	Source additional materials in Malawi	
	Identify suitable testing sites/beneficiaries	1 community centre; 2 entrepreneurs; 2 irrigation farmers
	Identify & train individual(s) to help with the projects, and begin capacity building	
	Install and test 1 Solar Powered Community Centre, 2 Mini Solar Units & 2 Ram Pumps	
	Conduct demonstrations with selected farmers and TLC staff	
	Monitor the systems with TLC and farmers, and make improvements	

	Document results of tests/demonstrations	
	Conduct resource assessments in other PA areas	4 PAs
	Interface with project partners & stake holders to understand needs, challenges and opportunities	1 Assessment
	Identify value adding energy related activities for different applications/uses	1 Assessment
3.6.3	Evaluate Biomass Alternatives to Wood for Construction Purposes	
	Initial selection of and training of target villages	1 study
	Construct & evaluate drying racks from river and lake reeds	50 drying racks
	Construct & evaluate animal enclosures, fencing, and market stalls, from river and lake reeds	5 villages
	Construct & evaluate tobacco drying sheds from tobacco stalks	5 sheds
	Construct & evaluate maize and rice granaries from maize stalks and rice straw	25 granaries
	Create & evaluate firewood substitutes from compressed maize and rice straw	5 villages
	Create silt fencing and water retention walls from maize stalks bundled as cable	5 villages
	Evaluate potential for carbon credits from tobacco shed redesign	1 evaluation
	Evaluate potential for carbon credits from wood substitute for granaries	1 evaluation
	Evaluate potential for carbon credits from substitute drying racks	1 evaluation
	Evaluate potential for carbon credits from livestock structures and market stalls	1 evaluation
	Evaluate potential for carbon credits from cooking firewood substitutes	1 evaluation
	Evaluate potential benefits from silt fencing and water retention walls	1 evaluation
3.6.4	Identify sites and communities to establish Jatropha plantations to evaluate biofuel production/income	3 sites; 9 Communities
3.7	Village Savings & Loans	
3.7.1	Assess potential for village savings and loan scheme in the target areas	1 study
3.7.2	Sensitize 300 villages in village savings and loans	300 meetings
3.7.3	Facilitate establishment of 100 village savings and loan schemes for selected villages	100 groups
3.7.4	Train 50 village saving and loan group in VS&L methodology	50 groups
3.7.5	Train 30 VS and L groups in economic activities, selection, planning and management (EASPM)	30 groups
3.7.6	Conduct periodic follow ups to VS&L groups to assess performance and address bottle necks	4 visits
3.7.7	Evaluate the scheme for the purpose of replicating to other villages	4 visits
3.7.8	Select / train community agents in the methodology for scaling up and sustainability	30 village agents
4	Result Area 3: Increased Incomes from Enterprise Development Activities	
4.1	Enterprise Development	
4.1.1	Assess potential for natural resource & agro-based enterprises in PA (3- beekeeping, 3-mushroom, 3- fish farming, 3- fish cages; 3 -groundnuts, 3- soya, 1-food dryer, 1- cassava)	1 study
4.1.2	Evaluate the value chains of the selected enterprises and identify intervention points	2 studies
4.1.3	Train producer groups in production and processing skills (soya, groundnuts, beekeeping, fish farming, fish cages, food dryer, mushrooms, cassava)	20 groups
4.1.4	Determine sustainable harvest/use limits for the selected products with viable markets	1 study

4.1.5	Train producer groups and MSMEs in business skills and marketing with power to negotiate prices	20 groups
4.1.6	Facilitate linkages/contracts between producer groups, MSMEs, traders and buyers	2 contracts signed
4.1.7	Support the development of promising products as business ventures	6 potential ventures
4.1.8	Facilitate employment/venture opportunities with private tour operators for eco-tourism/NR enterprises	3 groups
4.2	Micro finance/Credit facilities	
4.2.1	Identify 20 potential MSMEs (3- beekeeping, 3-mushroom, 3- fish farming, 3- fish cages; 3 -groundnuts, 3- soya, 1-food dryer, 1- cassava) for credit/microfinance linkages	20 MSMEs
4.2.2	Develop a credit worthiness assessment tool for MSME to facilitate access to credit from MFI	1 tool kit
4.2.3	Evaluate financial and credit needs of 20 MSMEs (3- beekeeping, 3-mushroom, 3- fish farming, 3- fish cages; 3 -groundnuts, 3- soya, 1-food dryer, 1- cassava)	1 study
4.2.4	Identify viable micro finance institutions for support services	4 Institutions
4.2.5	Facilitate linkages/contracts between credit worthy MSMEs and Micro finance institutions	15 MSMEs
4.2.6	Provide training to the selected MSMEs in financial management and loan servicing	15 MSMEs
5	M&E, Reports & Meetings	
5.1	Design Internal and Community based M&E Systems for the 3 different result areas	1 Internal; 3 CB M&E Systems
5.2	Develop data base structure for inputs and analysis of results for each result area	3 data bases
5.3	Conduct M&E training for relevant staff on different components of the project	6 M&E sessions
5.4	Produce quarterly technical and financial reports	4
5.5	Participate in meetings of project steering committee	4
5.6	Produce annual technical and financial reports	1
5.7	Develop FY2 Budget and Work plan	1

Entries in italics indicate that the Activities and the Targeted Outputs are new entries to the list for Year 2.