



EXTENSION PROJECT: *PHASE III*

QUARTERLY REPORTS:

OCTOBER 1999 TO JUNE 2000

Prepared By

WT Bunderson, ZD Jere and IM Hayes

With

G Banda, GG Chammagomo, AM Mpira and M Dausi

NATURE PROGRAM

Sponsored by The United States Agency for International Development

*Implemented by Washington State University
With the Land Resources and Conservation Department*

Under Cooperative Grant Agreement No. 623-0235-A-00-2065



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ADMINISTRATION AND COORDINATION

Financial and Technical Reports/Publications:

- September-November Financial reports to WSU for onward processing to USAID.
- MAFEP Quarterly Report for July-September 1999, Publication No. 29.
- Malawi Agroforestry Extension Project: Past, Present and Future. Presentation by WT Bunderson, ZD Jere and IM Hayes at two venues:
 1. Annual Conference, Department Land Resources Conservation, November, 1999 Mangochi.
 2. Director and SO2 Team, USAID Malawi Mission, November 1999, Lilongwe.
- Malawi Agroforestry Extension Project: Annual Workplan October 1 1999 to September 30 2000. MAFE Publication No. 27.
- Best-bet soil conservation and agroforestry practices in Malawi. Booklet Series No. 1. MAFE Publication No. 28.

Equipment Received:

- Parts to repair damages to the Isuzu Double Cab.
- 1500 labels for nursery seedlings and 100 marker pens.

Equipment Orders:

- 4000 copies of Booklet Series No. 1. MAFE Publication No. 28.
- 500 copies of the Community-Based M&E Manual, Publication No. 24.

PARTNER SUPPORT NETWORK

Major activities over the quarter centered on the following:

- The 1999/2000 Workplan was finalized after reviewing comments from the USAID SO2 Team.
- 4 new posters were designed and printed with 3000 copies each: 1) tree spacing for different technologies, 2) undersowing with *Tephrosia*, 3) dispersed systematic interplanting, and 4) homestead tree planting. Some sets have already been distributed to key partners. The balance have been organized and labeled for distribution to village communities through NGOs and Government Agencies in January
- WSU has printed and shipped 4000 copies of Booklet Series 1 on best-bet agroforestry and soil conservation practices.
- Collection of crop and tree seed continued with packing and labeling. 3250 kg of tree pods from *Bauhinia thonningii* and 3150 kg of *Faidherbia albida* pods were delivered to the Land O'Lakes Project for experimental supplemental feed to dairy cattle during the dry season.
- Support continued to partners / collaborators for nursery inputs, germplasm and extension materials.
- Supervision continued for nursery management activities and preparation of outplanting sites in villages under the VIFOR program.
- Training was provided to Friends of Lilongwe Nature Sanctuary, Land Use Management Advisors under NASFAM, and teachers from 18 schools in the Lilongwe/Nsinja constituency on (1) best-bet agroforestry and soil conservation practices and (2) seed collection and handling.

Summary of Key Partner Relationships during the Quarter

Organization	Subjects
USAID	<ul style="list-style-type: none"> • Monthly Donor Coordination Meetings • Discussion and submission of Annual Workplan • Presentation of MAFE results to date and future recommendations • Preparation of a 2 year follow-on proposal of MAFE for review by USAID • Linkages with SO1 and Land O'Lakes involving the use of tree pods as supplemental feed
NASFAM	<ul style="list-style-type: none"> • Monthly interproject coordination meetings • Placement of newly recruited LMAs for new sites • Field supervision of ADC sites and delivery of more seed and extension materials • Follow-up training of LMAs
PROSCARP	<ul style="list-style-type: none"> • Coordination meetings for seed requests and training from MAFE • Requests for extension materials
ADD and NGO Partners	Continued delivery of germplasm and extension materials according to workplans with visits to field sites
EU Mission	Progress on VIFOR program under MAFE's partnership initiative
Training Support Program and NASC	Change of Plans for the 3 rd National Agroforestry Symposium to mid 2000

TRAINING SERVICES

The objective of the training program is to build capacity among partner organizations by improving knowledge and skills of staff in extension delivery of best-bet agroforestry and soil conservation practices to farmers. The training program has become demand-driven from expressed partner requests for training that is tailor-made to meet specific needs.

Highlights for the training courses for the quarter include:

- Hands-on training on nursery management techniques for 7 youths under Friends of Lilongwe Nature Sanctuary on 28th October 1999. The training was followed by supply of seed. To date, the organization has raised over 2,000 seedlings to be planted around Malingunde dam catchment.
- A 2-day refresher training course for Land Use Management Advisors under NASFAM from 1st - 2nd November 1999 in best-bet practices (tree seed collection, undersowing, dispersed systematic interplanting and homestead planting) with field practice on seed collection, use of the line level in pegging contour lines, vetiver planting and undersowing and outplanting. In addition to the 6 LMAs, 5 new LMAs recruited through a collaborative program between NASFAM and PROSCARP participated in the training.
- In response to a request by Honourable Kutsaira, a 1-day training course was held on 15th December for teachers representing 18 schools drawn from Lilongwe/Nsinja constituency under the Mitundu Zone Schools Afforestation Program. The training focused on nursery management and tree outplanting for homestead, boundary and woodlot planting. *Acacia polyacantha* and *Acacia galpinii* seed and polythene tubes were issued during the training to plant 18,000 trees.

Training plans for January to March were highlighted in the last quarterly report.

PRODUCTION AND DISSEMINATION OF TRAINING AND EXTENSION MATERIALS

MAFEP is expanding, reviewing and updating its extension and training materials, including:

1. A Field Manual of Agroforestry and Soil Conservation Practices
2. Extension Booklets
3. Posters
4. Training/Extension kit

Actions this Quarter

Extension Booklets

MAFEP has produced 4000 copies of the first booklet series on best-bet soil conservation and agroforestry practices, printed by WSU. The target audience is government and NGO field staff. The contents of the booklet are as follows:

1. Contour ridging with the line level
2. Vetiver nurseries and contour hedges
3. Nursery management and outplanting of common agroforestry trees
4. Homestead tree planting
5. Dispersed systematic tree interplanting
6. Undersowing *Tephrosia vogelii* with maize.

A Chichewa version has been drafted and is undergoing reviews before being sent to the printers. Since this publication was not planned originally, USAID has approved a separate budget of \$15,000 to cover printing and shipping costs.

Posters

3000 copies of the following posters were produced in Chichewa:

- Key spacing and management practices for different types of tree planting
- Undersowing of *Tephrosia vogelii* with maize
- Dispersed systematic interplanting of multi-purpose soil improving trees
- Homestead tree planting

Dissemination of Materials

Upon arrival from WSU, booklets will be packed for delivery to government and NGO staff at all levels of the hierarchy, but focused on frontline field staff. MAFE has also organized labeled sets of posters for all its partners, EPAs, RDPs and ADDs. Sets of posters were also targeted per NGO for use with their farm communities. Three regional workshops will be held early next quarter to distribute the balance of booklets and posters, and to explain how to use them. The primary targets are 8-10 selected farm communities per EPA, but include training centers and key training/extension staff. During the meeting, a consistent strategy will be developed on how best to target, disseminate and use posters within selected communities. Current distribution of posters to date is shown in Table 1. A final inventory of all extension materials distributed will be made next quarter.

Table 1: Distribution of Posters to Date

Organization		Type of Poster								DSI
		Nursery Construction	Tree species & uses	Nursery Management	Tree Spacing	Tree Outplanting	Vetiver nurseries/ hedgerows	Contour ridging	Undersowing Tephrosia	
Government & Projects	VIFOR	250	250	250						
	IPM Project								5	
	Mchinga RDP	3	3	3						
	LADD Ngombo	1	1	1						
	LADD Kanyama	1	1	1						
	FAO Youth Group	2	2	2						
NGOs	Oxfam	20	20	20			20			
	Mitundu Schools	18		18	18	18				
	WVI Mchinga	6	6	6						
	Inter Aide	20	20	20	20	20	20	20	20	20
	LMC	6	6	6		6	6	6	6	6
	CPAR	20	20		20	20	20	20	20	20
	SHDI	10	10	10	10	10	10	10	10	10
	WVI	12	12	12			12	12		
	RTable	10	10	10	10	10			10	10
	CARE	1	1	1			1	1		
	Chezi Parish	10	10	10	10	10	10	10	10	10
	CU	20	20	20		20	20	20	20	20
	Nzama Parish	6	6	6		6	6	6	6	6
	SHOGA	4	4	4			4	4		
CCAP Liv. Synod	20	20	20							
NASFAM	Mulanje	40	40	40	40	40	40	40	40	40
	Zomba	40	40	40	40	40	40	40	40	40
	Namwera	40	40	40	40	40	40	40	40	40
	Ntcheu	40	40	40	40	40	40	40	40	40
	Kasungu	40	40	40	40	40	40	40	40	40
	Rumphi	40	40	40	40	40	40	40	40	40
Total	680	662	660	328	360	369	349	347	342	

GERMPLASM SUPPLY AND DISTRIBUTION

Tables 2 & 3 show seed collection during the quarter and the season.

Table 2: Seed Collection, October-December 1999

Tree Seed	Kg	Crop Seed	Kg
<i>Acacia polyacantha</i>	1,023	Soyabeans	3,526
<i>Azelia quanzensis</i>	54	Pigeon Peas	413
<i>Albizia lebbeck</i>	145	Groundnuts	36,000
<i>Bauhinia thonningii</i>	767	Total	39,939
<i>Crotalaria graminiana</i>	6		
<i>Khaya anthotheca</i>	542		
<i>Senna siamea</i>	150		
<i>Tephrosia vogelii</i>	617		
<i>Toona ciliata</i>	118		
Total:	3,422		

Table 3: Seed Collected for the Season 99/2000

Tree Seed	Kg	Crop Seed	Kg
<i>Acacia polyacantha</i>	1,213	Soya Beans	3,526
<i>Acacia seiberiana</i>	148	Pigeon Peas	413
<i>Azelia quanzensis</i>	3,132	Groundnuts	36,000
<i>Albizia andianthifolia</i>	2	Total	39,939
<i>Albizia lebbeck</i>	201		
<i>Bauhinia thonningii</i>	828		
<i>Colophospermum mopane</i>	6		
<i>Crotalaria graminiana</i>	6		
<i>Faidherbia albida</i>	3,207		
<i>Khaya anthotheca</i>	542		
<i>Senna siamea</i>	178		
<i>Tephrosia vogelii</i>	5,358		
<i>Terminalia sericea</i>	224		
<i>Toona ciliata</i>	118		
Total	15,162		

All the above tree seed plus the soya, pigeon pea and groundnut seed were packaged and delivered to partners. The soya, pigeon peas and most of the groundnuts were distributed to NASFAM sites (see below). 10 tons of groundnuts were sold to CARE International. The balance of the tree seed not issued was packaged for long-term storage in the MAFEP cold room. Table 4 below shows the tree seed issued out during the quarter.

Table 4: Tree Seed and Polytubes Issued to Partners, October-December 1999

ORGANIZATION	TREE SPECIES												Total	Polytubes
	<i>Acacia galpini</i>	<i>Acacia polyacantha</i>	<i>Azelia quanzensis</i>	<i>Albizia lebbeck</i>	<i>Bauhinia thonningii</i>	<i>Faidherbia albida</i>	<i>Moringa oleifera</i>	<i>Senna siamea</i>	<i>Senna spectabilis</i>	<i>Tephrosia vogelii</i>	<i>Toona ciliata</i>	<i>Zizyphus maurandia</i>		
Assistant Forest Director							3						3.0	
Border Zone Development Project (BZDP)			27	0.7		7	2.2	0.8				8	45.7	
Central Farms	1	1	1	1			0.5	0.5		0.2			5.2	
Department of Forestry, HQ							3.5						3.5	
Dowa Forestry Office	4.2	3					0.9						8.1	
Dowa West RDP													-	39,000
Evangelical Lutheran Development Project							22	71.4					93.4	
FAO Youth Program	0.8	0.9	2.2	0.54			0.3						4.7	10,000
Kanthu'u F.P. School (Lilongwe)							3	3					6.0	50,000
Lilongwe Forestry Project (VIFOR)			40			8.7		1.9					50.6	50,000
Mitundu Zone Schools Afforestation	4	3											7.0	18,000
Mndunje Youth Support Organisation (MYSO)		1.5				2.2	0.5	0.3					4.5	
MPTF Group 4 (EU Project Dr.R.M.Chirwa)										12			12.0	
Nzama Parish Ntcheu (Father Kennedy)			13	2		13	1.1	0.6		30			59.7	
Peace Corps (Chapananga, Matevu; Nkhotakota-Derek)			1	0.5		2	0.5	0.5					4.5	
Police Prison (Kasungu)	0.1		0.5	0.1			0.1						0.8	
PROSCARP										2100			2,100.0	
Rural Foundation for Afforestation (RUFA)		4.5	55.6			15.2	5.9	4.8					86.0	100,000
Shire Valley ADD	27	20				38				36.3			121.3	
Social Forestry Project Ntcheu	3.3					3.3				4.14	24		34.7	
Soil Fertility Project (J.Nyirongo ICRSAT)										20			20.0	
Tamanda										2.5			2.5	
VIFOR	16.8	12					2						30.8	
Wapita Farm	0.2		1.1	0.2			0.1						1.6	2,000
Total	57	46	141	5	0.5	86	3.3	46	84	2,205	0.2	32	2,705.7	269,000

MONITORING AND EVALUATION

MAFE plans the following services next quarter to speed up the institutionalization and capacity in conducting the MAFEP's CBM&E methodology with the Ministry of Agriculture and Irrigation:

- Refresher courses for partners with a full assessment of selected field sites in January and February 2000. ADD/NGO officers who participated in the TOT on CBM&E are targeted for the re-orientation.
- Printing and distribution of field manuals for the catchment based system during the refresher training courses in January and February 2000.
- Supply of basic tools to all partners to facilitate data collection and analysis in the field. These will include: 500 sets of manuals, dataforms, clipboards, tally counters and hand calculators. Quantities to be distributed will be sufficient to cover an average of 60 sites per ADD. Dissemination of materials will coincide with the delivery of extension materials noted above.

SO1-SO2 LINKAGE PROGRAMME UNDER USAID

GENERAL

PROSCARP Linkage and LMA Recruitment

PROSCARP signed an agreement with NASFAM to fund 2 LMA's for Zikometso Association (and additional LMA's for Balaka and the Smallholder Coffee Association). By the end of the quarter Baker Kamuyango was recruited to one of the positions with responsibility for the Thyolo area.

Transport

During this quarter the linkage motor vehicle continued to be out-of-action awaiting the arrival of spare parts. The coordinator continued to use MAFE transport to fill the gap.

Training and Extension Materials

During this quarter the final installment of a range of Chichewa agroforestry and soil conservation posters were distributed to all ADC's (see **Table 1**). The posters included the following topics:

- Tree nursery construction
- Tree species & their uses
- Tree nursery management
- Contour ridging
- Vetiver nurseries and contour hedges
- Undersowing maize with *Tephrosia vogelii*
- Outplanting tree seedlings
- Dispersed systematic interplanting with *Faidherbia albida* and other tree species
- Tree spacing

A quarterly meeting was held in Lilongwe with all LMA's and prospective candidates for the new PROSCARP-funded LMA positions. All participants attended a practical refresher training course on the following: tree seed collection; undersowing with *Tephrosia*; dispersed systematic interplanting; outplanting; contour ridging with the line-level, and; planting vetiver on the contour.

MAFEP-NASFAM LINKAGES

Soil and Water Conservation

The LMA's continued training farmers in contour ridging with the line-level utilising the poster relevant to this practice. In addition, 30 line-levels were distributed to each ADC for use by farmers at the GAC-level. With regard to the vetiver issue, all LMA's have been requested this quarter to prepare a list of individuals to receive vetiver planting material next quarter.

Tree Planting

Tree seed (see Table 5), polytubes and tree planting posters were distributed by MAFE to all ADC's during the last quarter. During this quarter LMA's distributed the inputs and carried out nursery management and outplanting training, followed by supervisory visits. A number of site visits were made by the LMC during the quarter to evaluate tree planting activities which in general seemed to be an improvement on last season's performance at this stage. A full assessment will be made during the next quarter under the CBM&E exercise.

Table 5: 1999/2000 NASFAM Tree Seed Issues

ADC	Nkhungu	Mthete	Mtangatanga	Msambamfumu	Msangu	Keshya wa miiimo	Keshya wa maluwa	Gliricidia	Mbawa	Mthuthu	No. Farmers
Mulanje			800	3,000	3,500	800	800	800		1,700	8,757
Zomba	783	800	739	1,005	1,080	1,150	1,353			2,456	9,366
Namwera	150	150	75	60	250	960	200		50	1,500	4,660
Ntcheu	379	569	514	813	656	1,832	927			443	4,019
Kasungu	538	770	674	1,800	1,369	2,048	1,043			1,423	5,662
Rumphu	500	500	250	150	1,200	1,300	1,500			600	6,000
Total	2,350	2,789	3,052	6,828	8,055	8,090	5,823	800	50	8,122	38,464
Potential Trees or ha	235,000	278,900	305,200	68,280	805,500	809,000	582,300	80,000	5,000	812	
Total Pot. Trees	3,169,180										

Note: (1) *Tephrosia vogelii* packets are 0.5 kg (0.1 ha undersowing); (2) msambamfumu packets contain seed for 10 seedlings (3) all other seed packets contain enough seed for 100 seedlings.

Legume Crop Diversification

New crop legume seed was delivered to all ADC's, including LESSA and Chigonthi (see Table 6). A decision was implemented to introduce an element of cash sales into the seed program to move toward a more sustainable commercial footing for the future. The initial plan was to try and sell at least half of the new seed with the remainder being issued on loan at a 2:1 recovery rate. Final seed prices were K20/kg for groundnuts and K10/kg for soya and pigeon peas.

Crop seed sales were more successful in some areas, particularly groundnuts in Kasungu, with a decision being made towards the end of the quarter to issue all remaining unsold seed on loan to minimise stockholding. The success of the programme as a whole this year may be affected by (1) the erratic rainfall pattern at the start of the season in all ADC's, and (2) programs that offer free injections of crop seed to farming communities.

Table 6: New Crop Seed (MT) Distributed by MAFE 1999/2000

ADC	Pigeon Peas	Soya	Groundnuts
LESSA			0.5
Chigonthi		0.2	1.6
Mulanje	0.3		3.7
Zomba		0.6	1.8
Namwera		0.7	1.8
Ntcheu		0.7	5.0
Kasungu		0.9	5.1
Rumphu		0.7	5.0
Total	0.3	3.7	24.6

Model Farmers

During this quarter, model farmer activities continued with plot demarcation and layout, the marking of contour ridges using the line-level and ridge realignment, and the establishment of tree nurseries. Undersowing and tree planting activities were hampered by the erratic rains but will continue next quarter. Site visits by the LMC revealed that whilst some model farm plots are showing promise, a great deal more supervision is required by all LMA's to ensure a good result.

Monitoring and Evaluation

The CBM&E manual developed last season has been updated and amended by MAFE for use in evaluating the 1999/2000 season LMP results. LMA's will be called for a refresher CBM&E training course early in the next quarter.

NASFAM AGM

MAFE attended the December 1999 NASFAM AGM and presented the results of the 1998/99 season Land-Use Management Program. Key issues discussed include:

- Farmers felt that the Land Use Management Program should cover all associations and suggested that NASFAM should recruit more LMAs to assist in support and management.
- To sustain the program, MAFE suggested NASFAM build capacity at the farm level by providing germplasm for multiplication and extension materials with training in local languages.
- The loan vs. cash system for injecting improved seed into farm communities was discussed. Farmers were generally in favor of the loan system for obvious reasons, but this system requires intensive tracking, management and administration to ensure repayment of seed, and there is a strong element of risk due to crop failures and reliance on farmer integrity. Ultimately, a commercial cash system that follows true market forces is a more efficient, practical and sustainable approach for associations to manage without project support.

PLAN OF WORK FOR JANUARY TO MARCH 2000

	JANUARY	FEBRUARY	MARCH	PERSONS IN CHARGE
PROPOSED FOLLOW-ON TO MAFE Prepare / finalize proposal/budget with WSU Submit to AID and revise as needed				TB/IH/ZJ
EXTENSION MATERIALS Revise AF/SC Manual get disk copy from WSU select illustrations/photos to include in each start revising chapter by chapter, table by table				TB/IH/ZJ
FIELD AND RELATED ACTIVITIES Check partner Field Activities/Results/Problems Calculate seed needs per species for next 3 years				ALL STAFF ZJ/IH/TB
COORDINATE RESEARCH LINKAGES Conduct Wood Price Survey Multi-Locational Undersowing Trials Pod Feeding Trial with Land O'Lakes AF/RT trials for 99/2000 Conduct nematode research on <i>Tephrosia</i> undersowing in different soil types Compare Seed Treatments for 20 key species Compare planting depths after best treatment				IH/TAs HKP/TAs HKP/TAs HKP/TAs HKP/DC/TAs TB/HKP/TAs TB/HKP/TAs
PROJECT REPORTS Compile MFR and petty cash reports Write up quarterly report 97/98 & 98/99 AF/RT Trial Results Seed Treatment/Planting Depth Results Wood Price Survey Results Start Modelling Benefits/Impacts of Practices				TB/IH/ZJ TB/IH/ZJ TB TB IH IH
DISSEMINATION OF EXTENSION MATERIALS AND CBM&E TRAINING LMAs (Jan/February) ADDs South ADDs NorthCentral (January) NGOs (Jan/February)				ZDJ/IH/TB/TAs
PARTICIPATE IN MAFE EVALUATION Schedule field and partner visits for eval. Team Compile project documents Briefings on requirements for the evaluation Participate in selected field visits / discussions				TB/IH/ZJ



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Table 2: Training Courses Conducted

Date	Topics covered	Organization	Audience	No. Participants
Jan 11-12	Tree outplanting	Blantyre ADD	FLS	18
		Machinga ADD	FLS	9
Jan 18	Use of extension materials produced by MAFE	8x ADDs	Mgt	76
			FLS	151
Jan 18 & Jan 25	TOT on CBM&E/transect system	8x ADDs	Trainers	33
		ICRAF	Mgt	2
		Land Husbandry TC	Trainers	2
		Natural Resources College	Trainers	1
		Chitedze Agric Research Station	Scientist	1
Feb 1-2	CBM&E/village-based system	Bunda College	Lecturer	1
		CPAR	Trainers	2
		Lutheran Mobile Clinic	FLS	3
		CARE-Malawi	Trainers	2
		Concern Universal	Trainers	2
		InterAide	Trainers	2
		Lilongwe Forestry Project	Trainers	2
		RFO (C)	Trainer	1
		World Vision	Trainers	3
		Self-Help Dev International	Trainer	1
Bunda College	Lecturer	1		

EXTENSION SERVICES

Extension and Training materials

MAFE distributed a total of 3000 x 9 sets of posters in Chichewa and copies of the booklet on best-bet practices to partners. The materials were distributed to partners at specially convened sessions where the contents of the posters and the booklet were thoroughly explained. The sessions achieved 4 objectives: (a) misconceptions were resolved regarding contour ridging, contour grass hedgerows and undersowing *Tephrosia vogelii* with maize (b) the messages in the booklet and on the posters were consistent and clearly explained for use by staff and farmers, (c) land husbandry assistants responsible for disseminating messages on agroforestry and soil conservation in the EPAs received the same messages as the field assistants, and (d) LHAs were given direct responsibility for distributing the materials to FAs and farmers.

NGOs were also briefed on the use of these materials. As reported before, NGOs received a specified complimentary set of posters but are required to pay a nominal fee for the booklet and additional sets of posters. This is intended to make the program more sustainable through cost-sharing arrangements with partners.

Direct Technical Support to Kanyimbo Site, Njolomole EPA

MAFE provided technical support to Kanyimbo site, Njolomole EPA, Ntcheu RDP in terms of vetiver grass, tree seedlings and supervision in laying out contour lines, planting of vetiver grass hedgerows, and outplanting of tree seedlings. MAFE technicians in collaboration with the section manager and EPA staff worked full time with farmers for a period of 3 weeks. Within this short period of time, a total of 16 fields were pegged with 97 contour lines, 30 of them planted with vetiver grass, 7 with *Tephrosia vogelii* and 740 trees of various species were planted around homesteads and along field boundaries. This demonstrates what can be accomplished in a short period with hands-on supervision by extension staff working alongside farmers, rather than the usual verbal instructions issued by FAs. It also generates farmer commitment and motivation when staff participate full time in a hands-on manner to get the new practices started.

Table 2: Extension/training materials distributed

ORGANIZATION	No. By Subject Matter of Poster										
	Nursery Construction	Tree species & uses	Nursery Mngt	Tree Spacing	Tree Outplanting	Vetiver Grass	Contour Ridging	US	DSI	Booklet Series No. 1	Line Level
Govt/Projects											
Karonga ADD	87	87	87	87	87	87	87	87	87	182	135
Mzuzu ADD	271	271	271	271	271	271	271	271	271	419	345
Kasungu ADD	219	219	219	219	219	219	219	219	219	357	285
Salima ADD	134	134	134	134	134	134	134	134	134	186	180
Lilongwe ADD	273	273	273	273	273	273	273	273	273	480	375
Machinga ADD	285	285	285	285	285	285	285	285	285	511	426
Blantyre ADD	208	208	208	208	208	208	208	208	208	363	310
Shire Valley ADD	107	107	107	107	107	107	107	107	107	225	186
LHTC	5	5	5	5	5	5	5	5	5	30	5
ICRAF	20	20	20	20	20	20	20	20	20	10	
Lilongwe Dist For. Office	10	10	10	10	10	10	10	10	10		
Regional For. Office	10	10	10	10	10	10	10	10	10		
NASFAM											
Rumphi	40	40	40	40	40	40	40	40	40		
Kasungu	40	40	40	40	40	40	40	40	40		
Ntcheu	40	40	40	40	40	40	40	40	40		
Zomba	40	40	40	40	40	40	40	40	40		
Namwera	40	40	40	40	40	40	40	40	40		
Mulanje	40	40	40	40	40	40	40	40	40		
VIFOR	250	250	250	0	250	0	0	0	0	0	0
Bunda	10	10	10	10	10	10	10	10	10	10	
NGOs											
Africaire	20	20	20	20	20	20	20	20	20	2	
Border Zone Proj	20	20	20	20	20	20	20	20	20	2	
Bwanje Valley Wom	30	30	30	30	30	30	30	30	30	10	
CARE-Malawi	10	10	10	10	10	10	10	10	10	5	
Chezi Parish	10	10	10	10	10	10	10	10	10		
CPAR	20	20	20	20	20	20	20	20	20	10	
Concern Universal	30	30	30	30	30	30	30	30	30	30	
ELDP	30	30	30	30	30	30	30	30	30	2	
Greenline Movement	20	20	20	20	20	20	20	20	20	10	10
InterAide	30	30	30	30	30	30	30	30	30	2	
Livingstonia Synod	20	20	20	20	20	20	20	20	20	2	
LMC	6	6	6	6	6	6	6	6	6	10	
Mitundu Schools	18	0	18	18	18	0	0	0	0	0	
OXFAM-GB, Mulanje	20	20	20	20	20	20	20	20	20	5	
Round Table	10	10	10	10	10	10	10	10	10		
RUFA	20	20	20	20	20	20	20	20	20	5	
SHDI	10	10	10	10	10	10	10	10	10	2	
World Vision-MLW	30	30	30	30	30	30	30	30	30		
Others	23	23	23	0	29	33	33	29	29		
TOTALS	2506	2488	2506	2233	2512	2248	2248	2244	2244	2870	2257

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MONITORING AND EVALUATION

Both the transect and village-based CBM&E methodologies were finalized as reported in the MAFEP 1999/2000 workplan. Training of trainers' courses were organized for ADDs and NGOs in January and February 2000, respectively (see Training Services). ADDs and some NGOs developed follow-up activities for implementing the CBM&E system in their organizations.

During the period under review, Blantyre, Machinga, Lilongwe, Kasungu and Mzuzu ADDs, InterAide and CPAR assessed a total of 18 sites using the system.

MAFE is also currently modifying the village-based CBM&E system for use by ADD field assistants in sites outside catchments. It is also finalizing computerization of data entry and analysis for both approaches.

The Director of Land Resources Conservation has given a directive which to institutionalize the CBM&E system within the Department as an integral tool for assessing adoption of agroforestry and soil conservation practices. The directives request each ADD to assess a minimum of 10 sites both old and new. A CBM&E kit was distributed to various partners as shown in Table 3 to assist the institutionalization of the M&E system at the field level.

Table 3: CBM&E Kit Distributed

Organization	No. Issued by Item			
	Manual	Tally Counter	Calculators	Clipboard
Karonga ADD	23	23	23	23
Mzuzu ADD	43	43	43	43
Kasungu ADD	48	48	48	48
Lilongwe ADD	53	53	53	53
Salima ADD	33	33	33	33
Machinga ADD	53	53	53	53
Blantyre ADD	53	53	53	53
Shire Valley ADD	23	23	23	23
Land Husb Training Centre	20	10	20	20
ICRAF	3	3	3	3
Bunda College	3	3	3	3
TOTALS	355	355	355	355

GERMPLASM SUPPLY

Tree seed was distributed to all partners during the previous quarter, but vetiver grass continued to be collected and distributed as shown in Table 4. Distribution was restricted to Mlonyeni ADP under World Vision, Mchinji, MAFE and NASFAM sites under the Linkage project. No new nurseries were established in the MAFE sites since nurseries established during the 1998/99 season were still not ready for use but would be available for outplanting during the season 2000/2001. Final payment for the 24 nurseries in Mchinji, South Mzimba and Dowa West RDPs under contract, covering a total area of 9 ha was done. In line with DLRC policy on vetiver, there will be no more multiplication of the grass under contract. Instead, community-based initiatives will be promoted and supported.

Table 4: Quantities of vetiver distributed during the quarter

Organization	Source	Destination	7-Ton Truck Loads
ADD MAFE Sites	Champhira	Champhira	6
	Kasungu	Chikwete	11
	Dowa East	Dowa East site	6
	Mchinji	Mchinji sites	5
	Dedza	Kanyama	7
	Lilongwe	Kanyimbo	1
Mchinji WVI	Mchinji	Mlonyeni ADP	4
Total			40
			0.5-Ton Twin Cab Loads
NASFAM	Mulanje RDP	Mulanje	6
	Zomba RDP	Zomba	6
	Ntcheu RDP	Ntcheu	7
	Kasungu RDP	Kasungu	6
	Rumphi RDP	Rumphi	9
ADD MAFE Sites	Kanyimbo	Kanyimbo	12
Total			46

SO1-SO2 LINKAGE PROGRAMME UNDER USAID

GENERAL

Transport

During this quarter the linkage motor vehicle was back in roadworthy condition.

Future MAFE-NASFAM Collaboration

A number of meetings were held between MAFE and ACDI management on future collaboration between MAFE and NASFAM as September 2000 approaches. Assuming that the MAFE extension from Oct 2000 – July 2002 is approved by USAID the following was agreed:

- To internalise the LMP within the NASFAM structure as soon as practically possible with MAFE scaling down its responsibilities to normal partnership level focussing on technical support in the form of germplasm, training extension materials as required.
- To identify potential candidates for the position of Land-Use Management Unit Manager tenable at NASFAM Headquarters with a proposed start date of June 1st 2000.

MAFEP-NASFAM LINKAGES

Tree Planting

A full assessment is underway of the tree planting effort this season through the implementation of the 1999/2000 CBM&E exercise with results expected in the next quarter. Initial indications from the LMA's suggest that more trees have been planted than last season.

Soil and Water Conservation

A comprehensive vetiver distribution effort was undertaken during this quarter in all 6 ADC's. A new approach was tried involving the distribution of small amounts of material to interested individual farmers. LMA's compiled a list of interested parties following which a MAFE Technician visited each ADC to assist in the collection and distribution of vetiver material to selected farmers. There was high demand for this programme from farmers, although due to time constraints only Kasungu ADC received a second distribution programme. A full evaluation of this exercise is being carried out under the on-going CBM&E.

Additionally, second payments were made to 3 individual contract vetiver nurseries in Rumphi ADC. Although the contracts for the Ntcheu and Zomba vetiver nurseries were cancelled previously due to poor performance, material was taken from these nurseries for the individual distribution exercise. Some material remains in the Ntcheu site for use next season.

Legume Crop Diversification

Initial indication from the crop seed cash sale programme suggest that better targeting will be required in the 2000/2001 season in terms of crop and geographic area. Groundnut seed sales were high in Kasungu and Mulanje and very low in Namwera and Rumphi. Soyabean sales were affected by the Starter Pack programme.

In general the legume crops have been doing well in the field following the early dry spell with a full hectare evaluation being carried out in the on-going CBM&E. There have been some isolated instances of termites affecting pigeon peas in Mulanje.

Extension and Training Materials

10 copies of the MAFE Booklet Series No. 1 "Best-bet Agroforestry and Soil Conservation Practices" were issued to each LMA during this quarter.

Monitoring and Evaluation

LMA's were called to Lilongwe for a one day refresher CBM&E training course in early January. Changes to the 1998/2000 system in order to streamline implementation were discussed and a timeframe for completion of the 1999/2000 exercise was set for May 31 2000.

LIST OF TASKS TO PERFORM FOR APRIL-JUNE 2000

REPORTS	APRIL	MAY	JUNE
Quarterly Reports			
Reduced Tillage/AF Trials			
LGC Undersowing/RT trials			
Alley Cropping			
Faidherbia albida effects			
WORKSHOPS/REVIEWS			
ID Partner Needs 99/2000			
Tree & crop seed			
Ext./training/ information			
Field visits			
ID Partner Results/Targets			
SEED SUPPLIES			
Tree Seed			
Collection		Ma	Ma / Za / Zm
Packing for 99/00			
Distribution to partners			
Crop Seed			
Collection			
Packing			
Distribution to partners			
Vetiver Grass			
Collection			
Distribution to partners			
Monitoring/Evaluation			
SADP Linkage			
Training			
Implementation			
Reporting results			
MAFE/Partner Sites			
Pilot Implementation 99/00			
Reporting results 99/00			
00/01 Implementation			
99/2000 Workplan/Results			
Extension/Training Inform.			
Ext/Training Kits Updated			
Revision of AF Manual			
Training Courses			
Hands-on CBM&E training			
AF/SC/Nurs. Mgt			



EXTENSION PROJECT: *PHASE II*

QUARTERLY REPORT APRIL TO JUNE 2000

Prepared By

WT Bunderson, OA Itimu, ZD Jere and IM Hayes

With

AM Mpira and GG Chammagomo

NATURE PROGRAM

Sponsored by The United States Agency for International Development

*Implemented by Washington State University
With the Land Resources and Conservation Department*

Under Cooperative Grant Agreement No. 623-0235-A-00-2065

ADMINISTRATION AND COORDINATION

Financial and Technical Reports/Publications:

- April to June Financial reports to WSU for onward processing to USAID.
- MAFEP Quarterly Report for January to March 2000.

Equipment and Supplies Received:

- 500 CBM&E manuals with data forms
- 4000 booklets on best-bet agroforestry practices

Equipment Orders:

- 4 million 6"x4" polytubes
- 400,000 10"x6" closed pots
- 1000 copies of each Chichewa poster to meet increased demands

Office Lease Renewal and Proposed Modifications:

The office lease with NBS was renegotiated effective June 12, and approval was given to erect a wall on the perimeter of the property to provide secure parking of MAFE vehicles and to expand the storage space for MAFE seed and field equipment.

MAFEP External Evaluation

DAI under contract with USAID continued the scheduled 6-week evaluation of MAFEP from March 9th to April 20th. A briefing on the outcome was held in mid April with participation from USAID and MAFE government and NGO partners. A final report was produced and distributed to relevant organizations in June.

PARTNER SUPPORT NETWORK

Major activities over the quarter centered on the following:

- Field visits to evaluate and support implementation of partner programs
- Training for ADDS and NGOs on: (1) CBM&E systems for area and village-based programs; (2) agroforestry, soil conservation, seed collection and nursery management
- Participation in the MAFE external evaluation by DAI which continued into April
- Compilation of targets and results from all partners through the 1998/99 season
- Assessment of 1999/2000 results and 2000/01 targets of partner sites
- Inventory and testing of tree seed in stock
- Analysis of experiments to evaluate methods of seed treatment and planting depth for common agroforestry species
- Collection and analysis of data on multi-locational undersowing trials
- Assessment of crop and tree seed needs for this season with packing, labeling and storage
- Printing of extra sets of agroforestry and soil conservation posters for distribution to targeted communities by partners
- Workplan for next quarter

Summary of Key Partner Relationships during the Quarter

Organization	Subjects
USAID	<ul style="list-style-type: none"> • Monthly Donor Coordination Meetings • Participation and assistance in the evaluation of MAFE by DAI • Assessment of the status of MAFEP's proposal and budget for continued USAID support until August 1 2002 • Field trip to selected partner sites with the Mission Director and NATURE Manager during the visit by the USAID Deputy Administrator, Vern Newton
NASFAM	<ul style="list-style-type: none"> • Weekly NASFAM meetings. • Compilation of M&E results from NASFAM centers through the LMAs. • Assessment of seed and nursery support needs from MAFE for 2000/01 as well as other support needs
EU and PROSCARP	Identification of sites for (1) more intensive field collaboration with PROSCARP with specific responsibilities, and (2) expansion of VIFOR from 100 to 200 villages
Government and NGO partners	<ul style="list-style-type: none"> • Simplification of forms to document targets and results by partners • Communications with field visits to all partners to complete these forms prior to the planned review meetings • Instructions to ADDs to complete data collection and submission on the AF/Reduced tillage demonstration trials • Training to Government/NGO partners in the application of CBM&E methods and in AF/SC technologies • Arrangements to hold partner review meetings in early August

TRAINING SERVICES

Highlights of training conducted for the period include:

- MAFE was requested by the Social Forestry Project funded by EU under the Department of Forestry to brief 30 traditional authorities from the districts of Dedza, Ntcheu, Mwanza, Chikwawa and Nsanje on major land degradation problems and best-bet measures to mitigate them. The briefing included a field visit to one of the sites being supported under MAFE.
- MAFE organized a 1-day training session in CBM&E data entry using MS Excel for 6 senior LRCD participants from 6 ADDs.
- Training course in the use of the CBM&E transect system for ICRAF at their offices at Makoka, involving both Malawi and Zambia based officers. Field practicals were done at an ICRAF site in collaboration with Zomba RDP.
- 2 courses for ELDP on seed collection, nursery management, soil and water conservation and agroforestry practices covering 57 farmers.
- Based on a request from Peace Corps, MAFE participated in co-facilitating 2 training courses for 32 patrolmen under Nkhota-Kota District Forestry. MAFE made presentations on best-bet agroforestry and soil conservation practices, seed collection techniques and nursery management. The course was co-funded with COMPASS.
- Training course for 35 WVI field staff drawn from 14 Area Development Programs (ADPs) in agroforestry and soil conservation practices, tree seed collection, nursery management and CBM&E.
- 2 training courses, one for 17 frontline staff under Concern Universal and the other for 10 management staff under CARE-Malawi.

Table 2: Training Courses Conducted

Date	Topics covered	Organization	Audience	No. Participants
Apr 11	CBM&E data entry using Excel	6xADDs	Mgt	6
Apr 12	SC/AF orientaion for chiefs	Social Forestry Project	Traditional Authorities	30
Apr 17-20	AF/SC/seed collection/nurseries	Concern Universal	Extension	7
		MAI	Facilitators FA	10
May 2-5 and May 15-18	AF/SC/seed collection/nurseries	ELDP	Farmers	57
May 23-24 & Jun 21-22	AF/SC/seed collection/nurseries	Nkhota-Kota District Forestry with Peace Corps	Patrolmen	32
May 23-25	CBM&E	ICRAF	Mgt	4
			FLS	4
			ICRAF-Zambia	2
May 29-June 2	AF/SC/seed collection/nurseries/ CBM&E-village based	WVI	Development Facilitators	33
June 19-20	AF/SC/seed collection/nurseries	CARE-Malawi	Agric Coord	2 10
TOTAL				197

EXTENSION AND TRAINING MATERIALS

Dissemination of Materials

The following were distributed during the period under review:

ORGANIZATION	No. and Type of Extension Materials Distributed			
	Posters(set of 9)	Booklet	AF Field manual	Line Levels
ELDP	57	0	0	0
Social Forestry (Tas)	30	30	0	20
ICRAF	0	0	0	0
ARET	30	12	0	50
WVI	35	35	35	35
CARE	12	12	12	15
Nkhota-Kota District Forestry (Patrolmen)	32	32	0	0
Concern Universal	17	17	0	0
TOTAL	213	121	47	120

Field Manual

MAFE is revising its 1995 field manual of agroforestry and soil conservation practices in Malawi. The draft is expected to be completed by August 1st 2000 for editing and printing by WSU.

Nursery Booklet

A new booklet is being produced on Tree Seed Collection and Nursery Management which is planned for printing in September/October 2000 by WSU.

Agroforestry-Soil Conservation Booklet

Translation and editing of the booklet on best-bet agroforestry and soil conservation practices from English to Chichewa was completed. Printing will be done by Washington State University later in the year as the budget for this was not included in the current financial agreement so has been deferred to the extension phase.

TECHNOLOGY EVALUATION AND DEVELOPMENT

Experiments on Seed Treatments and Planting Depths

Experiments were conducted to improve recommendations on seed treatment and planting depth for common agroforestry species. Results and recommendations are summarised in Table 1. Appendices 1 & 2 show germination rates over time for each treatment by species.

Table 1: Germination Results of Seed Treatments

Species	None	Nick	65°C 10 mins	Soak 24 hrs	Nick + soak 24 hrs	Remove Seed	Crack	Crack + soak 24 hrs	Drill Seed	Recommended Treatment	Ideal Planting Depth	No. Seeds per Pot
<i>Acacia galpinii</i>	35%	90%	87%	38%	68%					Nick	1.5 cm	2
<i>Acacia polvacantha</i>	27%	90%	80%	32%	83%					Nick	1.5 cm	3
<i>Acacia seiberiana</i>	13%	78%	78%	12%	80%					Nick	1.5 cm	2
<i>Albizia adianthifolia</i>	45%	80%	0%	23%	18%					Nick	1.5 cm	2
<i>Albizia lebbeck</i>	60%	68%	27%	58%	28%					Nick	1.5 cm	3
<i>Albizia zimmermannii</i>	8%	73%	30%	10%	43%					Nick	1.5 cm	3
<i>Bauhinia thonningii</i>	3%	62%	30%	8%	57%					Nick	1 cm	3
<i>Faidherbia albida</i>	2%	76%	2%	0%	83%					Nick	1.5 cm	3
<i>Senna siamea</i>	58%	83%	57%	58%	73%					Nick	1.5 cm	2
<i>Senna spectabilis</i>	2%	85%	7%	0%	53%					Nick	1 cm	3
<i>Azelia quanzensis</i>	93%	87%	63%	70%	93%					None	2 cm	1
<i>Gliricidia sepium</i>	93%	87%	42%	65%	77%					None	1.5 cm	2
<i>Jatropha curcas</i>	25%			2%		13%				None	4 cm	5
<i>Moringa oleifera</i>	33%			5%						None	3 cm	4
<i>Terminalia sericea</i>	24%	5%	0%	7%	23%					None	2 cm	6
<i>Zizyphus mauritiana</i>	77%			47%			67%	83%	57%	None	1 cm	3
<i>Khaya nyasica</i>	62%			75%		50%				Soak 24 hrs	2 cm	3
<i>Melia azedarach</i>	0%			60%		8%				Soak 24 hrs	1.5 cm	3

Note: The results shown are the final germination rates achieved; figures in bold show the highest germination, but not necessarily the recommended treatment if a simpler treatment gave similar and/or faster results.

Undersowing Trial, Lilongwe Golf Club

This trial is evaluating the effect of undersowing *Tephrosia* and *Crotalaria* on maize with and without a modest rate of N fertilizer. The trial was laid out in a randomized block design with 3 replications per treatment and plots 100 m² in size. First season results are shown in **Table 2**. They indicate a small positive though statistically non-significant effect of *Tephrosia* on yields. Without fertilizer, the reverse occurred with *Crotalaria*. The latter was severely attacked by a caterpillar which first consumed the flowers, thus limiting seed production, and thereafter attacked the leaves. The plant also flowered much earlier than *Tephrosia*, then shed much of its leaves.

Table 2: Maize Yields (kg/ha) from Undersowing *Tephrosia* and *Crotalaria* with Maize

Treatment	Maize Yield (kg/ha)	% Change over Sole Maize No Fertilizer
Control of sole maize, no fertilizer	2242	-
Tephrosia undersowing, no fertilizer	2691	+20.0
Crotalaria undersowing, no fertilizer	1721	-23.2
Control of sole maize + 30 kg N/ha	2472	+10.3
Tephrosia undersowing + 30 kg N/ha	2991	+33.4
Crotalaria undersowing + 30 kg N/ha	2457	+9.6
p	> 0.22	
SE	331	

Dedza Hills *Tephrosia* undersowing Trial

Treatments had no effect on maize yields in the 1st season. **Table 3** shows a substantial yield increase from undersowing in the 2nd and 3rd seasons, which is doubled with modest N fertilizer. Without fertilizer, undersowing increased yields by 49% relative to sole maize in year 2, and by 36% in year 3. It also yielded only 17% and 15% less than sole maize with nitrogen fertilizer in years 2 and 3 respectively. Addition of fertilizer with undersowing increased maize yields 9% and 12% over the sole maize, but at considerably lower cost due to the lower N rate used in year 2. Under conditions of land shortage, annual undersowing is recommended if planted early as done here. It even outproduced the fallow system and because there was no crop loss in year 2, it was far superior. Overall yields were considerably higher in year 3 due to much improved management of the trial with early planting and weed free conditions, plus rainfall was well distributed.

Table 3: Maize yields in Dedza after the 2nd and 3rd seasons of undersowing with *Tephrosia*

Treatment	2 nd Season		3 rd Season	
	Maize Yield (kg/ha)	% Change over Control	Maize Yield (kg/ha)	% Change over Control
Control of sole maize, no fertilizer	1665	-	3,032	-
Tephrosia undersowing, no fertilizer	2485	49.3	4,129	36.2
Control of sole maize + 92 kg N/ha	2989	79.5	4,834	59.4
Tephrosia undersowing + 48 kg N/ha	3266	96.2	5,422	78.8
Maize after 2 nd season <i>Tephrosia</i> fallow, no fertilizer	Fallow season		5,222	72.2
p	<.0001		<.0001	
SE	40		130	

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Undersowing Trial, Chitedze Agricultural Research Station

This is a collaborative trial located in Block J of Chitedze Agricultural Research Station. It is managed by MAFE and the Agroforestry Research Team headed by HSK Phombeya and his staff. The trial was run as a randomized block with 80 m² plots and 3 replications of each treatment:

1. Continuous maize, no fertilizer
2. Continuous maize with 30 kg N/ha
3. Annual undersowing of *Tephrosia* and maize, no fertilizer
4. Annual undersowing of *Tephrosia* and maize, with 30 kg N/ha
5. Annual undersowing of *Crotalaria graminiana* and maize no fertilizer
6. Annual undersowing of *Crotalaria graminiana* and maize with 30 kg N/ha

The trial has just completed its 1st season so treatment effects of the undersowing were limited, but showed no negative interactions between the intercrops (see Table 4). Results indicate a small positive effect of *Tephrosia* and *Crotalaria* on yields with and without fertilizer. As in the trial at the Lilongwe Golf Club, *Crotalaria* was severely attacked by a caterpillar with identical results. Early flowering also limited biomass production. The consistent trend in the two sites suggests little or no potential of this species in at least the central plains of Malawi.

Table 4: Maize Yields (kg/ha) from Undersowing *Tephrosia* and *Crotalaria* with Maize

Treatment	Maize Yield (kg/ha)	% Change over Sole Maize No Fertilizer
Control of sole maize, no fertilizer	2179	-
<i>Tephrosia</i> undersowing, no fertilizer	2494	14.5
<i>Crotalaria</i> undersowing, no fertilizer	2662	22.2
Control of sole maize + 30 kg N/ha	4067	86.7
<i>Tephrosia</i> undersowing + 30 kg N/ha	4127	89.4
<i>Crotalaria</i> undersowing + 30 kg N/ha	4390	101.5
p	> 0.002	
SE	330	

Small Grants Program to ADDs

Grants to ADDs were phased out on 30th June 2000 for the current phase of the project. Four ADDs successfully qualified for funds over all four quarters. Machinga ADD had problems to exhaust its quarterly allocations on time and hence lost out on the last quarter funding.

MAFE's performance-based model of grants has clearly increased results for the investments made by concentrating funds on parties that are successful. An important element was the incentive created for increased funding from better performance, coupled with the satisfaction generated among staff at all levels for the achievements produced.

MONITORING AND EVALUATION

MAFE assisted its partners this quarter in applying CBM&E systems appropriate to their needs. The aim is to build partner capacity and to institutionalize the CBM&E system to document results in a consistent, accurate and cost-effective manner which can then be fed into improvements for the next season.

CBM&E data entry and analysis were fully computerized and senior representatives from the ADDs attended a 1-day briefing on how to use the package in MS Excel. With this done, it now means that ADD Land Resources Conservation staff are fully equipped in data collection, entry and analysis using the transect method, homestead sample survey, and community assessment. They have also been supplied with all the necessary tools and materials to conduct these surveys with little or no technical back-up from MAFE.

In May, MAFE was invited by ICRAF to train its staff and 2 officers from the ICRAF office at Chipata in Zambia in the CBM&E system, which included data entry and analysis. The methodology was highly appreciated by the ICRAF team and they committed themselves to fully applying it in the two sites they are currently supporting in Zomba and Kasungu RDPs. It is significant to note that the partner relationship between MAFE and ICRAF has improved greatly with the change in senior ICRAF management staff, which is clearly a reflection of a more open, collaborative attitude. We look forward to increased cooperation in the coming seasons.

ANNUAL REVIEW MEETINGS

MAFE will organize two partner review meetings in Lilongwe during early August to review 99/2000 results and targets/workplans for 2000/01. The meetings will comprise a mix of government and NGO partners for more effective communication and collaboration with shared experiences. Key results and discussion points will include:

- Review of MAFE's partnership model: successes, weaknesses, and areas needing improvement.
- Review of new forms for consistency in reporting results and setting targets.
- Field level physical achievements on best-bet practices for 99/2000 in relation to the targets set by each partner.
- Participatory AWP with targets for the 2000/01 season, including details on requirements for seed, nursery inputs, extension materials, training, and monitoring.
- Status of the Small grants program to ADDs with a summary of results and lessons learned.
- Status of the reduced tillage/agroforestry demonstration trials and future research needs for new/untested practices and species.
- Strategy and plans for the commercialization and sustainability of support services from 2000/01 onwards, including:
 - ▶▶▶▶ Training requirements and implementation.
 - ▶▶▶▶ Production and distribution of extension/training materials.
 - ▶▶▶▶ Seed supplies for different tree species, crop seed and vetiver grass.
 - ▶▶▶▶ Assessment of effective, sustainable extension approaches with sound technical support.
- Institutionalization of CBM&E systems among government/project programs and NGOs depending upon the targeting approach used, i.e., catchment vs village groups and associations.
- MAFE Phase III strategy to promote the production of value-added NRM products to (a) increase adoption rates, and (b) to increase rural incomes linked to opportunities to improve commercialization of the private sector.

MAFEP-NASFAM LINKAGES UNDER USAID SO1-SO2 PROGRAMS

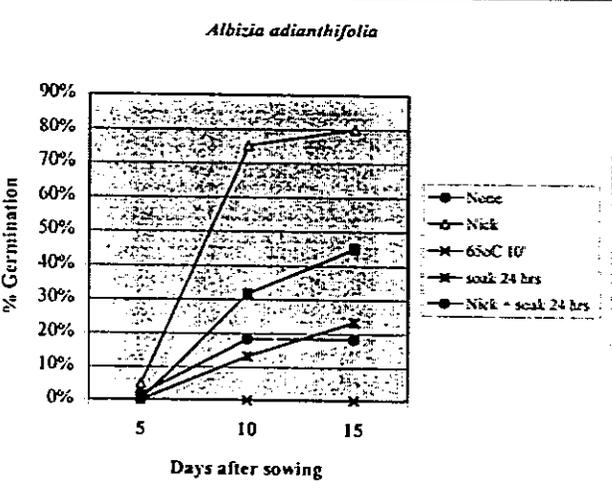
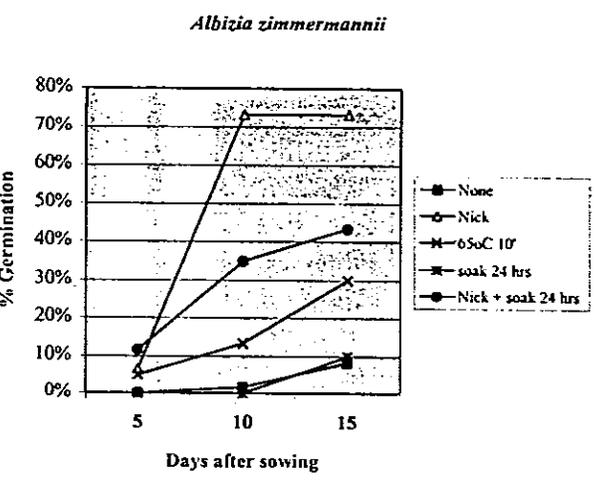
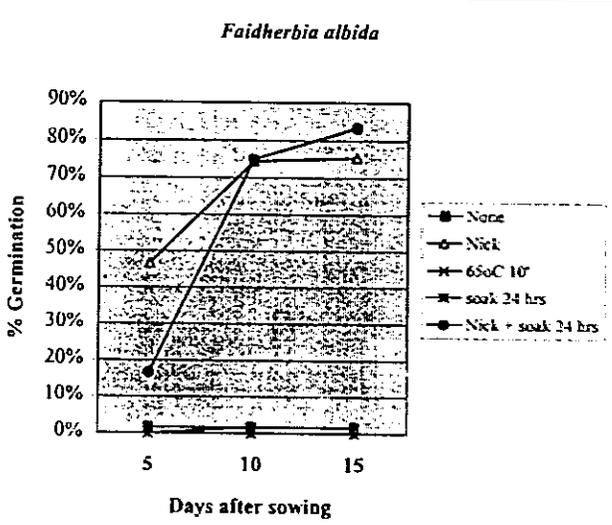
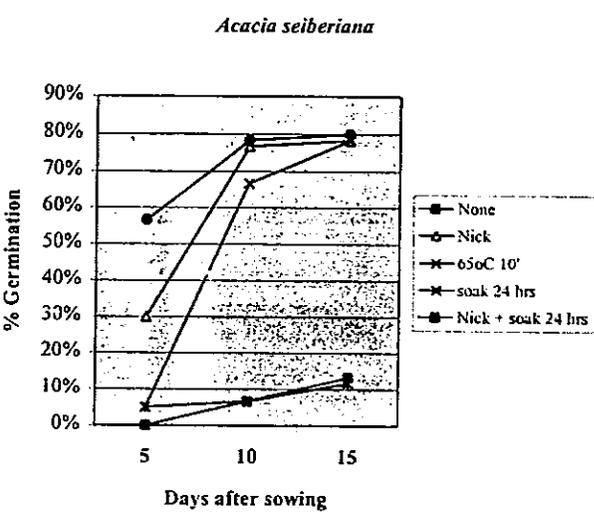
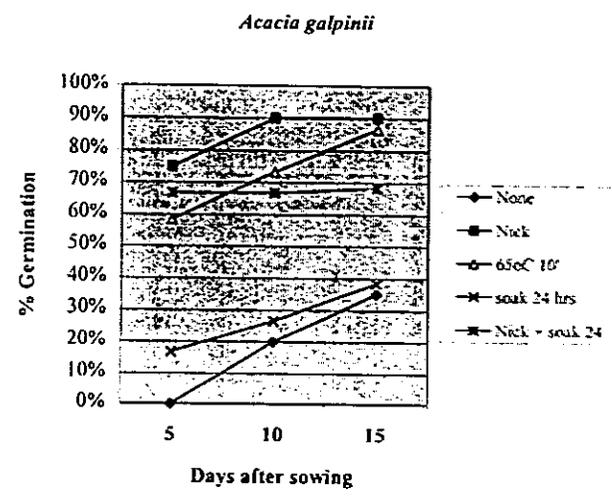
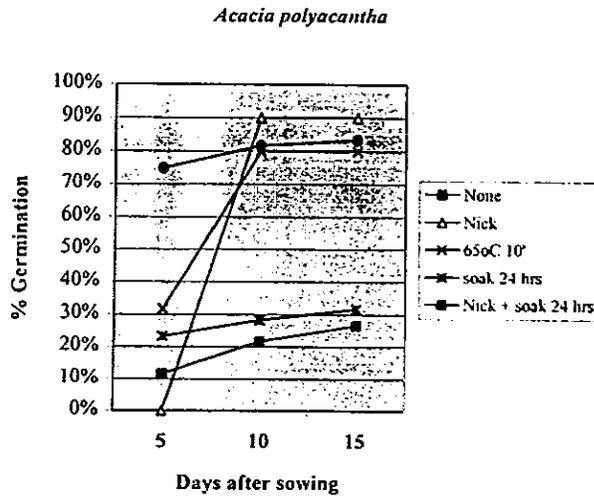
Having achieved the objective of establishing a sound foundation for integrating NRM practices with NASFAM, formal collaboration between the 2 projects will cease September 30, 2000. Beginning next season, NASFAM will direct the Land-use Management elements under their own auspices, with MAFE supplying services on a demand basis in a manner similar to its other partners. The level of support for planting and extension materials, training, technical field support and monitoring will be determined largely by the scale of the NASFAM program over the next 2 years, and the expertise and confidence of their Land Management staff. MAFE has made provisions to provide the same level of support as last season but with remuneration from NASFAM for the costs incurred. The aim is to build self-sufficiency into the NASFAM program for sustainability. Integral to this new plan is the recruitment of a full-time Land-Use Management Coordinator to replace Dr Ian Hayes from MAFE. In this regard, MAFE assisted by providing a short-list of suitable candidates for interview by NASFAM.

Given this situation, the main focus this quarter was to document results over the 1999/2000 season, and to set targets for the 2000/01 season. Since data collection and target setting are in progress, information will be reported next quarter.

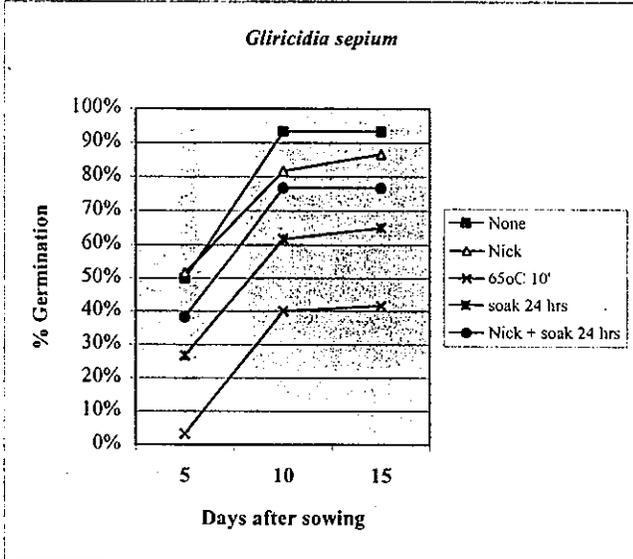
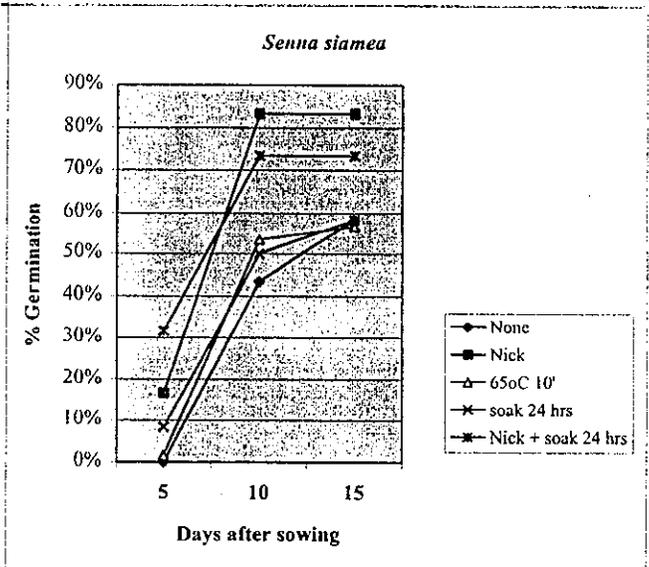
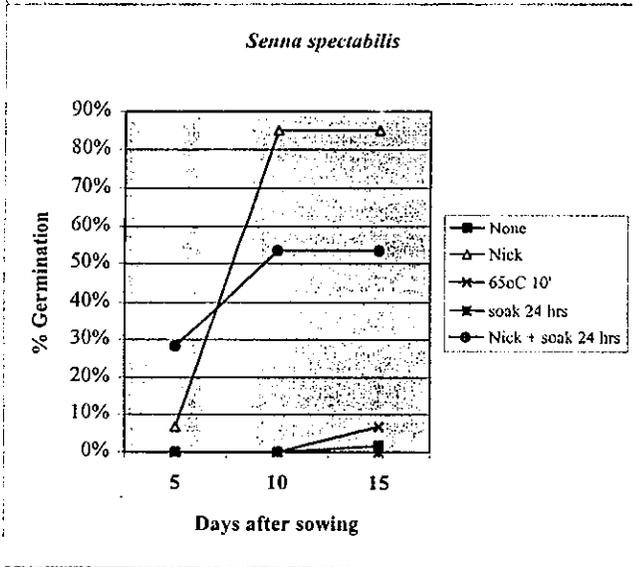
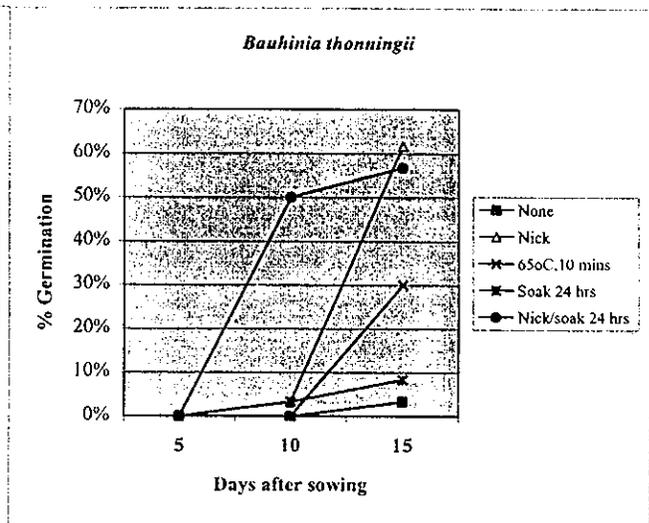
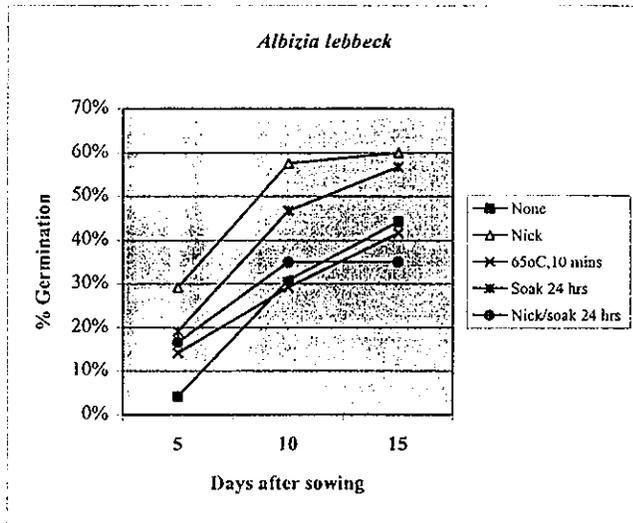
WORKPLAN FOR JULY-SEPTEMBER 2000

REPORTS	JULY	AUGUST	SEPTEMBER	RESPONSIBILITY
Quarterly Reports				TB / ZJ / IH
Reduced Tillage/AF Trials				TAs / TB
Undersowing trials				
PARTNER REVIEW MEETINGS				TB / ZJ / IH
ID Partner Needs 99/2000				SENIOR STAFF / TAs
Tree & crop seed				
Ext./training/ information				
Field visits				
ID Partner Results/Targets				
SEED SUPPLIES				TAs
Tree Seed				
Collection				
Packing for 99/00				
Distribution to partners				
Crop Seed				TAs / IH
Collection				
Packing				
Distribution to partners				
Vetiver Grass				TAs
Collection				
Distribution to partners				
Monitoring/Evaluation				IH / ZJ
SADP Linkage				
Training				
Implementation				IH / LMAs
Reporting results				
MAFE/Partner Sites				ALL STAFF LED BY ZJ
Pilot Implementation 99/00				
Reporting results 99/00				
00/01 Implementation				
99/2000 Results & 2000/01 Targets				SENIOR STAFF LED BY TB
Extension/Training Inform.				SENIOR STAFF LED BY TB
Ext/Training Kits Updated				SENIOR STAFF / TAs
Revision of AF Manual				SENIOR STAFF LED BY TB
Training Courses				ALL STAFF LED BY TAs
Hands-on CBM&E training				
AF/SC/Nurs. Mgt				
Field Visits/Supervision				

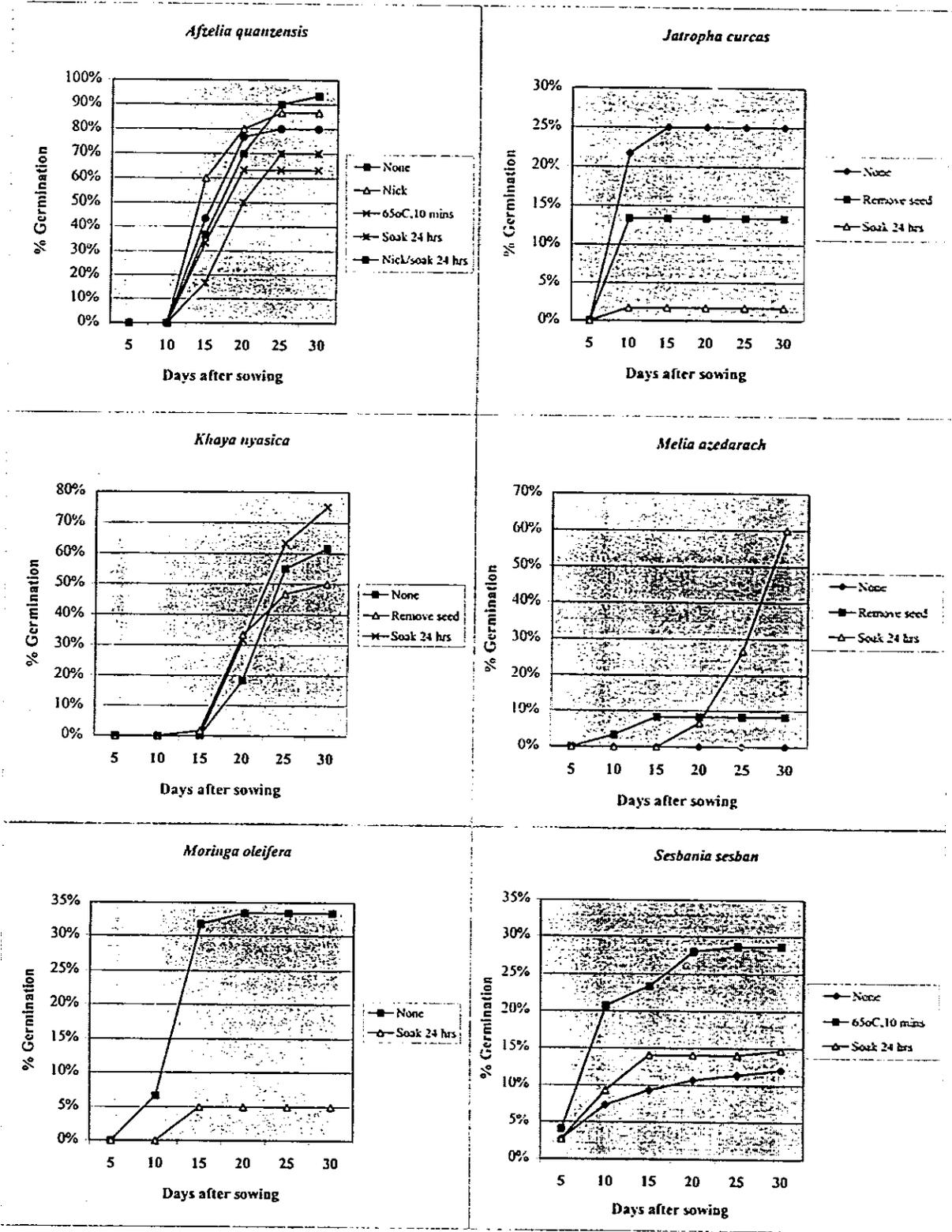
Appendix 1: Graphs of Germination Results for Species with Hard Seed Coats



Appendix 1: Graphs of Germination Results for Species with Hard Seed Coats



Appendix 2: Graphs of Germination Results for Species with Softer Seed Coats



Appendix 2: Graphs of Germination Results for Species with Softer Seed Coats

