EU Support to NARO

Agroforestry Research and Development Component

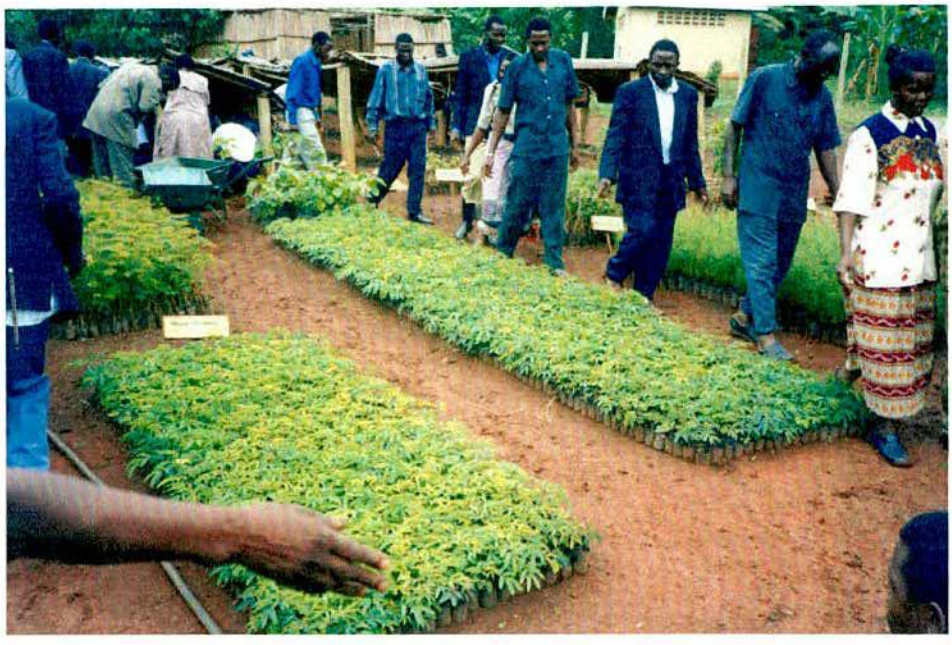
Quarterly Progress Report and Plan for the Next Quarter.

REPORTING PERIOD

April - June 2003

FUTURE PLANNING PERIOD

July – September 2003



Project Financed with support from the European Union

1. Major Issues Requiring Urgent Attention

The delay to procure project equipment has seriously hampered the smooth implementation of this component. This is especially so for the field equipment such as the motorcycles that are crucial for monitoring field activities. NARO secretariat needs to treat this issue as very urgent.

2. Summary of Progress Achieved during the Quarter

2.1 Southern Drylands

a) Research and Surveys

A survey of occurrence, distribution, use and income generation from exotic and indigenous trees/shrubs species in Mbarara district was done in collaboration with Mbarara ARDC during the quarter. A survey report is being compiled, while similar work for Ntugamo district is underway. Data collection and monitoring of on-farm trails on Calliandra and Leuceana fodder banks is being done in Isingiro South. Data collected so far include seedlings plated, survival rates and pests and diseases. Documentation of farmer groups in both districts for planning is has been done. The management and monitoring of fruit mother garden in Kikagati sub-county was done during the quarter.

b) Dissemination and training

- ✓ Video show and drama at Rweikiniro sub-county attracted 300 farmers who were sentize about agroforestry
- ✓ Twenty – eight farmer groups with 787 farmers from Kayonza and Rweikiniro were trained in group dynamics, nursery establishment and management.
- ✓ 3,753 seedlings of Moringa oleifera and 5,000 of Grevillea robusta were raised in Isingiro south
- ✓ Seed orchards of Grevillea and Calliandra species were planted at Kayonza sub-county headquaters to ensure sustainable seed supply locally
- ✓ Surveillance and management of pests and diseases of Calliandra and Leuceana in Kayonza and Isingiro South was done. The incidence which had threatened the species has been contained.

c) Capacity building

- ✓ A group of local leaders (30) from Kayonza and Rweikiniro sub-counties had a study tour to Bubare sub-county in Kabale district to share experiences in agroforestry technologies

- ✓ All research and dissemination staff participated in a training workshop for profit oriented agricultural enterprise selection and participatory rural appraisal held at Kabale from 14th to 18th May 2003.
- ✓ Agroforestry wrok plan and review and partnership workshop was held at Ntugamo sub-county between 21st and 22nd May 2003. Various institutions and NGO's dealing with NRM issues in the district participated.
- ✓ Collaboration with Kyera Farm Training centre enhanced network groups under it. Their staff were trained in nursery establishment anf manage,emnt by FORRI field staff in Ntugamo. Each group received 500 g each of Calliandra, Moringa and Grevillea.

2.2 *Eastern lowlands and highlands*

a) Dissemination

Overall, 26 farmer nurseries have been established in this quarter in the eastern highlands and lowlands as summarized in the table 1 below.

Table 1: Nurseries established in the eastern lowlands and highlands during the quarter

District	Tororo	Iganga	Kumi	Mbale	Sironko	Total
Group nurseries	4	5	2	8	1	20
Individual nurseries	2	-	-	3	1	6
Total	**6**	**5**	**2**	**11**	**2**	**26**

All these farmer nurseries are raising a number of species such as *Albizia coriaria, Melia azederach, Markhamia lutea, Grevillea robusta, Khaya anthoceca, and Calliandra calothyrsus*. The total number of seedlings per nursery ranges from 1,000 to 7,000. The central nurseries in Iganga, Mbale and Tororo have expanded in number and type of species as indicated in the tables 2, 3 and 4.

Table 2: Current stock and type of tree seedlings in the Iganga central nursery

Species	**Pricked out**	**Number given out**	**Current stock**
Maesopsis eminii	1,430	430	1,000
Khaya anthoceca	195	-	195
Markhamia lutea	170	-	1,800
Grevillea robusta	950	-	1,450
Albizia coriaria	2,040	-	2,040
Melia azederach	1,000	-	1,600
Moringa oleifera	200	-	925
Calliandra calothyrsus	400	-	1,400
Milicia excelsa	530	-	530
Total	**6,915**	**430**	**10,940**

Table 3: Current stock and type of seedlings in Mbale central nursery

Species	No.Pricked	No.dispatched	Current stock
Calliandra calothyrsus	3,733	3,000	7,265
Leucaena leucocephala	-	1,700	318
Maesopsis eminni	-	-	1,297
Podocarpus usambarensis	-	25	165
Grevillea robusta	2,005	-	2,130
Tephrosia vogelli	-	-	2,686
Mellia azederach	465	-	600
Cordia abyssinica	-	-	1,115
Casuarina equisetifolia	-	-	472
Syzigium cuminni	1,006	150	1,190
Albizia coriaria	4,275	-	4,425
Leucaena trichanda		-	7,988
Milicia excelsa	-	-	1,470
Markhamia lutea	-	-	4,815
Casuarina equisetifolia	-	-	472
Total	**10,478**	**4,725**	**36,180**

Close to 1,000 avocado seeds were acquired and sown in the central nursery. These will serve as rootstocks for the planned massive grafting for the two zones.

Table 3: Current stock and type of tree seedlings in the Tororo central nursery

Species	Previous stock	Issued to farmers	Pricked out	Total Current stock
Gevillea robusta	-			3,116
Khaya anthoceca	447	-	-	447
Moringa oleifera	440	-	-	440
Luecaena trichanda	1,368	-	9,151	10,519
Mellia azederach	1,198	-	282	1,480
Calliandra calothyrthus	4,759	-	1,577	6,336
Markhamia lutea	777	-	233	1,000
Albizia coriaria	2,982	-	378	3,360
Acassia angustisima	2,388	-	2,602	4,990
Azaderachta indica	200	-	-	200
Cordia africana	176	82	-	94
Vangueria	5		-	5
Milicia excelsa	433	200	-	233
Podocarpus	90		-	90
Luecaena diversifolia	354		-	354
Total	**18,733**	**282**	**13,649**	**32,664**

Three training manuals are being developed to serve as dissemination materials for extension staff and they concern the following areas:

- Gender issues
- Farmer mobilization for agroforestry research and development
- Tree nursery establishment and management

They will be developed and pre-tested before they are produced and distributed.

A meeting was held with GTZ, a collaborating NGO in Mbale district to identify areas of collaboration. One major area of collaboration identified was capacity building. Collaboration with extension staff from the departments of agriculture, forestry and environment has been good during the quarter. Local seed collection for expansion of the central nurseries and field nurseries was done as shown in table 5 below:

Table 5: Local seed collected in Iganga and Tororo districts

Species	Iganga	Tororo
Melia azederach 5kgs	**5 kg**	-
Maesopsis eminii	**25 kg**	-
Milicia excelsa 0.5 kg	**0.5 kg**	-
Markhamia lutea 10kg	**10 kg**	-
Calliandra calothyrsus 02 kg	**0.2 kg**	-
Tephrosia vogelli 20kg	**20 kg**	-
Crotalaria ochloreuca 5kg	**5 kg**	-
Milicia excelsa		**0.5 kg**
Bitter lemon		**1 kg**
Total	**65.7 kg**	**1.5 kg**

One fruit tree mother garden has been established in Kumi district to serve as a future source of scions for grafting in the region.

b) Capacity building

This quarter witnessed many farmers being trained and sensitized on various aspects of agroforestry. The following were the areas of training: Community mobilization for agro-forestry development, group formation and sustainability, gender as related to natural resource management, understanding the contribution of trees to food security and the economy, seed collection and processing, tree nursery establishment and management, as well as management techniques of established trees on farm. In addition, pending sensitization for sub-

county council leaders was done in Kumi, Iganga, Mbale and Tororo districts. A total of 473 and 606 people were trained and sensitized respectively. The table below gives a summary of the trainings..

Table 6: Number of persons trained in various aspects of agroforestry by sub-county and District.

District	Sub-county	Number reached
Mbale and Sironko	Wanale	19
	Bulaago	44
	Bungokho-Mutoto	40
	Bumbo	19
	Busano	40
Kumi	Kumi (Olupe parish)	30
	Kumi (Asinge village)	28
Iganga	Magada	70
	Waibuga (Busiro and Butimbwa parishes)	75
Tororo	Kisoko	36
	Osukuru	39
	Rubongi	33
Total		**473**

Table 7: Number of persons sensitized on agroforestry by sub-county and District

District	Sub county	Number reached
Kumi	Bukedea	30
	Kachumbala	30
	Kidongole	30
	Ongino	30
	Kumi	30
	Mukula	30
	Ngora	30
	Kobuin	31
	Mukongolo	30
	Kanyum	30
	Nyero	30
	Atutur	30
Tororo	Rubongi	40
Iganga	Waibuga	40
	Nawandala	40
	Buyanga	40
	Ivukula	40
Mbale	Bugobero and Bumbo	45
Total		**606**

c) Research

i) Soil fertility trials

In Tororo district, 23 farmers (14 and 9 in Olobai and Kakola parishes respectively) have planted Maize (variety Longe 4) as a post fallow test crop in the old improved fallows. Leaf and soil samples have been collected from these on-farm plots. The samples are being prepared for analysis in soils laboratory in Makerere University. No data has been collected on the maize but the growth is good. In addition, 40 farmers in the district have established new improved fallows as follows: - 20 farmers in Movukatipe parish in Aputiri zone; 12 farmers in Kisoko parish in Olobai zone and 8 farmers in Kisoko parish in Kakola zone. The fallows will be monitored for growth and biomass production during the season.

ii) High value fruit trees

a) Mango cultivars

Six different mango cultivars, that is, Alfonso, Boribo, Bire, Ngowen, Tommy, Apple mango are being tested with 80 farmers (20 farmers in each of the four districts of Kumi, Tororo, Mbale and Iganga). An assessment of the survival and performance of the fruit trees was completed recently and beating up of the dead fruit trees done in the last quarter. However, the assessment excluded Kumi, where the fruit trees had just been replanted. The figure below compares four of the cultivars that were planted at the same time in the three districts. Glenn and Boribo have just been planted in Iganga district.

Generally, the survival of the varieties was better in Iganga and Mbale. The poor performance in Tororo was attributed to dry weather (drought) coupled with generally poor soils. In some cases, however, farmers had not managed the fruit trees properly. It is hoped that the training and advice given to the farmers after the first assessment will yield better results as far as management of the fruit trees is concerned.

b) Avocado cultivars

Likewise, several avocado cultivars are being tested in the same eastern districts. These include Drsom I, Semile 34, Semile 43, and Drsom II. Iganga district has all the four cultivars on farmers' fields. The following avocado cultivars have not been planted although thy have been included in the research protocol: - Drsom III and Reed. Figure 2 below compares the performance of these cultivars across the three districts that had them planted at the same time.

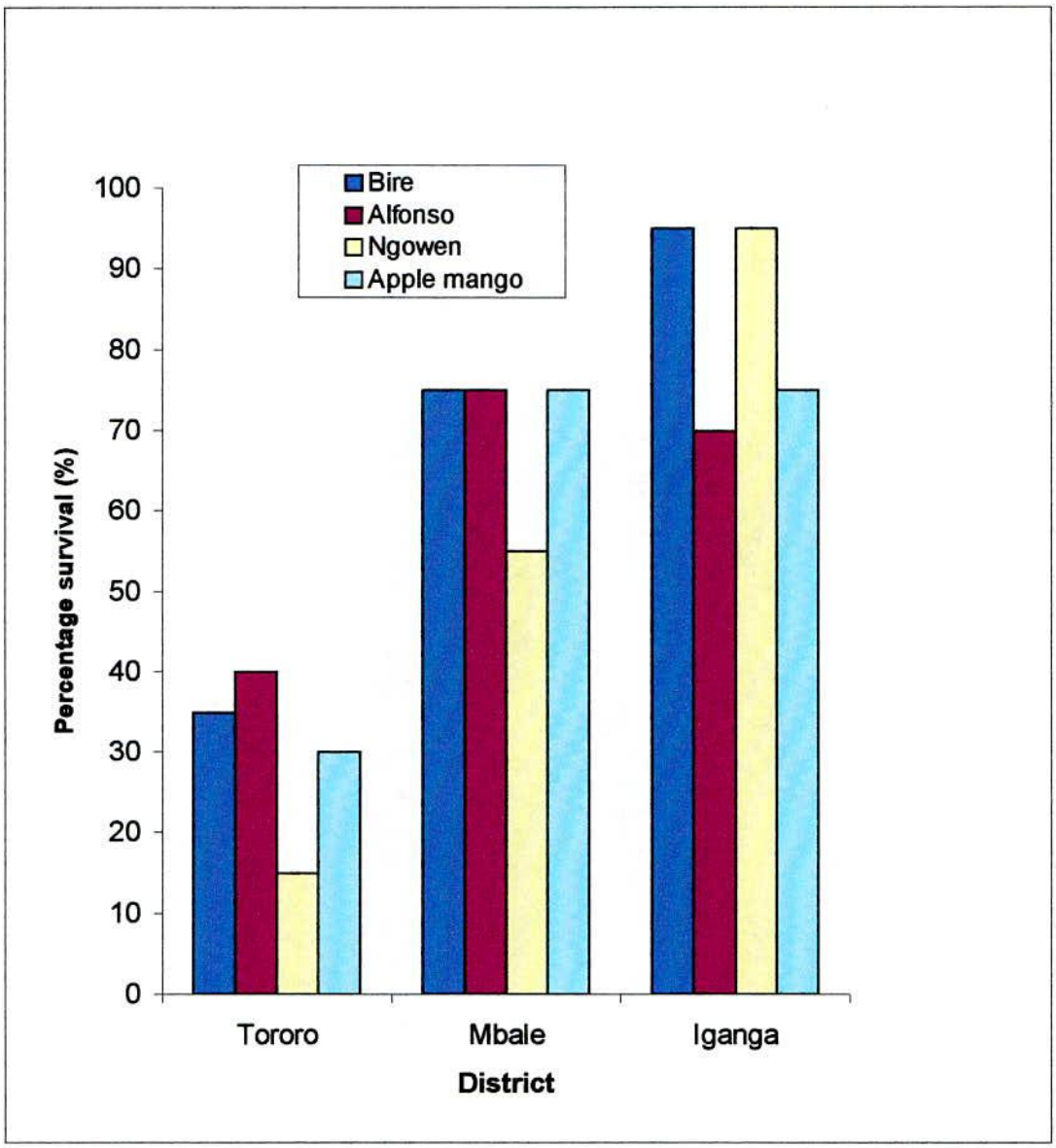


Figure 1: Percentage survival of four mango cultivars in the districts of Tororo, Mbale and Iganga, eastern Uganda

The trend in the survival of the Avocado cultivars is similar to the one for the mango varieties. Iganga recorded the highest survival percentages than all the other districts. In Iganga, Drsom 1, Semile 34 and Semile 43 did better than Drsom 2. It is worth noting that both Semile 34 and Dorsom 1 are doing poorly in Tororo district. Most of the damage to the seedlings were through either browsing by livestock or died due to drought. There is

need to emphasize management of the trees, especially protection from livestock by constructing protective shields around.

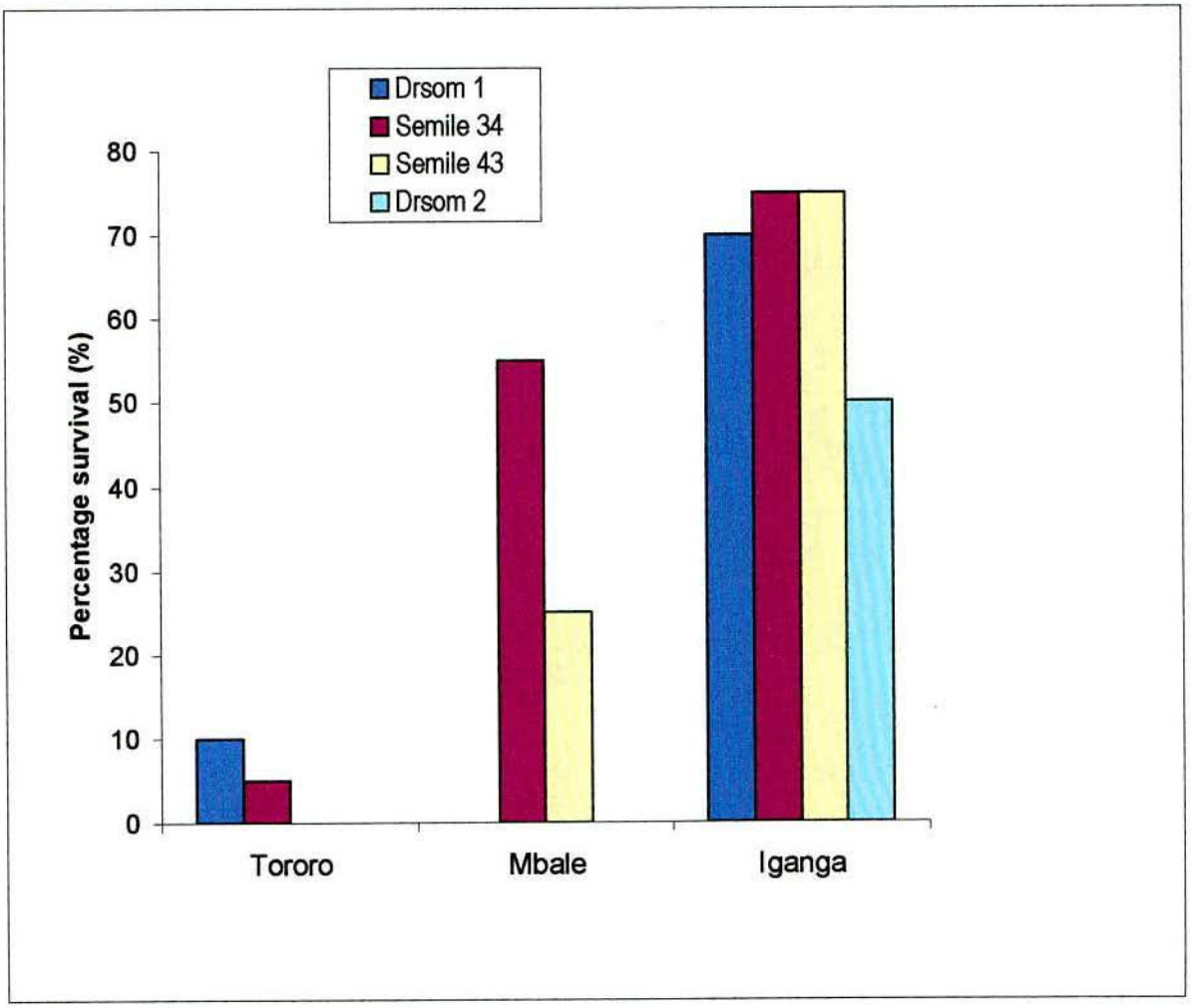


Figure 2: Survival of avocado cultivars in the districts of Iganga, Tororo and Mbale, eastern Uganda

iii) Orange cultivars

The orange cultivars under investigation are Washington navel, Nova and Tangero Seminole. These cultivars were equally distributed in Tororo, Iganga and Mbale. In each of these districts, two groups each comprising of 10 farmers are testing the cultivars. The percentage survival of these cultivars across the three districts is shown in figure 3. It can be noted that the percentage survival is highest in Iganga especially with group 1 farmers. In Tororo, Nova cultivar performed poorly with group 1 farmers, while the reverse was true with group 2 farmers. There was not much significant difference in the percentage survivals of the cultivars in the two farmer groups in Mbale district.

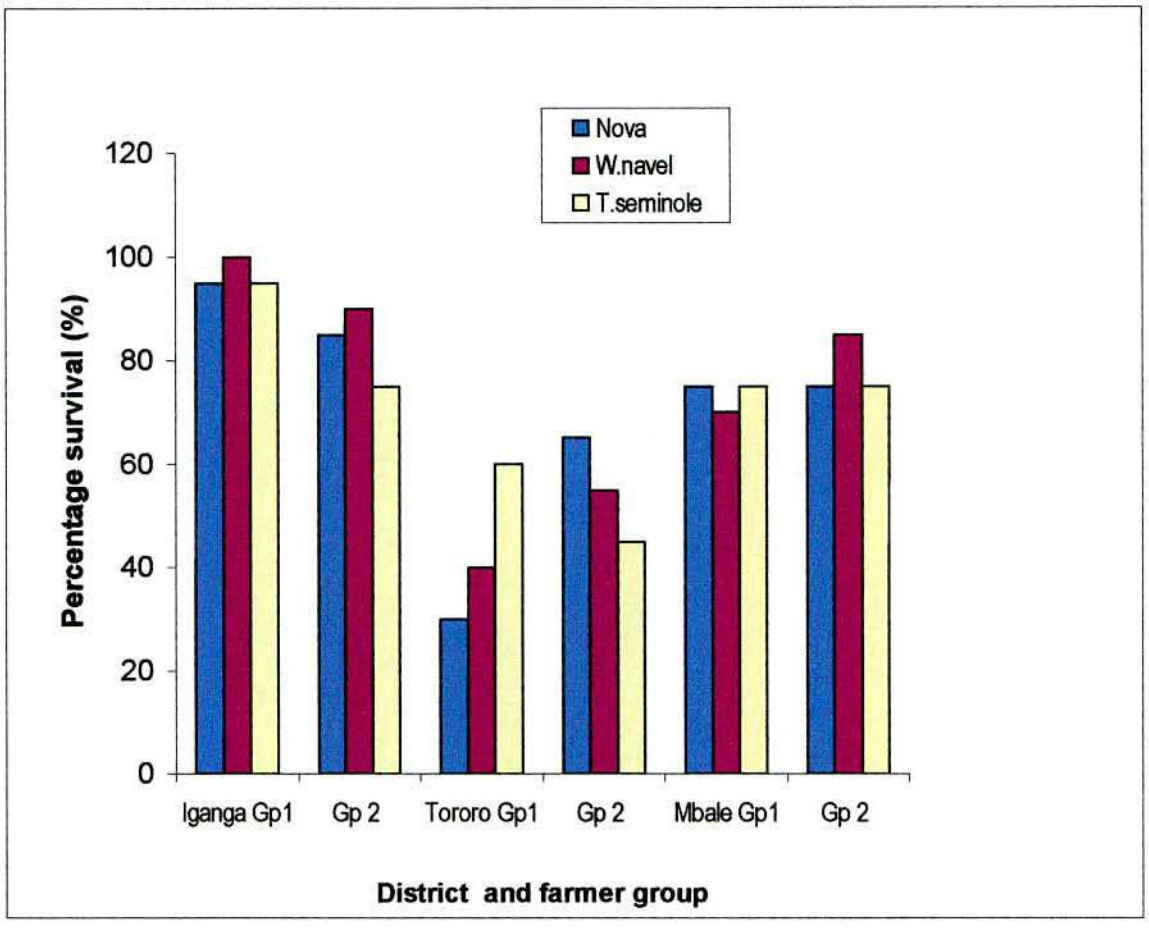


Figure 3: Survival of the orange cultivars in the three districts in eastern Uganda

iii) Termite control trials

Termite control trials have been established in the severely affected districts of Kumi, Tororo and Iganga in eastern Uganda. The trials in all these districts have the following treatments: -

- Treatment 1 = Cow urine
- Treatment 2 = Ash
- Treatment 3 = Red Pepper
- Treatment 4 = Urine + Ash + Pepper mixture
- Treatment 5 = Control

The treatments were replicated in three 3 blocks each comprising 5 plots each. The treatments used are those that were found to be commonly used by farmers in these areas. Monitoring of the trials is on going.

iv) On farm evaluation of various tree planting technologies and tree diversification.

Evaluations of various tree-planting technologies have been initiated in Iganga, Tororo, Sironko, Kumi and Mbale districts. Table 8 below shows the various technologies being evaluated. Twenty farmers in each of the districts are trying the technologies. However, the home garden technology is being tried by 40 farmers. The assessment of tree survival after one season is being done.

Table 8: On-farm evaluation of various tree planting technologies in eastern Uganda

Technology	Species	No. of trees per farmer	Spacing
✓ Scattered tree growing on farm with perennial crops	*Albizzia chinensis* *Cordia abyssinica* *Grevillea*	10 10 10	8x8 m 8x8 m 8x8 m
✓ Boundary planting	*Cedrella odorata* *Grevillea robusta* *Maesopsis eminni* *Melia azederach* *Milicia excelsa*	5 5 5 5 5	5x5 m 5x5 m 5x5 m 5x5 m 5x5 m
✓ On-farm tree diversification trial	*Moringa* *Albizia coriaria* *Neem* *Podocarpus* *Melia azederach* *Cordia Africana* *Tamarindus indica* *Cyphomandra* *Anona muricata* *Milicia excelsa*	2 2 2 2 2 2 2 2 2 2	8x8 m 8x8 m 8x8 m 8x8 m 8x8 m 8x8 m 8x8 m 8x8 m 8x8 m 8x8 m
✓ Home garden technology	*Canarium schwenfurthii* *Syzigium cumminii* *Tamarindus indica*	4 4 4	8x8 m 8x8 m 8x8 m

v) Fodder trials

Fodder trials have been initiated in Bulaago and Bumbo subcounties in Mbale district. Five farmers in each of these sub-counties are participating. The species being evaluated *Calliandra calothyrsus* and *Leuceana diversifolia.*

3. Project management

The eastern area continues to be coordinated by Mr. Hillary Agaba in addition to specifically taking charge of the lowland districts of Iganga, Tororo and Kumi. Mr. Clet Wandui takes charge of the eastern highland districts of Mbale and Sironko, Mr Sande Dickens continues to supervise activities in Sothern Dry land districts of Mbarara and Ntugamo. Collaboration with staff in the existing government departments of agriculture, forestry, environment, veterinary and those in NGOs, CBOs and local government offices has been the main strategy in covering more farmers and area.

3.1 Project development

Four desk top computers and four printers have been purchased by the project and distributed between FORRI headquarters and the field offices in the east and west. More equipment is urgently needed to ensure smooth running of the project. The major bottleneck is the field equipment such as motor bikes that can ease the work of the field technicians. More efforts have been made to establish close working relations with district, sub-county and NGO personnel operating in these districts.

3.2 Staff movements

Mr. H Mutabaazi joined the Southern dry lands team in early April as a research assistant in charge of research and capacity building activities of the project. Mr D. Tugume, a research technician who previously in the Kabale team moves to Ntugamo to assist in the work in the southern drylands. Rhona Ayesiga, Dissemination Officer who has been based in Kabale, takes charge of all dissemination activities in the southern drylands.

To catch up with the increasing workload in the central nurseries in eastern Uganda, the number of nursery workers was increased in all the three central nurseries. In each of the central nurseries extra two workers have been recruited to beef up the existing ones. In Tororo, Mr Egesa formerly in Kifu joins the team, while in Kumi district M/s Caroline Omale takes charge of agroforestry developments. In preparation for apple nursery development at Buginyanya station, in Sironko district, Mr. Moses Mutenyo was recruited to take charge of the nursery.

3.3 Participation in workshops, conferences and training events

- ✓ Hillary Agaba and Gerald Ongodia attended a one-day feed-back workshop on a survey that had been carried out to determine important trees and shrubs with potential for agroforestry in the Teso farming system, in Kumi district.

- ✓ All scientists and technicians (six project staff) in the eastern lowlands and highlands attended a training course on "Participatory monitoring and evaluation and marketing strategies for agroforestry" held in Kabale on the 13th –19th May 2003
- ✓ Clet Wandui attended a planning workshop on non-timber forest products focusing on Bamboo and Rattans held at Ridar Hotel in Seeta, Mukono on 27-29th May 2003.
- ✓ Hillary Agaba and Clet Wandui participated in the UGADEN agroforestry planning workshop for the eastern zone held in Soroti at Eneku Village on 13th June 2003.
- ✓ All in the eastern zone participated in feed back workshops for agroforestry needs assessment in the districts of Mbale, Iganga Tororo and Kumi.
- ✓ All staff participated in the capacity building of farmers and other stakeholders through training on nursery establishment and management, on-farm tree management, seed collection, handling and processing and tree growing contribution to food security and the economy.
- ✓ Hillary Agaba attended the Agroforestry work Planning and Review workshop held in Ntungamo sub-county in Ntungamo district on 21st – 23rd May 2003.
- ✓ Two staff from the Ntugamo team participated in the Mbarara ARDC field day on 19th June 2003

4. Main activities for the coming quarter

4.1 Southern drylands and highlands

a) Adaptive Research

- ✓ Establish and manage three research nurseries at three sub-counties of Kayonza, Rweikiniro and Kabuyanda in Ntugamo district to raise quality seedlings for field trials and seed stands
- ✓ Establish and manage on-farm trials for soil fertility improvement, wood and timber production, termite resistance by various tree species
- ✓ Surveys of current management practices on soil fertility in the southern drylands
- ✓ Identification of indigenous trees/shrubs for soil fertility improvement

b) Capacity building

- ✓ Hands-on training of farmers in grafting techniques and fruit tree management
- ✓ Training of farmers on monitoring seedling survival and performance

C) *Dissemination approaches*

- ✓ Organize and conduct farmer's field study trips
- ✓ Survey, train, support and monitor private commercial nurseries in Mbarara and Ntugamo districts
- ✓ Identify and monitor diseases of *Moringa oleifera* and *Eucalyptus* species on-farm.
- ✓ Continue supporting farmer nurseries
- ✓ Survey the occurrence and extent of tree damage by termites and other diseases and pasts
- ✓ Sensitize communities about watershed management approach

4.2 Eastern lowlands and highlands

- ✓ A survey of the indigenous tree/shrub species in the eastern region with potential for agroforestry development is planned for the coming quarter. The survey will aim at capturing the occurrence, distribution, use and propagation methods of indigenous tree and shrub species.

- ✓ Establishment of more sources of germplasm (group and individual nurseries) will continue. Local collection of seed will be emphasized but maximum care will be in order taken so as to collect from various areas and different mother trees (minimum 30)in order to widen the genetic base. This is envisaged to cut down on the high costs of seed and to develop sustainability in seed availability in future.

- ✓ Monitoring of the ongoing trials (termite, high value fruit trees, soil fertility, on farm biodiversity, soil fertility) will be maintained. Analysis of the leaf and soil samples from the improved fallow trials will be done.

- ✓ As a dissemination methodology, inter parish farmer exchange visits are planned, and at a later scale farmers will be taken out to other districts to witness and adopt from what other farmers else where are able to do. Mukono area where fruit trees are already doing very well are some of the targeted areas to visit.

- ✓ Completing the sensitization exercises in the remaining four sub-counties in Kumi and Iganga on the potential of agroforestry is planned. Continuous capacity building of farmers through technical backstopping will be ensured in the quarter.

- ✓ Analysis of the soil and leaf samples from the improved fallow plots will be accomplished.

- ✓ We plan to actively participate in an open day scheduled to take place in Kumi district. The date is yet to be fixed but consultations with the District agricultural officer are on going.

- ✓ Establishment of a fruit tree nursery at Buginyanya in Sironko district is planned in the coming quarter. CORI has provided space and we plan to raise apple seedlings in future. Meantime, the place will be developed into fruit tree nursery producing mainly avocado and mango rootstocks for future grafting purposes.

- ✓ Training of all the eastern zone nursery workers in grafting and budding techniques at Kawanda Agricultural Research Institute (KARI) will take place in the coming quarter. These skills will be utilized in our own nursery when we go full blast in grafting of the rootstocks being raised in the central nurseries.

- ✓ Identification of training needs to equip the capacity of staff to carry out proper scientific research will be done.
- ✓ Development of dissemination materials and methods will be a major activity.
- ✓ Partnership development with potential partners will be emphasized in the coming quarter.

5 Progress Report and Future Work Programme by Result

5.1 Southern drylands

Results 1: Capacity to conduct agroforestry research enhanced

W'plan Ref.	Activity	Planned during period	Achieved during period	Planned for next quarter
	✓ Training of staff on specialized topics	• Training on "Participatory monitoring and evaluation and marketing strategies for agroforestry".	• Training was conducted with 18 staff attending	• GIS training for all scientist and technicians of the project
	✓ Attendance of international or regional workshops or meetings.	• No staff was scheduled to attend meetings outside the country.	• None.	• Two scientists are scheduled to attend World Forestry Congress to take place in Canada in September 2003.

Result 2: Appropriate agroforestry practices developed, tested and validated

W'plan Ref.	Activity	Planned during period	Achieved during period	Planned for next quarter
	✓ On-farm wood production	• None. ?	• None.	• Establish 3 research nurseries at 3 sub-counties of Kayonza, Rweikiniro and Kabuyanda in Ntugamo district to raise quality seedlings for field trials and seed stands
	✓ Improved soil fertility management	• None	• None	• Establish soil fertility improvement trials • Survey current management practices of soil fertility • Identify indigenous trees & shrubs for soil fertility improvement
	✓ High value fruit trees	• Establishment of fruit mother garden in Kikagati sub-county	• Mother garden established.	• Manage and monitor the mother garden
	✓ High value fodder production	• Data collection and monitoring of on-farm trials of *Calliandra* and *Leuceana* for fodder banks in Isingiro South	• Data collected on number of seedlings planted, survival rates and pests and diseases	• Continue monitoring the fodder banks
	✓ On-farm tree biodiversity	• Survey on indigenous trees and shrubs species in Mbarara district	• Survey conducted	• Write survey report
	✓ Pests and disease management in agroforestry systems	• None	• None	• Establish trials on termite resistance by various tree species • Survey occurrence and extent of tree damage by termites • Identify and monitor diseases of Moringa and Eucalyptus

Result 3: Effective dissemination methodologies identified and applied

W'plan Ref.	Activity	Planned during period	Achieved during period	Planned for next quarter
	✓ Monitoring of the adoption of agroforestry technologies	• None	• None	• None

Result 4: Capacity of development partners to interface with clients enhanced

W'plan Ref.	Activity	Planned during period	Achieved during period	Planned for next quarter
	✓ Training and sensitization of farmers and local leaders about agroforestry	• Train local council staff	• 30 local leaders from Kayonza and Rweikiniro sub-counties had a tour to Bubare sub-county, Kabale	• Follow-up and conduct more field study trips for local leaders
		• Training of farmers	• 28 farmer groups with 787 farmers from Kayonza and Rweikiniro sub-counties were trainedin group dynamics, nursery establishment and management. • Vidoe show and drama at Rweikiniro sub-county attracted 300 farmers	• Follow-up and support farmer nurseries • Conduct farmer field study trips • Sensitize communities about watershed management approach

	✓ Support group and individual nurseries	• Support farmer nurseries at Isingiro South	• 4, 000 and 5,000 seedlings of Moringa and Grevillea were raised in farmer nurseries.	• Continue technical and germplasm support
	✓ Support sub-county seed stands	• Establish seed stands of *Grevillea* and *Calliandra* at Kyonza sub-county	• Both seed stands were established.	• Support management of seed stands
	✓ Scale-up agroforestry technologies in Isingiro, Mbarara District	• Support farmer's seed orchards • Train farmers on fruit grafting	• Two seed orchards were establish • Hands-on training of 30 farmers in grafting and fruit tree management conducted	• Continue support tree seed stands • Follow-up on trained farmers

5.2 Eastern lowlands and highlands

Results 1: Capacity to conduct agroforestry research enhanced

W'plan Ref.	Activity	Planned during period	Achieved during period	Planned for next quarter
	✓ Training of staff on specialized topics	• Training on "Participatory monitoring and evaluation and marketing strategies for agroforestry".	• Training was conducted with 18 staff attending	• GIS training for all scientist and technicians of the project
	✓ Attendance of international or regional workshops or meetings.	• No staff was scheduled to attend meetings outside the country.	• None.	• Two scientists are scheduled to attend World Forestry Congress to take place in Canada in September 2003.

Result 2: Appropriate agroforestry practices developed, tested and validated

W'plan Ref.	Activity	Planned during period	Achieved during period	Planned for next quarter
	✓ On-farm wood production	• Establish on-farm tree nurseries in the districts of Iganga, Tororo, Mbale and Kumi	• 26 on-farm tree nurseries established in the four districts	• Monitor and support farmer nurseries.
		• Raise quality seedlings for trails and seed stands	• 80,000 seedlings of various species raised in central nurseries of Iganga, Tororo and Mbale	• Establish trials with these seedlings
		• Acquire more seed and seedlings for on-farm trials.	• 70 kg of seed acquired	• Raise seedlings for trials
		• Collect data from on-farm wood production trials	• Data collected on tree performance and survival	• Summarize data collected • Survey of indigenous trees and shrubs for agroforestry
	✓ Improved soil fertility management	• Identification of new sites for improved fallow trials in the districts of Iganga, Tororo and Kumi	• 23 farmers in Tororo planted maize as post fallow test crop • 80 farmers in the three districts have established new improved fallow trials	• Collect crop data from the trials • Monitor tree growth and assess biomass production
		• Raise seedlings for soil conservation in eastern highlands	• Trails of Calliandra were established in Bulaago and Bumbo sub-counties	• Monitor and manage trials
	✓ High value fruit trees	• Asses survival and	• Data collected and survival	• Continue to assess trials

		performance of tropical fruit varieties • Establish more fruit variety trials both for tropical and temperate fruits • Identify nursery site for temperate fruits	data indicates some varieties performing data than others • 60 more farmers identified • Established a mother fruit garden in Kumi district • Site identified at Buginyanya station in Sironko district and development of nursery site initiated	 • Plant on-farm trials • Support management and monitor mother garden • Continue to develop nursery site
	✓ High value fodder production	• Evaluation of *Calliandra* species and provenances for fodder production	• Fodder trials planted	• Monitor and manage trials
	✓ On-farm tree biodiversity	• Plant biodiversity trials in the project districts	• Trials established on several farms in the four districts	• Assess tree performance including survival rates
	✓ Pests and disease management in agroforestry systems	• Survey on the diversity and occurrence of termites in eastern Uganda • Evaluation of the efficacy of selected indigenous termite control methods	• Samples sent to CABI for identification • Trials planted both on-station and on-farm with five indigenous control techniques being tested	• Write final report • Collect data from the trial

Result 3: Effective dissemination methodologies identified and applied

W'plan Ref.	Activity	Planned during period	Achieved during period	Planned for next quarter
	✓ Develop joint planning, implementation, monitoring and evaluation methodologies with district and NGO partners	• Meet with district and NGO staff to develop roles and responsibilities and effective working relations	• Identified clear roles and responsibilities for partners • Met GTZ in Mbale and identified areas of collaboration	• Continue with collaboration • Develop MOU with GTZ • Farmer exchange visits • Complete sanitization of local councils

Result 4: Capacity of development partners to interface with clients enhanced

W'plan Ref.	Activity	Planned during period	Achieved during period	Planned for next quarter
	✓ Training and sensitization of farmers and local leader s about agroforestry	• Conduct feed back workshops on the needs assessment on agroforestry in the project districts • Trained farmers and local councillors on agroforestry technologies	• 4 feed back workshops held • 473 farmers trained 606 councilors trained in the districts	• Needs assessment reports written taking into account comments from workshops • Continue to backtop farmers and local councils
	✓ Support group and individual nurseries	• Continue technical and germplasm support	• 26 farmer group nurseries supported	• Continue technical and germplasm support
	✓ Develop training materials in agroforestry	• Develop manuals on nurseries, group dynamics, gender and tree nurseries	• Three drafts revised and ready for pre-testing.	• Pre-test the training materials

7. Work programme expenditures during the quarter (April-June)

Appendix 1: Visitors received by the project during the quarter

Name	Address
Farmers (20)	Bubale sub-county, Kabale
Farmers (28)	Iganga
Faremers (20)	Lira , Katakwii and Kumi
District Subject Matter specialists (15)	Arua, Adjumani, Nebbi, Moyo
Staff of VI Agroforestry project (17)	Masaka
Mr. Yiga Andrew	IRDI, Mbale
Mr. Kaamu Tabby	SPW, Jinja
Ms Fiona M. Fleming	SPW, Jinja
Mr. Sekibule Amos	Makerere University, Kampala
Mr. Taban Nicky	SPW, Jinja
Mr. Emmere Ekeza	SPW, Jinja
Mr. Wannox Innox	SPW, Jinja
Mr. Nalumang Dennis	SPW, Jinja
Ms. Male Judith	SPW, Jinja
Mr. Khaukha M. Swalik	GISO, Mbale
Mr. Okiror Alex	Benedictine Fathers, Tororo
Ms. Pengure R.	Pallisa
Mr. Feraala Willy	SPW, Jinja
Mr. Masaba Francis	Bukiende, Mbale
Mr. Mutunga J.	Tororo DATIC
Mr. Mukabure Paul	Agriculture Department, Mbale
Mr. Idwongot Oluka Paul	KDFA, Kumi
Mr. Epila Opio	Tororo
Mr. Lwabaga Yusufu	Agriculture department, Iganga
Mr. Okello Francis	Agriculture department, Iganga
Mr. Nyeko Phillip	Makerere University
Mr. Kisakye Amina	Secretary for production, Iganga
Mr. Bakalikwira James	NAADS, Waibuga, Iganga
Mr. Muyinda	Speaker Magada subcounty
Mr. Malende Thomas	Chairman LCIII Waibuga
Mr. Jimmy Musiime	LCIII Chairman, Bubale, Kabale
Mr. Clement Okia	UGADEN, Kampala
Mr. Okot Joseph	Iganga