



A report prepared for the project

Lessons Learnt on Sustainable Forest Management in Africa

THE VI AGROFORESTRY PROGRAMME IN KENYA, TANZANIA AND UGANDA

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Food and Agriculture Organisation
of the United Nations (FAO)

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The Vi AgroForestry Programme in Kenya, Tanzania and Uganda

by

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(October 2004)

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1.0 BACKGROUND FOR THIS STUDY

In late 2002, the African Academy of Sciences (AAS), the Royal Swedish Academy of Agriculture and Forestry (KSLA) and the Forestry Department of FAO jointly initiated a project entitled “Lessons learnt on Sustainable Forest management in Africa”.

In February 2004, a workshop was held in Nairobi presenting and discussing nine papers on various aspects of forest management, use and conservation in Africa and experiences on these from which lessons could be learnt. The papers had been commissioned to expertise in different institutions and companies on the continent. During the workshop a few additional case studies were also presented. Among them, Mr. Åke Barklund, outgoing Director for Sida’s Regional Land Management Unit (RELMA), suggested three case studies capturing some RELMA experiences over the last years:

- Ethiopian land and tree tenure.
- The Vi Agroforestry Programme in Kenya, Tanzania and Uganda.
- Forest Certification in Africa.

2.0 THIS IS THE VI AGROFORESTRY PROGRAMME IN KENYA, TANZANIA AND UGANDA CASE STUDY

The Vi Agroforestry Programme vision: “A green belt of vegetation cover around the lake Victoria basin within small-scale holdings”.

Programme mission: “To integrate AgroForestry within the farming systems of small holders in the Lake Victoria basin, and make it the engine of economic growth and poverty alleviation.”

Programme goal: “To contribute towards improved livelihoods of small scale farmers in selected districts around Lake Victoria basin.”

Immediate objectives:

- Increased food and nutritional security in selected villages in a period of 1 to 5 years
- Increased fuelwood availability in selected villages in a period of 1 to 5 years.
- Increased sources of income in selected villages in a period of 1 to 5 years.

Target group: Small-scale farmers with average five acres of farm land who depend on their farms to derive their livelihood using their own labour.

Programme strategy: Participatory AgroForestry extension with emphasis on gender equity.

Program matrix: (PM) shows the programme in a nutshell, including relevant indicators and external factors influencing the Programme.

Goal (development objective)	Objectively verifiable indicators	Means of verification	Basic assumptions
Contribute towards improved livelihoods of small-scale farmers in selected villages in 5 to 10 years.	Better housing. Better health. Lower child mortality. Increased number of children in school.	M&E surveys. Existing national surveys data. Hospital records. National health survey records. PRA reports	Continued national priority to environmental protection and rural development. Political stability, maintenance of law and order. Sound policies and legislation on forestry, agriculture, land use and

			environment.
<p>Immediate objectives:</p> <p>Increased food and nutritional security at selected villages in a period of 1 to 5 years.</p> <p>Increased fuel wood availability at selected villages in a period of 1 to 5 years.</p> <p>Increased sources of income at selected villages in a period of 1 to 5 years.</p>	<p>Objectively verifiable indicators</p> <p>Area of land under crop.</p> <p>Diversity of fruit trees planted and growing at each household.</p> <p>Food in stores during off-season period.</p> <p>Fuelwood stored in stacks or stores at each household.</p> <p>Crop sales, including wood products.</p>	<p>Means of verification</p> <p>M&E surveys and reports.</p> <p>Participatory Rural Appraisal reports.</p> <p>Selected case studies.</p>	<p>Basic assumptions</p> <p>Peace and security.</p> <p>Positive, progressive and efficient attitude of people and administrators.</p> <p>Long term donor commitment.</p>
<p>Outputs:</p> <p>Eighty percent (80%) of the households in each AoC report increased food production in 5 years.</p> <p>5 fruit trees planted in one third of participating households in the first year. 70% of the households to have 10 fruit trees of 5 different species after 5 years.</p> <p>One third of households have sufficient firewood in 2 years and 80 % in the remaining three years.</p> <p>25% of households have more than one source of income in 2 years. 80% of all households to have more than one source of income in 5 years.</p>	<p>Objectively verifiable indicators</p> <p>Crop yields per unit area.</p> <p>Number of fruit trees at individual households.</p> <p>Number of households with fuelwood stacks or stores.</p> <p>Number of households with more than one source of income.</p>	<p>Means of verification</p> <p>M&E surveys and reports.</p> <p>Zonal Managers reports.</p> <p>Reports from units.</p> <p>PRA reports.</p>	<p>Basic assumptions</p> <p>Rate of exchange.</p> <p>Peace and security.</p> <p>Commitment of both extension staff and participating farmers.</p> <p>Active participation and commitment of local administrators at village level.</p>
<p>Activities</p> <p>Conduct PRAs in all target villages.</p> <p>Conduct and encourage farmer-to-farmer extension and use of group approaches.</p> <p>Train all extensionists on participatory extension methodologies</p> <p>Train farmers on techniques of establishing</p>	<p>Inputs</p> <p>Long-term financial support from Sida and NORAD.</p> <p>Technical assistance from top quality experts and scientists.</p> <p>An established and efficient programme organisation with infrastructure, field and office equipment of high</p>		<p>Basic assumptions</p> <p>Stability of donor budgets and a long term donor commitment.</p> <p>Bureaucracy or undue interference in programme activities.</p> <p>Commitment of local farmers and extension staff.</p>

<p>on farm nurseries</p> <p>Train farmers on techniques of seed collection and direct seeding</p> <p>Train farmers on techniques of on-farm seed production.</p> <p>Training of trainers' courses for zonal managers to be done externally.</p> <p>Seed collection and distribution.</p> <p>Two annual 2 week agroforestry courses for extensionists.</p> <p>Conduct baseline and M&E surveys.</p>	<p>quality.</p> <p>Necessary updating and upgrading of equipment.</p> <p>Technical assistance from qualified extension agents.</p>		
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3.0 THE VI AGROFORESTRY PROGRAMME HISTORY

The East African Vi Agroforestry Programme started in 1983 in West Pokot District in Kenya with the aim to halt desertification by planting trees and shrubs. Activities spread to the neighbouring Trans Nzoia District in 1986 and a formal project headquarters was established in Kitale. In 1992 and 1994, new projects were established in Masaka in Uganda and in Musoma (Mara) in Tanzania. In 1999, a second Tanzania project started in Mwanza and in late 2003 a second Kenya project started in Kisumu. In March 2004, the Vi Agroforestry Programme thus runs five projects: Kitale and Kisumu in Kenya, Masaka in Uganda and Musoma/Mara and Mwanza in Tanzania. Advanced plans exist for a sixth project in Rwanda and there are talks about later establishments in Kagera, Tanzania, and in Jinja, Uganda.

4.0 ORGANISATION OF THE VI AGROFORESTRY PROGRAMME

Owner of the Vi Programme is the International Non-Governmental Organisation *Vi Planterar Träd* (We plant trees), a Foundation with its headquarters in Stockholm, Sweden, and with registrations in Kenya, Uganda, Tanzania respectively. Recently, the Swedish Cooperative Centre (SCC) and *Vi Planterar Träd* signed a Memorandum of Understanding on closer cooperation and to share a CEO 50/50. This was a timely coalition since the Vi Agroforestry Programme has started to give more emphasis in its work on marketing of the farmers' products, and SCC has considerable experience in this field from Sweden.

The programme is financed by individual Swedish and Norwegian donors (some 30,000 people and organisations make voluntary contributions every year), the Swedish Consumers Cooperative Association, the Swedish International Development Cooperation Agency (Sida), the Norwegian Consumers Association and the Norwegian Agency for Development Cooperation (NORAD). The Sida and NORAD contributions depend on the amount of money collected from individuals and other organisations in Sweden and Norway respectively. More than 90 % of the voluntary contributions come from Sweden whereas close to 20% of the Government contributions come from NORAD.

The Board of the Foundation “Vi Planterar Träd”, based in Stockholm, comprises two Norwegian and seven Swedish members (including the Managing Director) representing the financiers. It has a Programme Executive Group (the Managing Director and the Programme Manager in Sweden and the Regional Coordinator in Kisumu, Kenya). In early 2004, the programme ran projects in Kitale and Kisumu (Kenya), in Masaka (Uganda) and in Mara and Mwanza (Tanzania). The Board is responsible for the administration of the Vi AgroForestry Programme and sets the policy framework for the implementation. The Managing Director (CEO) is responsible for the programme administration including fundraising, while the Regional Coordinator (RC), based in Kisumu in Kenya, is responsible for monitoring the programme field activities. He also represents the Stockholm office on policy issues in East Africa. A part-time Programme Manager (PM) is attached to the Stockholm head office.

The five Vi Agroforestry projects each have a Project Manager, reporting to the Regional Coordinator in Kisumu, and an Assistant Project Manager, both of them expatriates. The projects also have units for administration, training & community empowerment, seed procurement & distribution and monitoring & evaluation. The unit heads report to the Project Manager. Each country project is divided into geographical zones, which act as sub-projects, and have their own work plans and budgets. At present, a core team of local professional staff are recruited at each country project head office to give support to the Project Managers within special technical and administrative areas.

The practical AF activities take place in seven to eight zones per project. Each zone is headed by a Zone Manager, who in turn has one or more Assistant Zone Managers working with him/her. The Zone Managers and the Assistant Zone Managers often have complementary educational backgrounds.

Each zone comprises 12-15 Areas of Concentration (AoC) with one Village Extensionist in each AoC. The Village Extensionist lives within, or very close to (bicycle distance) her/his AoC. The total number of AoC and Village Extensionists per project is thus 80 – 110. The entire Vi Agroforestry Programme thus employs some 470 AoC Village Extensionists.

In one Area of Concentration there is typically some 300 farmers, the ultimate Vi Agroforestry partners. The Village Extensionist works with farmers individually but more so in groups - preferably some 12-15 farm families come together for more cost effective work by the extensionists but also for sharing experience among the farmers themselves and for running joint projects (farm trials, group tree nurseries, study yours, field schools, etc.). An average farm size of 2- 2 ½ hectares gives an average AoC area of 600-700 hectares. A zone then holds some 7,000 – 10,000 hectares of farm land and a project some 60,000 – 80,000 hectares of farm land. At present, the entire Vi Agroforestry Programme collaborates with around 160,000 farm families on some 350,000 hectares. Of these, around 130,000 have some form of agroforestry activities.

Cooperation with the World Agroforestry Centre (ICRAF) is formalised in a Memorandum of Understanding from October 2001. With the new programme office in Kisumu, where the Vi Regional Director also is based, close to the ICRAF Kisumu office, joint activities will increase. This applies to the fields of M&E and to technical cooperation on improved fallows and fodder tree establishment.

Joint work with the Swedish Cooperative Centre (SCC) will increase in the near future, in line with the merger of the two programmes under one leadership. The LIFE project has already started in some zones and some staff members in this project are jointly employed by the Vi Projects and SCC.

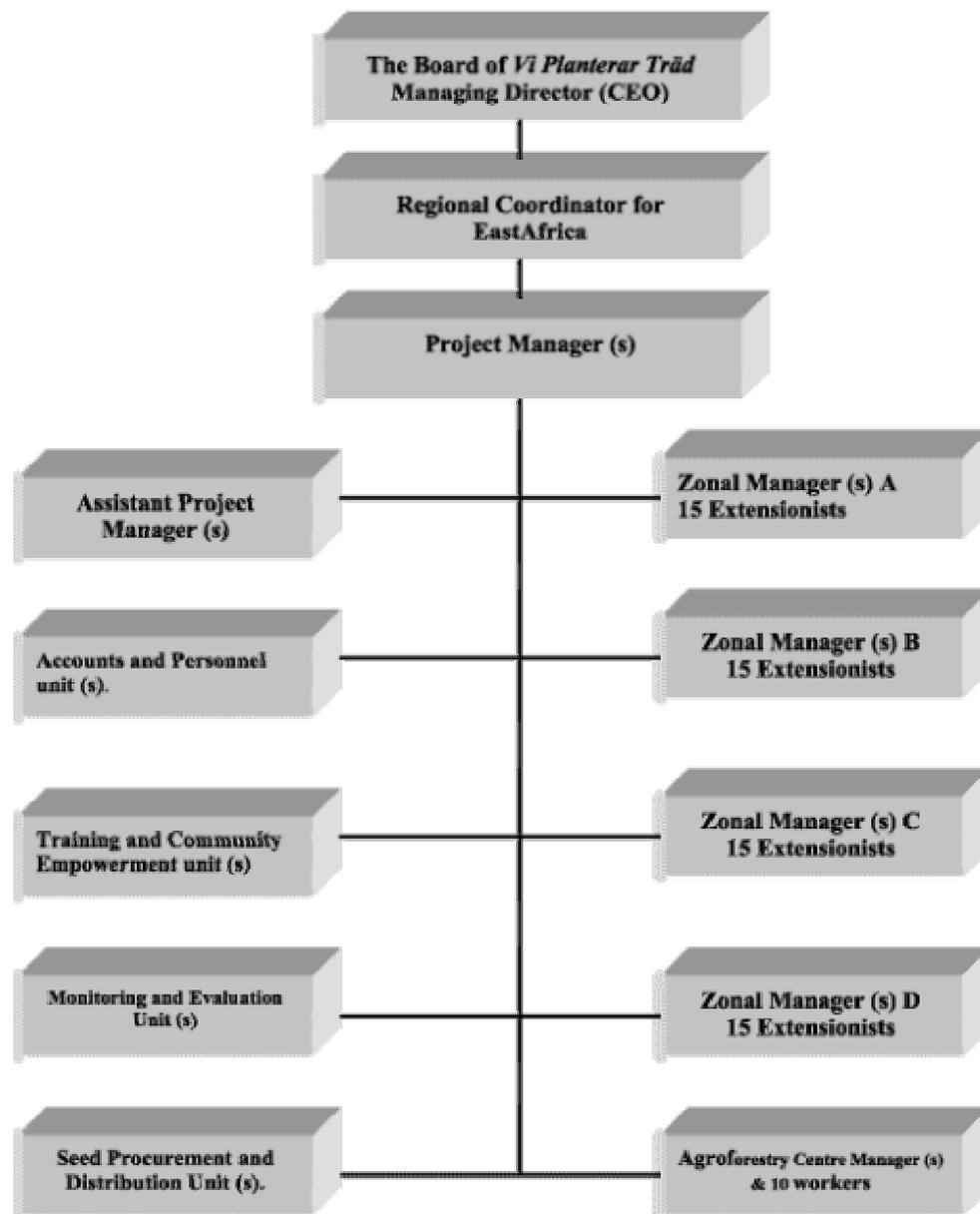
Partnerships and external linkages are useful for gaining new knowledge and sharing experiences. The Vi Programme has a deliberate policy of establishing linkages with relevant institutions in the countries it works in. Government institutions influence the success of programme activities, since they also interact with the same target groups. In the initial preparation of project activities in the villages, intensive contacts are established with all administrators, from the District to the village level.

Apart from ICRAF and SCC, Sida's Regional Land Management Unit (RELMA) has also been a useful partner in documenting the Vi Programme's experience and also by making available to programme staff various technical reports relevant to agroforestry and to natural resources management in general. Each country project has links to relevant local institutions such as the Kenya Agricultural Research Institute (KARI), the Kenya Forestry Research Institute (KEFRI), the Kenya Agroforestry Network (KAFNET), the Uganda National Agricultural Research Institute (NARO), the Uganda Agroforestry Development Network (UGADEN) and the Ukiriguru Agricultural Research Institute in Tanzania.

Core activities are fuelwood production, soil & water management, hedgerows, horticulture, intercropping, organic farming, direct seeding, protection of trees & shrubs (cattle, fire, poultry, birds, rodents), tree management, local seed collection, homestead planting, improved fallow, community development, livestock management, charcoal, fruit trees, medicinal trees, compost making and income generating activities.

Agroforestry centres are established in each Vi-country for testing agroforestry technologies. These centres receive many visitors and have been useful in disseminating agroforestry knowledge and concepts to 'non' Vi-Programme areas. The centres also act as suitable training venues for the Program's technical staff.

5.0 ORGANISATIONAL CHART



6.0 THE VI AGROFORESTRY PROJECTS

6.1 Mwanza, Tanzania

The Mwanza project started in 1999 and is by now well established. In the end of 2003 it had 27,632 farmer households registered in the database. Of these, 19,968 implemented one or more agroforestry activity (72%).

The total number of staff is 174 out of which 116 are AoC extensionists, nine volunteer farmers and five Government secondments. Their formal education ranges from a few with B.Sc. degrees, many with Diplomas and Certificates in agriculture and/or forestry, to more and more secondary school students with agronomy profiles. The project tries to recruit persons with different and complementary training backgrounds - from agronomy, forestry, agroforestry, animal husbandry, veterinary science and community development to form a well balanced team. The project operates in nine zones.

Extensionists start with a salary of 85,000 Tsh/month, later increased to around 100,000 Tsh + 15 % housing allowance, medical expenses, plus a new bicycle every three years. The total cost for a project extension staff is equivalent to around 2,000 US\$/year. Volunteer farmers are trained by the project but not employed – they get a bicycle and some allowances. The Government secondments earn around 70,000 Tsh/month from the Government and get a supplementary pay from Vi of around 50,000 Tsh/month in allowance.

Villages that want to join the Vi AF project apply via the Government system. Vi Mwanza have regular collaboration with, among others, the HASHI/ICRAF project in Shinyanga, SCC, the Magu Food Security Project, CARE International, Lake Victoria Environmental Management Program (LVEMP), the Regional Land Management Unit (RELMA) for technical publications, the Lake Zone Agricultural Research and Development Institute in Ukiriguru and with around 95 primary and secondary schools with more than 30,000 active pupils. A large number of radio programmes on different agroforestry techniques have been developed by Vi Mwanza and broadcast by Radio Free Africa.

Nine multipurpose tree species account for 75% of all seed collected, viz. *Sesbania*, *Azadirachta*, *Cajanus*, *Gliricidia*, *Terminalia*, *Acacia*, *Croton*, *Albizia* and *Sclerocaria*.

6.2 Musoma/Mara, Tanzania

The Mara (Musoma) project started in 1995, initially on a small scale. Up to mid 1996, it only employed 16 extensionists. In the end of 2003, it had 35,640 farmer households registered in the database out of which 19,916 implemented one or more agroforestry activity (56%).

The total number of staff is 166, out of which 107 are AoC extensionists. Mara operates eight zones. The project has a good AF demonstration centre at the HQ site for visitors and for local training. The village extensionists live in or within bicycle distance from the AoC. Further training is done by the projects Training and Community Empowerment Unit.

The new Vi- project centre in Musoma is increasingly being used for providing conference services for NGOs and for local authorities because of its excellent facilities. This fact has also been used to promote agroforestry to many organisations and visiting groups.

6.3 Kitale/Kisumu Project, Kenya

This first Vi project started in 1983 in the West Pokot District. Following initial success and increased budgets, it expanded into the Trans Nzoia District in 1986 and a joint project office was established in Kitale. The project is involved in 13 zones in three Districts. At the end of 2003 the project employed a total of 255 staff and had 59,100 farmer households registered in the database, out of which 38,106 implemented one or more agroforestry activities (64%). The *Olof Palme AF Centre* demonstration garden in Kitale had 3,900 registered visitors in 2003.

On farm research trials in collaboration with the Kenya Agriculture Research Institute (KARI) have just been initiated and will expand.

Other collaborators are the Kenya Museum in Kitale, the Manor House Agriculture Institute, the Kapenguria Bible Centre/Pokot Development program, RELMA, and Moi and Nairobi Universities.

6.4 Masaka project, Uganda

The Masaka project started in 1992, very similar to the “Kenyan model”, and is by now well established. By the end of 2003 the project had 42,518 farmer households registered in the database, out of which 26,630 implemented one or more agroforestry activities (63%). The project is involved in eight zones in two Districts. It has a total staff strength of 180, out of which 107 are AoC extensionists

Collaborators include the Uganda Agroforestry Development Network (UGADEN), the Uganda National and the Masaka District NGO Forums, SCC/Uganda Cooperative Alliance (UCA), the Livelihood Improvement through Farmers Empowerment Project (LIFE), ICRAF, the Uganda Volunteer Service, RELMA, Lutheran World Federation (LWF), Makerere University/Nyabyeya Forestry College, the Uganda Wildlife Education Centre (UWEC), Uganda Women’s Effort to Save Orphans (UWESO) and the Forestry Research Institute (FORRI).

Out of some 40 tree species handled by the Vi Masaka ten species account for 95 % of the seed weight, viz. *Sesbania*, *Calliandra*, *Cajanus*, *Tephrosia*, *Maesopsis*, *Azadirachta*, *Cordia*, *Khaya*, *Moringa* and *Terminalia*.

Vi Masaka runs an Agroforestry Demonstration Centre with about 3,000 visitors in 2003. Activities and demonstrations at the centre include trees (fruit and timber), coffee and banana management, compost making, fodder management, poultry keeping, rabbit keeping, seedling production, improved fallow fields (*Crotalaria*), and sale of tree seedlings. In addition, a number of radio programmes were produced by Vi Masaka and broadcast in 2003.

7.0 EXTENSION APPROACH, METHODS AND MESSAGES

The programme uses an extension approach that lays emphasis on group extension, rather than approaching farmers individually. Circumstances may sometimes compel the AoC extensionists to approach farmers individually but the main contact is supposed to be through groups of 12-15 farmers. Already existing active village groups are contacted before any separate Vi-agroforestry group is established. It is only where farmers wish to form a new group for any particular purpose related to the programme that Vi gets involved in developing group objectives and action plans. Schools are also encouraged to get involved in agroforestry activities, especially the upper primary sections.

Before the extensionists start activities in a village in a project Area of Concentration, the whole village is invited for a participatory planning process, where resources and potentials are mapped out and joint action plans are made. Farmer tours are organised to successful villages and farmers in the neighbourhood. Radio advertisements and dissemination of agroforestry and tree planting information are some other extension approaches. Quarterly plans and activity calendars are also prepared every third month and distributed to farmers as an incentive. The calendars carry important and timely information about suitable agroforestry activities. Farmer group workshops are conducted with the aim of introducing agroforestry systems and technologies and how they can be used to improve farm productivity.

Communicating with farmers in their own language and working alongside them is an effective method of extension, although it may take time. Farmers must be convinced that technologies promoted will result in benefits to themselves, rather than selling messages with some lofty environmental or societal arguments. The family and the immediate group of relatives and neighbours must gain. The Vi-programme is trying to work with simple and often well proven methods, species and products, to minimise the risk of failures.

Entry points vary between the different Vi projects, between zones and Areas of Concentration, and even within an AoC depending on the interests of the farmers. The extensionists have to find out the best technologies to promote with each group of farmers. It is important to address not *only* agroforestry, and not *only* one species, but to offer a menu of alternatives.

The most immediate need of the farmer will often be water, in which case rainwater harvesting and water storage may be natural entry points for the extension efforts, and only after that is addressed will the extensionists introduce the topics of how best to use trees and shrubs. If health problems are prevalent, most probably clean water and sanitation will be given priority, and trees sometimes have a potential for contributing to eco-sanitation solutions. If the most pending needs relate to cash income, it

is natural to consider the potential of fuelwood, poles and fodder from trees for sale. Also non-agroforestry technologies, e.g. related to food crops and/or domestic animals, will be promoted whenever relevant, even if trees and shrubs normally are then introduced at a later stage.

Using a participatory rural approach (PRA) is not considered by the Vi programme as a goal in itself, but as a means for cooperation. According to the programme, PRA has been too much focused on problems in the past, and they now try to use the approach to find out what the visions for the future are among the farmers. Ideally all farmers in a micro catchment should accept to work together in a local group because it is more effective to address an entire area – however small – at the same time to spread risks of failure share the benefits in a fair way. The extensionists themselves form teams in each zone to share experience and develop methods. During the establishment phase in a zone, existing organisational structures and “powers” are inventoried, e.g. village leaders, influential persons, religious groups, district agriculture and forestry extension services, etc.

”CREDIBILITY MATHS” - about messengers and their messages

MESSENGER		MESSAGE		RESULT
0	x	0	=	0
1	x	0	=	0
0	x	1	=	0
1	x	1	=	1

Messenger. The most important people in the Vi-system are the farmers themselves, and thereafter the village extensionists. If the relation between them is not working, the result is low. The zonal project and programme people are there to assist the extensionists to do their job. The recruitment of extensionists is crucial - the projects look for persons from the District with local cultural, customs and language knowledge. It is important that the farmers have confidence in the extensionists, who should have a good ability to interact with farmers in a humble and respectful way in order to create a genuine “bottom-up” feeling.

Message. The agroforestry concept, in its pure scientific sense, is new to many people, and it is not always easy to “sell” it. The ones taking risks when adopting new agricultural technologies are not the extensionists, the Messengers, but the poor farmers. They can rarely afford failures and have to be convinced step by step. Seeing is believing, and study tours and visits to neighbours who have already adopted a new technology is often an effective method to convince hesitant farmers. Traditional management practices should preferably be changed gradually and little by little, rather than attempting to introduce new technologies, with new species and practices, all at once. All messages should also relate directly to the family and preferably have an obvious impact in the short run, cash income is never wrong!

There is sometimes an unfortunate conflict between old **indigenous knowledge and new research findings**, which can be unfortunate for at least two reasons: a) if traditional agriculture practices are not looked into, understood and respected by extensionists, the farmers will close their minds to any change, and, b) traditional practices are very rarely totally wrong, after all, people have survived for considerable times using them. Thus, attempts of introducing new farming methods, such as agroforestry, should initially combine traditional and new knowledge. The Vi projects have often been regarded as old-fashioned because they have not immediately taken on new research findings into their extension portfolio. This careful attitude has its roots in the realisation that new technologies have often been developed under controlled conditions at research stations and have not been sufficiently tested (neither in time nor under a broad enough set of “real” conditions) before being released. Also in agroforestry there are many examples of new species and new systems advertised too early.

Why is **gender** important? The target groups are farmers and the local culture in much of East Africa is that women do most of the farm work. Thus, it is often an advantage with female extensionists, since it

is easier for them to talk to other women farmers than it is for male extensionists. The Vi programme encourages the growing of short rotation nitrogen fixing trees and shrubs, which men normally do not consider as “real” trees. Such trees mature in one to two years and give a lot of firewood as well adding nutrients to the soil.

The Vi programme has placed a lot of emphasis on the issue of gender in tree planting and agroforestry activities. All programme and all project staff are sensitised to gender aspects through regular seminars and workshops. Staff recruitment at all levels emphasises the need for a balanced gender situation. Out of total nine persons in the Vi programme Board, four are women, among them the chair person. The total number of Vi project staff in 2003 were 784, out of which 275 were women (35%). In group meetings and gatherings, such as PRA exercises, gender is always on the agenda as an item for discussion.

The Vi programme's ambition is to have 80 % of the households in the project villages with ten **fruit trees** of five different species within a period of five years. The main fruit trees promoted are: *Carica papaya*, *Psidium guajava*, *Persea americana*, *Mangifera indica*, *Passiflora edulis*, *Anona senegalensis*, *Anona cherimoya*, *Anona muricata*, *Sclerocarya birrea*, *Syzygium cumini*, *Anacardium occidentale* and *Morus alba*. Other tree species that are promoted have special functions, such as water purification and medicine, like *Moringa stenopetala*, *Moringa oleifera* and *Azadirachta indica* (Neem).

On the question on whether to recommend **organic or inorganic fertilisers**, the Vi extensionists avoid recommending chemical fertilisers, mainly for economic reasons, but also to avoid negative environmental impact. The obvious need for more nutrients can partly be addressed by use of leguminous trees and plants that fix nitrogen from the air. However, shortages of potassium, phosphorus, calcium and many micronutrients can only be provided by designed chemicals. However, low soil content of nitrogen is normally the most limiting nutrient growth factor in the parts of Africa where the Vi programme operates. Therefore farmers are encouraged to grow, through direct seeding, fast growing leguminous trees e.g. *Sesbania sesban*, *Gliricidia sepium* and *Calliandra calothyrsus* in areas with higher precipitation. These species are used for both soil fertility replenishment and as a source of fodder for animals and for wood production. The detailed planting configurations are dictated by the farmers needs, although the general principle is the establishment of improved fallows.

Use of long rotation tree species for **timber production and nutrient cycling** is also encouraged by the Vi programme. These include among others: *Cedrela odorata*, *Maesopsis eminii*, *Milicia excelsa*, *Markhamia lutea*, *Azadirachta indica*, *Albizia lebbek*, *Tectona grandis*, *Vitex keniensis*, *Samanea saman*, *Khaya anthotheca*, *Croton macrostachyus*, *Cordia africana* and *Prunus africana* in areas with higher precipitation. In the long run, these timber trees will be the main sources of firewood, timber and poles. They will also be useful in cycling nutrients from deeper soil horizons to be available for crops.

About 50 **indigenous and exotic tree and shrub species** are recommended by the Vi projects, among which around 60% are indigenous species and 40% exotics. The former are preferred by the Vi programme because seeds can normally be collected locally and bought by the projects. Local species are often (but not always) better adapted to the site, give some cash income to seed deliverers and are generally more readily accepted by farmers. However, many of the tree species which today are looked upon as “indigenous” are in reality exotics but they were introduced some time back and have been included in the “indigenous message” because they are well known since long. One important exotic genus not included in the Vi arsenal is *Eucalyptus*, because it is not included in the Vi's definition of the “agroforestry concept”.

The programme handles a total of about 20 tonnes of tree seed annually. Women groups and individuals collect most of the seed. Some quantities are also procured through the national tree seed programmes in respective countries. The need for supply of seed of fast growing tree species is reduced each year because farmers involved in the Vi projects are encouraged and trained to establish on-farm seed production units. Most of the fast growing leguminous tree species start producing seeds shortly after establishment. Seeds for the long rotation tree species will always be in demand.

8.0 MONITORING & EVALUATION

As a basis for the **Monitoring & Evaluation system**, each of the five projects undergoes a logical framework planning process. The identified *objectively verifiable indicators* therefore form the basis for the programme's M&E system. Each project has a database with the names of all households in

each Area of Concentration. A typical database for a project has more than thirty thousand registered households. From this database, a sample of between 1000-1400 households is drawn, normally by a cluster sampling technique. A questionnaire is then administered in order to establish baselines/bench marks for future impact monitoring. After the first baseline is completed, the M&E concentrates on administrative monitoring, which entails measurements of the efficiency of the conversion of programme inputs into outputs, and the effectiveness of activities by giving the right outputs.

Some staff have reservations about the M&E activity, mainly because it is perceived as a way of “controlling” staff. However, it is not introduced to punish and kick out non-performing staff, but to develop activities and build competence among staff. The Regional Coordinator is responsible to the headquarters in Stockholm for reporting the outcome of the M&E work.

The following **field activities** are monitored and evaluated:

- Home nursery establishment
- Planting out of multipurpose tree species
- Direct sowing of multipurpose tree species
- Direct sowing of soil improving tree species
- Planting of fruit trees
- Direct sowing of fruit trees
- Trees and seedling protection against roaming animals, fire, rodents and poultry
- Tree management and silvicultural practices: looping, pruning and pollarding
- Management of soil improvement alleys; pruning side branches of fodder trees
- Pricking out, from seed beds to containers.

Common, **remaining problems** include:

- Poor collaboration with local leaders in some AoC
- Late preparations for tree planting
- Roaming animals

9.0 SUSTAINABILITY

There are two aspects to the question of **sustainability** of development cooperation programmes and projects - the donor aspect and the recipient aspect. Because most development work is complicated and involves many actors and disciplines, it often requires quite some time to be successful. The commitment by a donor is very crucial – far too often good projects are terminated too early, before they have become consolidated and had an impact outside the immediate project area. In comparison with other development programmes, Vi’s 20 years is a long time.

The basis for **financing the Vi programme** is the raising of money among individuals in Sweden and in Norway. Some 30,000 persons contribute funds each year, with the weekly Swedish Vi-Magazine as the hub. Sida’s and NORAD’s contributions depend on the “voluntary” money collected. Twenty years have passed since the programme started and the interest among common Swedes seems intact. Constant innovations are finding new methods to attract small, but welcome donations. People turning 50, tell their friends and relatives: “Don’t give presents – I have ‘everything’ already, send the money to Vi-Kenya”. Jubilee corporations say to colleagues:” If you want to celebrate our company, send the money to Vi-Uganda”. When wills after dead people are opened, they sometimes read:” Do not decorate my coffin with too many flowers, send some money to Vi-Tanzania”. You can find Christmas cards giving a dividend to Vi. Apart from the Vi-programme’s own PR to keep up the interest, the Vi-Magazine writes regular stories from the field. Three typical such field reports are given in *Appendix 1*.

The collected money from the public was:

2001	12,0 million SEK
2002	13,7 million SEK

2003 13,9 million SEK

Out of the total income (collected and topped up by Sida and NORAD), 85 % was spent in the field (the figures below), 6% are costs for fund raising, 5% are administration costs and 4 % are general information costs. The following amounts of funds were spent on field activities:

2001 32,0 million SEK

2002 35,2 million SEK

2003 36,3 million SEK

In 2003, the Vi programme approached a total of 158,900 households in the five projects, out of which 130,900 were sensitised and 100,400 actively implemented some agroforestry measures – a 63 % adoption rate. One reason behind the fairly high figure is the group extension model. Among the 12-15 farmers in a group, often one or a few are more early adopters of new technologies and entrepreneur types. If the agroforestry concept is accepted by someone in the group, the others are normally “automatically” involved to a greater or smaller extent.

The Vi investment of USD 4,5 million was equal to 45 \$ per active household in 2003. Per approached household (but not all yet active) the investment mean 28 \$ per household. The 2003 activities resulted in:

- 4,964 active groups
- 29,835 home nurseries established
- 6,293 kilometres of germinated hedges (short term species)
- 700,095 spots germinated (long term species)
- 849,608 seedlings planted out
- 185,199 fruit trees planted out
- 13,697 kg seeds collected are bought by Vi
- 20,570 kg seed distributed (short term species)
- 11,541 kg seed distributed (long term species)

It is important to regularly give the donors – both individuals and institutions – feed back and reports about the practical successes in the field.

In total, some 20 million new trees were established in the five Vi projects during 2003. One US\$ resulted in four trees planted on the ground. “*Scale-up and reach-out*” is possible, but it is doesn’t come without cost! There are today around 3 million small-scale farm households involved, just in the Lake Victoria basin.

As long as the Scandinavian public will continue to contribute the way they do, there is no reason to believe that Sida and NORAD will discontinue their support. In comparison with other development programmes, 20 years is a long time. Financially, the Vi AF-programme can no doubt be labelled as being sustainable.

How sustainable is the programme in the field, on the other hand, i.e. among the recipients? Of course, many trees and shrubs already in the ground will just go on growing whatever happens to the Vi programme itself. However, the sustainability of all knowledge transfer programmes depend on the competence left behind the day the field projects close down and leave. In both Kitale and Masaka planning is going on for withdrawal from those zones where activities have been going on for many years.

The Vi agroforestry project in Mwanza has worked out a withdrawal strategy for a AoC which is based on the degree of agroforestry development in the area. The strategy aims at determining when the project has achieved a good distribution and adoption of agroforestry practices in an AoC and will also set a goal for the extensionists. The strategy sets criteria for key areas in agroforestry expected from year 1 to year 5. Tentatively, the criteria, related to percentage farm household adoption, are:

- have stacks of firewood, originating from the own farm
- using improved stoves for cooking

- tied ridges or micro catchments
- have established a minimum of 50 m hedgerows of *Sesbania* or other recommended species
- have planted a minimum of ten fruit trees of at least two different species
- practicing vegetable production for own consumption and for sale
- intercropped more than ten trees with recommended spacing in cropland
- practicing at least two of the following technologies: farm yard manure, green manure, composting, natural pesticides, crop rotation
- have more than 25 seedlings ready for transplanting on-farm
- have more than 20 spots for direct sowing
- have “good” on-farm nursery protection and 100 % seedling protection
- practicing tree management according to ten criteria
- collecting quality tree seeds for own use or for sale
- planting more than ten seedlings or direct sowing at homestead
- being member of a agroforestry group activity
- have a core activity plan for the hamlet
- feeding their livestock on tree fodder from own farm.

The concept of withdrawal is also looking upon the Areas of Concentration as potential Business units and the present extensionists (or someone else) as a manager for the enterprise. Products and markets are supposed to be developed. The newly started cooperation with the Swedish Cooperative Centre (SCC) called LIFE will concentrate on marketing, leadership, management and organisation knowledge.

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APPENDIX 1

■ Wilfred Asiimwe, 36 years and a father of three

Wilfred is a "selfmade" man, short and energetic, loved by everyone.

He is the leader of the "Training and Community Empowerment" TRACE in Masaka, Uganda.

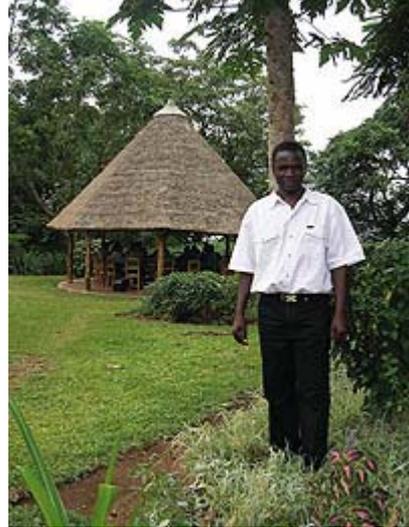
Wilfred started with Vi as a nursery manager in 1991. When the nurseries were dropped he started as an "extensionist" in the Rakai-district. The hills had been cleared from trees and the farmers looked for new land, replanting was and is important on these "bare hills".

Later, he became zone manager before he was promoted to assistant at the HQ and since 1999 manager for TRACE.

All employees in Vi get a basic education, first as trainee in an AoC under an experienced extensionist. Thereafter they get a more theoretical training of the Vi-methods at one of the demo-farms in the project. Successively they are then given the responsibility for an AoC of their own, under close mentorship of the Zone manager.

Further training is important. The personnel is trained at Participatory Rural Appraisal (PRA) and every Zone conduct regularly workshops about the local work with all the extensionists and the staff in HQ.

I really believe in PRA says Wilfred. It assists the farmers to find out their opportunities and problems and in what way Vi can assist. The impact is immense, and the cooperation with local authorities and other development organizations is very promising and moves all the time forward. I feel I am working for a good thing.



From Vi Magazine nr 17, 2003

Text and photo: Göran Gynne

■ Women in Vi AgroForestry

Women are “carrying” Africa and they are the true backbone also of the Vi AgroForestry Program. Christina Garbergs-Gunn, the 2003 Sten Lundgren* Scholarship laureate met with many proud ladies during her recent journey to Vi in Kenya and Uganda. Four of them are presented here;



I remember Deborah, advisor in Masaka, at Vi AgroForestry headquarters in Uganda, who guided us so nicely in the demonstration garden. Here the small-scale farmers from Masaka and Rakai districts can see how paw-paw, coffee and other trees, shrubs and plants grow. Seeing is believing, and here it is very obvious that the ”greens” conserve the soil, how the trees give shadow, fuel and food. Here they can also study an exemplary cow-house and get ideas for simple but effective irrigation systems and how to use a compost.

I also remember Margaret, agronomist, a recent mother and Zone manager in West Pokot since two years. West Pokot is the birth place for Vi in Kenya. She meets us at a simple gravel road and brings us to a newly built school, where sisal has been planted to counter act erosion. In this desert like place in North east Kenya there are 3 200 households with 5-10 people each. That means many stomachs to fill in a dry landscape where the rain, when it is coming at last, often washes away the soil by erosion. Margaret is responsible for 15 extensionists in her Zone and each of them works with 350 families. Thanks to Vi AgroForestry, many of these small-scale farmers today live a better life. The women are not any longer walking kilometres for fuel wood; fruits and vegetables are sold and the children are in school. Widows can care for themselves and are not any longer set aside.

Specifically I remember the widows from Kwanza, a small village outside Kitale, where Vi has its Kenya headquarters. They have formed a group of their own inside a new Women cooperative established two years ago. From start they were 20, now they are 30 and they aim is to bring 50 widows together. We are met by song and dance and we sit down at the lawn. Annah is the group chair, 32 years old and mother of seven children. She is loudly laughing to my question why it is only women members in the cooperative. After a lively chat – and laughter – in Swahili with her colleagues she explains to me that the strength in a group of only women is, they have no internal secrets. Here you find no egoistic prestige; men can not share experiences, problems and successes in the same way as we can.

The fourth women I like to remember from my recent Vi AgroForestry journey is Esther, treasurer at Olof Palme Agroforestry Centre in Kitale. She is the one to see to the Vi- money we collect in Sweden is accounted for and correctly used. She is proud about her assignment And she is beautifully shining in Maasai-red cloths. Like the small ornamental shells all over her robe, the Vi-message is spreading like circles in water. You can widen the circles by supporting the Vi AgroForestry program, welcome!

* Sten Lundgren is regarded ”the founding father” of the Vi Program.

From Vi Magazine nr 19, 2004

Text and photo: Christina Garbergs-Gunn, Translation from Swedish: Åke Barklund

■ The Milk man

Mr. Ben Koyo in his nice cow-house.

- Amosi, amosi - amosi.

It takes time to meet and greet with all the 63 inhabitants in Kakukos. They are all dressed in colourful dresses and shirts, all but Ben Koyo. He is “dressed up” in a grey-green overalls and rubber boots.

Kakuko seethes of creative life; the pleasure of work is obvious. Sorely tried people are working hard to get out of poverty; they construct composts and seed beds and they plant trees. The population has organized interest groups or working teams and each month they change between the groups, rotate to learn all working moments. So far Ben Koyo is the only one who has managed to buy a cow, she is black and she has a calf already.

- In one way or the other I have always been interested in milk and milk production, he says when we later on approach his neat cow-house. Here in Kenya it is a construction made out of wooden poles, has longitudinal troughs for water and fodder under a shade giving roof. It is perfectly constructed according to the principles taught by Vi Agro Forestry, at one of its demo-sites.

Ben Koyo shows his notebook where he daily records the milk production. His statistics shows a steady increase. The reason is very simple:

- The cattle get nutritious fodder, a mix of *Calliandra* and *Leucaena* from my shamba. But I must hurry up and fence the trees before other animals are eating them up.

Plants are also used for insect- and parasite protection, the cattle is sprayed with water where medicinal leaves are soaked. This keeps most problems away the Vi-project has told him.

- The cow is pregnant one more time, but already now we have a surplus of milk that we sell and get some cash. Ben Koyo closes his red covered notebook with milk statistics, a book that impress his village fellows, the Vi-extensionist and me.



From Vi Magazine nr 20, 2004

Text and photo: Margaretha Nordgren, Translation from Swedish: Åke Barklund