

.May/June ReSCOPE on E

An electronic newsletter of the Regional Schools and Colleges Permaculture (ReSCOPE) Programme. For comments, contributions and requests for inclusion on the mailing list contact Mugove Walter Nyika at zipscope@yahoo.co.uk or rescope@sdp.org.mw

Lessons from Kenya

In this issue we focus on our visit to Kenya last month. The visit was hosted by Resources Oriented Development Initiatives (RODI), one of our partner organizations in Kenya. In addition to our bi-annual Management Committee meeting that we held at International Centre for Insect Physiology and Ecology (ICIPE) in Nairobi, we managed to visit three schools and a prison. The trip took place from the 14th to the 16th of May 2008 and was organised by RODI Kenya in association with the Regional Schools and Colleges Permaculture (ReSCOPE) Programme as part of the Rescope Programme's efforts to promote the sharing of experiences between partners implementing sustainable and productive environmental management projects in schools. We hope you will find the story inspiring.

Resources Oriented Development Initiative (RODI)

RODI is a Kenyan non profit organization that is working with prisons and schools facilitating skills transfers in Natural Resources Management (NRM) and food processing to prisoners and young people. The organization is using an approach that energises communities by demonstrating that they have a rich resource base with which to start their development initiatives. RODI is piloting the Sustainable Organic Agriculture Programme (SOAP) in 25 schools and in each school the project is led by a group of students that belong to the SOAP clubs. The SOAP clubs lead their schools in the integration of sustainable environmental management issues into the school activities.



The Director of RODI, Mr. Eliud Ngunjiri, (centre) explains how RODI works.

Gladways Academy private school, Ruiru

Gladways Academy primary school is a small urban private school that is working to integrate the SOAP approach into its activities. The school now has a litter management project as well as a nutrition garden. Fruit trees, live fencing and ornamental plants are being incorporated into the school land-use plan. The SOAP has helped the school to win a trophy and to instil a sense of pride



The ReSCOPE visitors discuss their observations with the staff of Gladways Academy

Githunguri primary school, Ruiru

Githunguri is a large public primary school in one of the townships of Ruiru, a small town on the northern outskirts of Nairobi. It has also embraced the SOAP approach and has set up a greenhouse which currently has a tomato crop. An orchard garden has been established and the school is planning to establish a live fence and to increase the productivity of the gardens. The school has come up with a creative and ingenious way to encourage children to wash their hands that makes use of locally available materials.



Mr. Charles Mazinga observes children tending to a bean crop

Kambui School for the deaf

The visit to this school was probably the climax of this trip as the school has transformed its landscape into a terraced orchard garden with many different fruits and vegetables. The well treed orchard garden has a cooling effect on the micro climate at the school which also has a livestock production unit with chickens and dairy cows on zero grazing. The visitors were treated to a dance by the differently abled children who are able to sense the vibrations from a drummer and to dance to the rhythm of the drumming. The school also presented the visitors with locally made craft and supplied locally grown food and home-made yoghurt for the nutrition break (morning tea) for the visitors.



Learners at Kambui school for the deaf enjoying a break.

Visit to Thika prison

This prison is one of many where RODI is training both prisoners and prison officers in sustainable agriculture and food processing. The prison officers in charge farm management for both the main and female prisons showed us around their large and very productive gardens. Some of the prisoners were at work as we toured the lush gardens which also had a green house, a zero tillage milk cow unit, milk goats and a biogas digester under construction near the milk cow unit.



The ReSCOPE visitors listen to the Farm Manager at Thika Prison in one of the gardens at the prison

Meeting of the Management Committee of the ReSCOPE Programme

The Management Committee of the ReSCOPE held its six-monthly meeting during the 3 day trip to Kenya. The meeting was held at the International Centre for Insect Physiology and Ecology (ICIPE) at Kasarani, Nairobi. The meeting considered and adopted the audited financial statements and narrative reports for the ReSCOPE Programme for the year ended 29 February 2008. The meeting also looked at the plans of action for the six months ending 31 August 2008 and elected Mr. Eliud Ngunjiri as Board vice chair in place of Mr. Shepherd Urenje who resigned due to relocation in England. Uganda was selected as the venue for the next meeting to be held in October 2008.

The Management Committee also resolved that decisions on applications for partnership with the ReSCOPE Programme should from now on be done by the lead organizations at the country level. The Committee also urged each country partnership platform to name themselves 'SCOPE' so that they fit into the regional SCOPE (ReSCOPE) network.

The following people were in attendance:

NAME	COUNTRY	POSITION	ORGANIZATION
Gertrude Zulu Shinkanga	Zambia	Chair – ReSCOPE; Director – CYC	Community Youth Concern
Eliud Ngunjiri	Kenya	Vice Chair – ReSCOPE Director – RODI	Resources Oriented Development Initiatives (RODI)
Charles Mazinga	Malawi	Treasurer – ReSCOPE Deputy Director - OPC/MOEST	Office of the President and Cabinet in charge of School Health and Nutrition and HIV & AIDS in the Ministry of Education, Science and Technology
Daniel Sithole	Zimbabwe	Member – ReSCOPE Board and Management Committee; Co-Chair – SCOPE Zimbabwe Management Committee. Director – Natural Farming Network	The Schools and Colleges Permaculture (SCOPE) Programme of Zimbabwe, Natural Farming Network
George Kayega	Uganda	Proxy member – ReSCOPE Board (standing in for	Kulika Uganda

		Judith Nakayiza) Training Officer for Kulika Uganda	
Mugove Walter Nyika	Malawi/Zimbabw e	Regional Coordinator	ReSCOPE Programme
Chiyanjano Ruth M'manga	Malawi	Administrative Assistant	ReSCOPE Programme



The ReSCOPE team takes a break at the SACDEP centre in Thika with some of the staff members of the Sustainable Agriculture and Community Development Programme (SACDEP) and PELUM Kenya.

Achievements of the RODI Schools Organic Agriculture Programme (SOAP)

The schools and prisons have been motivated to make a difference to their own situations and to their local environments. The energy that was observed running through the administrators, prison officers, prisoners, teachers and learners was quite evident. It showed that the school and prison stakeholders had been adequately sensitised on the issues that they were dealing with. In this respect the Schools Organic Agriculture Programme (SOAP) clubs are very useful for keeping the fire burning.

Food production – In all cases the focus of the land-use programmes was the production of a variety of foods. The beneficiaries seemed to appreciate this aspect of their work and would like to increase the quantity, quality and range of the foods that they can produce.

Animal integration – The zero grazing of dairy cows that we saw at Kambui School and at Thika prison as well as the integration of chickens and milk goats were all very impressive.

Green houses - The green houses were being put to good use and increased the production potential of the schools and the prisons

Food processing – The visitors enjoyed the locally produced yoghurt at Kambui school. The food processing skills are very much appreciated by the participants trained by RODI.

Mulching of cropped areas - The cultivated areas were well mulched to conserve water and to improve the soil.

Waste management – The grounds that we toured had well positioned waste receptacles

Personal hygiene – Githunguri primary school used old plastic containers and ball point pen cases to make hand washing facilities for the children that cost nothing and make use of what would normally be disposed as waste.

Biogas plant for Thika prison – Plans are under way to build a biogas digester at the dairy unit at Thika prison which will supply the prison kitchen with gas for cooking.

Organic production – The production of all these things without recourse to high cost external inputs is an important achievement which also contributes towards better health for all involved.

Suggestions

Water harvesting – The most common challenge given by all the implementing partners visited is shortage of water. This need, like all problems in PC, should be addressed from many angles. Firstly there should be diversion channels, swales, and pits to capture surface run-off water. Secondly, roof run water should be collected in ponds and in ground and or surface tanks for use during times of deficit. In addition care should be taken to conserve soil moisture by ensuring continuous thick ground cover both in time and in space. Water saving irrigation methods like the drip and the bottle should be utilised.

Waste management – Litter should be sorted according to type at the point of collection. To this end each collection point must have at least three litter receptacles clearly labelled as *Compost, Metals and Bones and Plastic. Paper* can be an additional category if it is abundant and there are enough containers. All the categories of litter above can be used in the garden through the *trench bed* technique. In addition paper can be sold to recycling companies or converted into briquettes for heating and cooking.

Intercropping of legumes and repellents – There is need to introduce a variety of leguminous trees into all planted areas including orchards. The species that are available include *Leucaena, Moringa, Sesbania, Acacia, Pigeon pea* and *tephrosia*. In addition leguminous crops like beans, cowpeas and sun hemp should be included in intercropping systems.

Intercropping systems should also include herbs that have pest repelling properties such as garden rue and lemon grass. In addition vegetables like onions, garlic and leeks are excellent repellents and should always be intercropped with the leafy vegetables. However, note that beans and onions should not be intercropped together as they are not good companions.

Living fences – A common challenge given by the institutions we visited is one of livestock control. Live fences are recommended for this but they must be carefully designed for them to be effective. An example of an effective fence is one with parallel rows of vetiver, jatropha and sisal with the jatropha being in the middle row and sisal on the outer row.

Design, Marking, Mulching of access routes – Access routes must be laid out generally across the slope and their edges must be demarcated with small hedge plants such as rosemary, lavender, lemon grass, vetiver and scented geranium. The walking surfaces can be mulched with locally available materials.

Shade – This simple need is often forgotten particularly in areas where school children gather for the school assembly or sit to watch sporting activities.

Integration of fish ponds – Where animals have been introduced, some of the waste from the animal pens can be directed to flow into fish ponds to increase the productivity of the ponds.

Diversification of livestock feeds – A variety of stock feeds should be used especially where zero grazing is practised. The following can be used to diversify the stock feeds: leucaena, napier, Lucerne, moringa, comfrey etc.

Community involvement – The local community should be involved in the implementation of these projects as they can contribute seeds, seedlings and labour as well being an essential element for the sustainability and mainstreaming of the interventions.

Conclusions

RODI Kenya's SOAP Programme has started very well and the sky is the limit for it as the stakeholder consultation, sensitization and participation have clearly been done very well as shown by the energy, motivation and excitement displayed by the participants that we interacted with during the visits. We also saw the initial products of the land-use systems and the schools and prisons can now only grow from strength to strength. Exchange visits between these institutions and others beginning to embark on a similar process will further motivate everyone involved.

Following the visit to Kenya, there is need to share the learning points with the relevant stakeholders. Some of the key learning points from this visit are:

- It is important and beneficial to integrate animals such as milk goats and cows into the school gardens
- Animals can be raised on zero grazing
- Green houses can be used to increase productivity and income generation
- The production systems at the schools should be diversified

- Clubs are useful for providing leadership for environmental programmes within the school system and as a way to reach out to the whole body of the learners
- Value addition is possible and beneficial
- The children should be taught skills for processing foods such as milk into yoghurt
- The Permaculture approach should be piloted in a variety of schools such as private schools and schools for learners with special needs