

Report on the working visit to Iramba District during winter 2007

Heli Jutila

23/04/2007



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Front page. Up left: Cattle taken home in the evening in the old Kiomboi 25.2.2007. Up right: Church in Kiomboi 24.4.2007. Down: Palm savannah 22.2.2007.

This page: Up left: Broken tire fixed nearby Singida 22.2.2007. Broken ridge on the way from Kiomboi to Kisiriri 27.2.2007. Down: Cassia spectabilis is a common decorative tree in Tanzania 20.7.2007.

1. DAY: Monday 19th of February 2007

I departed from Hauho, Akkijärvi 2.45 a.m. with my husband. We took Maritta Virtanen from her home and drove to the Helsinki-Vantaa airport. We arrived at 4.35 am. and met the group from Hartola, who had been waiting for a while. Flight left from Helsinki at 6.10 am. to Amsterdam and further (10.30 a.m.) to Kilimanjaro, Tanzania (arrival 20.50). Customs regulations related to liquids and medicine had to be taken into consideration. During the long flight I read about the nature of Tansania. We arrived in Arusha, Impala Hotel at about 11 pm.

2. DAY: Tuesday 20th of February 2007

After the morning swim and breakfast we met our consultant, Canute Temu and went to see Barbro Finskas at JM Tours Office. Maritta Virtanen and Marja-Liisa Swantz knew Barbro well and there was a lively discussion. We were served cool drinks and we bought some maps. Araucaria (*Araucaria excelsa*), African tulip tree (*Spathodea campanulata*), jacaranda (*Jacaranda mimosifolia*) and bananas (*Musa x paradisiaca*) were seen growing by the office.

Then we visited the ELCT Head Quarters (Evangelical Lutheran Church in Tanzania) in Arusha, where Director Seels told us about the development work, which is currently mainly project work training. They have 56 extension workers. Prof. Swantz inquired about the projects, which were related to our work in the North-South Co-operation programme. ELCT arranges training on using oil presses and sells the machines to the villages. It knows about at least eight oil presses in Iramba (Roman catholic church has also bought oil presses to Iramba; not sure if they are included or in addition to 8). In Tulia and Gumanga the training included capacity building, on how to make the investment profitable, e.g. simple book keeping and accounting. ELCT sold two machines to these villages. We requested about the oil press filters, because some of the filters have been bought from India and they have appeared to be poor quality. The Director told that Timidu makes filters in Tanzania and if our co-operation partners have problems with the filters they can contact ECLT. New parts to oil presses can be bought in Singida at Capu's carpentry. One oil machine can produce about 20 000 million Shillings per year. It can process 5000 bags (10 kg each) of sun flower seeds in a year, if operated 8 hours per 6 days a week. The horsepower demand per machine is 8.25 kWh (V). Filter costs 2 million Shillings and the machine 4.2 million Shillings. The oil presses are mainly used for pressing oil from sunflower seeds, but it can also be used for ground nuts, pumpkins, chinchins and moringas. The produced oil is mainly sold in the local market. ELCT officers suggested that the community development officers could train the women in the villages to use the oil presses so that they would not need to employ a man to use the machine. In the NS co-operation is has come evident that employed men can take control and even cheat money form the women's groups.



Sun flower filter in Shelui.

Miss Patricia Makenda told us about the cattle project. In Tanzania some diseases like pneumonia in cattle and turia in goats have hampered the dairy production in large parts of the country. So called “zero grazing tolerance”, which means that the cattle is not left to wander alone around, but if kept outdoors is clearly restricted to particular areas, has been accepted in Arusha and Kilimanjaro areas, where the illnesses have been largely avoided and the dairy production has proved very successful. Furthermore, the higher intensity of agriculture in general in these areas has lead to limiting the cattle to particular areas. In the cattle project ELCT extension services arranged awareness raising and needs assessment seminar in Msinghi. In Dodoma, the dairy secretary secondary general Maungas is responsible for the Iramba area (0787346776, Box 1681 Dodoma, Cava, Magessa Magaranda).

ELCT arranges also seminars to increase awareness in solar energy, improved stoves and biogas production from manure. The director told that they teach people to build solar lamps, in which the solar panel is linked to a lamp unit including also a battery. The panel can be located on a sunny place like roof and the battery + lamp unit is connected to it. I demonstrated the pocket solar panel for loading mobile phones, which I had with me. I later got from Mr. Canute Temu a brochure of Uni-Solar's panels. He has also attended a workshop on solar energy and uses a panel at home. We asked from ELCT would it be possible for them to organise a seminar about solar energy and improved stoves in Msinghi FCT. They responded positively to the suggestion, which is also included in our work program for year 2007.

One activity of ELCT are the tee rooms. In the end, I gave the Nature Guide of Hauho to the Director, they gave us some materials and we thanked for the visit.

We had a quick stop for a coffee at the home of Mua Kenza, one of the workers at ELCT.

In the afternoon we visited MS-Training Centre for Development Cooperation, where we were explained the courses available and the target groups. We inquired about the seminars and workshops mainly related to our co-operation programme and the presented wishes to train the project co-ordinator Jane Mkoma still during year 2007. We were provided with the course catalogue 2007. Project Planning and Management, Monitoring and Evaluation and Good local governance were courses, which are particularly suitable for a project co-ordinator. The problem is that the training occurs too late in the three years co-operation period and the future of the co-operation is still completely open and particularly in the case of Hauho municipality problematic due to the planned merging to the City of Hämeenlinna in 2009.

There was no time to visit the respective centre in Moshi (about 50 km from Arusha). We bought mosquito nets and prepared us for the trip to Singida.

During the evening walk around the hotel Impala I identified the following species. In the hotel area mango tree (*Mangifera indica*), jacaranda (*Jacaranda mimosifolia*), white flowered Bignoniaceae plant, *Drakena draco*, king palm (*Roystonea regia*), hibiscus (*Hibiscus rosa-chinensis*), fringed hibiscus (*H. schitzophyllus*), *Croton* spp., *Ficus elastica* ssp. *indica*, *Monstera* spp., *Plumeria rubra*, *Olea mziwtuni*, *Acacia magnium*, *Combretum* and bamboo (*Dendrocalamus* spp.). Along the nearby road side common were yellow-flowered *Cassia spectabilis* i.e. *Senna spectabilis*, bougainvillea (*Bougainvillea spectabilis*), pagoda tree (*Plumeria alba*), bottle brush (*Callistemon* spp.), bird of paradise (*Strelitzia reginae*), white angel's trumpet (*Datura candida*). Of the birds were spotted pied crow (*Corvus albus*), yellow-fronted canary (*Serinus mozambicus*), little swift (*Apus affinis*) and common bulbul (*Pycnonotus barbatus*). Bananas (*Musa x paradisiaca* and *M. sapientum*) are broadly cultivated in the area. Other arable plants include coffee (*Coffea arabica*), sugar cane (*Saccharum officinarum*) and date palm (*Phoenix dactylifera*).

3. DAY – 4. DAY: Wednesday 21st –Thursday 22nd of February 2007

Due to the recent excessive rains the road A104 from Arusha through Makuyuni to Singida was closed in the south-eastern side of Lake Manyara and we had to drive through Karatu and the mountains. On the roadside after Arusha I saw sisal agave (*Agave sisalana*), coffee plantations, maize fields (*Zea mays*), savannah, small hills, goats, dromedaries, cattle egrets, crows and sacred ibis. We passed a road to Mondulime village, where the current Prime Minister comes from. Masais sheparding their cattle, Abdim's and marabou storks, harriers, asphalt factory, phosphate fertilizer plant, sunflowers, baobab trees, donkeys, *Euphorbia ignis* and *Eucalyptus* were seen before Moscitoe River, where baboons crossed the road. After that the road ascended to the mountains of the African Great Rift Valley (600 m rise). Umbrella acacia (*Acacia tortilis*), ricinus (*Ricinus communis*), rice fields, starlings, magpies and whydah were spotted on the way.

The small road winded through rural mountainous areas to the small town of Mbulu, where we had lunch and also visited the Roman Catholic Church and the bishop. From Dongobesh to Daeda the road was still small, but after that we were back on the bigger road. Balangida, Balangda Ledu and Mangida were lakes, which were seen on the way like the mountain Hannah. Red bishops (*Euplectes orix*) and lilac-breasted rollers (*Coracias caudatus*) were identified. The landscape on the roadsides was mostly cultivated, particularly maize was common. Among the plants seen were redthorn (*Acacia lahai*), sycamore fig (*Ficus sycomorus*), *Euphorbia candelabrum* and *Cotolaria agatiflora*.



After Dongabesh. 21.2.2007

We arrived to Singida after the sun set and lodged us to a motel. Almost in the field of the motel a tire broke and it had to be changed. Some of us had a dinner in town.

On Thursday morning we sang to Dr. Marja-Liisa Swantz, who had her birthday. In the yard of our accommodation were growing oleander (*Nerium oleander*), *Thevetia peruviana*, *Abutilion*, *Euphorbia pulcherrima*, spiderlily (*Hymenocallis* sp.), flame tree (*Delonix regia*) and *Grevillea robusta*. I spotted sparrows, African buzzard, collared dove, crow and marabou stork.

The Regional Commissioner Kone, who had been 12 months in office, met us. He told that Singida region has 83 employers. The region is a guiding authority and the districts have a large independence. The region provides advice, support and help for local governments and it also confirms the budget of the District. 100 000 € i.e. 18 milj. Shillings per year is provided for Iramba District. The current District Commissioner in Iramba is a woman. The head of the regional police command is also a woman, Celina Kalula, whom we met. The regional auditor Kiarusi told us about the audits (internal and external audit) made in Iramba District in August-September 2006. Abnormalities had been detected. Iramba District has got now a new internal auditor. The region has an obligation to intervene. The report by an external auditor Matinum Dalo written in English has been sent to Iramba.

The region has just currently confirmed a forest reserve program, in which 30 000 ha of forest will be preserved. I asked about national and regional strategies in environmental issues, but did not get any clear answer. I changed addresses with the Natural Resources Advisor Richard Masad (r.mtaita@yahoo.com; 0754-801605) and gave the Sustainability Report of Hämeenlinna and the Nature Guide of Hauho to him.

Maija-Liisa, Anna-Kaisa and I made a short visit to the market place of Singida and then we started our journey to Kiomboi. We had not time to visit SEMA office (environmental management). Nearby Iguguno the tire broke and it had to be changed. I spotted meanwhile *Helichrysum* and *Calotropis procera*.

Shortly before Kiomboi the scenery changed completely from a thicket landscape to savanna like grassland with palms and strangler figs. Our accommodation was in old Kiomboi in a Bible School. Some officers and a councillor came to welcome us there. In the evening we had time for a short walk before the sunset. Pawpaw, spiderlily, yellow-flowered tulip tree (*Spathodea campanulata*) and jacaranda (*Jacaranda mimosifolia*) were identified. Somehow the scenery seemed to bear some resemblances with the landscape in Finland or in Estonia. In the evening the place was full of music: birds, people and cicadas singing. I detected redbreasts and bluevings.



Borassus aegyptianum in Kiomboi. 24.2.2007.

In Iramba District there are five Planning Officers altogether. The Head of the Department is located in Dungulu. Mr Munila is the Second Planning Officer. He told that his tasks are co-ordination of

development, construction of schools, toilets and village of ward offices. He told about the World Bank funded Water project, which started in villages last year and now continues in Kiomboi. Two engineers and two technicians are involved in building 700 million Shilling water system. The District made the application and was given the funding.

There are also Community Development Officers in Iramba District. When we asked about the bicycles bought in the North-South programme we were told that the Health Officer and the Community Development Officer are responsible for the bikes, which have been directed to Msingi, Kinangiri, Lemu and Kengege.

We met Jane Mkoma, Mr Mkumbi and Mr Muna. They told us about the rapid funding envelope, for which a funding meeting had just been held. 32 groups had asked for funding and 17 groups will receive it. In the application a plan was demanded. Now the applications approved have to provide a more detailed financial plan. About 3-5 million Shillings are provided per group. The issues deal with the AIDS, orphans and AIDS widows. We were told that the wards are able to provide the District with lists of orphans. In general, the amount of population has been well known for a long in Tanzania due to the village system.



Magnifera indica. 24.4.2007.

5. DAY: Friday 23rd of February 2007

We had meetings with the respective partners in the Iramba District Office. We were welcomed by District Secretary, Abraham Mrase, because the District Councillor Krise Hmesakaithe was not in town, but on a safari to Dar-es-Salam. She has been in office for six months now. We will meet her on Monday.

Also Acting District Executive Director Peter Magiro (officially Head of Development Office) and Peter Muna, Council President welcomed us. We met also Jane Mkoma, David Marid, Water Officer, Aroh Shouul, Agricultural Officer and Mathias Sokumbu District Officer. Also Mr Mkumbi and Mr Lubeleje were in the reception meeting.

When discussing about the auditing report, we were told that the report had been sent on 3.12.2006 and the corrections had been made in 3 three weeks as suggested. The district treasurer, Mr Mjugu had answered to the reports.

I met the officers dealing with environmental issues. Nobody had environmental issues as a sole responsibility, but several authors were involved with the issues:

The head of District Planning Office Jophrine Mguni (tel. 0753575173),
Natural Resources or Forestry Officer Charles Palangyo (0784 521514),
Health Officer Mr Shilla (0787 739323),
Trainee Idriss Shekibo (0713-413388, 0784-940140; idrisson@hotmail.com),
District Land Development Officer Mathias Mkumbo.

Mr Palangyo told that he supervises forest activities and makes sure that the management is according to the standards. He works with villagers and eight co-foresters in the divisions and ward level. The District Forest Reserve Programme includes 30 369 ha of forests preserved for multipurpose use and wood production. The villages have also they own reserves, where they harvest trees every 5-6 years. Palangyo has been responsible for tree planting campaigns, in which tree species like *Seena semea*, *S. spectabilis*, *Leucaena leucocephala*, *Acacia senegalia*, *A. polycantha*, *A. seiel* and *A. terminalis*, *Ficus*, neem tree (*Azadirachta indica*), *Paxonia*, *Sesbania ssp.* and *Grevillea robusta* have been planted. I requested if these species are natural or exotica and Palangyo admitted that most of them are exotics. I pointed out that this may not be very sustainable in a long run. I mentioned that for example *Eucalyptus* is known to dry the land and induce erosion. Palangyo said that the planting of *Eucalyptus* has already been stopped due to the problems caused.

Palangyo told that the forestry products are mainly used on a local level and the aim is to try for self-sufficiency. The commercial use is hampered by the bad transportation and collecting conditions. There is a royalty or tax for selling wood, charcoal, timber and pole. He also mentioned that the scuma tribe is causing erosion problems, when wandering around with their cattle in the District. In the end Mr Palangyo kindly gave me the Technical handbook: edible Wild Plants of Tanzania. I thanked for that and provided him with the brochures of the Hämeenlinna Regional Environmental Authority and the JÄRKI project and Hauho Nature Guide and the Hämeenlinna Sustainability Report.



Driver Karim, forester Palangyo and Mrs. Mamia on the Tulya mountains. 27.2.2007.

Mr Mkumbo told that there are three sections in his department: 1) land administration, 2) urban and rural planning and 3) land survey. The tasks of the land administration are to ensure land management and development (implemented by the people), to collect land tax for the government, to collect property tax for the District Council and to issues the certificates of occupancy. The urban and rural planning section is responsible for the master plans for Kiomboi and three other smaller settlements, for the detailed plans and the village land use plans, in which areas are shown e.g. for residential areas, grazing, farming, forestry, recreation, water sources and dam construction. The also control slum development in towns and provide building permits. The land survey section makes a cadastre survey. The mission of the department is to provide planned environment for everybody.

Mr Shilla told that the emphasis of his work is in environmental sanitation. The refuse is collected in every three days and there are four workers. The recycling involves separating plastic. He inspects street and guest houses, conducts research on special diseases, on the safety of water and provides health education to school children. He is also responsible for co-ordinating the school health programme. He is located in the Health Department, where there are six health officers.

The trainee Idriss Shekibo has just started his internship or practical training period in Kiomboi. He studies Environmental Health in Dar-es-Salam University.

At some point, we also participated for a while to the Council Meeting lead by Mr Muna. Mrs Swantz gave there a speech in behalf of our delegation. There are 32 councillors, of which two are also members of the Parliament. Eleven of the Councillors are women. Of these nine are voted and two are appointed. There are 26 wards in Iramba District.

In the afternoon I had a walk around in Kiomboi with Mr. Shilla and Idriss Shekibo to study the waste management of the town. Of the 20 dust bins, which have been bought in the NS programme, 12 have been put to six primary schools, two in each, four are located in to the town centre and four are in the premises of the health sector. I saw several of the bins on our walk. Shilla explained how waste is collected from the market place. We had a look at the typical WC in town. There is no sewage system in Kiomboi and not even planned.

We looked the site of the waste transfer station bay (in the plan for year 2006), which had not yet been constructed, but the tendering had occurred and the constructor had been selected. We walked to the waste disposal site of the Kiomboi. The site is not a proper landfill. All the waste is spread around the beautiful forest and no borders are set. A dog was seen digging in the waste. There is certainly a lot to be improved in the system!



Dust bins and Shilla in the centre of Kiomboi town. Dumbing site just 300 m from the centre in Kiomboi. 23.7.2007.

6. DAY: Saturday 24th of February 2007

I had a meeting with the Officers dealing with environmental issues, so called environmental group.

Participants: Forestry Officer Charles Palangyo, Health Officer Mr Shilla, trainee Idriss Shekibo, Urban and Rural Planning Officer Othiniel Mfyomi (0787 7987727).

1. Implementation of the NS co-operation

Plan for year 2005

Participants could not give any more detailed information about the topic than was reported previously.

Plan for year 2006

- 20 dust bins have been bought. 12 dust bins have been put to six primary schools, two in each, four are located in to the town centre and 4 are in the premises of the health sector.
- Waste transfer station bay has not been constructed, but the tendering has occurred and the constructor has been selected according to Health Officer Shilla, who promised to find out the contractors name. But when I requested him getting it immediately from his office his did not take it to me, neither gave any explanation.
- Environmental seminar was arranged for 42 participants in Kiomboi ward on 6.1.2006. District Health Officer Emmanuel Makunja was responsible for the arrangements.
- A workshop on environmental sanitation was carried out in 2 villages and the Old and New Kiomboi on 3-4.1.2006. District Health Officer Emmanuel Makunja was responsible for the arrangements.
- Participants had not been involved in the implementation. Mr Othiniel Mfyomi mentioned having written the plan, but was not involved in the implementation.
- 12 sim tanks, which I criticized based on that they were in a wrong project and put to it after common plans, have been located to schools. They are tanks of drinking water. I mentioned that they had not been able to use the money even though the needs in environmental sector are undeniable.

2. Drafting sustainable development policy

Dr. Jutila had prepared three questions first to be answered individually on paper by each member of the group. The questions were:

1. What are the worst environmental problems in a) Iramba District, b) Kiomboi town and c) Tanzania?
2. What should be done to improve these issues?
3. What would be the most important factors influencing the state of environment in Iramba District?

Before discussing about the answers given Jutila introduced to the concept of sustainable development, which means that the current generations should arrange their living in such a way that they do not danger the life quality of the future generations. Sustainable development has three important aspects, ecological, social and economic sustainability. Jutila stressed the importance of local governments' role in implementing sustainable development. Agenda 21 process, which started after Rio conference, has influence many local governments and also the Hauho and Hämeenlinna. Some European towns, like Hämeenlinna have signed Aalborg commitments. ICLEI is an organization for environmental sustainability globally. Hämeenlinna is a member of it. Jutila delivered on Friday for Palangyo the Sustainability Report of Hämeenlinna, abbreviated Nature Guide of Hauho, Hämeenlinna's nature guide and two brochures concerning the Hämeenlinna Regional Environmental Authority and the JARKI, lake rehabilitation project.

Mwuanza-Tampere and Rustenburg-Lahti in South Africa are examples in North-South co-operation program pairs, in which the environmental issues are considered. Best practices can be found also in

internet. Jutila encouraged starting formulating a sustainable development policy for the Iramba District. The exercises which will be done during Jutila's visit will be only very preliminary steps in the process, which should involve decision makers, citizens, NGOs, enterprises and actually everybody.



The environmental group working hard on Saturday 24.7.2007. Photo Maritta Virtanen.

Jutila inquired about the strategies the Iramba District has, particularly covering environmental issues. It appeared that there was no sustainable development strategy. Iramba District makes a budget plan each year. The implementation is being reported quarterly. Health sector, forestry and planning have all sector strategies. Jutila asked them to be copied to the Finnish partner. There is clearly seen that the organising of environmental sector lags behind the other sectors and this should be a focus area in future in the co-operation.

The answers to the questions 1 and 2 were gone through with the participants. As the **most important environmental problems in Kiomboi** were mentioned poor waste management (in brackets is given the initial letter of the officer; M, P, I), poor sanitation (I), poor food hygiene (I), disease outbreak (e.g. cholera, Diarrhoea, worms: S), increase in the number of harmful animals (mosquitoes, rats; S), environmental pollution during burning of wastes (S) and unplanned environment (M). The most important environmental problems in the **Iramba District** included land degradation (P, M), soil erosion (P), irrigation degradation (M) and overgrazing (P). As the worst environmental issues on a **country level** were regarded deforestation (P, I, M), vegetation destruction (M), overgrazing (P), water pollution (I), poor waste management (I), poor food hygiene (I), outbreak of disease (S) and environmental pollution during burning of wastes (S).

The **solutions** to the problems were to identify the factors, which cause land degradation and then decide the measures of rehabilitation. For overgrazing was suggested improving the pastures and making the grazing more extensive. Waste management problems would need searching for proper dumping sites, improving the means of waste transportation and installing more dustbins around the town. Raising awareness of the importance of forests and tree planting is suggested to abate deforestation. Education was seen as an important way to influence the litter problem and more broadly to the waste management problem in general. Serious measures by the government to push the ones responsible were suggested, particularly concerning tree cutting. Also need for proper strategies and implementation of plans is needed. This means committing to and financing environmental health

projects in Kiomboi and Iramba District. Commitment on environmental health problem was seen as important. Environmental education, good planning of cities and law enforcement were seen as methods to improve environmental issues in Tanzania.



Overgazing by cattle. 22.2.2007.

In solving waste management problems should all the time be kept in mind to reduce the amount of waste and to create ways of recycling waste. Waste problems are clearly focused to towns, where people have more money and where the connection to the soil is partly lost. In general, a good issue which should be saved in future is the fact that it is still possible to prepare many things.

The last question about **the most important factors influencing environment**, which was not discussed together resulted in answers as following: lack of enough knowledge on sustainable development, lack of funds, inefficient planning, introduction of agro-forestry cultivation, preparation of village plans, good environment, health education, manpower, leaders, schools, facilities for recycling etc.

The Iramba District has not produced any brochures or posters on environmental issues. Mfyomi showed two posters produced in Iramba district, which were dealing the rights of occupying land and town planning.

The group went through **the draft plan for year 2007 and** decided on actions to take and some changes to be made. Palngyo, Shilla, Shekibo and Jutila are responsible for dissemination of knowledge through seminars, brochures and posters. Shilla and Palangyo promised to prepare a preliminary program for the planned two-day seminar for Tuesday. Shekibo makes one brochure and one poster draft for Wednesday.

Environmental conservation plans for 10 villages will be started with visits to three villages by Jutila and Iramba District respective partners on Monday afternoon (Shelui II) and Tuesday (Mingela and Kinandili).

To the planned third topic was included also solar energy. This issue will be implemented in MSingi, where it will be included to the teaching program of FTC and in co-ordination with the women's projects.

Improving waste management techniques was included to the plan, because from the previous year's plans the construction of transfer bay has not yet occurred. Resources will be directed also to food waste separation from other waste types and composting will be started in a school and for the market place wastes in a designed site. Education will also be provided (see also in 1).

As a new topic was selected for a feasibility study: how to improve waste water management in the District and Kiomboi.



Rice grown in old Kiomboi. 24.2.2007.

During the evening walk I identified some plants like *Azanza garckeana* and alligator weed (*Alternanthera philoxerodes*), the last one I remember growing also in Louisiana, USA. I realized that the ground water level was quite close to the soil surface in old Kiomboi, of which is a proof the abundance of *Borussus aegyptianum* palms. They are indicators of high surface water. I could clearly see that in a fenced area the grass was much higher than in the unfenced site. Thus, the grazing clearly has a strong influence to the scenery and the vegetation of the region. I spotted saddle-billed stork (*Ephippiorhynchus senegalensis*) and glossy ibis (*Plegadis falcinellus*).

7. DAY: Sunday 25th of February 2007

We travelled to Msingi village and participated to the worship service there. After the service Mrs Swantz interviewed the women's group and others had a look around. Then we were invited for a lunch to the Doctors house.

On the way to the village there were rocky mountains, which had a diverse bush species like *Cytisus*. In Msingi I saw white-bellied go-awaybird, a laughing dove, black-winged red bishop, magpie shrike, Eurasian roller and butterflies.



Congregation in Msingi. 25.2.2007.

8. DAY: Monday 26th of February 2007

In the morning we heard that the Community Development Department has three sections: 1) gender and children, 2) planning and 3) building. I interviewed Mr. Makunja about the implementation in year 2006. He mentioned that the tendering for the transfer bay occurred too late and this is why it has not been built yet. The contracts have been made with the Chasa Investment Ltd (Box 477 Singida) and he claimed that the building had started on this very day.

We had a meeting with the District Councillor, who told that they had had a lot of rain this year. Agriculture is very important in this semi-arid area, where people grow cassava, millets, maize and graze cattle. She emphasized that the government has to listen to the people. Among the problems are coordinating the lifestyle of skuma people with the villagers and witch doctors. The District has provided a demarcated area for the tribes in Munguli. Some of the 73 tribe families are now settling, but others are still circulating in the area and causing problems for the village people. DC told about the intensification of agriculture: ploughing with oxen has enabled bigger farms and planting in rows has helped to control the weed problem. There is a lot of progress in the District. The emphasis is on women's work.

To the Mr Swantz's question about the gutters in buildings the DC mentioned that there are now directions to build gutters in each building. We discussed about the land policy in the villages. One new order, the act on improved housing, implies that every family has to build a house with an iron roof. It also involves planning in every region and district. SACOs, savings and credit co-operatives, are opened. There is no deadline for the implementation of the act. One new prospect might be in the Jathropa plant, which provides biofuel. Jathropa is a genus of approximately 175 succulents, shrubs and trees, from the family Euphorbiaceae. One of the species of jatropha, *Jatropha curcas*, also called physic nut, is used to produce the non-edible jatropha oil, for making candles and soap, and as an ingredient in the production of biodiesel. The trees produce 1600 liters of oil per hectare. One ton of nuts yields 70 kg refined petroleum.

There is a general strategic plan in the District and departments have their own strategic objectives. There are five year and annual plans in the District level. The strategy on a national level is "Eradication of Poverty till 2025". We got to borrow the plans. Among the targets are for example that every family should have drinking water in 400 m distance. The forestry department had been given a grant of 17 million TSh for improving environmental aspects. Finally, DC stated that maybe the officers should deliver the information for the citizens in a bit different way in future.

In the afternoon I, Maija-Liisa and Marja-Liisa with Shilla and Jeremiah visited Shelui, a town with a lot of environmental and health problems due to the location on crossroads, where the truck drivers stop. The land is loam and you can not pass the area when it is wet.



Left: Metal collected in Shelui. Right: *Acacia nilotica* seedlings in a tree nursery on Shelui. 26.2.2007.

Firstly, we saw an oil press. The oil produced is sold in a price of 26 000 Sh./1 kg bucket. The waste is used as forage and sold as 100 Sh / kg in Dar-es-Salam. Mrs Marja-Liisa Swantz and Maija-Liisa Mamia were left to meet the town group. The youth groups have been preparing, renting and selling bicycles.

Then I visited a tree orphanage, where *Acacia nilotica* were grown to be planted in a tree project by the business man Rweyemanu. The business man had bought large land areas to grow forest. He owns 200 acres now and plans to buy more. He is also planning an animal zoo and beekeeping.

On our way back, I interviewed Jeremiah Lubljele for the environmental issues as I did that other officers of the environmental group on Saturday. He regarded the solid waste management and waste water treatment as the biggest problems in Kiomboi. On a District and country level the land degradation is the worst problem. This is caused by poor cultivation technologies. Overgrazing causes erosion, bush firing is used to get rid of tse-tse flies. Deforestation is caused by tree cutting particularly for fire wood. The land management is poor. Manure is used in fertilization. In Iringa and Zombe area there is more fertilization. One problem is the acidic land in some areas. Pesticides are used on approximately 10% of the cultivated area. Most farmers use herbicides.



Mrs. Swantz and Mrs. Mamia in a Secco meeting in Shelui. Sunflower oil pressing refuse in Shelui. 26.2.2007.

9. DAY: Tuesday 27th of February 2007

I and Maija-Liisa left at about 9.00 from Kiomboi with the District forester Palangyo. We tried first to go from the side of old Kiomboi, but the second river was not passable. We returned back to new Kiomboi to take a small road to Kisiriri. Several small villages were passed. The beginning was mainly cultivated area with *Borassus aegyptianum* and *Magnifera indica*, but in while it changed to a bushland or thicket. We went over a fairly broad river in a place, where the bridge had partly broken. In wet meadow grew *Commelina benghalensis* and along the roadside we saw *Ipomoea* bushes and also smaller herbs.

When passing the highest hills, the vegetation changed to a beautiful miombo. We stopped at taking photographs in my request in the forest, which has been protected as a nature reserve. The men mentioned quite soon that we must go back to the car, because there are known to be leopards, lions and dig-digs in this area. In many places there was beautiful meadow vegetation with some red *Liatris* like and yellow Asteraceae flowers.



School children and the teacher Kayaan in Doromon. Pawpaw and millet in Tulya 27.2.2007.

Descending to the Tulia village occurred through quite rough and stony road. We managed to see a red-headed Agama lizard. We went to Doroma to visit the primary school, which is the friendship school of Hartola's Pohjola school. Maija-Liisa Mamia had presents, which she gave to the teacher Kaaya and his staff. The school had 7 teachers and 500 pupils. The names of the teachers are Zuhura Heri Mfinanga, Emmanuel Gedron Hamisi, Efrahim Nkugwe, Davdi Nyamasara, Sara Sway, Rehema Daffiand Daniel Kaaya. There was also a Kindergarten teacher.

In front of the school there were growing *Leucaena leucocephala*, *Senna siamea*, *Paxonia* and *Albiza lebeck*. We heard people singing for us and then we had a look at their tree nursery. We had a twig of pencil bush (*Euphorbia tirucalli*) and tree seeds as a present from the teacher. *Acacia nilotica* and *Carica papaya* were grown in the nursery. Along the roadside grew halophyte bush (*Calotropis procera*), *Acalypha* and neem tree (*Azadirachta indica*) in Tulia village.

After the village the road passed through beautiful scenery with *Borassus aegyptianum* palm and the lake scenery. We saw lovebirds, Abdim's storks and cattle egrets along the lakeside. Among the trees was *Ficus sycamorus*. We had a lunch break on the beach.

We visited Mingela village with VEO and chairperson etc. The villagers fish particularly during the dry season tilapia, kamongo and cat fish. Crocodiles are not living in the lake, some hippos are. They did not understand the question about bilharzia. Salt is collected on the shores of this salt lake during dry season. Farming is the most important means of living, and the cultivated plants are finger millet, ground nut, cassava, sweet potatoes and maize. Erosion is a problem caused by cattle and goats of skuma people, which come during dry season to search for pastures. Firewood has to be collected from

a long distance of the village. Mingela like neither of the villages which we visited had no electricity. They had no solar panels. PRA (participatory rural appraisal) has not been conducted, but is being planned to be done in the future. Leaders told that TASAF will come next month. The worst problems in the village are lack of drinking water, rough roads and erosion. One erosion agent is bulls ploughing gullies when transporting logs. Erosion is combated by planting trees



Lake Kitangi beach with cattle egrets near the village of Mingela. 27.2.2007.

Sodom apple was spotted along roadside. In Nsunsu the village leaders (VEO, chairman) were met in the village house and we saw the village plans hanging on the walls. The villagers farm millets, maize, sunflower and cotton. There are some problems related to erosion and the fire wood has to be collected from 7-8 km distance. On the river banks the flooding causes problems. The villagers indicated in their village plan their will to build a dam on the hills. There are 18 shallow wells in the village, of which four are not working. There are no tanks to harvest rain water. In the plan the most important problems were in the following order: poverty, lack of farming land, lack of water, lack of pastures, lack of seeds and agricultural tools and poor knowledge on agricultural practices. One problem is that there is no dispensary in the village. There is a primary school. The roads are rough and it is a long way to the town. The village leaders showed interest on the solar energy workshop and environmental improvement seminar suggested to be held in Masingi in future.



The village development plan in Nsunsu village. 27.2.2007.

The next village was Ntwike, which is known to be the village of potters. The leaders listed as the worst problems (in order of importance in village plan) poor education, lack of water, lack of roads, poor health services, poor crop and life stock production, low prices of products, safety of life stock and crop and lack of employment of young people. There are no water tanks in the town. There are a few water sources and the river water is also used. During the dry season there is lack of water. The firewood has to be collected from the hills. The nomad tribes have destroyed areas. In addition, using bulls pulling logs has caused gullies, from which the erosion has started. Overgrazing is a problem particularly during the dry season. A new secondary school is being built in Ntwike following the law that each ward should have one secondary school. Such a school would be a good site for solar panels on the roof and rain water harvesting tanks.

I interviewed some leaders and officers in Nkongilangi (e.g. VEO, Agricultural Officer, life stock officer). Also in Nkongilangi the PRA process had been completed and development plans made. The three worst problems were lack of water during dry season. Many of the local wells and rivers are seasonal. One problem is that the villagers have to use the dispensary of three villages, Ntwike, Nkongilangi and Segenge. Roads are bad and the distance to the main road is 16 km. Soil erosion is caused particularly by the nomad cattle coming to the area during dry season. The fire wood has to be collected from the hills in 20 km distance. Maize, fox millet (*Panicum miliaceum*), sunflower and *Sorghum* are grown and cattle and goats are kept in the village. The village leaders showed interest on the solar energy workshop and environmental improvement seminar suggested to be held in Msingi in future. There are two households in the village who use solar energy privately.

On our way back to Kiomboi we had an adventure. It started to rain and the road from Shelui to Kiomboi goes through a mountainous area, where the roads are in very bad conditions. We saw several lorries parked on the road side to wait for the rain to stop. There was a real possibility to get stuck into the mud that was coming from the mountains with the flooding rain water. However, we managed safely to Kiomboi.



Ipomea batatas and Jatropha in Kiomboi 28.2.2007.

In the evening the whole Finnish delegation and our consultant had an invitation to visit the DC at her home. We had long and interesting talks with a plenty of good food.

10. DAY: Wednesday 28th of February 2007

In the morning I had some writing and printing work. In the afternoon the environmental group had a meeting in which we went through the plans again.

Participants: Heli Jutila
Jeremiah Lubeleje
Jane Mkoma (tel. 0787396479)
Mathious Mkumbu
Charles Palangyo
Idriss Shekibo
Canute Temu

Dr. Jutila acted as the chairman and secretary of the meeting.

First, the minutes of the Saturday meeting were gone through and the minutes were delivered to the participants. Then Jutila described the visits to Shelui on Monday and to villages on Tuesday and thanked for the good guidance.

Then the reporting of year 2006 was gone through once again, but there was nothing by the participants to be added.

Plans for the year 2007 concerning environmental improvement and conservation aspect were finalised using the budget table on the computer. The following activities were planned (the funding was finalised after the meeting):

1. To disseminate knowledge on environmental improvement and conservation to the community, train 10 Primary school teachers, 10 chairpersons, 10 VEO's, 50 religious leaders in seminars (app. 1) (1 580 000 Tsh)
2. To plan, produce, publish and distribute brochures, posters and leaflets on environmental issues e.g. waste management, waste water treatment, land degradation. (2 500 000 Tsh)
3. To prepare environmental conservation plans for 10 villages, in which the focus is to study the state of environment and to improve it e.g. by establishing Tree nurseries. (1 670 000 Tsh)
4. To disseminate knowledge and practical skills on using solar energy and improved stoves on workshops in Msingi FTC. (1 850 000 Tsh)
5. Improving waste management techniques: finish the construction of waste transfer bay: food waste separation and composting started in a school and education provided. (previous years funds + 5 000 000 Tshs)
6. A feasibility study on, how to improve waste water management in Kiomboi and in the Iramba District. (2 000 000 Tshs)

A more detailed budget is found attached (appendix 1).

Jutila and Shilla had made draft plans for the environmental seminar, which were further developed to a more detailed version (appendix 2).

Idriss Shekibo had made a draft of the environmental poster and the environmental brochure in the guidance of Jutila. These have further been developed to the ones in the appendix 3.

Jutila encouraged the environmental group to meet in Iramba to make sure that the actions planned are implemented and to exchange knowledge. The contacts to Finland are also hoped to be increased. Progress reports should be given by Mkoma every four months. Jutila returned the books borrowed from the DC's office to be taken to her. Jutila also gave some presents for the co-operation partners and thanked warmly for the enjoyable and informing visit to Iramba.

In the evening I packed and then had a walk around the village. I said goodbye to the Jane Mkoma and the Finnish delegation.



Children swimming in old Kiomboi. 24.2.2007.

11. DAY: Thursday 1st of March 2007

I woke up at 4.45 and left with Canute Temu at 5.30 to Arusha with the car and the driver. During the way we had discussions about the environmental administration, energy and climate change projects.

12. DAY: Friday 2nd of March 2007

This last day is reserved for travelling back to Finland. Really the return happened on 12.3.-13.3.2006, when I had a flight with my family from Kilimanjaro Airport to Dar-es-Salaam, to Amsterdam and to Helsinki. Due to dense fog we had to stay several hours in Amsterdam and finally managed to get back to Finland about 16:00.

Certification:

Time and place:

Signature:

HELI JUTILA

Appendix 2.

Application to ALFRA

Seminar on environmental improvement and conservation in local communities in August 2007

First day

Environmental protection, definitions

Environmental problems in Iramba District and mitigation measures

Biodiversity in Iramba District and how to maintain it

Natural tree species, which are suitable for planting

Waste management and recycling

Second day

Ground and surface water resources in Iramba District

Water pollution in rural and urban areas

Environmental health problems and diseases related with poor sanitation

Proper waste water management techniques for rural and urban areas

Water born diseases and how to combat them

Water policy and environmental policy

Example of making an environmental conservation plan

Several ways of funding and costs

Timeframes and responsible persons

Connect the timetable with the other activities in this area.

Protect the environment



Use the dustbins properly

Reason for improper waste management



The situation of waste management at Kiomboi is so because of the following:-

1. limited awareness
2. inappropriate technology
3. poor allocation of resources
4. operational deficiencies
5. low political priority
6. rapid urbanisation

An example of a clean environment



North-South local co-operation programme

Sustainable development and environmental improvement are part of the North-South local co-operation programme.

With the programme funding 20 dust bins have been bought and located in six primary schools (two at each), to the town centre (4) of Kiomboi and the premises of the Iramba District health sector (4).

Waste transfer station has been planned in Kiomboi and will be constructed during year 2007, when also better ways of arranging waste management will be planned. Food waste separation and composting will be started in one school and education provided.

The programme disseminates knowledge on environmental improvement and conservation to the communities through seminars and distributing brochures, postures and leaflets on environmental issues e.g. waste management, waste water treatment, land degradation.



District health officer
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Waste management



**Wastes are collected to this site in Kiomboi.
There is no real landfill.**

***This is poor waste management!
Something should be done!***

***Whose responsibility is to
properly manage and control
wastes?***

*It is the responsibility of the government,
local council, ngo's , households and **every
one** in the society in order to have a
healthy environment.*

It is also yours!!!

Protect environment for better health!

Waste management

What is waste?

Waste is any material, which is not useful for the initial purpose and needs to be disposed off. Waste can still have a value and can be reused or recycled. Waste can be solid, liquid or gaseous.

The sources of wastes are everywhere:

Households, business centres, markets, hospitals, offices, schools, tourism etc.

Why?

1. To keep the environment clean.
2. To reduce nuisance from wastes.
3. To reduce the risks of acquiring diseases.
4. To be able to reuse and recycle useful material from wastes.
5. To create employment for people.



An environmental health officer by a dust bin in Kiomboi town.

How?

- Reuse
- Recycle
- Burn properly
- Locate appropriately to landfill

Proper waste management starts with individuals!

- Use dustbins effectively and empty them in appropriate areas.
- Make sure that the wastes are taken to the land fill.
- Demand actions from the decision makers.
- Keep your environment clean!
- Do not buy anything, which you do not need.
- Compost organic wastes.
- Avoid packages when possible.
- Do not use disposable dish.

Iramba district council waste management program:

Aims:

Measures:

Results so far:

Recycling

Recycling means the extraction or recovery of useful materials from disposed wastes.

Useful materials that could be recovered from wastes include glass, metals, paper, plastics etc.

Metal recycling in Shelui.



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