Sida Evaluation 98/30

The Swedish Cooperative Centre´s Environment Project in Sri Lanka

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Summary of Findings and Recommendations

(Main recommendations are in bold italics)

1. **Relevance:** to the goal, objectives, activities and inputs, including the overall design and assessment of the fit between the problems to be addressed at different levels, and the means employed to reach the desired results.

There are conceptual and analytical weaknesses in the initial problem analysis, which have led to an incomplete definition of the context within which the project is operating. The project rationale needs to include the acknowledgement that the farmers' situation has evolved through factors which are largely outside their control and therefore, although they can improve their situation to some extent through their own awareness and actions, they cannot develop more sustainable and environmentally sustainable resource management and livelihood systems without the combined actions of many other stakeholders. If this is acknowledged, the project can then reasonably develop more modest goals and objectives which can focus on the key areas in which it can make a contribution towards addressing the range of problems in a more realistic manner.

Some parts of the project activities e.g., environmental awareness raising, participatory training, soil testing and fertility advice, pesticide awareness, compost making, group focus, study circles and cooperative action development are very relevant to the goals and objectives of the project.

It is probably in the area of raising awareness about the consequences to human and ecosystem health of the excessive and pervasive use of manufactured chemicals that the Project can make its most effective and relevant contribution. This is, and will remain, a matter of some urgency requiring the attention of local, regional and national government.

However, there is also room for improvement in the methods by which these issues are addressed. Most of these problems stem from inexperience and an almost exclusive natural science disciplinary background of the project staff and could be partly corrected by further training and more engaged support from a range of experienced professionals.

To ensure a renewed relevance of the project requires a rewriting of the logical framework and a detailed strategic and work plan to be drawn up. It also requires a greater involvement of an experienced advisory group and closer monitoring of progress against realistic indicators.

Methodological approaches shall be discussed as well as concrete methods and approaches.

Many methods are participatory in intention but in practice tend to be lead by the project team who are not well trained in adult, participatory co-learning methods.

The participants themselves are also not familiar with co-learning approaches and need more time to understand the full implications of the approach.

Special emphasis shall be put on the appropriateness of project design with regard to socio-economic and poverty dimensions (including gender) environmental problems and the aim of ensuring an extensive and genuine grassroots participation characterised by a sense of ownership among intended beneficiaries.

The project was designed to address socio-economic and poverty dimensions but there has been insufficient attention so far to age as a differentiating factor in awareness and knowledge. The older farmers have a clearly different knowledge base to than the young school leavers who make up a major contact group for the Project. There are also very different types of poverty in different agro-ecological zones, due to different historical forces and the more recent impact of debt.

The gender aspect of design is well covered and does not, in the opinion of the evaluation team, require separate activity attention. We consider that it is better to have the gender analysis as an integral part of all activities. More attention could be paid to age as an important differentiating factor in society and to different forms of poverty.

The historical socio-politico-economic reasons for environmental problems are not sufficiently acknowledged in the project background and rationale. As a result, some of the assumptions in relation to farmers' knowledge, awareness and ability to resolve their environmental and livelihood problems are unrealistic. It should be also acknowledged that 30 years of external intervention, subsidy, handouts and support have created a strong dependency syndrome which will be hard to break.

The Team should restudy their baseline and other documents and reappraise the present situation in the different agro-ecological zones in which they are working in order to focus on areas, activities and socio-economic groups who are most likely to benefit from what the Project can offer.

The project design allows genuine grassroots participation but it is too early to judge whether the beneficiaries feel a sense of ownership. They appreciate the interest and engagement but are not yet in control of the process.

2. **Achievements:** Analysis of the achievements and shortcomings of the project. Special attention to flexibility of project design, i.e., the ability to adapt approaches according to changing stakeholder needs.

There has been some adaptation of the project design including the dropping of some components as inappropriate (e.g., the forest garden activity). The programme has a strong emphasis on awareness raising, environmental education and training for group activities. This emphasis has come about through the perception of the project management that this is the highest priority need and the belief that direct, combined action, on soil conservation activities in the field, for example, needs to be initiated and sustained through the decisions of the groups and societies themselves.

The project should restore the balance of activities which is evident in the original Project design. More emphasis should now be given to adaptive, action research on the development of watershed-based conservation with groups of farmers.

2.1 Methods concerning rehabilitation of soils and sustainable production including:

- innovative approaches,

The soil testing kit approach, the initial and retesting of samples on sites and the fertiliser recommendations are very positive, provided that they are further modified in relation to actual practice. The Ministry of Agriculture and the University of Peradeniya are interested in this low cost technique of soil testing. There is also some evidence that a reduction in the use of chemicals and greater safety will result from Project activities. This may prove to be the most valuable contribution that the project can make.

- productivity

There is some evidence that equivalent crop productivity can be achieved with reduced fertiliser and pesticide inputs but this is not wholly convincing yet. There is a need for more careful monitoring of actual field practice.

- ecological sustainability

Given the overall excessive use of chemicals in the region, it is unlikely that the Project activities will make a significant impact in the wider sense for some time. If a catchment approach was adopted, there may be some progress, but many more stakeholders need to be involved, including the tea estate sector and the many government agencies (9) involved in environmental planning.

The project has minimally engaged in direct soil conservation activities on its own account so far. It has used inputs, demonstrations and experience of other NGOs and area development projects to base discussions and learning classes.

There is a need for innovation and imagination here in order not to repeat the subsidy-induced activities of previous development agency interventions. Expectations are being raised by the training activities and the groups need to have a clear purpose and goals for future activities.

- social and cultural sensitiveness and acceptability of project ideas and activities, including the importance given to understanding local knowledge and values

Many of the ideas are being actively considered by the younger people in the contact groups. Older farmers (according to our interviews) tend to be more reserved and are interested as long as they feel the project will address their perceived needs and not a preset agenda.

More attention needs to be paid to the needs and knowledge of different farmer groups and they should be incorporated into the planning of future activities.

- cost efficiency

This is difficult to assess with any degree of accuracy as, although inputs can be clearly identified, outputs are less tangible and some effects cannot be solely attributed to the Project. Some clearer qualitative evaluation indicators of each activity need to be agreed with the farmer-participants. The numbers of people involved (meticulously recorded in all the 6 monthly reports) are not sufficient indicators of a significant change in the process.

- social and economic sustainability , including financial infrastructure

This is still rather uncertain. Payment of many people in rural areas can often perpetuate dependency and cannot be justified in the long term. This is realised by the Management Committee and the taking over of support for group leaders and facilitators by the societies and communities has already started.

Attention should be paid to the implications of the significant size of the budget and the sustainability of this. More group facilitators should be paid by the societies not the project.

2.2 Methods concerning local participation

- reaching the rural poor

Clear evidence that the project reaching the poor is difficult to detect. Many farmers in our on-site interviews claimed that the really poor were not being reached and we experienced several visits with much better off than average farmers.

The Project Team needs to undertake greater selectivity and focus explicitly on particularly vulnerable people, areas and situations.

- support to cooperative structures for sustainable economic activities

The Team is very active in this area. However, care needs to be taken not to duplicate existing structures and work wherever possible, through strong local institutions before setting up new ones.

- design and application of methods and techniques

In intention, motivation, enthusiasm and engagement of the project Team is very impressive. However, professionally trained people should be more involved in this work and the project staff should have much more training in training and learning methods and to learn from existing projects with much longer experience.

- degree, socio-economic composition and quality of local participation

This appears to be satisfactory but there are big differences between areas in the age composition of participants and in wealth and access to natural resources. It is not

clear whether the really poor are involved. Most groups seem to be particularly articulate groups of farmers and community friends. Does this marginalise some groups of people?

- processes of developing local organisational structures

There is progress here but there is a need to examine the potential for conflict and the sustainability issue. Do the project activities compete for peoples' time and attention with existing organisations and commitments?

2.3 Implementation

- physical, environmental, socio-economic and institutional effects of the project in the target areas , using quantitative an qualitative indicators

So far there has been modest physical and environmental impact of project initiated activities except chemical reductions and the building of 3 fertiliser stores. There have been significant savings generated from society development and loans have become more available following the initial success of the purchase and marketing of straight fertilisers. There appears to be even participation in relation to gender, but age might be a differentiating factor worth further investigation.

- effects on patterns of risks and vulnerability

This is too early to judge yet. The fertiliser work should reduce crop risks risk and the pesticide work should reduce health risks. More detailed monitoring, assessment and research is needed here.

Overall vulnerability remains dependent on factors largely outside the influence of the project due to the historical dependency created by ill advised (by the International Financial System) Government pricing and protectionist policies, profligate loans, liberalisation and mounting debts of many farmers. This is an underlying structural problem, which cannot be removed by farmer actions alone.

The project would benefit from a greater involvement of project staff in adaptive research and monitoring activities, together with partner organisations, rather than by contracting out many of these activities.

- degree of success in promoting techniques of environment-friendly agricultural practices and land use

The fertiliser work and pesticide reductions and safety have had some positive and a significant impact.
The project should now take a much more systemic approach to the development of integrated systems of soil, water, crop and tree management which can be applied on a catchment basis. The core of such an activity should be to demonstrate that the health of humans and ecosystems can be dramatically improved through reduced chemical use and more careful management of soil, crop and tree resources.

- indications of increased production

There is no convincing evidence so far that actions by the project have led to increases in production, although some farmers claimed that this had happened and there is some documented evidence in the Impact Assessment Reports. It will never be possible to prove this fully as it is a product of many uncontrollable and unpredictable factors.

- improvements in organisation and cooperation

This is still in the initial stages of development and therefore too early to judge. Several farmers are enthusiastic about the potential for group action and cooperative work. The sustainability of the new structures is not yet evident.

- distribution of benefits (socio-economic classes and gender)

Good coverage of benefits to men and women and younger people. Benefits to older people still needs examination and further discussion

- pilot villages and wider targets

Evidence that villages outside the pilots have shown interest in the fertiliser, pesticides and compost work. The use of exhibitions is an excellent technique to raise interest and publicise the activities outside the new groups and circles.
Greater use of the exhibition method should be made to bring in other stakeholders within the catchments in which activities take place

- define and test qualitative and quantitative indicators of change

The Project has collected a very impressive amount of personal, quantitative data on the participants, which can serve as an excellent basis for the subsequent work. This data shows very even involvement of both men and women but it needs complementing with other qualitative indicators which may be collected through regular check list interviews, feedback from the study circles and the working groups, case studies of participating families and workshops. Current qualitative indicators in the annual plan need more attention. This could be carried out using a participatory planning method with farmer groups.

- coordination and linkages with other organisations

The project reports a close relationship with other organisations but in the view of the evaluation team these relations are not close enough.

The project management team should link more closely with a range of collaborators to bring in greater expertise into project activities. This can be regularised through the establishment of a Professional Advisory Committee or Steering Group.

2.4 Project Organisation

- capacity of project in implementing and monitoring activities

The project officer staff numbers have increased to 5 in 1998. However, the team is still composed of agricultural and biological science graduates so the opportunity for bringing in different disciplines has not been taken. Most of this human power has been utilised in training and facilitating activities.

More staff time should be devoted to active fieldwork with farmer groups, adaptive research, monitoring and case study monitoring. More experienced people with social science and professional learning skills and experience need to be brought into association with the team

- analysis of baseline and monitoring data with emphasis on socio-economic stratification and poverty indices

The baseline studies are substantial, rather than profound, reports which do not really reveal much insight into the perceptions, rationale for action or knowledge of socially differentiated groups of farmers. There were admitted problems with inexperienced enumerators (final year University students) and there are some biases in responses to some key questions. The quantitative data is adequate but not differentiated and the descriptive information is of interest but the analysis of the whole set of information is weak in both cases.

The later, impact assessment reports are more useful and confirm some of our findings in our field visits. However, these also do not address some important issues such as socio-economic differentiation. It is understood that the latest of these reports (carried out in Pattipola village) is still in draft form and contains some errors, which are now being corrected.

The review Team feels that the Project Team should be much more involved in both baseline and in monitoring change in a sample of villages. In this way they will gain a much better appreciation of the needs of particular places and can target their activities more accurately.

3. Cost efficiency

- efficiency of project organisation

This appears to be adequate with one exception. The absence of an experienced group of scientists, administrators, representatives from other NGOs, trainers and farmers that could make up an active Steering Committee. This is an unacceptable situation and it is allowing the Project team to pursue their agenda without checks and balances and mature guidance.

A Steering Committee should be established without delay in order to support the Project and guide it with appropriate experience. The project Management Team, despite the fact that it does have a wide, representative membership, is not doing this do this job.

The Team need to carry out a combined stakeholder and linkage analysis in which they examine all the existing and potential flows of information between different farmer groups, NGOs, the Ministry of Agriculture, the Universities, research sta-

tions, interested scientists etc., (This technique was explained in a seminar on held at the project office at Welimada on Saturday August 22nd). This can also be used as a planning tool.

Skills in monitoring and assessment need to be improved and much stronger linkages need to be established with existing projects and institutions.

- efficiency of training and education

A continuing concern is that none of the Team is adequately trained as trainers of adults or school leavers. An assessment of the effectiveness of the current training is necessary and the Team needs further training; in technical skills, in study circle methods, in group formation and in participatory skills co-learning with adults.

4. Sustainability

- overall sustainability and potential for replication

There is no coherent model emerging yet so the question of replication cannot be fully discussed. However, some components; e.g., the soil testing and fertiliser recommendations and the composting technique could be expanded but only with a built-in adaptive research component. The pesticide awareness and safety work could also be replicated following some assistance with training techniques and better visual aids development and presentation. The training methods and their effectiveness need review by an experienced participatory trainer.

- local capacity for establishment and maintenance of organisational structures which will sustain agricultural and economic activities at village level.

The project outputs in this area need to be considered in the context of real village situations where several other organisations exist. To some extent this is going on with some partner organisations but there is a need for consolidation and focus of activities and the development of a truly integrated systems approach to catchment management.

The Project team, along with some other local partners including farmers, is in the process of setting up their own NGO - Kshemaboomi - based initially at the Project Office in Welimada. This organisation has been registered and can undertake business activities. Unfortunately (in the view of the Evaluation team) one major activity is the manufacture of compost from ingredients that are mainly brought in from outside the immediate area. The product is bagged and sold, both locally and to more distant markets. As this is in major conflict with the principles and practice of locally based organic farming (the office compound is also a demonstration site for ecological or organic gardening) is should cease immediately, be moved elsewhere or be channelled into recycling the materials and nutrients in their area of origin.

There is a new environmental project of the Ministry of Environment and Forestry in Badulla District (funded by the ADB) which may present an opportunity for the

Project, or in the longer term Kshemaboomi, to offer a component or an approach from existing project activities.

- Long term potential of project with regard to reduction of poverty and promotion of gender equality

It is much too early to respond to this yet. In any case it is almost impossible to attribute any changes in poverty and gender solely, or even partially, to a project such as this. It might have been possible if a range of families had been chosen at the start of the project and key indicators had been recorded over a minimum two-year period.

A multidisciplinary team should be formed in order to be able to offer greater capacity in interdisciplinary and socio-economic analysis, group formation and management and farming and livelihood systems research and development.

The team should put together, with some of their active partners in villages, proposals for the systemic development of selected watersheds in vulnerable areas through a process of action research, training and learning and development.

The Evaluation Team feels that the project has not gone far enough in achieving its main objectives to be regarded as ready to become a fully "normal" project. It therefore recommends an extension of the Pilot Phase for a further 12 months and that a further review be carried out in September 1999 to see whether the Project has moved towards the adoption of some of the recommendations in this report and whether there can be solid progress in the integration of some project activities with other regionally based organisations which will reduce dependency on total external support.

MAIN REPORT

1. Introduction

This evaluation was commissioned by Sida Natur to examine the pilot phase of an Swedish Cooperative Centre environmental project based in Nuwara Eliya and Badulla Districts in the Sri Lankan hills. The project has been running since 1995 and is due to come to the end of Phase I in December 1998.

The evaluation team consisted in: -

David Gibbon: Professor of Small Farm Systems, Department of Rural Development Studies, Swedish University of Agricultural Sciences, Uppsala. Team Leader

Ananda A. Kodituwakku, Director, Regional Development Division, Ministry of Plan Implementation and Parliamentary Affairs. Colombo. Assistant Team Leader

Mr A. Lecamwasam, Human Resources Development Centre, Department of Agriculture, Peradeniya. Natural Scientist.

Mrs S.C. Girihagama, CARE International (Sri Lanka) Kandy. Social Scientist and trainer.

The team had a range of disciplinary (natural and social science) skills, research and development experience and also training and learning experience in a range of contexts. Apart from D. Gibbon, all have lived and worked in the study area for many years and have direct knowledge of the history and conditions in the two Districts. Mrs Sriyani Girihagama has extensive NGO training experience with women's' groups and cooperative members.

The terms of reference for this study were drawn up by Ms. Karin Isaksson and Ms Kristina Bohman of Sida Natur in consultation with the SCC project Management Team in Sri Lanka, Mr Ran Morapaya of the Swedish Embassy in Colombo and Dr Gibbon. The full terms of reference are given in Appendix 1 and the summary is structured using summarised extracts from the Terms of Reference.

Methods of evaluation

The time available for field visits was rather restricted due to availability but all team members completed up to 20 days work each including between 10-15 days field visits in the Project areas. The Sri Lankan members had three days in the field between August 10th and 14th. Dr Gibbon was in Sri Lanka from August 16th to 26th and spent part of this time in the field (17th to 23rd). An itinerary of the team activities is given in Appendix 2.

The Evaluation team followed most normal procedures of evaluation exercises by following the terms of reference as closely as possible and paying close attention to efficiency (outputs against inputs) and effectiveness (Outputs in relation to objectives). The exercise was made more difficult by not having a clear log frame and sufficiently clear indicators to work from.

Inevitably with a project such as this, the area of greatest difficulty that an evaluator has is with qualitative indicators of social and environmental change which is this case are hard to identify. The baseline materials are a little disappointing in this respect.

In addition to the field visits and semi-structured interviews with men, women, young and older farmers and other stakeholders, either individually or through group discussions, the Team consulted a wide range of documents - international journal articles, project reports, appraisal and evaluation reports, soil and water analysis data study circle notes, baseline studies, impact studies and relevant documents from other Projects in the region and from the world literature on relevant themes.

The Team had an appropriate range of disciplinary skills and experience and utilised every opportunity to explore relevant themes with farmers and other actors who had direct or indirect knowledge of the project activities. The rural people were extremely responsive and they generated much information about soil, water crop and tree management and their perceptions of what the project was achieving.

Individual interviews with the Project staff were conducted in the offices at Welimada and on the last day at Welimada the Evaluation Team facilitated a small seminar on problem and solution analysis followed by a stakeholder linkage exercise. Both these techniques seemed to be quite new to the Team.

The Swedish-based and Sri Lankan Team leaders, together with the SCC Programme Manager in Sri Lanka took part in a debriefing session at the Swedish Embassy in Colombo on 25th August.

All team members contributed to the final report with their field notes and through intensive discussions. The first draft was made by the Team Leader and circulated for comment by the Team and the second draft was delivered to Sida for distribution to the SCC Environmental Project Team.

2. Project background

Land systems and land use

The districts of Nuwara Eliya and Badulla in the Central Hills of Sri Lanka occupy a major catchment area of all the perennial rivers with dams and irrigation infrastructure, on which Sri Lanka depends for hydro-electric power and irrigation. The districts are important areas for the production of many crops, including tea, which has been important during this century and again today, and they have recently become important for the production of many vegetables. The districts are characterised by steep slopes, varying tree and vegetation cover, rainfall between 1000 mm and 2000 mm per annum, constant movement of soil and water, a high human population settlement and intensive agricultural production systems.

The distinctive agricultural systems are those of the tea estates which are large holdings on which permanent tea is grown and which have survived under a variety of different tenure and investment strategies and small holder mixed cropping systems which have changed dramatically with the introduction of potatoes and a wider range of vegetable crops which are mainly grown in the lower slopes of the valleys. The upper parts of the watersheds are partly occupied by tea estates but also by forest reserves, eucalyptus plantations or crown land in varying degrees of stability and degradation.

Land tenure is complex with varying access to land by different people through private ownership, crown lands, share cropping, renting and encroachment of crown lands, either illegally or with a permit. Permits to cultivate vary in length and have different conditions attached to them in relation to land management (Clark, 1994)

The other important feature of this region is that over the past 40 years there have been many different policies and interventions by external agencies, including both government and non-

government projects. Some of these have had small impact and others, such as the Upper Mahaweli Authority, have had a significant impact. Many have been concerned with the checking of the perceived problem of soil erosion and many have given inducements to farmers to introduce physical barriers to soil and water movement down slopes. Most of these efforts have had a very limited effect on the "problem" and they, and other measures, have created a system of dependency by farmers on outside agencies.

The underlying assumption of this project is that environmental degradation is a severe problem due to poor soil and water management and by the excessive use of pesticides and chemical fertilisers. The main problems are perceived to be: -

- heavy soil erosion and deforestation,
- unhealthy handling of agrochemicals
- overuse of chemical fertilisers and other agrochemicals
- declining provision of training and extension services provided by central government
- lack of economic infrastructure and loan facilities
- lack of market support

This list of problems is rarely prioritised by the team, and according to the evaluation exercises, the farmers frequently put drinking water as their number one priority. However, it is clear to the evaluation team that the excessive presence of chemicals represents an insidious, key problem which affects soil and water quality and the consequences of which are seriously underestimated by most people in the field.

The Swedish Cooperative Centre (SCC) had a positive experience of cooperating with the NCC of Sri Lanka and in 1993 there was an attempt to develop all these concerns within one environmental project.

The objectives and activities of the Project are to: -

Objective 1. Strengthen awareness and knowledge with respect to the environment among farmers and to promote methods of environmentally friendly agricultural practices and land use.

Activities: - 1. Environmental awareness raising. 2. Training of resource personnel at grass roots level. 3. Study circle and group discussions. 4. Technical training 5. Change agent training 6. School activities

Objective 2. Promote the physical improvement of the environment through the participation of farmers and other villagers in the implementation of environmentally agricultural practices and land use.

Activities: - 1. Soil conservation. 2. Soil testing and fertiliser recommendation services. 3. Use of organic fertiliser and compost 4. -Proper use of pesticides 5. Forest gardens 6. Ecological farming and farm trials

Objective 3. Raise incomes and standards of living among farmer families and villagers, both in the short and long run, through support to cooperative and other organisational structures which may form the basis for sustainable economic activities in the villages.

Activities: - 1. Group formation, leadership training and cooperative action. 2. Gender and development

There are a number of important assumptions behind these objectives and activities, which require close scrutiny and which need to be addressed in the analysis of the design of the Project. They are discussed below. It is relevant to note that in the Project Documents and

reports there is some confusion in the expression of objectives and outputs which needs to be clarified. There is a suggestion as to how this should be addressed below in the reformulation of the Logframe.

The original project design had two main foci: - One was to develop **methods** concerning environmentally sound production and increased community participation. Secondly, the project was to **implement activities** that generated more sustainable livelihoods. The achievement of the Project in both these areas will constitute the main focus of this evaluation.

3. Purpose and scope of this evaluation

The first phase of the project began in 1995. It is regarded as a pilot environmental undertaking, which is coming to an end in December 1998. This evaluation is intended to: -

- Examine the relevance and effectiveness of the project with regard to the relationship between overall goal, objectives, activities, inputs and outputs.
- Present recommendations on possible reorientation or adjustments judged to be able to contribute towards increasing the efficiency and effectiveness of the project as a whole, as well as various components.
- Analyse the project and its different parts from the point of view of sustainability and long term impact with special emphasis on poverty, gender and environmental dimensions.

The primary, intended stakeholders are the farmers of Nuwara Eliya and Badulla districts, particularly the poor, SCC (Sweden and Sri Lanka) and Sida.

4. Relevance

Some necessary background to the project design principles
The Review Team was impressed by the amount of available information on the Project, from the early reviews to the regular reporting of activities and impact studies. However, we have detected some conceptual and analytical weaknesses in the original identification of "the problem" which was to be addressed. (See Problem Net diagram in Appendix 8). The main weakness is the lack of an holistic understanding of the historical, political, social and economic context that has led to the present circumstances in which different farmers and other rural people find themselves. Some of the symptoms, not the root causes, of the general problem are repeatedly referred to.

Some of the key statements, which appear in all the documents from the initial appraisal documents to the current project progress reports, are: -

1. Inappropriate agricultural practices by farmers and poor agricultural extension services have ***caused*** severe land degradation in the area.
2. The problems are deforestation, reduced water retention, soil erosion, overuse of chemicals, practices not conducive to the environment which give insufficient returns to farmers, low awareness of environmental problems and how to address them, lack of training and extension for awareness, low yields and economic returns ***forcing farmers to cultivate steep slopes*** not suitable for agriculture, lack of organisational structures for awareness building and empowerment. (editor's italics)

We would contend that there are key omissions from this analysis, notably the failure to recognise the following: -

1. These hilly areas are characterised by rather distinctive land use management systems that are interrelated but nevertheless distinguishable. The uplands are generally either tea estates, forest or plantation cover and sometimes a form of shifting cultivation with fallow. In the medium level sloping lands are usually intensively cultivated with terracing and some soil conservation. The lands may not be cropped every year and are sometimes fallowed. In the lowlands, farms are managing a very intensive rice/vegetable double cropping system with supplementary irrigation. In these systems there is very careful soil and water conservation and a high standard of management except that very high rates of fertiliser are often applied and there is a high use of many crop protection chemicals. These systems exhibit different levels of "maturity" and stability.

2. The erosion "problem" is not uniformly bad in the whole area but has occurred in places due to a combination of protective pricing policies (particularly for potatoes) in the 1960's which led to the exploitation of under-utilised and unpoliced Crown lands in specific areas (by farmers who already owned other lands) for the cropping of potatoes and other vegetables when the price was very high. Following trade and economic liberalisation and the importation of potatoes the price has crashed and these lands are now abandoned and are fallowed. The market and the dependency on external inputs has played a key role in these changes.

3. The former tea estates were nationalised and then privatised and tea prices have been low but are now recovering. This has affected the estate holders' willingness to invest in new planting material in poor tea land areas and has resulted in poor bush growth, poor land cover and additional erosion. In some cases, the poorer tea lands were allocated to small farmers and these were cleared to grow potatoes. It is true that the poorer lands of tea estates account for some of the erosion in these watersheds, although the evidence is not entirely clear. They are certainly part of the wider picture but are not recognised in the project reports or analyses.

4. The introduction and all the documents from the Project imply that the farmers are not aware of the problem of erosion. In the experience of the evaluation team and in response to our questions with every mature farmer we met, they were aware that there was a problem and what caused it. They might not have scientific explanations for the phenomenon but they were well aware that a range of factors, physical, economic and policy related - were the root causes of the problem. They were also aware that the erosion phenomenon is a natural process on sloping land. On the other hand it is true that the younger generation of school leavers did not have the same knowledge base about this or about the dangers of a system which is totally dependent on a range of manufactured chemicals.

The statements above are usually followed in the project documents by the setting out of a strategy which primarily involves "making the farmers realise that they are the owners of the problems with the deterioration of the environment as well as their present low level of income and standard of living. This, again, is not entirely true or fair and is possibly dangerous as it could lead to the belief that, without other changes taking place, the matter is entirely in the hands of the local farmers and their communities.

Our main critique with the project design then is that it is based on too simplistic assumptions about the nature and complexity of "the problem" and a lack of acknowledgement of the importance of the political economy which has had a major influence on the nature of land use changes for the past 50 years and probably much longer. As a result, the design can only deal with some of the key issues. It is indeed true that farmers do need to take a more active role in determining their future and some of the project inputs will go some of the way towards assisting in this process. This needs to be acknowledged and more modest claims could then be made for what the project might achieve. The matter could be resolved through a rewriting of the logical framework which sets out clearly the assumptions underlying the project goals, purpose and activities.

Approach and Methods

All this does not imply that the current project approach activities, methods and outputs are not relevant to the overall objectives, but that they can only address part of the overall problem. There are important and effective components of the project: - awareness raising about chemical use- both pesticides and fertilisers, compost making, group focus, study circles and cooperative action development - all show promise and are relevant to the project goals and objectives.

The key emphasis in the approach in this first phase has been on awareness raising, with a particular emphasis on younger people, school leavers and school children. For these groups there does seem to be an urgent need to engage them in a dialogue and to develop an understanding of the local and wider picture as they seem to have become divorced from the daily reality of farming. However, this is a huge task and some of the long-term responsibility must lie with the school system at all levels.

The other vulnerable, older farmer groups are those who have moved into vegetable farming and adopted a chemically dependent production system which has displaced much of the previous knowledge about soil and crop husbandry, crop protection and low external input agriculture. Some of this knowledge is still around but it has been suppressed by the dependence on low priced chemical inputs and, for a while, the expectation of greatly improved crop yields and economic returns.

Although both men and women are jointly involved with the management of land and the growing of crops, it is men who are intimately involved in the use of chemicals, particularly pesticides and fertilisers. In relation to the attempt to reduce levels of use, men are clearly an important target but the Project Team also recognise that all members of rural communities need to be aware of the power and the dangers of excessive chemical use.

There is room for improvement in the methods used to address these issues, both in training and in the need to develop a more integrated approach to field activities. The methods of interaction with farmer-clients are participatory in intention, but in practice they are very strongly driven by the Team and by the materials that they have produced which form the basis of discussions. Many of the deficiencies in methods arise from the inexperience of the project officer staff who all come from natural science backgrounds and who have relatively limited experience. Although the staff have had some training in participatory methods, this is clearly not sufficient to develop a genuine collegiate atmosphere among farmers and the team.

The focus of the methods used is on training of farmers and communities in awareness raising, group formation and cooperative actions. There is some emphasis on field activities but it is assumed that this will be driven by farmers' desire to implement field activities stimulated by their training and renewed awareness. The team feels that this will not happen unless the Project Team becomes more involved in co-learning and adaptive research activities in the field.

Appropriateness of design in relation to socio-economic and poverty dimensions

The evaluation team feel that there needs to be more of a recognition that age might be an important differentiating factor in the farmer target groups and that they might need to be addressed rather differently. We feel that there is no need to treat gender as a separate issue in this context. Sri Lankan society is very different in this respect from many others. Of course there are important gender aspects of soil, crop, tree and water management and of input and output management, but it would appear that knowledge and action are shared equitably in many, if not all households in this region. An important finding from the training programmes is that women tend to be better disseminators of information than men and this might be im-

portant to bear in mind when considering particular roles in transferring important information at village level.

Poverty appears to be of two kinds. In some cases people have been poor for many generations and they have evolved a low external input system for many years. According to our farmer informants, the project team does not appear to be in contact with such people. There is another kind of poverty brought about by several years of high potato prices, high returns, followed by farmers taking out big loans; then diseases of potatoes, low yields, a fall in prices and massive debts. This has meant that some farmers are now labourers on what was their land. The true extent of this debt and poverty is difficult to judge, but in one village where we attended an exhibition (Idama), it was said to be a very significant factor and this was confirmed by other informants. The project team would do well to investigate the extent of this in the different areas in which they are operating.

Yet another distinguishing factor in society is brought about by the big differences in the historical land use and in the stability of agro-ecological resources in different areas. Some areas are clearly more mature and stable than others. The more vulnerable ones would appear to be those needing greater attention from the project.

Conclusions

In conclusion, the project can be made more relevant to the needs of particular groups of rural people through a recognition of the influence of the changes in political economy on access to and use of, natural resources and inputs from outside the local system. A reappraisal of the available documentation on the two districts, both from within the Project and from the many outside agencies operating in the region, would enable the Team to focus on areas and people in need more specifically in a revised Project Document.

The project is set up for genuine participation of all clients, but it is still too early to judge whether the beneficiaries feel any sense of ownership or control of the process. This might come after more combined action in the field.

5. Achievements

The Project has emphasised the establishment of an extensive awareness raising and training programme. This emphasis has come about through the perception of the project management that this is the highest priority need and the belief that direct, combined action, on soil conservation activities in the field, for example, needs to be initiated and sustained through the decisions of the groups and societies themselves.

There has been some adaptation of the project design including the dropping of some components as inappropriate. The forest garden concept was applied in a rather mechanistic way in an area in which it was clearly not appropriate. As it did not work there it was dropped as a project activity. However, there are several other areas in which the principles of reforestation and integration of multipurpose tress with crops and livestock, need to be encouraged and introduced and so the principles of these ides should be retained.

The Project design now includes a total of 13 different activities which address the three main objectives. We feel that the Project should make a greater effort to integrate these activities and to present a more systemic approach to the areas most in need of restorative action.

In addition, the project should restore the balance of activities which is evident in the original Project design. Along with the awareness raising, more emphasis should now be given to

adaptive, action research and co-learning in the field on the development of watershed- based conservation with groups of farmers.

5.1 Methods of soil rehabilitation and sustainable production

Soil fertility and fertiliser use

In terms of innovative approaches, the Team has introduced a rapid method of soil testing using an imported analysis kit. This equipment provides a sufficiently accurate estimation of key soil nutrients and soil condition to make good approximations of nutrient needs and soil status. The work has been carried out in close collaboration with the Department of Soil Science at the University of Peradeniya and the particular support of Dr A.N.S. Jayakody (see. Jayakody, 1996, 1997) and is monitored by a number of consultant studies (Rajakaruna, 1996; Rajakaruna et al., 1996). The further, follow up testing of soils after the season is also an important activity. The Soils Department is now interested in developing a field portable version of the testing kit, which can be used and understood more readily by field level workers and farmers.

The purpose of this work is to move towards the use of straight fertiliser nutrient applications and the matching of the applications to needs in order to reduce the amounts of fertiliser applied. This has come about because of the previous history of inappropriate combined fertilisers that were often subject to adulteration and dilution.

There are still some concerns about the use of certain fertilisers, notably urea, which result in nitrate contamination of water supplies and which also pose a health hazard in storage. (The Project loan- funded fertiliser store at Kabilladowa village had no upper wall ventilation and contained damp bagged compost and urea in very poor condition. The ceiling showed high levels of condensation and the air contained high levels of ammonia).

Other innovative approaches introduced by the Project are the awareness training in pesticide handling and use, the development of the study circle concept and the intention to develop farmer-driven, cooperative soil conservation activities.

The work on composting may also be considered to be innovative but it should be considered alongside older and existing practices of organic matter handling. These include green manuring, the scraping of terrace banks for rice and vegetable plots, fallowing techniques, the grazing of tethered livestock on terraces, the application of cattle and poultry manure. All these techniques should be discussed in the training programmes and not treated as separate parts of the same issue as at present. (See, training modules on fertiliser and compost for study circles. SCCEP, 1998).

Where there is some need for improvement here is to integrate the organic applications with the inorganic. If compost or additional organic matter is added, the recommended inorganic levels of fertiliser should be reduced. This needs an on-going adaptive research activity to test and monitor practice. The Project Team needs to trust and encourage farmers more with this kind of activity. This also can be a step in encouraging some, if not all, farmers to eliminate chemical fertilisers altogether and develop truly organic or ecological farming systems.

Productivity

The evidence on whether the practices recommended and introduced on fertiliser and pesticide use actually affect crop yields is mixed. Some farmers interviewed by the evaluation team did report no reduction and sometimes an improvement in crop output, but this is hard to corroborate and needs more careful monitoring. The impact studies indicate a 10-20% improvement in yield from reduced fertiliser applications and a 30-50% economic gain. The accurate recording and monitoring of inputs and outputs on specific plots would be an excellent topic for a student Masters dissertation and the Project Team should explore this.

It also needs to be acknowledged that productivity is the result of many interacting factors and it would be hard to attribute any improvement in yield to any specific change in practice.

Ecological sustainability
For a newcomer to the area (DG), the widespread use of many manufactured chemicals, and the low level of understanding of their power and impact on the environment and in agriculture is quite shocking and disturbing. The lack of regulation, easy access, pressures from commercial firms and the widespread assumption by many actors that chemical inputs will solve the short term nutrient and pest problems of crop production have led to a high dependence on continued chemical inputs and largely unknown long term impact on human and ecosystem health.

The other structural problems, referred to earlier, relating to access to, and control of, land also affect the overall picture and should influence the vision of the Project on what might be possible to achieve in the short and medium term.

To achieve any long term impact needs the cooperation of many stakeholders, within and outside these areas. This will call for a great deal of imagination and energy on how to put together the early lessons and to apply them effectively. The expectations of farmers have been raised by the initial activities and these need to be addressed in a spirit of co-learning and the use of minimal external inputs and dependency.

Social and cultural sensitiveness and acceptability
Many of the ideas and technical options are being actively discussed by younger people who have not had much direct exposure to older knowledge and ideas of long term sustainability. Some have also been brought up to expect to see high returns from agricultural activities, which focus on short term investments in new crops and techniques.

Older farmers are naturally more cautious, given their recent experiences, and may well need to be approached in a rather different manner. A greater sensitivity by the project team to the knowledge of older farmers, both from this and other regions, is necessary and there is a need to bring them into the planning process more fully. Their involvement in the Project Management Committee should be clear, and they should play a key role in the Steering /Advisory Committee.

Cost efficiency
The conventional manner of assessing efficiency is to examine input/output relations. Although the records kept by the Team of activities and spending are excellent (see Appendices 5 and 6) and sufficiently detailed to assess quantitative indicators, there are many additional qualitative indicators of change which need to be addressed as part of such an exercise. Some of these indicators are not evident or measurable in any conventional sense and some may not be evident for some time after the changes or activities have been introduced.

There is some evidence that the reduction of fertiliser applications and more cautious pesticide use does result in more economic returns in some crops. (Although a quick calculation of a bean crop budget with a group of farmers in Wadawale village showed no significant increase in returns from the estimated reductions in inputs). Some of the impact assessments made by Ratnayake (1997) showed that there was an annual costs saving of 30% to 50 % using the recommended reductions in pesticide and fertiliser applied.

There is a need for the Team to do more monitoring of case study farm partial and full budgets in a variety of circumstances and situations in order to have a better idea of the potential impact of the alternative input levels. Even more fundamentally, there is a need to look at the economics of organic or ecological food production as an option for groups of farmers to ex-

plore. This would have to be carried out on a catchment area basis with full co management control of soil and water resources.

Social and economic sustainability
Until the project moves into a stronger, integrated implementation phase, it is difficult to predict the sustainability of any of the current activities and how they will affect different groups in society. A real test will be to see how far the current investment in awareness training and group formation will be translated into sustainable group action to intensify and develop further the principles of low external input agriculture through applications in the field. This will need building on existing partnerships and collaborations in the different areas and districts. It is possible that the benefits to younger people may take some time as few of them have land tenure yet, but older farmers should benefit from the technologies.

Economic sustainability is much less assured given the recent history of plunging prices for many of the major crops (vegetables, potatoes, and tobacco), rising input costs and the debt burden of many farmers.

The gradual reduction of payments and incentives to facilitators, group leaders and participants in training and action programmes is essential as the societies take over this responsibility.

5.2 Methods concerning local participation

Reaching the rural poor
The project has a clear mandate to work closely with the rural poor but it is not quite evident how this is being addressed by the Team. Many of the people the Evaluation Team met and talked to in the field visits were clearly not the poorest of groups in society and some farmers told us that such people were not benefiting from the project. The other type of people who have become recently poor through debt are being brought into the discussions and we would suggest that this group should be in a close relationship with the Project Team.

In addition to this, the Project needs to focus on physically and biologically poorer areas in the Districts, which, it must be assumed, contain a significant number of poorer than average people.

Sensitivity to these matters is not adequately acknowledged in the Project reports.

Support for cooperative structures for sustainable economic activities
The Project is making a considerable effort to develop small, focussed groups that can form the basis of farmer cooperative societies. Group size is from 8 to 15 members. The groups are designed to stimulate savings, which can be mobilised for economic activities. Many groups have been established and 5 major group performance indicators have been devised to monitor changes.

We learned that the groups are not static and some people may leave and others join over time. There is some indication from the Impact Assessment Reports that groups show big variations in the levels of activity and in the commitment of some individuals to the repayment of loans. This might be due to the history of project -based loan schemes in the area in which a satisfactory rate of loan repayment was not expected or monitored.

We had no accurate information about the degree to which poorer members of society were involved in loans or economic activities. We did hear of a couple of activities which had failed -a women's mushroom growing enterprise and a stall fed cow venture - both seem to be partly due to the lack of adequate technical expertise of the Project Team. We learned that a second attempt to develop the mushroom enterprise will be attempted and that there were

other, relatively successful, attempts to develop stall-fed cattle enterprises in the area from which valuable lessons could be learned.

Design and application of methods and techniques

The Project Team and their associates and field assistants show a considerable degree of commitment, energy and enthusiasm for the goals and objectives of the project. They are clearly committed to the development of the principles of the project and in working closely with rural people to solve their problems.

However, it has to be admitted that all the staff are relatively inexperienced and need further training in teaching and co-learning techniques and the Project also needs the addition of professional skills and experience that cannot be found in the existing team. Social (sociology and economic) Science skills are needed to work with the groups and with enterprise development. The staff are all natural scientists and while they can improve their sensitivity to social, communication and economic factors, there is no way that they can become social scientists and this expertise is definitely needed.

There is also a need to constantly up date their own technical knowledge and skills. There are some very questionable statements in the study circle materials that are used for discussion with farmers. Some of the fertiliser recommendations are also incorrect and lead the Evaluation Team to suspect that they are still higher levels than are necessary. For example, there can be no justification for applying 44 kg ha-1 of nitrogen to the bean crop, unless it is assumed that 70-80% of this is lost through leaching.

The fundamental importance of maintaining soil organic matter when attempting to develop more sustainable cropping systems does not seem to be evident in any of the notes and one can only suspect that this is not fully understood by the Project Officers themselves. (See earlier note under 4.5.1 Soil fertility)

An equally relevant omission is the absence of a sensitivity to systems thinking and systems of resource use in the wider context.

In the module on soil conservation there is no discussion of the historical processes that have led to the present day situation and the discussion concentrates almost exclusively on the symptoms not the underlying causes of the problem.

Practical, experiential training should also be an integral part of the awareness courses but, although we were assured that this was indeed an important part of the learning process, we did not experience an example of this and most of out assessment of the training courses is based on classroom discussions and lectures.

More use should be made of existing, more mature, project experience, e.g. the Farmer Field Schools with rice cultivation run by CARE, through visits to these, and other projects and farmers who are practising low external input agriculture.

Degree, socio-economic composition and quality of local participation

There appears to be a satisfactory participation by gender and by district in all the activities. (See Appendix 6). It might be useful to look at the participation by age in the different activities and see whether this is a factor that needs addressing. Participation by women appears to be equivalent, and in some cases better, than men's participation.

The data in relation to socio-economic status that appears in the baseline studies do not appear to have been used in identifying different socio-economic groups or in ensuring that the groups that are contacted at least represent the poorest in society. The quality of participation, from the little that we observed and from the feedback from the participants, is excellent.

If the groups are entirely self selected this might lead to the exclusion of some people. The Team should see whether the current approach does exclude or marginalise some groups in society and take steps to ensure their participation if they wish to.

Processes of developing local organisational structures
From the baseline studies and from many reports on these communities we are aware that many different organisations and societies already exist. There are many very active, Burial Donation Societies, SANASA Thrift and Credit movement, and Sarvodaya Societies, for example and many people belong to more than one society. Creating or stimulating the formation of another grouping and society in these circumstances might not be very sustainable. After an initial interest, unless there is a clear purpose and benefit from becoming a member, it is likely that many will drift away. The Project Team is aware of these dangers and as far as possible they are working with and through existing societies.

5.3 Implementation

Physical, environmental, socio-economic and institutional effects of the project in the target areas, using quantitative and qualitative indicators
The physical and environmental impact of the project has been modest so far but there is considerable potential from the reductions in fertiliser and pesticide use. The impact studies carried out so far support this. The support for the building of the fertiliser stores was an interesting initiative and it will now be useful to know whether this activity will be sustainable and whether it has any impact on existing marketing arrangements for fertilisers and pesticides.

Numerical participation in all activities has been significant and has been carefully recorded and summarised in the regular 6 -monthly reports. (See Appendix 6). The formation of societies has led to the development of savings and the availability of loans for members, most of which are being repaid. The loans for the fertiliser stores have not yet been fully repaid but are regarded as being on track.

There needs to be more consideration by the team of appropriate qualitative indicators of change. There are some listed in the Plan of operation of 1998 for SCCEP, but more need to be developed through co-meetings with farmers and other stakeholders.

The effects on patterns of risk and vulnerability
It is too early to make a definitive judgement about this. The baseline studies do not give much indication about the current levels of risk but it is evident from much other evidence about the general state of agriculture that falling prices, unpredictable markets and rising input costs, make the growing of annual crops and the investment in soil conservation measures unlikely to yield reliable returns. The patterns of current debt also make investments less likely. Given the current prices of Sri Lankan tea, farmers might be best advised to plant tea, or, as some have done, search for off farm employment. This history may also have an important effect on farmers' willingness to reinvest in agricultural capital improvements.

However, any technology which can reduce the amount and dependence on external inputs (fertilisers and pesticides) without substantially affecting physical yields, will make an important contribution to a more stable situation. In the longer term, the investment in environmental education should produce a positive effect, but it is not possible to judge this yet. The project would do well to undertake more adaptive research on conservation technologies and the monitoring of a number of case study farms over a number of years together with partner organisations.

Degree of success in promoting techniques of environment friendly agricultural practices and land use

The fertiliser and pesticide reductions and improved safety knowledge have had some significant impact in some villages (see Impact Studies). Most of the practices which relate to soil and water conservation have originated from other projects (both NGOs and integrated rural development projects) working in the area. Most are the result of inducements to individual farmers and they are now in varying degrees of maintenance and incorporation into the existing land management strategies. The Project has used these past interventions as training sites and hopes to use them as focal points for further area development in the future.

The conditions are ready for the implementation of a scaled up version of the environmentally friendly practices in a selection of areas. This approach is supported by much similar work which is being implemented elsewhere and should be attempted in the near future (see, for example: Adolph, 1998; d'Souza, 1998; Pangare et al., 1998; Turton et al., 1998)

Indications of increased production

Apart from some of the data given in the Impact Assessment Reports, which shows the economic benefits of fertiliser and pesticide reduction, there is little evidence that the actions of the project have led directly to increases in crop production. Some farmers did claim that this has, indeed happened but there is a need for more corroborating evidence for this. In any case, yield is not necessarily a reliable parameter to attempt to measure as it is influenced by many different forces and factors outside the control of the farmer.

Improvements in organisation and cooperation

The training, soil testing, group activities and exhibitions have all generated considerable interest and enthusiasm, particularly among young people. Some collective work has been initiated as a result of group formation. It is too early to assess the sustainability of this.

Distribution of benefits (socio-economic classes and gender)

There has been good involvement of men, women and young people. Direct benefits have come through the better use of fertilisers and pesticides by older male farmers, which should have been distributed, to all in their families.

Pilot villages and wider targets

There is evidence from the impact studies that both pilot and neighbouring villages have benefited from the project activities. The activities of the project and its good links with other local organisations are well known to the local administration officers.

Define and test qualitative and quantitative indicators of change

The Project and the baseline studies have accumulated a great deal of quantitative data about the participants and their degree of involvement in the project activities. This can serve as a valuable basis for future analysis of change. However, the quality of some of the data does not allow detailed analysis by socio-economic class. The data indicates good participation by men and women but lacks vital qualitative indicators of change that could best be provided by farmers themselves. A range of other indicators might be explored - water quality, health improvement, well being (as defined by farmers), self generated group activities, greater collective responsibility for action.

Co-ordination and linkages with other organisations

The Project has close linkages with a number of individuals, societies and organisations but in the view of the Evaluation Team these linkages are not formal or effective enough. In the search for other partner organisations following the failure to secure a good relationship with the NCC organisation, the Team has developed links with the SANASA Thrift and Credit Movement, the Sarvodaya Suwasetha Society and other NGOs with the Ministry of Agricul-

ture, several Universities and Agricultural Research stations and some of the main regional development projects.

However, the project management team now needs to establish a professional advisory group, which will play an active role in guiding, steering and monitoring the project direction and activities. This advisory group should consist of representatives of stakeholders and interested professional organisations in the region. Of particular importance is the need for social science advice, training and co-learning and technical expertise in low external input agriculture and farming systems. There are such people who participate in the Project Management Committee, but it might be that less senior (very busy) people should be involved, i.e. people who can take an active interest in the progress of the Project. The team also needs to have more effective links with projects in the region that are undertaking the same kind of activities but may have a longer experience.

5.4 Project organisation

The project is operating in 5 geographical areas in clusters of villages. The main project office is based at Welimada in Badulla District and there is a sub-office at Rikilligaskada, Hanguranketha Division.

Capacity of project in implementing and monitoring activities
The project began with three project officers and this has now risen to 5 during 1998. Only one of these officers is a woman. Most of the officers are newly graduated agriculturists or natural scientists. All have undergone some training since joining the project but in the opinion of the Evaluation Team, this is not yet sufficient to fulfil the objectives of the project.
A full list of the project staff and their training is given in Appendix 4.

The project is managed by a small Project Management Committee which meets 4 or more times a year. This consists of a technical panel of senior officers from the following organisations -

- Sathmaga Participatory Development Foundation - on social mobilisation
- Plan International - on participatory approach
- Soil Science Department of the University of Peradeniya - on soil and water monitoring
- The National Co operative Council - on study circles

Consultants from the regional research stations at Kahagolla and Gannoruna are also used sometimes.

The Evaluation Team studied some minutes of these meetings and found that they appear to focus heavily on administrative and logistical matters and rarely cover substantive strategic issues or directions. This could be a result of the rather brief records of these meetings which are available.

There are also regular workshops and reviews by the Committee, which are attended by the Project staff. It is clear that representative farmers are not normally invited to these reviews and planning sessions.

In the original project document it was suggested that the project appoint a Steering Committee. This has never happened and it is very clear to the Evaluation Team that the appointment of this Committee is long overdue. All other similar projects have Steering Committees and there is no reason why this project should be any different. The Project manager appears to feel that such a Committee would be too directive but this is not the function of such a group. There is a need to draw up carefully agreed guidelines and terms of reference and in appointing active, interested and motivated people, not very senior administrative figures, to the Advisory/Steering Committee. There is no doubt that such a group would be able to give much

needed advice and active support and it would also be a way of making the project activities and achievements more widely known and accountable to farmer clients.

The capacity of the project staff to undertake fieldwork is not clear. The evaluation team feel that more time should be spent by the project team in field based adaptive research, monitoring and development activities.

Analysis of baseline and monitoring data with emphasis on socio-economic stratification and poverty indices

Much of the data collection in the baseline studies and in the impact assessment studies has been collected by university students supervised by professional consultants, some from the University of Peradenyia. The results have been variable, with some problems emerging on the quality of the data and the difficulty of checking some of it. The baseline reports are developed from large survey data sets and the results are presented in substantial documents. Unfortunately, it is difficult to interpret much of this data in any meaningful way as the analysis and differentiation of the information is incomplete. Data are summarised in percentages from the responses but it is not possible to examine the linkages between the different parameters for socio-economically differentiated households. Only aggregated indicators are presented. This gives a general picture but does not help to identify particular groups with whom the Project might focus their work.

The impact assessment reports, supervised by experienced professional staff, are of greater interest and value but the Evaluation team feel that some members of the Project Team would learn a great deal if they participated in this activity much more often and more closely. It cannot be easy to remain in close touch with the different client groups if all the monitoring and evaluation activity is done by outside people and institutions. It is understood that the recent assessment of the impact in Pattipola contained some serious errors in data presentation and these are currently being corrected.

Two suggestions are presented here: -

1. The project officers should be much more involved in active monitoring and assessment activities.

2. In each village, a number of families should be asked whether they would participate in an annual monitoring exercise. These families could be identified through a wealth ranking exercise carried out by a group of families. They should represent a cross section of the farming families with regard to access to resources.

   These activities will give the officers a better understanding of the changing farm situation faced by different families and should influence the way they approach training and field work. They need to admit that they are involved in a co-learning process and that they constantly need to interact and learn from the total environment within which they find themselves.

6. Cost efficiency

Efficiency in Project organisation

Despite the presence of an apparently well experienced Project Management Committee, the evaluation team felt that there was still a serious lack of adequate monitoring and evaluation by the project team itself and this had to be the responsibility of the management team.

While there is an adequate resource allocation in the budget for the routine management of logistical and administrative matters, there is not sufficient attention paid to the setting up and

working of a professional Steering Group which would consist of wider representation and on which there are a range of necessary skills including farmer representatives. This should meet twice a year and have a mandate to review and guide the project programme. This should be in addition to the regular workshops, which take place to display the project activities and achievements.

The project team has not yet carried out a detailed analysis of their linkages with and to other actors and organisations. It is proposed that some resources are allocated to a major stakeholder analysis which should assist in the development of a more comprehensive vision of what the Project is doing.

Efficiency in Training and Education
While the Project has allocated substantial resources to awareness raising, training, group formation, study circles and cooperative activities, the resources devoted to training the project staff are inadequate. All the staff have very basic agricultural or natural science degrees and have had some short term training in relevant skills. However, non of them are trained as trainers in PRA, social mobilisation and gender and development and so they do not have sufficient experience to have developed a sustainable training competence in the necessary and essential co-learning skills. It is now necessary to review the further training needs of all staff by bringing in a professional trainer and assessor.

7. Sustainability

Overall sustainability and potential for replication
There is some evidence that some of the project components, e.g. the fertiliser and pesticide work could be replicated over a wider area. However, it is difficult to say that the Project should do this on its own and it would be a better strategy to link closely with a more widely based agency who could take on these responsibilities and the project could provide back-up.

There is, as yet, no generalisable model to replicate as the project has deliberately chosen to run a series of components rather than a coherent and integrated approach. There is now a need to put together the experience so far and apply some of the findings in a watershed or catchment approach and also learn for other parallel experience in other countries.

The use of video in the exhibitions to illustrate the themes and involve farmers in the discussion of problem areas is very encouraging. Some improvement in the quality of the films could be gained from employing a professional editor to train and advise the current cameraman. It would also be worth training a few villagers in video techniques so that they could take greater control over the process of filming and talking about their environment.

Local capacity for establishment and maintenance of organisational structures which will sustain agricultural and economic activities at village level
The team has decided to establish their own NGO, together with a number of local partners and farmers. This group has begun some commercial activities with the production and sale of compost. This represents a dangerous potential loss of vital nutrients for the area in the short and long term. It is important that the philosophy of this organisation is compatible with the aims and objectives of the project and that, particularly in the garden of the Welinada office where organic farming is being demonstrated there is not an example of dramatic nutrient and organic matter outflow from the local system. It would be better if the two activities were separated completely.

As a way of developing a more sustainable future, this new group could offer certain services to the new district level environmental project run by the Ministry of Environment and Forestry. The fertiliser and pesticide work are areas where they could offer a valuable service.

Some of the training activities could also form part of a package on environmental awareness raising, provided that other, more experienced professional trainers are involved.

The need to achieve a greater integration with other organisations was stressed by the local administrator in Badulla District, Mr J.M.G.J. Bandara, who was very concerned to see the initiative and enthusiasm of the young project team combined with the other efforts to develop farming and livelihoods in a more sustainable manner.

Long term potential of the project with regard to the reduction of poverty and promotion of gender equality

It is not possible to make any judgement about this as yet. To attribute positive changes in poverty or gender equity to project activities such as these is virtually impossible. Had there been a selection of representative families and suitable indicators made at the start of the project and these were then monitored, it might have been possible to get some idea of these changes.

The Evaluators feel that the Project Team needs to take on a wider range of disciplines in the Group in order to develop a greater capacity for interdisciplinary and socio-economic analysis, group formation and farming and livelihood systems analysis. The work and findings so far need to be put together in an action research and development programme in a selection of particularly vulnerable catchments across the districts.

8. Conclusions

The Evaluation team have concluded that, although the project has made some significant progress, it is too early to say with any confidence that the project is mature enough to be greatly expanded or replicated. It needs consolidation, focussing and integrating so that it can be seen to be applied in certain areas and with vulnerable groups of people.

More training is needed for the project staff.

A Steering or professional Advisory Committee needs to be established to guide the project and reformulate the logical framework.

Our recommendation is that the support for the project be extended for another year in the first instance and that further funding should be considered subject to satisfactory progress being made in the next 12 months.

A further, annual review should be made in September 1999. A key question to be addressed then is whether the project has become more integrated with existing wider based projects and programmes in the districts.

Acknowledgements

The Evaluation team would like to extend their warmest thanks to the SCC Resident Representative, Mr Ragnar Arvidsson, the Project manager, Mr D.P. Ranadewa, the Project Officers and all the farmers and their families in Nuwara Eliya and Badulla districts whom we met. Everyone involved went out of their way to answer our many questions, to be present at difficult and unsociable hours and to treat us with the utmost hospitality which was greatly appreciated.

The Evaluation team leader would also like to thank the rest of the team for making the review a very pleasant and enjoyable experience and to acknowledge that he has learned much from the exercise. The Swedish Embassy staff, in particular Mr Ran Morapaya, Mrs Marie Louise Bruzelius and Mr Peter Troste are thanked for their assistance.

Appendix 1. Evaluation of the SCC Environment Project in Sri Lanka

Terms of Reference (abbreviated)

The original terms of reference contained information about the project background including the main problem areas which form the rationale for the Project. This now contained in the introduction to this document. The Project objectives, the purpose and scope of the evaluation and the evaluation methodologies were also set out in this document and these are discussed in the text. This summary contains the essence of the terms of reference to be addressed by the Evaluation Team.

1. Relevance of the Project to the goal, objectives, activities and inputs, including the overall design and assessment of the fit between the problems to be addressed at different levels and the means employed to reach the desired results.

Methodological approaches shall be discussed as well as concrete methods and approaches.

Special emphasis shall be put on the appropriateness of project design with regard to socio-economic and poverty dimensions (including gender) environmental problems and the aim of ensuring an extensive and genuine grassroots participation characterised by a sense of ownership among intended beneficiaries.

2. Achievements: Analysis of the achievements and shortcomings of the project. Special attention to flexibility of project design, i.e., the ability to adapt approaches according to changing stakeholder needs.

2.1 Methods concerning rehabilitation of soils and sustainable production including:-

- innovative approaches,
- productivity
- ecological sustainability
- social and cultural sensitiveness and acceptability of project ideas and activities, including the importance given to understanding local knowledge and values
- cost efficiency
- social and economic sustainability , including financial infrastructure

2.2 Methods concerning local participation

- reaching the rural poor
- support to cooperative structures for sustainable economic activities
- design and application of methods and techniques
- degree, socio-economic composition and quality of local participation
- processes of developing local organisational structures

2.3 Implementation

- physical, environmental, socio-economic and institutional effects of the project in the target areas , using quantitative an qualitative indicators
- effects on patterns of risks and vulnerability
- degree of success in promoting techniques of environment-friendly agricultural practices and land use
- indications of increased production
- improvements in organisation and cooperation
- distribution of benefits (socio-economic classes and gender)
- pilot villages and wider targets
- define and test qualitative and quantitative indicators of change

- co-ordination and linkages with other organisations

2.4 Project organisation

- capacity of project in implementing and monitoring activities
- analysis of baseline and monitoring data with emphasis on socio-economic stratification and poverty indices

3. Cost efficiency

- efficiency of project organisation
- efficiency of training and education

4. Sustainability

- overall sustainability and potential for replication
- local capacity for establishment and maintenance of organisational structures which will sustain agricultural and economic activities at village level.
- Long term potential of project with regard to reduction of poverty and promotion of gender equality

Appendix 2. Itinerary and diary

June- July	Appointment of team leader and local team including deputy team leader.
August	(Colombo). Briefing of local team and preliminary visit to project area
	(Colombo and Uppsala) Reading of project documents- reports, appraisal and evaluation.
8th -14th	Sri Lankan Team visits selected villages in Project area.
15th-16th	Team Leader DG travelled to Colombo. Meeting with Ragnar Arvidsson. Briefing on history and present status of project. Reading of documents. Meeting with Project manager, Mr D.P: Ranadewa.
17th	DG and AK travelled to Kandy. Stayed at Hotel Janaky. Meeting with Mr A. Lecamwasam.
18th	Met Mrs S. Girihagama and all travelled to Nuwara Eliya District and to Project sub-Office at Rikilligaskada, Hanguranketha Division Meeting with T. Wickramasinghe, District Coordinator Badulla District, and Project Manager. Other support staff (three trainee project officers) also present and group of trainees who were interviewed. P.m. Travelled to Madawalatenna village. Met mixed group of men and women farmers. Discussion of income generating activities and women's groups. Viewed gully conservation with trained Change Agent, co-operative society, straight fertiliser use. Previous growing of tobacco and encouragement of stone built terraces. To Wadawale village. Met vegetable growing group. Composting demos. High use of chemicals still. Budget showed little benefit in reduced costs. Returned to Hotel Sriland. Evening discussion of the day. Key questions identified. Water is main problem (according to farmers)
19th	Pusslamankada village. Composting demonstration. Land formerly degraded but now well protected with *Glyricidia spp* fences and trees in terraces. Farmers waiting for supply of pepper plants. *Glyricidia* to be used as supports. No serious erosion problem here. Good understanding of situation by all farmers talked to. Many farmers had relatively large land holdings and many fruit trees evident - a good example of a forest garden/agroforestry system. Rented lower valley lands for vegetable production. Travelled to Welimada. Change agent class. Room arrangement as lecture. Mixed group, men and women. Attended study circle in evening. All young men. Composting stage 3. Group leader leading the discussion. Stayed at Guest House.
20th	Welimada Project Office. Met team. Busy with training programmes. Met some trainees over next few days. Discussions with project manager on Programme. Consultation of documents and individual discussion with team members. Review of materials used in training. Review of training of officers. Need for reference materials on PRA, community mobilisation, techni-

cal knowledge, and links with organic agriculture organisations. Need for research component?

Visit office garden ecological site. Compost making facility of NGO. Use of imported straw, urea, manure, mechanical chopper, plastic bags and labour? Rest of garden partly developed but not fully operational as demonstration farm.

Discussion of soil testing activity and collaboration with University Soils Department with R.M.A.C. Rajakaruna. Kit costs Rs 200.000
Charge for analysis Rs 285 per sample but quick response.

Discussion on pesticides and pest and disease problems. Most farmers spray as a routine. Fungicides important in wet season.
Project Officer W.M.R.R: Bandara trying to develop a greater awareness of alternative pest and disease control methods.

Discussions with finance officer and with trainees.

Discussion with Ms Chandrika Jayasekara. (Dairy Science specialist)
Opportunities for small-scale dairying. Mobilise through NGO Kshemaboomi. Working women only available in evenings.
Women better communicators of new knowledge than men.
Composting activity by NGO not sustainable?

14.00. Meeting with District administrators: - J.M.G.J. Bandara, District Secretary, Welimada. Mr D.G. Wijeratne, Assistant Director (Planning). DG and AL. History of area. Planning interventions, changing policies, cooperative societies and political influence. Very positive about Project, but need to link with other activities in wider context. Good to work with young people. Need to study other projects. Cannot work in isolation. Project should put knowledge together in particularly poor areas - on watershed basis.

16.00. Welimada office. Viewing of videos of different villages taken as prelude to exhibitions. E.g. Udubadana village. Landscape, problem areas. Farmers questioned and discuss problem areas. Pesticide and erosion problems. Could greatly improve with advice from professional editor and careful planning of film. Should also give camera to farmers and encourage them to talk to it.
Composting film. Schools programme.

21st Kabilladowa village. 7 small groups. Loan of Rs 30,000. 75% repaid. Fertiliser store. Shop. Store with severe condensation on ceiling. Needs vent. bricks.
Galahagma village. A poor, degraded area mainly fallow on hill slopes. Mostly Crown or former Crown lands. Land ownership not clear. Difficult to get permits to cultivate. Fertiliser Store (with ventilation holes). Field Officer Mr Dinash Gayasinghe in charge of store and records of fertiliser and other goods sold. Group activity: mainly young people clearing area so that vehicles could turn round.
Discussions of DG, SG and Al with different group members and small groups who were working in terraces.
Discussion of history of land use and explanation of different states of soil and crop condition on different parts of the slope.

Good discussion and view of "the problems" leading us to think that a better perspective would be to think about water management - quality and supply over the year.

Perawella village. Farmer 1 terraces with Vetiver grass and tethered calf. Terraces partly used for crops. Top soil poor. Grasses come for previous inputs from Mahaweli project.

Farmer 2. Wealthy farmer. Big house, legumes on terraces, cattle shed and new on funded for son, by project. Cost Rs 10,000 and Rs 20,000 for cow. (cross-bred - Ayrshire/Jersey/ local?? manure dropped into pit but not managed. Felled Eucalyptus tree nearby - worth Rs 22, 000

Later. Further discussions with project manager on loan policy of project. Began but later stopped as expectations were raised and not all repaid. Also discussion of training methods, Training of staff, development of ecological ideas with 20 farmers. Discussion of technical training needs. Study circle principles and uptake. More materials being made. Need for update of knowledge.

22nd

2 hours interaction with staff and Evaluation team on: -

1. Problem analysis. Discussion of procedures and tracing back to root causes.
2. Assessment, planning and monitoring of project linkages and information flows with other stakeholders.

Evening: visited exhibition at Idama village. Held in Temple buildings. One hall with posters, live material, team members demonstrating. 100 people present? Many young, mainly men - maybe 2/3 rds. Video had been taken in the afternoon and now shown with great interest. Several interviews with farmers: -

1. Serious debt problem faced by several farmers (many?). Past high yields of potatoes- good prices- big loans taken out- crash in prices, diseases, losses, - debts. Some farmers had land repossessed.
2. Problems with loan defaulters in societies.
3. Difficult to farm without chemicals
4. If land fallowed with *Tithonia diversifolia* planted, will recover quickly.

23rd

Return to Kandy via Nuwara Eliya, tea estates and village where forest gardens were introduced.
DG at Swiss Residence Hotel. AL and SG return home.

24th

Visit to University of Peradenyia. Meetings with Dean, Dr K. Goonasekera, The Head of Crop Science, Dr Thattil and the Director of the Post Graduate Institute of Agriculture, Professor H.P.M. Gunasena. Discussion on Project and support possibilities. The PGIA can offer training for staff.
DG returns to Colombo. Stayed at Galle Face Hotel. Writing.

25th

Meeting DG and AK. To summarise findings. Work on summary.
DG and RA meet. Printing out of first draught summary

P.m. Swedish Embassy. Meeting of RA,DG,AK, Mrs Marie Louise Bruzelius (First Secretary and Deputy Head of Mission) and Peter Troste (First Secretary, Technical). Briefing on main findings and discussion of wider context.

26th	03.15 DG returns to London and Sweden.
September 4th	First draft of report sent to rest of Evaluation team.
24th	Draft Report sent to Sida

Appendix 3. Documents consulted and relevant reference material on project themes

Adolphr, B. (1998) Scaling up participatory approaches to watershed management: challenges and valuation of soil erosion and soil conservation measures - a case study of the Perawella area in the Upper Mawaweli Catchment. Technical Report No. 20. Forest/Land Use Mapping project, Environment and Forest Conservation Division, MASL, Polgolla.

D'Souza, M. (1998) Watershed Development - creating space for women. AREN. Network paper No. 88b ODI London July 1998.

Goonasekera, K. (1995) Baseline survey of five selected villages in Nuwara Eliya District. Halpola, Navakadadora opportunities. Integrated systems project report series No. 7. Univ. Hohenheim and ICRISAT. Hyderabad, India.

Arvidsson, R. (1998) Progress Reports for SCC project activities in Sri Lanka. 1.7.95 to 31.12.95; 1.1.96 to 30.6.96; 1.1.97 to 30.6.97.

Birgegaard, L., K.Larsson and R.Mulleriyawa (1996) Evaluation of the SCC supported programme for Co-operative Development in Sri Lanka.
Very critical review on SCC project with comments about need to restructure and redirect project to bring greater empowerment to farmers. These questions have not been addressed.

Clark, R. (1994) Economic, Pattipola, Summer Hill and Seetha Eliya.

Goonasekera, K. (1997) Baseline survey of five selected villages in the Badulla District. Divulgasmulla, Ranasinghegama, Uva Mawalagama, Galahagama and Kabilladowa.

Griggs, T. (1998) Solutions to Sri Lanka's Erosion Woes. Partners in Research and Development. No. 11 May 1998. P 2-7 ACIAR.
Historical and socio-political analysis of the soil degradation problem. 4 year study. Recommendations on remedial strategies and policies.

Gunasekera, K (1995) Education and Cooperative Action of Farm Families for Sustainable Agriculture

Gunasekera, K. (1997) Baseline Survey of Five Selected Villages in Badulla District

Gunawardena, A.S. (1995) Appraisal of Project Proposal for Education and Cooperative Action of Farm Families for Sustainable Agriculture

Hellstrom, A (1995) Education and Cooperative Action of Farm Families for Sustainable Agriculture
Comments on original project proposal. Urges the study of the reasons for the present state of the areas, a consideration of the tea estate sector effects, land rights studies, sustainable agriculture as an objective, need for qualitative indicators, animal husbandry as a key component, staff training important.

Jayakody, A.N.S. (1996) Baseline Soil Analysis Report. Demonstration sites at Nuwara Eliya District. Pattipola, Summer Hill, Halpola and Navakadadora villages.

Jayakody, A.N. (1997) Evaluation of Plant Nutrients in major water bodies at Pattipola in Nuwara Eliya District of Sri Lanka. Dept. Soil Science, Peradeniya.

High levels of chemicals and acidification in well water and irrigation water. Increased algal growth in wells. Nitrogen in irrigation water as high as 20kg/ha.
Jayatilleke, C. (1998) Farmers practice do-it-yourself pest management. Daily News. Sat. August 22nd 1998.
CARE programme in Kandy area on Farmers'Field Schools on Integrated Pest Management on rice. 30,000 people trained. A useful model for the SCCProject Team to examine.

Pangare, V.L. (1998) Gender issues in Watershed development and management in India. AREN Network Paper No. 88a. ODI London. July 1998.

University of Peradeniya (1998) Post Graduate Institute of Agriculture Prospectus 1998-2000.
Courses on offer. Will also do special courses tailored to needs. The project Team could commission a course or courses to upgrade their skills. Agricultural Extension Department offers the most appropriate courses in relation to current needs.

University of Peradeniya (1991) Faculty of Agriculture Prospectus 1991-1995.
Note that farming systems courses only taken by those doing livestock specialisation.

Ranadewa, D.P. (19989 Plan of operation for the SCCEP. 1.1.98 to 31.12.98

Ranadewa, D.P. (1998) Progress Report for SCCEP in Sri Lanka. 1.1.98 to 30.6.98

SCCEP (1998) Study Circle Notes for discussions: Use of fertiliser, Soil conservation, Organic fertiliser. Translations from Sinhala.
These are notes used in leading discussions in the study circles. They contain some errors and some questionable material which needs technical revision. They lack a systems perspective.

SCCEP (1998) Plan of Operation - Year 1998. The Environment Project.

SCCEP (1998) SCCEP Annual Report Year 1997. Ragnar Arvidsson.

Rajakaruna, C., L. Lokubalasooriya and D.P. Ranadewa (1996) Report on the progress of the soil testing activity. pp. 9.

Rajakaruna, C. (1996) Soil testing and Fertiliser Recommendation programme.

Ratayake, R.M.S.K (1997) Impact Assessment of the SSCEP at Kabiladowa and Galahagama.

Ratayake, R.M.S.K. (1997) Impact Assessment of SCCEP at Pattipola. Draft Report July 1997.

SCCEP (1998) Project Management Committee Minutes. Meetings 12, 15, 16, 17, 18.
Brief minutes of the meetings held between 19th April 1996 and 4th June 1997. Between 4 and 7 people present.

Turton, C. M. Warner and B. Groom (1998) Scaling up Participatory Watershed development in India: a review of the Literature. AREN Network Paper No. 86. July 1998. ODI London.

LIST OF OFFICERS IN THE PROJECT – REGULAR CADRE

Name	*Qualifications*
1. Mr. D.P. Ranadewa Project Manager	Bsc. Sp (Hons) Degree in Agriculture. Training on Project Management (AIT, Thailand). Short Term Training on: - People Participatory Approach, - Social Mobilization, - Gender & Development, - Audio Visual Aids Production.
2. Mr. T. Wickramasinghe District Co-ordinator (Badulla)	Bsc. Sp (Hons) Degree in Agriculture Short Term Training on: - People Participatory Approach, - Social Mobilization, - Gender & Development.
3. Mr. U.K. Nanda Udumalagala Project Officer Hale-Ela, Bandarawela	Bsc. Sp (Hons) Degree in Agriculture Short Term Training on: - People Participatory Approach, - Social Mobilization, - Gender & Development, - Audio Visual Aids Production.
4. Mr. R.M.A.C. Rajakaruna Project Officer Ulwa-Paranagama	Bsc. Sp (Hons) Degree in Agriculture Short Term Training on: - People Participatory Approach, - Social Mobilization, - Gender & Development, - Audio Visual Aids Production.
5. Ms. Chandrika Jayasekara Project Officer Welimada	Bsc. Sp (Hons) Degree in Agriculture Short Term Training on: - People Participatory Approach, - Social Mobilization, - Gender & Development.

LIST OF OFFICERS UNDER THE TRAINEE CADRE

Name	*Qualifications*
1. Mr. Ranjith Bandara Welimada	Bsc. Degree in Bio Science. Short Term Training on: - People Participatory Approach, - Social Mobilization, - Gender & Development.
2. Mr. Kinsley Peiris Hanguranicetha	Diploma in Agriculture. * Soil Conservation Techniques (UMMP – Polgolla & Thailand)

Contd. LIST OF OFFICERS UNDER THE TRAINEE CADRE

Name	*Qualifications*
3. Mr. K.A. Wijekoon Hanguranicetha	Diploma in Rural Banking (SANSA Training School) Short Term Training on: - People Participatory Approach, - Social Mobilization, - Gender & Development. - Audio visual Aids Production.
4. Mr. Kapila Herath Hanguranicetha	Short Term Training on: * Soil Conservation Techniques (UMMP – Polgolla) * Plant Nursery Management (AIT, Thailand), * People Participatory Approach (India)

LIST OF FIELD STAFF (GROUP PROMOTERS)

Name	*Qualifications*	
Mr L.D. Chandrasena	Up to GCE O/L	Ulwa-Paranagama
Mr. Ruwan Deepthi Seneviratne	Up to GCE O/L	"
Mr. Dinesh Jayasinghe	Up to GCE O/L	"
Mr. R.M.A. Ratnayake	Up to GCE A/L	"
Mr. B. Ariyapala	Up to GCE O/L	Nuwara-Eliya (Pattipola)
Mr. R.M.G.G. Abesinghe	Up to GCE O/L	Hanguranicetha
Mr. A.H. Abekoon	Up to GCE O/L	"
Mr. A.M.G. Loku Banda	Up to GCE O/L	"
D.M. Madduma Banda	Up to GCE O/L	"
Mr. A.M. Piyaratna	Up to GCE O/L	"
Mr. Udaya Kumara Tennakoon	Up to GCE A/L	"
Ms. R.M. Sriyani Ranathunga	Up to GCE A/L	"

45 – Volunteer facilitators
60 – Active facilitators from other organizations

All the field staff members have followed the SCC Environment Project training programmes on social mobilization and appropriate agricultural practices for up-country farmers.

BUDGETS SINCE 1995

SWEDISH COOPERATE CENTRE
ENVIRONMENT PROJECT

F EXPENDITURE FOR THE MONTH JULY 1998

OPERATIONAL FUNDS EXPENSES JULY 1998
A/c No. 100231

	Expenses upto last month	Expenses for current month	Total	Budget component	Balance
Wages	554213.00	82234.50	636447.50	1099600.00	463152.50
Project staff housing	47500.00	7500.00	55000.00	75000.00	27500.00
Expenses for travel on duty	77483.85	17561.75	95045.60	160000.00	64954.40
Social cost	0.00	10350.00	10350.00	140400.00	130050.00
Leased,rented premises	229214.05	6346.50	235560.55	270000.00	34439.45
Office supplies & stationeries	73470.18	10555.00	84025.18	48000.00	-36025.18
Maint. and repairs of equipmen	60490.00	2995.63	63485.63	50000.00	-13485.63
External services	176952.70	50000.00	226952.70	500000.00	273047.30
Telecom & mail	53880.28	11544.50	65204.78	120000.00	54795.22
Vehicle expenses	0.00	0.00	0.00		0.00
Fuel expenses	172918.68	31056.30	203974.98	300000.00	96025.02
Maintenance expenses	306555.80	51700.30	370256.10	300000.00	-70256.10
Hiring expenses	36847.50	200.00	37047.50	100000.00	62952.50
Information and publicity	63641.50	0.00	63641.50	50000.00	-13641.50
Insurance and security	8210.80	0.00	8210.80	80000.00	71789.20
Audit fees	0.00	0.00	0.00	150000.00	150000.00
Miscellaneous ope. expenses	18326.10	0.00	18326.10	50000.00	31674.90
Activities	0.00	0.00	0.00		0.00
1. Awareness meetings	127824.95	4643.50	132468.45	142000.00	9531.55
2. Village Facilitators	81082.25	14338.00	95420.25	285000.00	189579.75
3. Study circles	55012.37	52765.20	107778.57	176000.00	68221.43
4. Technical training	7572.00	81.00	7653.00	75000.00	67347.00
5. Leadership training	9539.30	0.00	9539.30	81000.00	71460.70
6. Change agent training	96228.60	20285.00	116513.60	236000.00	119486.50
7. School programmes	20328.20	37594.00	57922.20	100000.00	42077.80
8. Group formation	166066.00	23273.00	189332.00	329000.00	139668.00
9. Co-operative actions	53437.50	30223.33	83660.83	48000.00	-35680.83
10. Soil conservation	21815.00	0.00	21815.00	125000.00	103185.00
11. Soil testing & fertilizer recc	1832.50	0.00	1832.50	50000.00	48167.50
12. Organic farming	106681.75	17268.00	123949.75	100000.00	-23949.75
13. Farm trials	210.00	0.00	210.00	25000.00	24790.00
Deposit Refund	0.00	2195.00	2195.00	8740.00	6545.00
Total	2824104.76	494703.51	2626289.76	5258740.00	2632450.24
**Bank balance Rs.	1944439.70				
Cash in hand Rs.	69.59				

SRI LANKA PROJECT: 503, ENVIRONMENT PROJECT
FINANCIAL YEAR - ___/98
CERTIFIED EXPENSES IN SRI LANKA OVER LOCALLY MAINTAINED ACCOUNTS BY QUARTER

PROJECT 503

ACCOUNT NAME	A/C CODE	1 QUARTER SL RS.	2 QUARTER SL RS.	TOTAL SL RS.
PAYMENTS				
Wages and salaries	4500	266,639	286,824	553,463
Project staff housing	4540	20,000	27,500	47,500
Travel on duty	4553	44,126	33,359	77,485
Social costs	4560	36,874	37,567	74,441
Leased rented premises	4600	209,334	15,563	224,897
Office supplies and stationery	4650	51,106	25,614	76,720
Repairs and maintenance	4660	47,520	26,196	73,716
Local service consultants	4670	168,548	48,740	217,288
Telecom and mail	4680	26,711	26,950	53,661
Vehicle expenses	4690	390,888	253,407	644,295
Information and publicity	4720	45,066	18,575	63,641
Insurance and security	4730	47,450	8,529	55,979
Special Org. Exp./Project meetings	4740	25,237	3,858	29,095
Education and training	4750	439,676	360,911	800,587
Misc. Operational expenses	4760	18,325	-	18,325
Halpola Mihikatha Surakeeme Samithiya		11,578	-	11,578
		1,849,078	1,173,593	3,022,671

SRI LANKA PROJECT: 503, ENVIRONMENT PROJECT
FINANCIAL YEAR - _ /97
CERTIFIED EXPENSES IN SRI LANKA OVER LOCALLY MAINTAINED ACCOUNTS BY QUARTER

PROJECT 503

ACCOUNT NAME	A/C CODE	1 QUARTER SL RS.	2 QUARTER SL RS.	3 QUARTER SL RS.	4 QUARTER SL RS.	TOTAL SL RS.
Wages and Salaries	4500	251,627	219,568	175,720	153,069	799,984
Expatriate accommodation	4541	-	11,250	11,250	20,000	42,500
Travel on duty	4553	40,816	37,658	32,070	48,962	159,506
Social cost	4560	-	33,750	46,230	58,108	138,088
Leased rented premises	4600	124,898	32,988	22,648	38,836	219,370
Small items of equipment	4640	5,858	-	-	-	5,858
Office supplies and stationery	4650	24,689	52,900	32,808	36,072	146,469
Repairs and maintenance	4660	22,354	-	-	-	22,354
Local service consultants	4670	270,071	259,885	581,011	322,307	1,433,274
Telecom and mail	4680	17,114	22,627	27,320	33,979	101,040
Vehicle expenses	4690	172,625	166,869	248,510	230,750	818,754
Information and publicity	4720	15,855	7,739	-	-	23,594
Insurance and security	4730	18,874	29,415	-	10,707	58,996
Special org. exp./Project meetings	4740	16,000	14,800	6,230	17,550	54,580
Education and training	4750	460,344	693,306	756,112	751,280	2,661,042
Misc. operational expenses	4760	38,201	11,126	-	-	49,327
Purchase of Machines and Equipment	4785	-	-	78,350	678,100	756,450
Purchase of plants and Others		85,805	65,000	-	75,903	226,708
Awards expenses - Halpola		-	-	15,000	-	15,000
		1,565,131	1,658,881	2,033,259	2,475,623	7,732,894

SRI LANKA PROJECT: 676, ENVIRONMENT PROJECT
FINANCIAL YEAR - 1995/96
CERTIFIED EXPENSES IN SRI LANKA OVER LOCALLY MAINTAINED ACCOUNTS BY QUARTER

PROJECT 676

ACCOUNT NAME	A/C CODE	1 QUARTER SL RS.	2 QUARTER SL RS.	3 QUARTER SL RS.	4 QUARTER SL RS.	5 QUARTER SL RS.	6 QUARTER SL RS.	TOTAL SL RS.
		1 9 9 5 / 9 6						
Wages & Salaries	4500	97,661	157,967	222,650	272,248	194,581	192,749	1,137,856
Supp. Compensation	4530	20,442	27,877	-	-	-	-	48,319
Expatriate Accommodation	4541	-	1,250	38,051	18,750	30,000	15,000	103,051
Night Allowances Accomodation	4552	45,597	-	-	-	-	-	45,597
Travel on Duty	4553	-	22,089	24,440	335,904	48,014	67,347	497,794
Social Cost	4560	-	-	7,736	-	1,664	-	9,400
Other Personnel Expenses	4580	2,350	27,120	-	-	-	-	29,470
Lease Rented Premises	4600	-	409,500	756	-	141,912	87,900	640,068
Small Items of Equipment	4640	1,875	7,478	-	4,194	35,025	133,665	182,237
Office Supp. & Stationery	4650	28,756	42,721	40,999	58,542	48,875	49,534	269,427
Repairs and Maintenance	4660	-	2,700	20,679	-	31,089	73,244	127,712
Local Service Consultants	4670	85,517	148,716	52,304	27,750	149,800	275,161	739,248
Telecom & Mail	4680	21,140	18,975	12,522	28,971	27,656	34,718	143,982
Vehicle Expenses	4690	113,832	153,004	126,854	157,776	143,476	213,230	908,172
Information & Publicity	4720	-	106,389	4,565	4,823	-	3,500	119,277
Insurance, Security	4730	(756)	-	-	-	95	149,424	148,763
Special Org. Exp. Project Meetings	4740	10,068	-	-	14,844	16,591	12,930	54,433
Education & Training	4750	288,956	240,382	325,068	230,258	296,480	449,198	1,830,342
Mis. Expenses	4760	1,542	13,948	15,318	556	-	-	31,364
Purchase of Agri. Inputs	4782	87,645	904,154	530,399	(239,647)	195,186	-	1,477,737
Purchase of Printing Materials	4784	-	-	16,170	2,500	-	-	18,670
Purchase of Equipment	4785	-	6,200	26,585	30,500	-	-	63,285
Purchase of Vehicles	4788	-	133,000	-	-	100,000	-	233,000
Revolving Fund Contribution	7810	400,000	500,000	613,908	-	117,000	-	1,630,908
Purchase of Plants		-	-	-	-	99,290	118,002	217,292
Purchase of Equipment for Halpola Village		-	-	-	-	44,947	-	44,947
Purchase of Building Materials -								
Kabiliadowa Agriculture Service Centre		-	-	-	-	-	75,000	75,000
Galahagama Agriculture Service Centre		-	-	-	-	-	75,000	75,000
Expenses for Silk Co-operative Society		-	-	-	-	-	2,250	2,250
Expenditure financed through money transferred from Revolving Fund Account		-	-	-	-	-	(371,759)	(371,759)
		1,204,625	2,923,470	2,079,004	947,969	1,721,681	1,656,093	10,532,842

EXPLANTORY NOTE

Fund Statement Balance	1,204,625	3,542,916	3,422,001	1,409,284	2,080,364	2,027,852	13,687,042
Agri. Input Sales Income/Funds transferred from Revolving Fund	-	(619,446)	(1,342,997)	(461,315)	(358,683)	(371,759)	(3,154,200)
	1,204,625	2,923,470	2,079,004	947,969	1,721,681	1,656,093	10,532,842

OJECT: 676, ENVIRONMENT PROJECT
AR - 1994/95
PENSES IN SRI LANKA OVER LOCALLY
ACCOUNTS BY QUARTER

S	A/C CODE	1 9 9 4 / 9 5 1QUARTER	2QUARTER	3QUARTER	4 QUARTER	TOTAL
		SL RS.	SL RS.	SL RS.	SL RS.	SL RS.
laries	4500	-	27,948.00	121,526.75	94,572.00	244,046.75
ensation	4530	-	20,152.02	38,544.30	32,507.08	89,203.40
owances Accomodat	4552	-	-		4,890.00	4,890.00
Travel on Duty	4553	-	-	26,928.01	26,597.95	53,525.96
sts	4560	-		10,000.00	4,462.00	14,462.00
onnel Expenses	4580	-		2,876.90	2,216.35	5,093.25
nt	4590	-	4,500.00	-	-	4,500.00
anted Premises	4600	-	240,000.00	-	70,000.00	310,000.00
Equipment	4610	-	40,000.00	-	-	40,000.00
eas of Equipment	4640	-	2,427.50	-	5,296.00	7,723.50
upplies & Stations	4650	-	18,336.95	16,491.00	29,666.75	64,494.70
& Maintenance	4660	-	1,000.00	3,873.00	20.00	4,893.00
vice Consultants	4670	2,400.00	19,500.00	28,000.00	66,987.35	116,887.35
& Mail	4680	-	533.00	42,451.67	16,493.59	59,688.26
Expenses	4690	-	9,925.24	93,763.92	63,217.20	166,906.36
and Transport	4700	-	28,968.10	-	-	28,968.10
tion & Publicity	4720	-	-	-	62,904.70	62,904.70
ce Security	4730	-	-	-	9,287.12	9,287.12
l Org. Exp. Project	4740	5,000.00	121,344.85	22,095.00	61,573.80	210,013.65
ion & Training	4750	-	59,200.00	116,041.85	308,083.20	483,325.05
xpenses	4760	-	10,061.86	-	180.87	10,242.73
se Machines & Equipm	4785	-	145,000.00	102,078.25	333,928.00	581,006.25
se Furniture& Fittin	4786	-	48,525.00	-	-	48,525.00
se Vehicles	4788	-	-	338,654.16	50,198.97	388,853.13
ving Fund Contributio	7810	-	-	-	1,600,000.00	1,600,000.00
		7,400.00	797,427.52	961,524.81	2,843,087.93	4,609,440.26

SCCE PROJECT RESOURCES

Villages: 160 Organizations: 160

Resources	Existing
Human Resources:	
Project Manager	01
District Coordinator	01
Project Officers:	
Regular:	03
Trainee:	04
Group Promoters:	13
Project Assistants:	05
Drivers	03
Transport	
Vehicles	03
Motor Bikes	10
Project offices and Training centre with Main electricity and telephone Facilities	02
Audio Visual Instrument	
TV sets	03
Vedio Deck	03
Slide Projectors	02
Over Head Projectors with Screen	02
Vedio Camera	02
Still Camera	02
Other Office Items	
Computer with printer	02
Furniture	[illegible]
Study Circle Manuals	1000x3
External Consultants (Regular Basis)	
Social Mobilization	-
Agriculture Research and Development	-
Participatory Approach	-
Gender and development	-
Rural development	-
Training for project staff	

EXPENDITURES INCURRED FOR THE ENVIRONMENT PROJECT INCLUDING INVESTMENTS IN VEHICLES AND EQUIPMENT.

Year:	Rupees:	SEK. at average rate of 7,60:-
1994-1995 01-07 - 30-06	4,609,441/-*	606,505:-
1995-1996 01-07 - 31-12	10,532,842/-*	1,385,900:-
1997	7,732,894/-	1,017,486:-
1998 01-01 - 31-03	1,849,078/-	243,300:-
Total	24,724,255/-*	3,253,191:-
Less Revolving Fund not used	2,680,000/-	352,631:-
Total net fund used	22,044,255/-	2,900,560:-

* Rupees 2,680,000 is included in these amounts for building up a Revolving Fund.
The Revolving Fund has not been used and the money available in the Fund, as per above, will be used during 1998 to meet operational costs of the Environment project. thus, this amount is to be reduced from the total funds utilized during the period.

In addition to the costs as per above, the SCC Resident Representative has used 500 working hours per year and 250 working hours for the period 01-01-1998 to 31-05-1998 as an adviser and facilitator for the Environment project including travelling time.

NUMERICAL INDICATORS OF MAIN ACTIVITIES (EXTRACTED FROM PROGRESS REPORT, 1/1/98 – 30/6/98)

TABLE 1 : Initial awereness meeting conducted during the reporting period.

Geographical region	Number of programs	Number of villages	Participation		
			Male	Female	Total
Hanguranketha	23	17	1196	715	1911
Uva-Paranagama	26	18	991	811	1802
Welimada	18	15	891	724	1615
Kotmale	02	02	174	131	305
Hali-Ela, B'wela	09	09	513	605	1118
Reporting period	78	61	3765	2986	6751

TABLE 2 : Follow up programmes conducted during the reporting period.

Geographical Region	No of Programmes	No of Villages	Participation		
			Male	Female	Total
Hanguranketa	09	06	139	45	184
Uva Paranagama	05	05	132	52	184
Welimada	04	03	60	64	124
B'wela,Hali-Ela	11	11	128	199	327
Haputale					
Reporting period	29	25	459	360	819

TABLE 3 : gives the details of grass root level facilitators

	Reporting Period			Total Project Period		
		Of Whom Women			Of Whom Women	
	Facili-tators	Num-ber	%	Facili-tators	Number	%
SCC	45	19	42.2	63	22	35
IRDP-Badulla	22	09	41	22	09	41
Samurdhi				322	124	38
U.G.K.				42	38	90
SANASA				38	19	50
Total				487	212	43.5

U.G.K : Uwa Govijana Kendraya

Table 4 : Participation for Study circle Group discussions

Subjects	Reporting Period					Total Project Period				
	Number of			Of Whom Women		Number of			Of Whom women	
	Circles	Villages	Parti-cipants	Num-ber	%	Circles	Villages	Participants	Number	%
Environment Awareness	10		81	26	32	169		1443	830	57.5
Soil Conservation						40		360	112	31
Fertilizer Use	24		216	92	42	101		775	189	24.3
Pest Control						15		155	8	05
Disease control						19		180	8	04
Safety use of Pesticide						15		125	45	36
Total	34		297	118	40	359		3038	1192	39.2

Table 5: describes the progress of follow up programmes conducted under the School Programme

Type of Programme		# Programmes	Ave. Participation			# schools in which programmes conducted
			Total	Of Women Female		
				Number	%	
Teachers Training	R.Period	02	36	23	63.88	26
	T Period	07	86	46	53.48	33
Student Leader Training	R.Period	01	120	50	41.66	16
	T Period	05	168	75	44.64	28
Skill Development	R.Period					
	T Period	04	80	37	46.25	16
Student Committee formation	R.Period	11	110	50	45.45	11
	T Period	16	160	75	46.87	16

TABLE 6: explains the people's participation for soil conservation practices.

Mea-sures	Reporting Period				Total Project Period			
	Number of			Estimated Acerage Covered	Number of			Estimated Acerage Covered
	Villages	Small Groups	Farmers Practising Measures		Villages	Small Groups	Farmers Practising Measures	
General SALT Practises					12	108	332	117ac

TABLE 7 : explains the impact of the soil testing activities

Measures / Activities	Reporting Period				Total Project Period			
	Number of		Estimated Savings		Number of		Estimated Savings by farmers	
	Villa-ges	Far-mers	1000 Rupees	Tonnes of Chemi-cals	Villa-ges	Far-mers	1000 Rupees	Tonnes of Chemic als
Soil tests undertaken		03			22	191		
Fertilizer recommen-dation issued		03			22	191		
Farmers practising recommen-dation		03			22	191		

Table 8: Progress of Participation for Compost Making Activity in two districts (from January to June 1998)

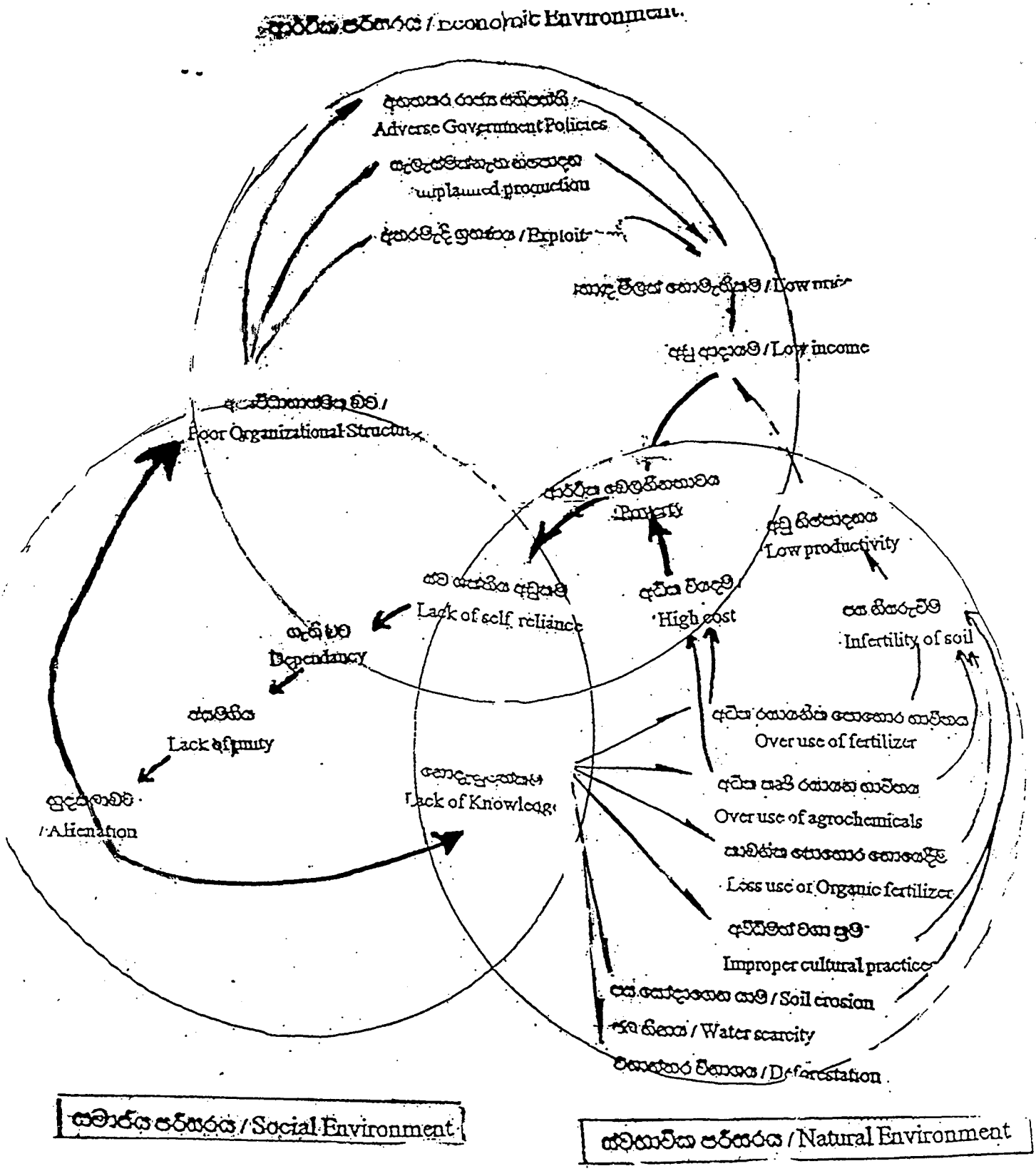
	# Villages	Participation				Quantity of Compost made
		Adults			Children	
		Total	Of Women Female			
			Number	%		
Reporting period	37	139	56	40.2		12025 Kgs
Before the R.P.	20	116	29	25.0	79	12640 Kgs
Total	57	255	85	37.7	79	24665 Kgs

TABLE9: Details of forest gardens

	Reporting Period						Total Project Period					
	Number of			Of whom Women		Number of Plants	Number of			Of Whom Women		Number of
	Villages	Small Groups	Participants	Number	%		Villages	Small Groups	Participants	Number	%	Plants
Preparation of farm plan							4	28	228*	133	58	
Planting of boundaries							4	28	228	133	58	
Planting of first canopy							4	28	228	133	58	
Planting of second canopy							4	28	228	133	58	
Total							4	28	228	133	58	31443

TABLE10: gives the details of Small Groups and their Savings (During January to June 98)

	Number of			Of Whom Women		Total Savings Rs	Savings per Group Member Rs
	Villages	Small Groups	Small Group Members	Number	%		
Reporting Period New Groups	06	37	247	110	44.5	83026.00	336.13
Reporting Period Old Groups	51	119	1841	701	38	110460.00	60.00
Total Reporting Period	57	156	2086	811	38.8	193486.00	93.00


Adverse Government Policies
Unplanned production
Exploit
Low income
Poor Organizational Structure
Poverty
Low productivity
Lack of self reliance
High cost
Infertility of soil
Dependancy
Lack of unity
Over use of fertilizer
Lack of Knowledge
Over use of agrochemicals
Loss use of Organic fertilizer
Improper cultural practice
Alienation
Soil erosion
Water scarcity
Deforestation
Social Environment
Natural Environment

PROBLEM NET

Appendix 7. Selected notes on field visits made by the Evaluation Team

1. Villages visited: - Udubadana, Mudunpitagama, Welubissawela, Katagoda, Jennakoowela, Kebilladowa, Ketyapathana, Pussellamankada, Lamasuriyawela, Madawelatenna, Wadawela, Galahagama, Perawella, Idama.

2. Small working groups met in most villages. Both men and women and mixed groups contacted. Probably met about 200 people in all visits, 50/50 men/women. Evidence of activities of other rural development projects in the past. Villages in Nuwara erosion problems evident but greatly overplayed in much of the Project literature. Many farmers are well aware of the nature of the problem.

3. Houses and general infrastructure usually of a high standard. Impact of high prices for certain crops very evident.

4. Problem areas expressed by farmers, needs and points of discussion or action for the Project team to address:-

- Access to clean water for drinking and irrigation.
- Access to loans for farming. (This obviously has complex history, which affects willingness of lenders and of borrowers to engage in this activity.
- Pest attacks and diseases on crops.
- High winds
- Low prices for vegetables
- Damage to crops from wild animals
- Access to low cost transport needed.
- Old conservation structures and interventions introduced by previous projects.
- New methods of resource use
- Improved marketing systems
- Stronger society structures
- Few successful income generation activities in villages.

5. Existing Societies in many villages

- Community development society
- Farmer Organisation
- Women's organisation(under Uwa -Govijana Kendrayi)
- Samurdi small groups
- SANUSA
- Death Donations Society (very active in many villages).

6. Observations by Evaluation Team

- The project does not seem to be working with the very poor in Nuwara Eliya District. No clear understanding of differentiation among communities.
- The erosion problem is severe in specific areas and for complex historical and socio-political reasons, not as a general problem. Many trees and conservation techniques evident in most landscapes. Use of *Glyricidia spp. is* widely understood and valued.
- Differential access to land is an important factor in determining how it is used.
- Pesticide use on vegetables is all pervasive and very worrying.
- Soil organic matter importance and interaction with mineral fertiliser not understood by Project team.
- Need for training support, relevant papers and literature and study tours.

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98/19 Twinning cooperation between Kaunas Water Company, Lithuania and Stockholm Water Company. Martti Lariola, Birgitta Danielsson
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98/26 International Centre for Research in Agroforestry, ICRAF 1990-1997. Bo Tengnäs, Arne Eriksson, Terry Kantai, Alice Kaudia, Jeff Odera
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