

*Consolidation of Environmental Education for Adults:
Critique of FINNIDA-funded Forestry Projects in Tanzania
A Case Study of the East Usambara Catchment Forest Project
East Usambara Catchment Forest Project
Technical Paper Number 7*

This paper was originally presented at the "Meeting in Finland Seminar" on Environment: the challenge of Adult Education, held at the TVK Institute, Kirkkonummi, Finland on June 7th - 13th, 1992

The author is currently working as the Principal Resident Tutor, Institute of Adult Education, Dar es Salaam - TANZANIA

TABLE OF CONTENTS

1.0	BACKGROUND AND RATIONALE	2
1.1.	Background	2
1.2	Genetic Resources of The East Usambara Mountains	3
1.3	The Project.....	4
2.0	CRITIQUE.....	5
2.1	Project Identity	5
2.2	People's Empowerment	6
2.3	Environmental Adult Education	7
2.4	Methods and Tools for Environmental Adult Education	8
2.5	Appropriate and Effective Educational Materials.....	9
2.6	Publicity Activities.....	10
2.7	Women's Involvement.....	10
2.8	Collaboration With Private, Non-Governmental Organizations and Other Sectors	12
3.0	CONCLUSIONS.....	13
	REFERENCES.....	17

1.0 BACKGROUND AND RATIONALE

1.1. Background

In Tanzania, forestry development assistance can be traced way back to the colonial era. During this period, there was a marked change from the traditional sustainable forestry utilisation to gradual forestry exploitation which necessitated protection and replacement measures.

In the last quarter of the nineteenth century, the German colonialists started commercial logging in the natural forests. As the logging gradually increased to large proportions the need for controlled harvesting and replacement became necessary.

Thus, the forest department was established to facilitate and control the exploitation of forest products as well as establish small plots and plantations largely on trial basis.

The German period also saw establishment of three natural forest reserves and Amani area in the East Usambara mountains became a centre of botanical, forestry and agricultural research.

After the World War I, Tanzania (then Tanganyika) became a British colony and Amani the East African Agricultural Research Station. The trend and efforts inherited from the Germans continued but with establishment of new more forest reserves.

The post independence era saw no significant changes of the situation on the part of the government. The biggest change has been in land use where there has been large scale forest clearing for family farming. In East Usambara mountain area for example, human invaders are the most serious threat to the environment. These have succeeded to reduce the original forest area from 100,000 to 23,000 hectares of which only 14,000 hectares are conserved in the forest reserve (Turpeinen and Mlowe, 1992).

The government, is very much concerned by the deterioration of the forest cover and its adverse effect on the land, climate and the whole society. Consequently, it has taken several measures to slow down the rapid rate of environmental

degradation. One measure has been to launch mass campaigns to sensitise and educate the general public on the importance of environmental conservation. Another has been to cooperate with foreign governments and whenever necessary to seek financial as well as expert assistance.

One of the foreign countries that the Tanzanian government cooperates with and receives development aid for forestry and environmental protection is Finland. Finland, unlike Tanzania, is one of the few lucky countries in the world which still has a vast forest resource. In addition, it is one of the best developed nations with rich experiences and advanced forestry technology. Over and above these qualities, Finland is also one of the few, countries willing and ready to lend a hand whenever approached by a developing country like Tanzania.

It is against this background that the Tanzanian government has been approaching Finland to undertake several forestry projects. One of these is the East Usambara Catchment Forest Project which is funded by the Finnish Development Agency (FINNIDA).

One good quality which FINNIDA possesses, unlike other donor agencies, is flexibility and willingness to be continually scrutinised and criticised on its development projects and most amazingly sometimes at their expense. This paper was designed for this purpose and East Usambara was taken as a case study.

In order to get a full picture of the project and also to solicit people's views, the author of this paper visited the project area. Four villages bordering the catchment area were visited. These included Kisiwani, Mlesa, Mikwinini and Mashewa.

In this paper, the genetic significance of the Usambaras and brief information on the project are provided as part of the background information. The critique highlights issues such as project identity, importance of people's participation, necessity of environmental education and need for utilization of effective and appropriate educational materials. Other issues include involvement of women, private organizations and other sectors in Project planning and implementation. Finally from the issues highlighted conclusions are drawn.

1.2 Genetic Resources of The East Usambara Mountains

The East Usambara Mountains of North Eastern Tanzania are part of a chain of isolated mountain areas called the Eastern Arch. They cover a total area of about 1,300 square kilometres, the main range about 40 kilometres long and 10 kilometres wide.

The East Usambara Mountains are considered biologically as one of the most valuable forest areas in Africa mainly because of the diversity and the high level of endemism and near endemism. The mountains contain many plants, insects, animals and birds unique to the region. For example 11 tree species, 14 species of lizards and 35 types of millipedes are known only in the East Usambara Mountains. In addition, one of the best known rarities in the area is the flower African Violet (*Saintpaulia*), eleven species of which are present in East Usambaras. Furthermore, according to Hamilton (1989), there are some 220 tree species, twice as many as in Malawi and Uganda. The uniqueness of the flora and fauna in this area is explained by isolation and high geological age of the mountains.

Besides the biological value of the East Usambara forests, they are also vital water catchment area, feeding the Sigi River which is the main water source for near by Tanga Town (with a population of more than 100,000 people) and surrounding region.

The East Usambara mountains have been threatened by human activities for many years. The problem is not only that the forest area is dwindling but also the different endemic species are greatly threatened from extinction.

So far, according to Hamilton (ibid) about nine species of birds which are regarded as endemic are threatened or nearly so.

Other species are also being eliminated annually due to human activities such as deforestation and forest fires.

Hence, conservation of the East Usambara forests has potential benefits not only to the local people living around the mountains but to the global community. This is so because, species are not renewable resources. Once they become extinct they can never be brought back again. Thus, on going forest reserve

encroachment and destruction may mean permanent loss of important rare and endangered species.

1.3 The Project

The East Usambara Catchment Forest Project is a bilateral development project agreed between the government of Finland and The Government of Tanzania.

The Project is funded by the Finnish International Development Agency (FINNIDA). The implementing agency for the project is the Finish National Board of Forestry in collaboration with the Tanga Regional Catchment Forest Office under the Tanzanian Forest Division and Ministry of Lands, Natural Resources and Tourism.

The project area is located on the East Usambara Mountains, Muheza and Korogwe districts in Tanga Region, North - East of Tanzania.

The project originated from a response to save the Usambaras from massive destruction and extinct of endemic species and is a follow-up from the proposals made up by the previous Amani Forest Inventory and Management Plan Project (AFIMP, 1986 - 1987).

The project is a multipurpose forestry project. The stated development objectives of the project are "to maintain the essential ecological processes and resources" and "to ensure that the utilization of forest related resources is rational and sustainable".

The project is divided into four components, Nature Conservation, Catchment Forestry, Plantation Forestry and Institutional support.

The field phase of the project started in March 1991 and it focuses on sustainable use of the East Usambara Mountain Forests, reconciling needs of nature conservation and local people.

2.0 CRITIQUE

2.1 Project Identity

Proper identification of a project by its title is very necessary and is by itself informative and educative. Hence, local people in the project area need to know and address the project by its true title or at least something similar or near it.

The responses from the local people around the catchment project area, when asked whether they knew the Catchment Forest Project were a bit intriguing and perplexing. Finally, it became clear that, the project is better known simply as FINNIDA project. Similarly, another project, the East Usambara Agricultural Development and Conservation Project (EUADDEC) which is being project implemented in the same area by the International union or the Conservation of Nature is also better known as the IUCN project.

Well, the rationale could be that the project is funded by FINNIDA but certainly the project title is not FINNIDA.

Moreover, as one moves around she is using a vehicle labelled along its sides with big red capital letters reading FINNIDA. It might not only be vehicles but other equipment as well.

It should be noted that, this does not only apply to FINNIDA but includes other donor agencies. In fact, sometimes other foreign funded projects bear titles written in foreign languages for example English language which in Tanzania is a second language understandable only to a few elites. Probably this situation also applies to other countries in which these donor agencies operate.

However, in order to avoid misconceptions it would be more appropriate for projects to be known by their true titles and all the equipment belonging to a particular project to bear the title of that project.

Furthermore, the project titles should be written in national or local languages understood by the majority of the local community. In Tanzania we have an advantage of having one national language (Kiswahili) understandable to every citizen.

2.2 People's Empowerment

One of the corner stones of a sustainable forestry project is its ability to ensure that people who live in the surrounding area meet their basic needs without damaging the forest (Ngaiza, 1991: 84). But over and above this truism, Durning, (1991: 6) insists that, the local people must be active participants, advisers and leaders of the project for self sustainability.

The East Usambara Catchment Forest Project which is now a year old, is still far from attaining the above goal despite the strong emphasis and desire implied in the project document and other project reports.

Responses from people indicate clearly that, the people have been "informed" about the project through village meetings/seminars. A general observation was that, the public awareness of the importance of forests and specifically the catchment area is very high and impressive. "The forests are valuable", said Zaina Hiza, village secretary of Kisiwani village "because if they disappear the rivers that are flowing now will dry up and we will get problems collecting water for domestic purposes. The rains will also stop falling regularly". One old man at Mashewa village added that, "the air will be affected". At Mashewa village, one middle aged woman, Mwanaidi Athumani summarised everything by saying, "We have lived with the forest reserve since we were born. We know its value".

Informing the people about a new project and its activities in their area is important, but, the timing of their involvement in the project activities is very crucial. Ideally, involvement of the people should begin in the planning stage and run through the implementation stage. The rationale, is for the people to identify, accept and participate actively and freely in the various project activities. Such involvement empowers the people and enables them to see project activities as their normal daily work. They feel obliged to plan and execute them on time as required.

Moreover, it was noted, the general atmosphere in the villages that were visited is amicable, cooperative and receptive. People are understanding and willing to talk. In short they are ready to be involved.

At Kisiwani Village when an old man of over 70 years and a ten cell leader Mr. Timotheo Changanga was asked on the reaction of the people to the proposed forest reserve boundary expansion, he responded in the affirmative but

emphasized that, if compensations have to be made, they should be in cash and made promptly without delay so that people can find alternative means of living.

On the other side of the coin however, one notes a slow, cautious and oversensitive approach on the part of project implementers, determined not to hurt public feelings and lead to another wave of hostility. There could be sound reasons for this approach however, if one keeps a fruit until it is over ripe it might not be as sweet as it would have been eaten at the right time.

Forestry and environmental problems are man made thus, it is man himself who can remedy and manage them. Tuguta (1991) maintains that, forestry and environmental deterioration for what it is, is people's *laissez faire*, sometimes rooted in ignorance, inappropriate attitudes and practices. Hence, any efforts to bring about desired changes in people must focus on an individual, group and the community. Such measures then call for Environmental Adult Education.

2.3 Environmental Adult Education

Micklin (1973: 423) (cited in Tuguta 1991:8) argues that, in order to improve the quality of man's environment, the quality of man must also be improved. One of the most effective ways of improving the quality of people is through education. Education provides knowledge, changes peoples attitudes and influences practice.

Despite the central role and lasting changes that environmental adult education can bring to the people, yet this relevant component completely lacks and no where does it feature in the East Usambara project document.

However, as Tuguta (1991: *ibid*) observes, forest and environmental depletion and degradation are economic diseases and therefore can only be dealt with from affective as well as cognitive domains.

Education he maintains, tackles both, as it develops inquisitive and critical mind that puts to test whatever psychological and cultural legacy that is carried by individuals and society.

There is, therefore, great need and urgency for a strong education input to be incorporated in the East Usambara Catchment project so that people may not only be educated on possible ways of arresting the devastating situation through rational and efficient utilization of existing resources but change and shape new attitudes towards the environment.

Needles to emphasize the fact that environmental adult education envisage a lifelong process as it takes time to change people's attitudes and acquired habits which have crystallized over a long period of time. The famous Chinese saying which states, "If you are planning a hundred years ahead educate the people" is very important is very relevant here. The ultimate goal is to evolve a new culture of environmental protection. The success to attainment of this goal greatly depend on applying appropriate methods and tools.

2.4 Methods and Tools for Environmental Adult Education

In approaching environmental adult education, emphasis is put on involving the villagers in the "doing-while - learning" process. Although the project document emphasizes village meetings and seminars nonetheless, adults learn more effectively by participating in problem solving activity. Bakobi (1991) identifies two groups of methods:-

(i) **Participatory Methodologies:-**

Depending on locality and situation the following methods and tools aim both at cognitive and effective behaviour modification.

- **Discussion and Problem Solving Techniques**

These are the most favoured methods for adults and can have impressive results especially when well - arranged, if groups are small, individuals are involved and non-controversial environmental issues are presented. People can identify specific local problems and valuable experiences can be tapped. This leads to positive attitudes, self-confidence and personal commitment to environmental protection.

*Consolidation of Environmental Education for Adults:
Critique of FINNIDA-funded Forestry Projects in Tanzania
A Case Study of the East Usambara Catchment Forest Project
East Usambara Catchment Forest Project
Technical Paper Number 7*

10

- **Involvement in Project Centred activities** like forest reserve boundary marking and cleaning, tree nursery establishment and maintenance, tree planting, forest reserve guarding, etc. All these and others will enhance human attitudes, develop habits and skills.
- **Study Tours and Guided Environmental Interpretations**
Will normally expose the learners to real situation, allow comparisons, stimulate thinking and promote values, provide criteria and standards. Villagers at Mikwinini village were of opinion that in selecting the people for these tours, only those who are committed instead of the village leaders should be involved for greater success.

(ii) **Non-Participatory Methodologies**

These are the traditional and commonly used but in which the learners are passive receivers (Ramphal, 1989). Some of these methods include mass media and campaigns, films, posters, cultural performances, poems, workshops and seminars.

2.5 Appropriate and Effective Educational Materials

The only educational material mentioned in the project document to be used for awareness raising is posters. In all the villages that were visited, indeed two or three sets of posters were seen in the ruling party's offices and other buildings in central areas. These, the author learned, were not produced by the EUCF project but by the National Catchment Forestry Project (NORAD); Therefore, the project is yet to produce some more posters! But use of only one type of educational material for educational purposes on environmental conservation is insufficient. Moreover, to minimize costs and to avoid duplicating efforts, it is important to make use, as much as possible, existing educational materials and to design new ones if real necessary.

Moreover, the Tanzanian culture is not visual oriented. Many tribes have no tradition of painting or sculpture at village level. In many societies, oral tradition,

meetings and discussions serve as communication forums. Picture, drawings and diagrams have only been known to people (mostly elites) for a short time (Binagi, 1992).

In addition, it is most likely that, these posters were prepared and produced by "experts" without involvement of the local community. It is also likely that, they were not pretested before mass production and distribution. Hence, while they may look simple and educative, when evaluated from a semi-illiterate adult's perspective, they might not be so simple and suitable.

Yet, when the villagers at Mikwinini and Mlesa villages were asked which media or methods they preferred most, many mentioned demonstration plots and films. The village Chairman of Mikwinini village Mr. Abdani Juma observed that, "films are good because you see something happening and it touches you. We have seen forests burning in the film and how people worked tirelessly to put the fire out and ultimately the destruction it caused". Very often film displays attract big gatherings of people from all walks of life. Such gatherings could provide appropriate platforms of communication. the project staff could utilize such as opportunity to create awareness, interest and pass on any messages knowledge and the people could ask questions. In this way, relationship and communication channels between project staff with the people become strengthened and the gathering becomes a big adult education "open classroom" where ideas and knowledge are exchanged and adults get opportunity to engage themselves in dialogue and discuss problems and issues that concern their environment and decide on their course of action. Media/method preference of the people in the Project area are not far from the famous Chinese saying which say,

I HEAR AND I FORGET I SEE AND I REMEMBER I DO AND I UNDERSTAND
--

Preparation and utilization of educational materials on forestry and environmental issues should take into account the effectiveness of the "mass source" of communication for awareness raising. Mass media such as drama, films, public rallies, etc. in rural settings where majority adults are illiterate and semi-illiterate facilitate environmental messages to reach easily simultaneously and be understood by the people. These public events could then be

supplemented by printed extension materials such as posters, pamphlets, booklets or picture story books (comic). The main objective is to attack all the undesirable attitudes, habits, behaviours and practices from all directions using various mass media channels. This approach will enable people who do not attend public meetings or films read a pamphlet or see a lovely poster, etc.

2.6 Publicity Activities

Publicity activities both for awareness creation and sensitisation could be undertaken by the project implementors. Publicity of special occasions like the World Environment Day (WED), Village Catchment Conservation Day (VCCD) or Village Tree Planting Day (VTPD) just to mention a few. The idea is not new in Tanzanian villages. Already there are Village Public Health Day (VPHD) Heroes Day, Aids Day and others. In these occasions, various activities ranging from speeches from distinguished guests, drama, cultural dances, songs, poems, tree planting and prize giving ceremonies to individuals who have performed outstanding environmental conservation activities could colour the day. Their impact in disseminating messages, influencing attitudes and sustaining peoples spirit and endeavours could also be great.

2.7 Women's Involvement

In Tanzania, women are key participants in the forestry/environmental sector in a number of areas, yet their direct use of forest resources, their needs, skills and limitations, which are vital to the success of many projects, are often overlooked (Rusimbi, 1991).

The East Usambara Catchment Forest Project is no exception to the above allegation. To begin with, there is no gender balance in the composition of the project personnel both local and foreign. It was discovered that, there is only one Tanzanian woman in the project management team at the project headquarters in Tanga town.

Ironically, all the foreign experts working in the project are all males! The project document does not mention or anywhere emphasize gender balance. All the field station Managers and their deputies are males. Yet women professional

foresters though limited in numbers graduate annually from the forest institutions (degrees/diplomas) in the country. Needless to say women foresters, like their male counterparts need relevant experiences and orientation in planning, managing and evaluating sustainable forestry projects in the country. They also need to benefit from training opportunities that are reserved for project personnel.

However, empirical evidence and practical realities have proved that, rural women can be reached and mobilized easily by fellow women. As project implementors will have noticed, due to cultural practices/beliefs and Gender relations very few women attend village meetings/seminars that are arranged for informing/educating the people. Consequently, they don't get correct project information on time. Thus, they need to be reached and mobilized by fellow women foresters for the success of the project.

The training programme of the project personnel, both for specialized and in-service opportunities did not take gender considerations into account. For this reason training opportunities will be dominated by the male staff. There is need to review the programme and allocate specific numbers of training opportunities for women staff. There is also a need to sensitize male workers in the project to women needs and problems.

Back to ordinary village women at the project area, as usual, they were not involved in the project planning nor are they really being actively involved now during the implementation stage. They are only involved when their labour is required for example in the maintenance of tree nurseries.

Without over emphasizing the fact, women in Tanzania assume major roles in various other aspects of forestry and environment improvement. Besides being the majority employees in tree nurseries and plantations where they are involved in planting, thinning and general tree seedlings protection, women are often the primary source of information for identification and use of non-wood forest products. Their knowledge and skills should be tapped by project planners and implementers when considering species selection, crop/tree/grass combinations and end uses of forest products. Yet most important, as Tuguta (1990: 25) observes, with proper and timely sensitization, women are in the best position to manage and influence family and community behaviour towards the environment.

When involving women in the project however, the project personnel should bear in mind the major constraints which inhibit women's full participation in the project activities. These include lower literacy, less access to information, less mobility, lack of organization as well as social, political and class barriers. Women also suffer from the false assumptions held by people that they will automatically benefit from any tree planting.

As project implementation gains momentum, the implementors should bear in mind that, involvement of women in the project both as beneficiaries and as participants is economically vital not only to the projects success, but to the long-term sustained forest reserve management. The successful integration of women in the East Usambara project require a focused effort by the project planners and implementors.

2.8 Collaboration With Private, Non-Governmental Organizations and Other Sectors

There was ample evidence that, in planning and executing the EUCF project, there has been very close collaboration with the EUADEC project with which is shares common objectives. Of course, naturally, there has also been collaboration with the government administrative structure from the national to the village level.

However, it was noted that, there is lack of collaboration between the project and other projects being implemented in the area for example TIRDEP (horticulture) and 4H School (educational), educational institutions such as Institute of Adult Education, Cooperative Societies such as UWAMA (Dairy), Tea Estates and religions institutions to name just a few.

It is worthy noting that, communities are organized in a number of institutions with their dominant activities forming the fabric of their unit and collective purpose.

Successful forestry project planning and implementation demands understanding of the above truth so that it can work out mechanisms of integrating various sectors whose activities have got a bearing on environmental issues. It is also important in order to create communal responsibility and exploit existing local institutional norms. It is conformity to these norms that people's

mobilization and involvement should hinge on in creating a new sense of responsibility.

In other words, there is need to strike alliances with on going projects and existing local institutions. It is important to break down walls. It will be advantageous to know each other and work together. This is important in order to generate the strength and power of complementarity.

It is also worthy mentioning that, close cooperation with government structures have got its own merits and demerits. Very often, government structures are associated with use of force. Thus, people might respond and comply for a while, not out of their free will but, out of fear.

On the other hand, cooperating and working together with local non governmental institutions particularly religious ones lead to people's participation with commitment out of their free will. This is due to the fact that they are convinced or they have strong faith in their religions leaders. Such participation lasts longer. It should also be remembered that, in Tanzania, from colonial times, it is the religious institutions which pioneered afforestation and environmental programmes. It will be advantageous to work closely with them.

3.0 CONCLUSIONS

The East Usambara Catchment Forest Project is only a small portion of a long history of development work in Tanzania and other developing countries. The project, which is only one year old is still in its infancy stage. For this reason, it will be premature to pronounce very strong judgements on its failures or achievements. However, from its performance so far, the following conclusions were drawn.

- 3.1 Global environmental problems, such as deforestation, natural forest reserve encroachment and the depletion and extinct of genetic species, which are not renewable but which are important for survival of mankind, justify mobilization of local, national as well as inter-national forces. Conservation of the environment is the major goal.

Hence, development aid for projects which conserve nature in a developing country like Tanzania are desirable and should be timely so as to prevent further environmental deterioration and protect forests and rare species. For all those engaged in one way or another in this task, their contributions are commended and supported.

- 3.2 Most bilateral development projects, though funded by external sources, are planned and implemented jointly by the two governments concerned. Thus, the failures and achievements of the project do not fall directly and solely to the donor agency. Rather, they are shared by the recipient government and the donor. In actual fact, and strictly speaking, they are even more of the government department concerned.
- 3.3 In this paper, it has been pointed out that proper project identity is important especially to the local community in the project area. It is important that people know the project by its true title instead of using donor names to avoid misconceptions and misinterpretations. Likewise, all project equipment should bear the project title or its emblem for identity purposes for similar above reasons.
- 3.4 Furthermore, the paper also showed that, the planning process of environmental and hence other development projects is a very important and delicate task. There is need and urgency for the process to be real comprehensive for smooth project implementation. All data required and all parties that will be involved or affected directly or indirectly, need to be consulted well in advance and concrete and systematic strategy laid out to avoid unnecessary interruptions, delays and piece-meal works.
- 3.5 Moreover, it also became clear that, when planning and implementing development projects, involvement, participation and empowerment of local communities is very crucial for sustainability of the projects. Environmental projects can be efficiently and sustainably managed through active people's participation on voluntary basis. It will be unrealistic to think and expect that governments will be in a position to finance all conservation activities including compensations. In the long run, certain activities would have to rely on private initiatives and contributions.

Therefore, there is also urgency to involve private institution, like religions organizations, cooperatives, non-governmental organizations, other sectors and

development projects operating in the area. Most religious institutions and NGOs for example have influence and direct contact with the people daily or at least regularly. The people believe and have faith in them. Their involvement and contribution is important in sustaining project achievements beyond the duration of donor aid.

- 3.6 Equally important, project planning and implementation should take gender considerations seriously as women have different needs and problems to men. Therefore, their contribution is different. Very often, development projects overlook women needs and problems as a result they fail. Similarly, when identifying and appointing project personnel, both local and foreign, there should be gender balance so that women are fairly represented. It has been proved that rural women can be easily reached through fellow women. This can only be achieved through having a good number of women in the project implementers. They also need relevant experiences and benefit training opportunities earmarked for project personnel. Despite the fact that there are few women professionals in different fields, all development projects should promote positive gender discrimination in favour of women.
- 3.7 Very often, the most important, yet the most forgotten component in many environmental projects is Environmental Education particularly for adults who are engaged in destructive practices. It's now becoming clear that, solutions like afforestation though necessary and inevitable are non the less not sole solutions. This is due to people's hardened negative attitudes, behaviours and practices. These undesirable elements can be tackled by long-term educational measures. This is where the challenge to adult educators all over the world comes in. Hence, there is need for adult educators to collaborate with foresters and environmental conservationists. To begin with, all on- going environmental projects should incorporate environmental education components. Secondly people's positive changes should be monitored. Such changes should feature in progress reports of the projects so as to provide indicators for project planners and implementors.
- 3.8 In addition, it also became apparent that educational materials for environmental education for adults should be many, effective and appropriate. Use of one type of educational material is insufficient. Similarly, use of any type of educational material without taking into consideration its appropriateness with regard to the local people might lead to the material not being effective hence no used at all. But such materials are usually produced at enormous costs. Effective

environmental education require different types of educational materials so that, the undesirable attitudes and practices are fought from all directions. This should be so in order that, when one misses a pamphlet he can read a booklet, see a film or hear a message over the radio. This "mass source" of conquering negative attitudes and practices, which degrade the environment, has proved effective especially when done for a long time. It is also important for new projects to make use, as much as possible of old or existing materials to minimize costs and avoid duplications of efforts and materials.

- 3.9 Most project implementers, when educating and involving villagers in project activities, are fond of using traditional approaches (non. participatory) in which the learners become passive receivers. The most common traditional methods include village meetings, educational seminars, workshops and mass media campaigns. Others include extension materials like posters, films, booklets and the like.

These methods though easier to carry out have proved failures and no wonder many development problems persist despite efforts to eradicate them. Effective environmental education require participatory methods which involve the people in the "doing-while-learning" process. Methods such as discussions of real problems and possible solutions by the people themselves, actual people's participation in project activities and guided study tours and interpretations are effective and lead to development and enhancement of positive human attitudes, habits, skills, self confidence and personal commitment.

But, whatever methods used, depending on locality and situation, other considerations ought to be taken into account. These include cultural practices and beliefs prevailing and selection of the right people to participate in learning activities such as guided study tours. In addition, while all people ought to be involved in project activities but limitations which might inhibit women from effective participation ought to be explored and addressed.

- 3.10 Project publicity activities, both for awareness creation and sensitization, though very important are also often forgotten when many projects are being designed. However, it should be noted that, publicity activities such as publicity of special occasions like the Village Environmental Day, Village Catchment Conservation Day or Village Tree Planting day are participatory in nature and involve a whole cross section of the society from top to bottom. Most activities are planned and executed by the people themselves. Therefore, their impact, not only in

disseminating messages but in influencing people's attitudes and behaviours and sustaining the project can be enormous.

- 3.11 Finally, but not least, the necessity to learn and build upon past experiences became obvious. The rationale is to make more rational decisions and improvements in on going and new projects. Even more crucial, willingness to accept challenges and open criticisms, and sometimes at ones expense, as the case is with FINNIDA, is constructive and should be encouraged not only by FINNIDA but by other donor agencies.

REFERENCES

- Binagi, E.R. "Consolidation of Forestry and Environmental Education in Tanzania. Review of Educational Materials and Training Programmes for Adults", Consultancy Report, Dar es Salaam 1992
- Durning, Alan "Poverty and Environmental Decline in Reports No. 29 Winter 1991 World Education Reports Boston USA.
- East Usambara Catchment Forest Project, Project Document 1990-1993 Finnish International Development Agency, Helsinki 1990
- East Usambara Catchment Forest Project Progress Review Report, Finnish International Development Agency, 1992
- East Usambara Catchment Forest Project Work Plan for 1992
- Finnish Development Cooperation in The Forestry Sector in the 1990s Finnish International Development Agency, 1991
- Hamilton, A. and Bensted-Smith, R. (Eds.) Forest Conservation in the East Usambara Mountains Tanzania, IUCN, 1989
- Micklin, Michael Population, Environment and Socio Organization: Current Issues in Human Ecology. The Dryden Press (1973)
- Ngaiza, A. and Atampugre, N. "Learning from the Past? The East Usambara Catchment Forest Project, Tanzania, Whose Trees The Panos Institute, London, 1991

- Ramphal, A. "Guidelines for the development of non-formal environmental education", A resume of UNESCO Document, in Inter-Regional Training Course on EE for Educational Planners and Administrators, 1989 UNESCO-UNEP, International EE Programme, India.
- Rusimbi, Mary "Gender Analysis: A planning tool for Policy Makers, Practitioners, Trainers in the Forestry/Environmental Sector in Tanzania" A paper presented at a Work-shop on Forestry/ Environmental Education for Adults, 20th - 21st August, 1991, Dar es Salaam
- Tuguta, M.Y. 1991 "Mass Mobilization in TFAP" A paper presented at the 2nd Donors' Roundtable on the TFAP - Dar es Salaam
- Turpeinen, V. and Mlowe, E. "East Usambara Catchment Forest Project - Whose Trees"
A paper presented in the IV World Congress on National Parks and Protected Areas, Caracas, Venezuela, 10-21 February, 1992