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## NAREPP/IRG



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***COMMUNITY BASED  
NATURAL RESOURCE  
MANAGEMENT IN SRI LANKA:  
OPPORTUNITIES FOR  
PARTNERSHIP PROGRAMS  
WITH NGOS***

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## SUMMARY

Special Projects is a key component of the Natural Resources and Environmental Policy Project (NAREPP) focusing on facilitating new forms of public-private partnerships between community based NGOs, private enterprise, and the Government of Sri Lanka (GSL), which can contribute to more effective and comprehensive natural resource management at the local and regional levels. The primary objective is to provide wide ranging, but low cost, support in the form of training, technical assistance, and seed grants to grassroots organizations for pilot projects, to facilitate community based natural resource management and encourage the development of effective national and local management policies. Pilot projects will include activities such as pollution management, watershed management, soil conservation, reforestation, integrated pest management, women's participation in sustainable development, eco-tourism, and so forth.

Research and practical experiences in developing countries have highlighted the advantages of community based activities using a participatory development approach to meet the needs of the poorest people. At the same time the problems arising from traditional, centrally planned, top down development programs are also increasingly acknowledged. Governments and donor agencies alike are gradually increasing their support for funding community based development activities to address the linked problems of economic development and sustainable use of the environment.

This report, commissioned by NAREPP/IRG, provides background information, perspectives, and guidance on how the Special Projects management objective can be implemented. Objectives of this report are to:

1. Identify strengths and weaknesses of past and present community based natural resource management activities.
2. Develop strategic approaches and guidance criteria for responding to identified constraints and opportunities.
3. Identify potential projects suitable for NAREPP/IRG support.
4. Recommend specific NAREPP/IRG operational procedures for Special Projects management.

### Constraints

In Sri Lanka, especially within the last two years, natural resource management activities at the government and community level have increased dramatically. The restoration of relative

socio-political stability and increased donor support have spurred this activity. Yet the constraints on effective community management identified in this report are considerable. When these constraints are understood and properly addressed, the opportunities for effective policy interventions can be enhanced.

The most important of these constraints is people's lack of political influence. Though more attention to and financial support for community activities are encouraging, because communities are excluded from policy and development decision making processes, their needs are mostly unmet. Many of the constraints highlighted in this report are influenced by this exclusion from decision making processes. The constraints are:

- Government and donor funding priorities which emphasize large-scale, capital intensive development over small-scale, decentralized, community oriented development.
- Development professionals' lack of awareness of rural dynamics which leads to inappropriate development strategies.
- Donor funding policies which restrict the terms of funding and force organizations to conform to donor funding requirements.
- Limited institutional capability of NGOs and limited Government participatory development capability which negatively affects their abilities to catalyze effective community based activities.
- People's lack of access to productive resources which limits their ability to turn to sustainable methods of natural resource use.
- Lack of support for rural women which restricts their involvement in development activities.

## **Opportunities**

A participatory development approach, coupled with a focus on sustainable natural resource use, is a powerful combination that can catalyze the poor to work towards their own upliftment, as well as conserve the environment. What is missing is effective support to strengthen partnerships between rural communities, NGOs, Government agencies, donors, and private enterprise.

NAREPP/IRG should focus first on NGOs as catalysts in the process. Generally NGO activities are more responsive to community needs, less bureaucratic, suffer less political interference, are less expensive and more easily replicable than Government interventions. Because of their advantages, NGOs should be used as a testing

ground for innovative development strategies. Successful strategies can then be adopted, modified where necessary, and used by Government. Strengthening NGO capability and cooperation between the various actors can lead to more meaningful community participation, and therefore to more effective natural resource management on a wider scale.

A key issue in failed attempts to facilitate community involvement is the exclusion of communities in decision making. A first step towards reversing this trend is for donors, who largely control the development process, to tailor their support to be more responsive to community needs. Allowing more flexibility in the terms of their funding will strengthen NGO ability to facilitate effective, low-cost, replicable action, which combined with strengthened partnerships can lead to the reform or development of appropriate national and local management policies.

### **NAREPP/IRG Assistance**

Strategic guidelines of the NAREPP/IRG community based natural resource management support, listed below, are designed to:

1. Enhance community control over their natural resource base.
2. Support small-scale projects that are easily and affordably replicable in Sri Lanka.
3. Enhance community or NGO institutional capabilities.
4. Facilitate communication of project lessons and experiences among communities, NGOs, government agencies, and donors.
5. Compile information on and build awareness of community based management experiences that support and enhance devolution of authority to local levels.

### **Operational Approach**

IRG's operational approach in project support should be to coordinate the provision of technical assistance in the form of training, training materials, short-term consultants, community based field staff, project proposal development, networking, etc. according to the assistance requested. The scopes of work for projects to be supported will be reflective of the following specific tasks:

1. Identify specific training and other support needs of selected organizations.
2. Identify trainers, preferably local, but also foreign, as needed.

3. Gather and/or develop appropriate training materials, such as handbooks, pamphlets, slides, videos, etc.
4. Provide technical and participatory development project coordination and extension assistance.
5. Provide technical advice for project proposal development.
6. Coordinate workshops/seminars, especially in field areas.
7. Monitor and evaluate projects.
8. Develop and distribute case studies.
9. Provide logistical networking assistance, including support for NAREPP/IRG newsletter.
10. Analyze and articulate policy reforms identified from field experiences.

Projects tentatively recommended for NAREPP/IRG support are:

1. Satyodaya: Kandy Soil Conservation and Sustainable Land Use Project.
2. Vehilihini Development Centre: Siyambalanda Integrated Conservation Development Project.

## 1. BACKGROUND

Sri Lanka like other developing countries confronts the seemingly conflicting forces of economic growth and pressures on the environment upon which its future depends. As awareness of the interdependent relationship between economic growth and development increases, so does awareness of the importance of fostering sustainable methods of development.

As of 1985 in Sri Lanka, almost 80% of the population lived in rural areas (Baldwin et al., 1991). As the majority of the rural population earn their living by making use of natural resources, they have a vested interest in maintaining the sustainability of the resource base. But largely due to poverty, people must focus on day to day survival, which often means engaging in destructive forms of resource use for short-term benefit.

Because of the high costs and past failures of many standard, centrally planned, top down development projects, more attention is being focused on community based development activities, as they are among the most effective at meeting the needs of the poorest people. Increasing evidence, in practice and literature, shows that the most successful community based activities are those that use a participatory development approach, and are usually catalyzed by NGOs. This approach actively involves people in all stages of the development process, from building awareness about the underlying causes of poverty, to the needs identification and project planning, to implementation, monitoring, and evaluation.

The Special Projects component of NAREPP, coordinated by International Resources Group, focuses on community based natural resource management activities, especially those of NGOs. There are a number of constraints, however, which presently undermine community based development efforts. Therefore, the objectives of Special Projects are to:

1. Identify the strengths, weaknesses, and constraints of community based natural resource management activities in Sri Lanka.
2. Provide technical assistance, training, management assistance, and material support through partnerships with public and private agencies.
3. Document cases and disseminate information regarding such activities for national policy reform or implementation guidance.

## **Other NAREPP Components**

Two other NAREPP components include Special Projects focusing on community based activities. They are the Coastal Resources Management Project, coordinated by the **University of Rhode Island**, and the Biodiversity Management of National Parks, coordinated by the **U.S. Fish and Wildlife Service**. The different approaches of the various community based activities will provide valuable learning opportunities. Close liaison with these other NAREPP components will be important to facilitate information sharing. It may also be warranted for some of these activities to be included with IRG Special Projects.

One other component of NAREPP, coordinated by the **Asia Foundation**, focuses on NGO activities. The main objective of the Asia Foundation's project is to increase environmental awareness. The project has two components: one is to strengthen the institutional capabilities of its "core group" Colombo-based NGOs; the second is the provision of micro-seed grants to rural-based NGOs for various projects, primarily to create environmental awareness and secondarily for action projects. There is a significant difference, however, between Asia Foundation's focus and that of IRG. IRG is focusing specifically on strengthening the natural resource management capability of action-oriented NGOs. The support will be in the form of training, developing training material, providing technical and participatory development project coordination and extension assistance, providing field staff, and monitoring and evaluating projects. In addition IRG will develop and distribute case studies, coordinate workshops and seminars, and analyze and articulate relevant policy reform. The broader objective is to identify effective strategies that can be replicated in Sri Lanka and elsewhere.

This assignment was undertaken by the Special Projects Consultant, hereafter referred to as the Consultant, who has worked as a land use consultant for one year for NGOs in the Badulla District, and who has been a resident of Sri Lanka for almost two years.

## **2. METHODOLOGY**

The Consultant conducted an extensive investigation into past and present community based natural resource management activities. This involved conducting interviews with donor, NGO, and Government personnel about the state of community based activities. (Annex I lists the people and organizations contacted.)

Field visits were made to several of the more active and promising projects. Emphasis was placed on investigating small- and medium-sized NGOs rather than Government agencies and larger NGOs, because it is the Consultant's opinion that smaller, leaner NGOs are able to respond more quickly to expressed community need. This is important because of IRG's broader objective, mentioned above,

regarding the need to identify replicable strategies which are effective and affordable.

The term NGO also includes community based or village organizations, which are often located in a single village. As these organizations have a limited scope of activity, usually work through and often are formed in order to receive assistance from a national or international NGO, this investigation did not focus on their activities. For the purposes of this report, the term NGO refers to national and international NGOs.

A literature review was conducted for the South and Southeast Asia region, to identify examples potentially relevant to Sri Lanka. (References are included in Annex II.)

### **3. POLICY REFORMS**

The unifying theme of all NAREPP activities is to influence the reform, or development, of policies that will encourage the sustainable management of natural resources. Influencing policy will be achieved by Special Projects by identifying institutional constraints and possible solutions, and by strengthening the institutional capabilities of implementing agencies to sustainably manage natural resources.

Clearly there is much scope for action in the sphere of policy reform and/or development. This includes actions to encourage community based natural resource management through land tenure, increased access to credit, public infrastructure and services, information, and donor funding; as well as incentives concerned with pricing, subsidies, taxes, and more competitive markets. This report points to the need for further investigation into these areas.

### **4. OVERVIEW OF COMMUNITY BASED NATURAL RESOURCE MANAGEMENT ACTIVITIES**

#### **4.1 Historical Perspective**

In pre-colonial Sri Lanka communities sustainably managed their natural resources. An example is the sophisticated irrigation systems of the Dry Zone, which were the focal point of village life for hundreds of years. Most villages had a Wewa Sabaha (Tank Society), which was responsible for ensuring the village's management and maintenance of the tanks. After the demise of the irrigation systems, the population gradually shifted to the upcountry and Wet Zone, which had been sparsely populated. Again land use systems were sustainable; valley bottoms were used for paddy cultivation, lower slopes for the "Kandyan" home garden (an intercrop taking advantage of the various levels of vertical space, much like the natural forest), midslopes were used for chena cultivation, and the upper slopes were left forested for watershed

protection (Baldwin et al., 1991).

The Portuguese, Dutch, and especially British colonial periods forced a drastic change in land use patterns. Land that previously had been used by peasants according to family inheritance, suddenly came under the control and "ownership" of the British. Vast tracts of land were cleared and converted to plantation agriculture, with the Crown claiming over 90% of the land. To this day the Government still owns over 80% of the land, which is more than in most developing countries. Since the British takeover of land, the environment has been steadily degraded, from an estimated 84% natural forest cover in the 1880s, to 70% in the early 1900s, to 44% in the 1950s, to today's estimated 20 - 25% (Baldwin et al., 1991; World Conservation Union, 1989).

#### **4.2 Recent Trends**

People's lack of access to land due to Government ownership and insecure land tenure, plus population pressures and increasing poverty, are major obstacles to sustainable natural resource use. Environmental degradation, which in varying forms afflicts every country in the world, left unchecked, seriously undermines development efforts and underscores the unsustainability of our present ways of life. As a result, awareness about environmental issues is growing.

#### **Support for Community Based Management**

Awareness of the need to support community based natural resource development activities is also growing. Over the years in Sri Lanka, however, there has been a scarcity of such activities effectively catalyzed by NGOs. A notable exception has been community based irrigation management projects, which have been fairly common and successful; such projects have been funded by USAID, the World Bank, and the Asian Development Bank, and implemented by the International Irrigation Management Institute, Freedom From Hunger Campaign, and Nation Builder's Association. What these projects often have in common is their focus on facilitating community participation. Since much work has already been accomplished in this area, the Special Projects component of NAREPP/IRG did not specifically focus on it, except to learn how community participation was encouraged, and to draw parallels between those activities and other forms of community based natural resource management. Increased community participation in project planning and design and increased control of management decisions are the key factors in project success.

#### **Village Environmental Awareness**

In talking to and working with villagers in the upcountry and Dry Zone areas, the Consultant has found that villagers are generally aware of the causes and consequences of environmental degradation

and are motivated to take action. Others with grassroots development experience express the same opinion. Christopher Gibbs (1982) observes that:

The humbling experience of the last 20 years to researchers in rural development is that the villager is an effective and logical manager, with an amazing knowledge of soils, climate, crops, weeds, pests and their interactions.

It is quite logical that villagers are aware of the causes and consequences of environmental degradation, since their livelihood is so closely tied to the resource base. It is the Consultant's view that primarily because of institutional constraints, natural resources are not being sustainably managed. Without support in the form of training, extension services, seed grants, credit, and so forth to implement viable management alternatives, villagers have little choice but to continue their often destructive natural resource use for short-term benefit.

### Civil Unrest

Another major obstacle to implementing development activities was the civil disturbance caused by the most recent Janatha Vimukthi Peramuna uprising from 1987 to early 1990. Life in general was severely disrupted; Government, transportation, communications, and health services were often dysfunctional, so naturally development activities also suffered.

Most development organizations scaled down the pace of their activities. Some, like PLAN International, temporarily suspended operations, and others, like U.S. Save the Children, pulled out of Sri Lanka entirely. Development workers were often in danger. Since the great majority of organizations sided with neither the JVP nor the Government, they were often harassed by both. Some lost their lives, like the development worker for Redd Barna allegedly killed by the JVP. Employees and beneficiaries of Devasarana were regularly threatened, so the organization's main purpose became protecting people from such threats. Uvagram Foundation's office was looted by the JVP. PLAN International had some of their motorcycles set afire. There are many more such examples.

The civil disturbances caused by the Liberation Tigers of Tamil Eelam's fight for a separate Tamil state in the North and East severely hamper attempts to start development activities in those areas. When normalcy is finally restored, there will be a tremendous need for development assistance of every sort. Relief and rehabilitation will continue to be the number one priority, but community development, instilled with a participatory approach, will also be a high priority.

## **Recent Community Experiences**

In the rest of the country within the last two years, however, community based natural resource management activities have increased substantially (Table 1). This can be attributed to such factors as the growing awareness of the relationship between environmental issues and development. Increasingly the importance of ecologically sustainable development is being highlighted in the media, the schools, and the political arena. This trend, coupled with the relatively stable socio-political conditions, increased donor interest and availability of funds for natural resource management activities, has also stimulated activity.

This investigation into community based natural resource management activities included a wide variety of projects. Of the projects identified, 19 out of 28 (68%), were agriculture-related, especially the most recent activities. There were five reforestation projects identified, but none were started within the last five years. Others included one irrigation project, two fisheries projects, and one institution strengthening project. Twenty were NGO projects, seven were Government projects, and one semi-Government.

Table 1 lists projects identified by the Consultant. The list is not comprehensive, it represents only a sample of ongoing projects. As mentioned previously, the focus was primarily on NGOs rather than Government.

## **Devolution of Power**

Under the Thirteenth Amendment to the Constitution of Sri Lanka enacted in 1987, Provincial governments were established in an attempt to devolve power to regional bodies. The intent was to make government more responsive to the needs of the people. At the lowest level of the Government structure are about 14,000 Grama Niladharis who are responsible for approximately 300 households each. The Grama Niladharis are responsible to the District Assistant Government Agent.

In the previous system, at the lowest level of the Government structure was the Grama Sevaka. As he lived and spent most of his working hours in the villages, he was accessible to the people. In the present system, though the Grama Niladharis also live in the village, they have been given administrative responsibilities which significantly reduce their accessibility to the people. In general the responsibilities of the regional Government bodies with regard to natural resource management is unclear (Baldwin, 1991).

## Literature Review

A literature review of community based natural resource management activities in Sri Lanka revealed that the availability of information is limited. This is due largely to the past scarcity of such activities. Of the projects implemented, there is more documentation of Government projects than NGO projects. For the South and Southeast Asia region, however, there seems to be more activity than in Sri Lanka (Annex II).

Table 1

COMMUNITY BASED NATURAL RESOURCE MANAGEMENT PROJECTS			
Organization	Type of Project	District	Date
1. MARGA	Agriculture	Puttalam	1985 - 1992
2. Nation Builder's Association	Forestry	Kandy	1984 - 1988
3. Nation Builder's Association	Forestry	Kandy	1986
4. Nation Builder's Association	Agriculture	Kandy	1991
5. Uvagram Foundation	Forestry	Badulla	1986 - 1989
6. IRDP Ratnapura	Forestry	Ratnapura	1984
7. IRDP Ratnapura	Agriculture	Ratnapura	1984
8. IRDP Hambantota	Fisheries	Hambantota	1990
9. Ministry of Fisheries	Fisheries	Hambantota	1990
10. Forestry Department	Forestry	Badulla, Kandy, Matale, Nuwara Eliya, Batticaloa	1982 - 1990
11. IRDP Badulla	Agriculture	Badulla	1990
12. Satyodaya	Agriculture	Kandy	1991
13. Devasarana	Agriculture	Kurunegala	1991
14. Centre for Human Development	Agriculture	Kegalle, Kandy, Matale, Ratnapura	1990
15. Gami Seva Sevana	Agriculture	Kandy	1990
16. Sarvodaya	Agriculture	Monaragala, Hambantota, Padaviya	1990
17. Swarna Hansa	Agriculture	Badulla, Kandy, Galle, Puttalam, Kurunegala	1990
18. Vehilihini	Agriculture	Monaragala	1991

COMMUNITY BASED NATURAL RESOURCE MANAGEMENT PROJECTS			
19. Forum on Development	Agriculture	Kegalle	1990
20. Plan International	Agriculture	Badulla	1991
21. CARE International	Agriculture	Anuradhapura	1991
22. University of Kelaniya, Centre for Women's Research, University of Leiden	Agriculture	Badulla	1991
23. Keenigama Vegetable and Fruit Producers	Agriculture	Badulla	1991
24. Northwest Agricultural Development Foundation	Agriculture	Kurunegala	planned
25. Freedom From Hunger Campaign	Agriculture	Puttalam	planned
26. Central Council of Social Services	Institution Building		ongoing
27. FORUT	Agriculture	Anuradhapura	1990
28. Ministry of Lands, Irrigation and Mahaweli Development	Irrigation		1986

## 5. CONSTRAINTS TO COMMUNITY BASED NATURAL RESOURCE MANAGEMENT

The increasing pace of community based natural resource management activities is an encouraging sign. It is important, however, to identify and understand the constraints on effective community based management before developing or supporting new projects. These constraints, left undealt with, will undermine project objectives.

### 5.1 People's Lack of Political Influence

An overall objective of NAREPP is to facilitate the reform and/or development of local, national, and perhaps even international, policies that will lead to sustainable management of natural resources. As such policy decisions are made by governments, much of the focus is necessarily institutional and governmental.

The poorest people whether rural or urban, have extremely limited influence on these policy decisions. Whether they live in remote villages or in shantytowns a stone's throw from the seats of power, they are effectively distanced from the decisions that affect their lives. Such conditions are especially pronounced in developing countries, where literacy may be low, and access to information and services poor.

The intent to facilitate the upliftment of the poorest people cannot be divorced from the need to facilitate their political empowerment. Isolated development activities can improve standards of living, but as long as the poorest people are politically helpless, their collective needs will not be met, as is evidenced by the ever increasing numbers of the poor, despite more than 30 years of international development assistance. As the Worldwatch Institute asserts in their 1989 "State of the World Report":

The world's self-help movements are arising amidst increasing desperation; the poor take action as best they can on many fronts and all too often they lose. Although the cultural, economic, and political factors that determine the effectiveness of community action are too complex to be considered into a universal "recipe for success", experiences from around the world reveal the strengths and weaknesses of grassroots groups.

The most essential lesson is that community groups organize to respond, on the one hand, to a felt need or threat and, on the other hand, to perceived opportunities.

The key to catalyzing community based activities on a wider scale are the partnerships created between community groups and governments. Such partnerships in China and South Korea have led to extensive reforestation and family planning programs, and

increases in agricultural production (Worldwatch Institute 1989). In Ethiopia from 1979 - 1982, farmers terraced over 145,000 hectares of hill land, reforested over 70,000 hectares, closed over 20,000 hectares to grazing, and built over 4,200 kilometers of roads (World Resources Institute, 1985).

Although it is clear there is a need for such partnerships, there are obstacles to overcome, as are described in Worldwatch's 1989 report:

Full-scale grassroots-government partnership can only come about when a motivated and organized populace joins forces with a high-caliber leadership, a prospect unlikely in many countries without political change. Unrepresentative elites rule many nations and all too often they crush popular movements rather than yield their prerogatives; elsewhere, powerful interests vehemently defend the status quo. In the end, self-help will clash with these forces. Like all development, self-help merges into politics: it is the struggle to control the future.

In the final analysis, the most lasting contribution of community groups may not be the direct benefits they provide their members, but the fundamental changes they bring to the world's political landscape.

Sentiments such as those voiced by the Worldwatch Institute and others suggest the need to broaden present ways of thinking: to include in policy making decisions those who are now not able to participate in the process of their own upliftment. The potential for cooperation between community groups and governments is tremendous, but the political will must exist. That political will is most likely to arise if people organize into broad-based and vocal groups that strongly and persistently articulate their views and needs. There are such organizations in Sri Lanka, like the All Ceylon Peasants' Congress, which have lobbied for agrarian reform, and protested the takeover of small farmers' land by sugar companies. Through such organizations the people's views must be expressed to receptive policy makers if there is to be meaningful devolution of power.

## **5.2 Development Professionals' Lack of Awareness of Rural Dynamics**

Many community based development interventions do not result in rural upliftment because the underlying dynamics of rural situations are not fully understood. This is especially so for top down, centrally planned interventions where local communities are excluded from the decision making process. A participatory development approach, on the other hand, can lead to the necessary insight if the process is facilitated properly.

## **Structural Diversity of Villages**

One of the failings of rural development programs is the mistaken assumption that villages are made up of uniformly poor people, and that therefore little attention is needed as to who should receive the benefits. This assumption has played into the hands of the traditional village elite. Rural development projects have often relied on traditional village leaders such as local Government officials, teachers, paraprofessionals, religious leaders, etc., to act as liaison between the rest of the village and the implementing organization. The position of these leaders has often enabled them to direct the benefits to themselves and their relatives. This, of course, results in an increased gap between the elite and the poorest people, creating further hardship for the poorest. This further emphasizes the importance of participatory development in seeking out the poorest people as the target group, to facilitate practical means to their upliftment.

## **Social Welfare Orientation**

Most community based development interventions are social welfare oriented. This type of intervention seeks to provide goods and services to the poor, and focuses on the consequences of poverty and social injustice, but not on the underlying causes. Such an approach is unsustainable. At best there is a temporary improvement in people's lives. In the long term, however, such an approach undermines people's self-reliance and creates further dependency. And most importantly, because it does not facilitate people's political, as well as socio-economic, empowerment, it reinforces existing inequitable conditions rather than attempting to change the status quo.

## **Time Limitations**

Another factor is the limited time urban development professionals focus on community based development activities. Most development professionals, whether expatriate or local, do not have the time and/or the inclination, to spend with NGOs to gain a deeper understanding of their situations and how to better assist them. Pressing work schedules and less than plush conditions in rural areas are inhibiting factors. A few days in the field is usually the most they can afford to experience how the other side lives and works. Quick field visits by development professionals, referred to as "rural development tourism" by Dr. Robert Chambers, are insufficient to accurately assess the nature of rural complexities and guide appropriate strategies. The lack of opportunities to share ideas and discuss appropriate strategies deprives the decision making process of vital community input.

## **Hierarchical Conditioning**

A key issue in participatory development is how the process is facilitated. Empowering the poorest people means encouraging their ability to openly express opinions and willingness to assume responsibility for planning and managing actions. Conditioning to hierarchy is one of the strongest deterrents to encouraging people's participation and self-reliance, and is common throughout all levels of Sri Lankan society, from the highest levels of power right through to village level. The task of reconditioning people by encouraging a more egalitarian ethos is an extremely difficult one, but without such a reorientation the empowerment of people will not be possible.

### **5.3 Government and Donor Priorities**

Government and donor priorities have traditionally emphasized large-scale, centrally planned, capital intensive development over small-scale, decentralized, community oriented development.. Such projects garner the lion's share of the development assistance. In Sri Lanka, projects such as the Mahaweli Development Project, and more recently the Menik Ganga Diversion, the Samanawelawewa Hydroelectric Project, the Colombo/Katunayake Highway, and the Koggala Free Trade Zone, are but a few examples.

Although such projects may be necessary, the overwhelming emphasis on large-scale development projects discourages a more thorough appraisal of how to more effectively support community based activities. Though there has been an increase in NGO funding in recent years, the support is still modest. For example, the Japanese Government, one of the largest aid donors in Sri Lanka, only began providing funds to NGOs in 1990. The entire NGO program was for the extremely modest amount of U.S. \$50,000 for fiscal year 1990. The Netherlands Embassy also provides much less than 1% of its total assistance to community based development activities. (Figures were obtained from personnel at the respective aid agencies.)

It is widely recognized among development professionals that though large-scale infrastructural projects are needed by developing countries, they are also notoriously wasteful, often do not meet the needs of the poorest people, and sometimes are outright failures. Sri Lankan examples are the Lunugamvehera Reservoir and the Kirinda Harbor projects. Nevertheless, administratively a few large-scale projects are easier to manage than a large number of small-scale projects. Such a rationale may place a higher priority on the internal operations of Government agencies and donors than on the expressed needs of the intended recipients.

#### 5.4 Limited Institutional Capability of NGOs

Despite the increasing recognition of the need to encourage NGO grassroots actions, the limited institutional capability of NGOs to use funds effectively is also widely acknowledged, by the NGOs themselves, donors, Government agencies, and others. In general NGOs must carry on with few technically qualified staff, high staff turnover, and inadequate logistical support in the form of vehicles and office equipment. The limited institutional capability of NGOs is mainly due to lack of funds for institutional support. Many of the NGOs the Consultant met with highlighted this fact.

For the most part the implementing organization's field staff are technically unqualified in natural resource management activities. This is due to the fact that many NGOs have only recently focused on such activities, to the lack of support for training, and to the depressed nature of NGO salaries, which discourages more qualified people from applying. Salaries for full-time grassroots development workers in Sri Lanka typically range from Rs. 1,500 - 3,000 per month, with few benefits and incentives. An additional disincentive is geographical isolation; areas where NGOs work are often far from urban centers, where living conditions are more difficult.

The following examples, two of the many the Consultant is familiar with, illustrate this point. Vehilihini Development Centre in Monaragala is involved in a sustainable agriculture project, and has one old 2WD vehicle. The Director is paying for it out of his own salary, because a vehicle is essential for project implementation, but no donor is willing to provide the support. Vehilihini has four used motorcycles which Field Officers also pay for out of their salaries. Satyodaya in Kandy is also implementing a sustainable agriculture project. Its Field Officers use public transportation to go the field, spending much time waiting for and riding buses, and walking long distances when no buses are available.

Because it is difficult to obtain institutional support from donors, in Sri Lanka it is quite common for NGOs to be headed by retired people who can afford to work as volunteers, and who often use their own money to get operations started. But retired people often lack the physical capacity to lead an organization's development programs, rarely choose to live and work in remote rural areas, and often are set in their ways, which stifles individual creativity. As Padmini Abeywardena (1989) states in a study on the role of NGOs:

Entrenched leadership evident in some of the National NGOs appears to prevent younger persons more conversant with the current social and economic environment from assuming positions of leadership. This together with the lack of dialogue with members appears to perpetuate

attitudes and relationships which virtually vitiate the growth of participatory development and growth of self reliance in communities.

Another limitation is the strong societal conditioning and acceptance of hierarchy. This also applies to grassroots organizations attempting to facilitate people's empowerment. One common shortcoming of grassroots organizations is the domineering leader who unwittingly undermines the motivation and creativity of those under him/her. Such leadership not only makes it impossible for the organization to function democratically internally, in a spirit of encouraging participation, but also makes it difficult to function democratically externally in a village setting.

Despite the myriad difficulties NGOs grapple with, many of their staff are instilled with a deep commitment to social change, which is their strongest characteristic. Such commitment is the first requirement of a grassroots development worker, but that of course is not enough for the job to be effectively done. The fact that more people worldwide recognize the potential for community based activities to catalyze effective development, despite the constraints they face, should make development planners think about how much more NGOs could accomplish if they were properly supported.

#### **5.5 Donor Funding Policies .**

More important than the overall amount of funds available for community based activities are the restrictions placed on the terms of the funding. Though recently institutional strengthening has become a higher priority than before amongst donors, its definition and the amount of support are still limited by several traditional constraints, such as the project orientation, the lack of support for vehicles/salaries/office equipment, and the focus on income generation. Operationally there are different sets of rules in the development milieu for community based activities and for the usual type of development. Donors, international companies, and large-scale Government projects -- NAREPP itself -- could not operate without vehicles, computers, photocopiers, fax machines, comfortable offices, etc. Community based activities, however, are usually expected to fend for themselves in this regard. And since they usually cannot, they are handicapped and struggle on as best they can. Under such conditions, it is not surprising that action-oriented NGOs here experience difficulty in implementing projects.

#### **Project Orientation**

Development aid is almost always provided to NGOs for specific projects. This "project approach" emphasizes the achievement of quantifiable goals, such as the number of trees planted, latrines built, or income generated, within a specific, usually limited timeframe, according to a predetermined plan and budget. This may

seem a logical rationale; however, the problem is that the pre-planned nature of the activity and its timeframe forces organizations to conform to donor requirements to secure the necessary financial support, but this undermines the foundation of the participatory approach. A preconceived plan restricts opportunities for community participation in decision making and restricts the flexibility needed to adjust the plan and budget as problems are encountered. Pressure to produce results as quickly as possible limits the facilitator's ability to focus on such long-term and non-quantifiable goals as encouraging community involvement, strengthening leadership, and raising awareness, yet these are essential ingredients in stimulating movement towards self-reliance.

The fact that a certain number of trees were planted, farmers' groups organized, meetings held, which may have achieved the project's objectives, may not have the desired impact if the project's human development component was not sufficiently nurtured. If the intent of the project is to help the poor, then they must be part of the project's decision making process. If they are not, their needs are usually not met. A case in point is the Forestry Department's Community Forestry Project in the Badulla District. One of the major objectives was to respond to the fuelwood shortage by establishing fuelwood plantations of eucalyptus. Subsequent investigations revealed, however, that villagers did not perceive a fuelwood shortage, nor did they approve of eucalyptus, which they realize negatively impacts the water table. Also they could no longer use land that they had previously used for grazing cattle, because eucalyptus suppresses undergrowth. In some cases, villagers responded by burning planted areas.

Another problem that arises from the project approach is the transition period between projects, when the NGO may face difficulty in meeting its overhead costs. To compensate NGOs usually have a number of ongoing projects overlapping one another, but the juggling of projects, with one intent being to maintain institutional support, can mean inadequate attention is devoted to any one project.

#### **Lack of Support for Vehicles/Salaries/Office Equipment**

Lack of vehicles obviously means difficulties in getting to the field. The combination of low salaries and difficult working conditions results in less qualified staff and high staff turnover. Lack of office equipment makes coordinating operations difficult. Donors typically limit funds for institutional support to about 10% of the total funds provided; such is the policy of USAID and NORAD. Other modest NGO aid programs through the Embassies of Switzerland and Germany do not provide any institutional support at all. This should be viewed in the overall context of only a fraction of

development funding made available for grassroots activities. Padmini Abeywardena's 1989 NGO study also focuses on this issue:

National NGOs as well as some of the better known NGO networks in Sri Lanka (i.e. the National NGO Council and the Central Council of Social Services) appear to have been adversely affected by non-availability of institutional support in a context of apparent abundance of project support.

Mention should also be made of the parallels between NGOs in the developing world and their counterparts in the developed world. NGOs in the U.S., like Greenpeace, the Environmental Defense Fund, the Natural Resources Defense Fund, the Sierra Club, and many others, are well respected, professional, and effective organizations. That they are staffed by committed and competent activists and administrators attests to the fact that their institutional needs are adequately supported. Perhaps if that same financial commitment to supporting U.S. NGOs were applied to developing country NGOs, the latter would be more effective and respected organizations.

#### **Income Generating Focus**

Income generation for target groups is a high priority for all concerned, but concentrating on income generation without devoting attention to prevailing sociological and cultural factors can also be counterproductive. It may mean the first year is devoted primarily to identifying the poorest people, facilitating their organization into groups, facilitating discussions about their situation, their most pressing needs, and their ideas for addressing their problems, before any action is undertaken.

Because people are poor does not automatically mean that the immediate priority is income generation. It must be done in the proper context. For example, a project in the Uttar Pradesh region of India (previously visited by the Consultant) encouraged women, who did most of the farming, to change from growing millet for subsistence to soya beans as a cash crop. Many of the women did change, and in fact did raise their incomes substantially. But because the project ignored the prevailing socio-economic conditions, the men who were mostly migrant laborers, returned home at harvest time, took the money from the women, often using it to drink, and once drunk beat the women. Alcohol abuse leading to violence against women and children is a common problem in developing countries (Heise, 1991). The women's sentiment was that it was better to grow millet, because at least they could feed their families with it, and suffer less abuse from their husbands.

This is but one example which illustrates the need for development planners to consider projects from a more holistic point of view and focus more attention on human resource development objectives,

and not only on quantifiable goals.

## 5.6 Donor/NGO Interaction

The bridge between rural development NGOs and donors can be a shaky one. Though they are driven together by need, they at times seem to be at odds with each other. The Worldwatch Institute's 1989 report again highlights the situation:

The paradox of the relationship between community movements and international development institutions is that both subscribe to the same goals and both need what the other has, yet only rarely have they worked effectively together. Many community organizations have deep misgivings about what they perceive as heavy-handed interventionism on the part of multilateral and bilateral (funding) bodies. Development agencies, for their part, generally view community organizations as unstable partners in the serious business of development.

There are some elements of truth in each sentiment. NGOs often mention lack of needs specific financial support and being made to conform to donor demands in a top down interaction. Donors often mention the lack of effective NGOs to provide funding to. It is easy to understand why this situation exists. In Sri Lanka, participatory development was started by rural NGOs only within the past 10 - 15 years, so it is still in an adolescent stage, experiencing growing pains (Bhatt, et al., 1988).

Other factors are the poor English skills of rural NGO staff, lack of Sinhala skills of donors, lack of telephones in rural areas, and difficulty for NGO staff to get to and stay in Colombo, which again inhibits communication and makes it difficult for NGOs to conform to donor funding procedures, such as proposal writing, reporting, accounting, auditing, etc. In such circumstances it can be intimidating and difficult for NGOs to gain access to donors.

Clearly, however, donors largely control the process. For the most part, communities have not been afforded the opportunity to become equal decision making partners, further reinforcing the top down nature of the interaction. In Sri Lanka, it seems that community based natural resource activities are often marginally effective, which is not surprising given the present constraints. It is understandable then that the donors' views that NGOs are limited and therefore not worthy of increased support, are reinforced. But by limiting the amount and, more importantly, the conditions of the support, donors effectively restrict NGOs' abilities to improve themselves, thus preventing NGOs from proving their worth. It indeed seems a paradoxical situation; but as donors largely control the process, the burden is mostly upon them to liberalize their relationships with NGOs, to move towards more equal partnership with community groups, to begin solving the paradox.

## 5.7 Limited Government Participatory Development Capability

The usual Government rural development program relies on centrally oriented bureaucratic organizations to plan and implement top down projects, but such projects often fail to benefit the poorest people. Examples are the Community Forestry Project, mentioned previously, and the Muthukandia Irrigation Scheme in the Monaragala District. What these and other projects demonstrate is that though Government agencies increasingly realize the need to encourage community participation, they are mostly unfamiliar with the techniques to do so.

Exceptions to this are the Irrigation Systems Management Project under the Ministry of Lands, Irrigation and Mahaweli Development, and some of the IRDP projects, like those in Matara and Ratnapura. These projects demonstrate the importance of actively involving the intended project beneficiaries in the various project activities, especially decision making. For the most part, however, Government agencies experience difficulty in overcoming hierarchical conditioning, bureaucracy, territoriality, etc., in order to translate intent into action. Christopher Gibbs' paper (1982) states:

The success of responsive development programs appears to be a function of the degree of complementarity between the program beneficiaries and the assisting agency. A close correspondence is required between:

- (1) beneficiary needs and program output;
- (2) program tasks and the competence of the assisting organization; and
- (3) mechanisms for beneficiaries to express their demands and the decision process of the assisting organization.

The majority of centrally planned programs implemented through conventional bureaucratic structures are unable to meet these requirements. In the majority of cases the assisting organization desired strongly to be responsive in exactly these ways, but institutional arrangements in society and within the agency preclude progress in these directions.

Government bureaucracies are usually not designed to be flexible to local needs and concerns. The general societal conditioning, including Government, is strongly hierarchical. Government officials are conditioned to being active givers to less fortunate people, and villagers are conditioned to being passive receivers from their superiors. It is no wonder that in such an atmosphere projects that intend to facilitate community participation often

fail. Such top down approaches also create dependency, which undermines attempts to facilitate community participation and self-reliance. Even if Government employees are properly trained to facilitate community participation, rewards for Government civil servants to enhance their agency's authority, political interference, not targeting the poorest people, and lack of vehicles and allowances for field staff, can be debilitating factors.

Another factor is the change in the structure of regional government mentioned previously. Although the basic idea of decentralizing government, to enable Government to respond more effectively to local needs, is a sound one, in practice it is still unclear how this is to be accomplished, especially regarding natural resource management. The lack of trained personnel and the overlapping and largely uncoordinated responsibilities of various Government departments are two main constraints (Baldwin, 1991).

### **5.8 People's Lack of Access to Productive Resources**

The poorest people have the most difficulty in gaining access to productive resources such as land, water, credit, extension services, markets, and information, because of their lack of political influence. Without access, they are dependent upon unsustainable exploitation of encroached land and/or poorly paid jobs as laborers. In the upcountry and Wet Zone areas, such as the Kegalle District, land is so scarce that the poorest people typically own less than 1/4 acre, which comprises their homestead. Population pressures have certainly exacerbated the situation, but so too has the Government's ownership of over 80% of the land.

#### **Land**

In an attempt to ease the demand for land, the Government initiated the Alienation of Crown Land to the Landless Program. From 1977 - 1987 over 750,000 acres, mostly of encroached crown land, were distributed to over 500,000 individuals (Bloch 1988). Typically the allotments are 1/4 - 1/2 acre, and often the land is only marginally productive. Swarna Bhoomi permits entitle the permit holder to 25-year, renewable leases, but they restrict the transferability of the land. Support services are generally not provided to increase the productivity of the land. Nor are loans from banks for land improvement available, because without ownership they cannot use the land as collateral. Though land transfer is illegal, unofficial leases are common, with the richer farmers leasing land from poorer ones for less than the market value.

Even with access to greater amounts of land, one of the most important factors limiting farmers' investment in sustainable land use practices is insecure land tenure. This fact is repeatedly highlighted in the literature (Bloch, 1988; Panayotou, 1989; Lynch,

1991). Without stable control over land ownership, farmers are disinclined to invest in long-term measures such as soil conservation methods and tree planting, resulting in further environmental degradation. The World Bank (1985) has concluded that:

How farmers use land is greatly affected by the degree of security of land-tenure -- with respect to such matters as duration of user rights, clarity of land rights, ability to sell these rights or to pass them on to succeeding generations, and ability to obtain compensation for investments. A farmer with unclear, insecure, or short-term tenure is more likely to "mine" the land, that is, to seek maximum short-run production gains through crop rotations and other practices that may degrade the biological and physical qualities of the soil.

### **Credit**

Another constraint is that traditional lending institutions do not usually provide loans to the poorest people because the transaction costs of a large number of small loans is high, as are the risks of loan default due to insufficient collateral. Even if the poorest people can obtain loans, conditions which may be suitable for less poor people may not be suitable for the poorest people and may lead to high default rates. Without some form of loan assistance, however, it is unlikely that the poorest people can improve their situation. Because the poorest people are unable to obtain loans through formal loan channels, many turn to the informal channels, which charge interest as high as 100% per annum (Leonard et al., 1989).

### **Markets**

Lack of assured markets also negatively impacts people's ability to keep themselves above the poverty level. One of the problems cited most often by rural people is their exploitation by middlemen. Without a proper marketing system, and lacking transport facilities to get their produce to market, small producers have no choice but to depend upon the unfavorable terms of the middlemen. This extends to the provision of basic materials needed by the producers, which are later repaid out of the produce when it is ready for market. The middleman and moneylender often are one and the same person.

### **Information**

Information is also a resource that the poorest people are often unable to access. They may be unaware of Government services they are eligible for, especially if they live in remote areas where Government officials do not usually go. It is well known that

remote areas of Sri Lanka are poorly serviced by Government extension services. Even in areas not so remote, lack of Extension agents, vehicles, and fuel allowances prevent information from being disseminated to the people who need it the most. For example, in the Badulla District two Soil Conservation Extension Officers are responsible for the entire district, and they experience difficulty in getting to the field due to vehicle limitations.

### **5.9 Lack of Support for Rural Women**

In the early 1970s, issues relating to the essential roles women play in development activities gradually began gaining the attention they long deserved. The United Nations Decade for Women, from 1975 - 1985, focused on the problems of women, as did studies like "The Report of the Commission on the Status of Women in India", commissioned by the Government of India in 1972. During the 1980s, more and more literature focused on women's development issues. Today "Women in Development" programs are a standard component of many government and international agencies.

Despite this move in the right direction and the increased attention, however, in Sri Lanka women's issues still exist on the periphery of development issues in general. For example, the Women's Bureau, under the Ministry of Health and Women's Affairs, is the Government's primary vehicle for initiating women's development activities, but it still has not been integrated into the Government's planning and central administration structures (CENWOR, 1989).

When development efforts do specifically target women, often it is for traditional "women's work", like handicrafts or sewing, which is usually not economically viable. Rarely do development planners acknowledge the role of women as primary producers and design programs accordingly. This is despite the increasing recognition that women often do the majority of the agricultural work, in addition to collecting water and firewood, preparing meals, childcare, and tending the animals, which is mistakenly viewed as "non-economic" work (Overholt et al., 1985).

Experience has proven that, when properly designed and supported, community based activities which are focused on women are often more successful than those that are not. Examples are Siyath Foundation's work with coir workers in Sri Lanka; the Chipkko Movement in the hill country of Uttar Pradesh, India, which focuses on forest protection and tree planting; the Community Forestry Project in 29 hill districts of Nepal, which focuses on tree planting; and the Greenbelt Movement tree planting program, and the Maendeleo Ya Wanawake's campaign to construct fuel efficient stoves, both in Kenya. These examples and others demonstrate the importance of women's active participation in development activities.

## 6. LESSONS LEARNED FROM PAST COMMUNITY BASED DEVELOPMENT ACTIVITIES

### 6.1 Sociological Perspective

In spite of the obstacles they face, community based development activities have gained increasing importance over the years, having demonstrated their effectiveness in addressing the needs of the poor. Though the activities vary in intent, the most successful community based development activities use a participatory approach and are usually catalyzed by NGOs. NGOs are more in touch with community needs, less bureaucratic, less affected by political interference, and less expensive than Government agencies, so are able to respond more quickly and effectively.

#### Participatory Approach

The development approach employed is the most important issue in project success or failure. The participatory approach differs substantially from a conventional top down approach, soliciting community input at all stages of the process. Implementation plans and budgets are more broadly defined than usual; as the process moves forward, the broader definitions are made more specific. This flexibility is the essence of participatory development. Involving villagers in decision making enables activities to develop in response to the specific conditions encountered, which is the key factor in the much higher than usual success rates of participatory activities.

There is no one specific participatory methodology that has proven better than others; however, there are general characteristics common to most. Once the general project activity and actors have been identified, a series of overlapping and ongoing steps are undertaken. If NGO staff possess the necessary participatory development and technical experience, because they are familiar with local people and conditions, they can begin the process immediately. Government agencies or outsiders require a few months or more to build up the trust of the villagers, as well as usually not being familiar with participatory techniques.

If the implementors possess the necessary skills, the first step is to gauge the perceptions of the villagers regarding the intended activity. This can be a tricky exercise. If the villagers' perception is that the NGO is only interested in a specific activity, for example tree planting, they may express an interest in it whether or not they feel it is a high priority, thinking that at least something can be gained. By providing a broader range of activities to choose from, there is greater likelihood that the activity would be one villagers are truly motivated to undertake.

"Participatory Rapid Appraisal" (PRA) is an informal survey technique increasingly gaining acceptance amongst development professionals. It is proving to be a more accurate and cost

effective technique than the conventional large-scale questionnaire surveys. It differs in principle from questionnaire surveys in that the initiative is shifted from the surveyor to the villager. A key element in the process is the personal behavior and attitudes of the surveyor: the attitude must be one of learning from villagers, not of imposing ideas from the outside. This is accomplished in a flexible, exploratory, interactive, and inventive spirit comparing, ranking, and/or identifying trends, rather than measuring statistical differences in a linear fashion. The emphasis is on determining the necessary information, but not finding out more than is needed. Questionnaire surveys have a tendency to alienate villagers by being long, drawn out, rigid, and top down. The results can also be misleading. PRA, on the other hand, actively involves villagers in the process, reenforcing the participatory nature of the activities. Experience is proving that the assessments are more accurate than usual. In this way it is possible to determine and identify socio-economic, demographic, environmental, health, etc. information, target groups, and the villagers' perceived problems and possible solutions.

The next series of steps is social mobilizing, or group building. Getting villagers invested in the process is one of the most basic guidelines of community organizing. Active participation in a high priority issue, especially where decision making opportunities are provided, is one of the strongest incentives. In this stage, groups are formally organized, non-traditional leaders are identified, and committees are formed. Education and awareness building regarding the relevant issues are undertaken as required, leadership skills and groups are strengthened, and specific project activities, objectives, implementation strategies, and project indicators, are identified. Conventional development activities usually do not take these issues into consideration or, if they do, they do not focus adequate attention on them, which is one of the main reasons why they often fail.

Training will be necessary for the villagers and NGO staff if they are unfamiliar with the project activity. The training should be simple, practical, participatory, and at a convenient location. An important point is that there be regular follow-up, evaluation, and reenforcement of the training. It is at this stage that liaisons with Government agencies can be most helpful. Government agencies can provide a wide range of services, to which the NGO can facilitate access. One cautionary note, however, is that measures will likely be needed to counterbalance the top down tendencies of Government agencies.

The implementation phase is now ready to begin. This can begin from two to six months or more after the start of the initial steps. During the implementation phase it is important that regular monitoring and evaluation take place, again with villagers taking the lead roles supported by the implementing organization and others. Depending upon the evaluations, implementation

strategies may need to be adjusted or reformulated, further training may be needed, or additional support may be required. Thus the various stages are overlapping and ongoing, open to change and benefitting from it.

### **Participatory "Animators"**

Experience has proven that because of the socio-economic difficulties and cultural conditioning of the poor, they are not likely to initiate sustainable actions on their own to address their problems (Tilakaratna, 1987). Therefore, there is a need for an outside force to catalyze the process. To accomplish this requires special skills on the part of the implementing organization's "animators". Knowing when to step forward and when to step back, while gradually cultivating people's leadership abilities. Thus, apart from the people themselves, the animators are perhaps the most important link in the chain.

The main requirement of an animator is a strong commitment to work for social change. This is one of those intangible characteristics that is difficult to measure by the usual yardsticks. Experience has shown, however, that the most effective animators are usually from the project area itself, have the equivalent of a high school degree, and have a history of involvement in community work, often as volunteers. Females may be more effective animators than males, one reason being they seem to stay longer in the job, perhaps due to their stronger commitment to community. College graduates, should not be automatically ruled out, but they tend to be more professionally ambitious, looking forward to better job prospects. This is especially so if they come from outside of the project area.

The animator's training in participatory methodologies therefore is a critical issue. Such training would include learning about the philosophy of participatory development, informal and formal survey methods, identifying target groups, facilitating group formation and meetings, building awareness as to the underlying causes of poverty, developing leadership, and planning, implementing, managing, monitoring, evaluating, and adjusting appropriate actions as identified by the people, with the people assuming central roles.

Although the initiative and direction should come as much as possible from the people, in practice the insights of the implementing organization will be mixed with those of the people to create a coordinated effort. The main point is that the people assume increasing responsibility for the activities.

## **Integrated Rural Development Projects**

One of the Government's main rural development interventions is the Integrated Rural Development Projects (IRDP), administered by the Ministry of Policy Planning and Implementation. At present IRDPs are active in ten districts, including Matara, Badulla, Ratnapura, and Nuwara Eliya. Projects in Matale and Puttalam have been completed, and new projects are being planned in Galle and Anuradhapura.

Activities vary for each IRDP according to the needs identified. They include agriculture, water supply, credit, rural industry, and training. In the late 1970s and early 1980s when the IRDPs began, the primary focus was on rural infrastructure projects implemented by Government line agencies. Within the last few years, however, the need to make greater use of NGOs and village organizations has been recognized. Rural Development Societies, women's societies, and Young Farmers Clubs can encourage community involvement by using participatory development methodologies. For example, since 1987 Matara IRDP has emphasized the use of "social mobilizers" (i.e. animators), many of them young village women. Badulla IRDP has done so since 1989 in the Ridimaliyadde AGA Division. Hambantota IRDP uses a participatory development approach for planning environmental activities. Ratnapura IRDP also uses a participatory approach in sustainable agriculture and community forestry activities. It may still be too early to accurately assess the impacts of the change in approach. There is, however, a soon-to-be-released evaluation of Matara IRDP, which should give some indications.

Each District IRDP is funded by a single, usually bilateral, donor. For example, Badulla and Matara are funded by the Swedes, Ratnapura and Nuwara Eliya by the Dutch, Kandy by the Germans. The amount of funding depends upon the needs of the District and the ability to spend the funds. In recent years funding for Ratnapura and Nuwara Eliya IRDPs has averaged Rs. 30 million each per year. Average budgets for Hambantota and Monaragala the last few years have been Rs. 60 - 90 million per year.

Some IRDPs, like Ratnapura, Nuwara Eliya, and Kandy, are headed by expatriates; others, like Badulla, Hambantota, and Monaragala, are not. They are usually staffed by a few professionals with backgrounds in agriculture and engineering. Administratively IRDPs work through the Provincial Councils. The Ministry of Policy Planning and Implementation is responsible for both IRDPs and Provincial Councils.

### **6.2 Technical Perspective**

Natural resource management includes the management of farmland, forests, rangeland, wildlife and botanical reserves, water, minerals, fisheries, coastal areas, as well as urban issues such as

air, water, and noise pollution, and waste disposal. The focus of this report is on rural issues.

### **Watershed Management**

One of the most important natural resource management issues in rural areas is watershed management, as is pointed out in the 1992 - 1996 National Environmental Action Plan. Watershed mismanagement caused by farming steep slopes, overgrazing, deforestation, and overuse of agro-chemicals, results in land degradation that has negative consequences beyond those on the land itself. Other negative consequences are decreased quantity and quality of water, increased siltation of waterways, including irrigation canals and tanks, and increased incidences of flooding and landslides.

Rainfed small farmers are the most numerous and the poorest farmers in the tropics. Today in Sri Lanka, they are among the principal causers of watershed degradation, mostly in the upcountry and Dry Zone areas. Although deforestation is still a problem, the wholesale clearing of forests in places such as the Mahaweli and Monaragala, was previously the main cause, but that era seems to be over. In countries such as Indonesia, Malaysia, and the Philippines deforestation by government-sanctioned timber concessionaires is still the main problem (Rush, 1991).

Traditionally the shifting, or slash and burn, cultivation methods of rainfed farmers were sustainable. Typically they would clear areas and farm for a few years, until decreasing soil fertility and increasing weed infestation reduced crop yields. They would then clear a new area and leave the old one fallow for 10 years or more so that soil fertility would be restored. The key to this system was availability of land, which allowed farmers to leave land fallow for long periods.

These days, however, scarcity of land due to increasing population pressures and concentration of land into few hands, means that rainfed farmers are no longer able to fallow land for more than a year or two, if at all. Many farmers use the same land year after year. As they are unable to invest in soil conservation methods and chemical inputs, soil erosion and declining fertility are major problems. Without an alternative land management system, these lands will eventually be degraded beyond productive use, and continue to cause problems for people downstream.

There are existing sustainable land use management systems, however, that conserve soil and retain soil fertility. Agroforestry and conservation farming are terms used for such systems. One key to such systems is the use of vegetative barrier methods of soil conservation, called hedgerow farming or alley cropping. Fast growing, nitrogen-fixing trees or shrubs are planted in closely spaced hedgerows across the slope, acting as a barrier to soil erosion. Annual, permanent, and/or fodder crops

are then planted in between the hedgerows in the alleys.

The advantage of using vegetative barrier methods of soil conservation, instead of structural measures such as bench terraces, rock walls, and contour drains, is that such measures are simple, relatively cheap, and require only modest amounts of labor, so are easily within the reach of small farmers. What is required is the transfer of the knowledge to farmers through extension, and modest support to establish hedgerows and permanent crops.

Such systems have been used successfully in many parts of the developing world. On the island of Mindanao in the Philippines the pioneering work of the Rural Baptist Center has attracted international attention. They call the use of hedgerows the SALT method, which stands for Sloping Agricultural Land Technology. On the island of Flores in Indonesia a priest introduced the technique to small farmers. Within 10 years about 20,000 hectares of contour hedgerows had been established. Much of the land was previously severely eroded. Since the establishment of hedgerows, crop yields have increased, erosion has decreased, fodder and fuelwood are more plentiful, and some streams that had been dry for 15 years began running year round again (Benge, 1987). The International Institute of Tropical Agriculture at Ibadan, Nigeria, and the International Council for Research in Agroforestry at Nairobi, Kenya, are leaders in action research on this subject.

In Sri Lanka agroforestry research is conducted at the Maha Illuppallama Research Station at Anuradhapura. There it is referred to as "conservation farming". A soon-to-be-published evaluation of conservation farming compared to home gardening and chena cultivation concludes that incomes have doubled after 15 years, by growing mixed vegetables and legumes in the conservation farming hedgerow system. The evaluation has concluded, however, that small farmers feel it takes too long for the increase in income to be felt (Abeygunawardena and Agalawatta). Income gradually increases, but it is not until after eight to ten years that it becomes significant. An important point, however, is that the systems only had a minor permanent tree crop component, and no animal husbandry component, which are the two most economically viable strategies. The evaluation concluded that the home gardening system was the most successful, because of the income generated by tree crops. Tree crops can be easily incorporated into the hedgerow system, along with or instead of annual crops. In addition to the economic benefit, there are the benefits of more effective soil conservation and production of green manure, fodder, and firewood.

Though such conservation farming research has been ongoing in Sri Lanka for over 15 years, the methodology has for the most part not been implemented by small farmers. This is mostly due to the institutional constraints blocking the transfer of the technology to small farmers. One of the few action projects is being

coordinated by the Upper Mahaweli Watershed Management Project, under the Ministry of Lands, Irrigation and Mahaweli Development. They are assisting Government agencies and NGOs to implement watershed management activities. They provide technical assistance, but only minimal amounts of project support and extension services. Their activities, though important, are only scratching the surface in Sri Lanka. There is tremendous potential and the interest in such activities is high among small farmers. The missing ingredient is the support to catalyze activities on a larger scale.

### **Range Management**

Overgrazing is primarily a problem in the Dry Zone. One remedial strategy is to reduce the size of herds, which will reduce overgrazing, as well as increase production. Another strategy that can be encouraged is stall feeding. This idea should be promoted along with hedgerow farming or alley cropping. The important point for stall feeding is that the source of fodder be close to the stalls. Besides reducing overgrazing, stall feeding is also advantageous because the animals expend less energy than when roaming freely, and manure can be easily collected and applied to the fields, rather than being mostly unused as it is now.

### **Social Forestry**

Reforesting degraded land is also a technically effective watershed management strategy, depending upon the selected tree species. From a sociological perspective, however, in the Consultant's experience, small farmers will only be motivated to plant land exclusively to trees if they have additional land where they can grow their annual crops, and if there is support to either purchase or produce seedlings. From the farmers' perspective, if they have only a limited amount of land, they cannot afford to plant it to trees that will take a number of years to generate income. If farmers are willing to plant trees, they usually prefer fruit trees to timber or firewood trees, because income is generated sooner. Women, however, may prefer fodder or firewood trees, if these are scarce commodities, as the gathering of these items is usually women's responsibility. Therefore it is important to solicit women's feedback.

### **Integrated Pest Management**

Integrated pest management is an issue gaining increasing importance as the amount of agrochemicals used worldwide increases. It is now widely recognized in Sri Lanka that farmers are often unaware of the proper use of agrochemicals, which results in overuse and misapplication. Farmers waste money, suffer increased health problems, and cause more environmental pollution because of it. Agrochemical companies and NGOs are placing more emphasis on educating farmers in correct usage, but their efforts are limited.

Agrochemicals are generally used by the less poor farmers for irrigated agriculture. Rainfed farmers are too poor to be able to buy agrochemicals.

There is a need in Sri Lanka for studies on IPM methods of pest control such as time of planting, crop rotations, crop combinations, and biological and organic control. There is also a need for studies of the health hazards of agrochemical use. Such studies may have some influence on the formulation of appropriate policies.

### **Water Management**

Irrigation is the lifeblood of the agricultural sector, so water management is a vital issue. For the most part, small farmers are knowledgeable about water management. As was mentioned earlier, they have had a long and successful history of it. The problems are caused by the lack of maintenance of irrigation systems, mostly the responsibility of the Government. One solution seems to be involving farmers in the management of irrigation systems, as was done in the Irrigation Systems Management Project mentioned previously. Regarding the frequency of maintenance, facilitating sound watershed management strategies, like those mentioned above, can reduce the amount of maintenance required.

### **Fisheries**

Fisheries also provide an important economic activity. Traditionally small fishermen have exploited coastal water fish. According to a Food and Agriculture Organization report, as of 1984 Sri Lanka was still within its sustainable coastal waters fish yield of 250,000 tons per year (FAO, 1984). Though statistics indicate overfishing is not occurring, the increasing number of fishermen and motorized boats has reduced individual fishermen's catch, so increasingly they are looking to deep sea fishing. The main limitations in doing so are the high cost of deep sea boats and the necessary equipment, i.e. engines and nets. Large-scale, deep sea, foreign fishing may have an impact on coastal fishing and requires further study.

### **Sustainable Resource Use**

As with other forms of unsustainable resource use, increasing population and poverty are the main reasons behind the unsustainable use of natural forests and coastal areas. Without other ways to earn a living people are driven to exploit resources close at hand. Therefore one strategy in conserving natural forests and coastal areas is to provide people with methods of income generation as an alternative to cutting trees to sell for firewood and mining coral reefs for lime and trinkets.

## 7. IRG ASSISTANCE

The community management issues addressed in this report are rural, not urban. Urban problems may offer opportunities for community-level solutions, but they are complicated by larger political units and, often, less well defined community structures. The program recommendations of this report are therefore directed toward rural interventions, although lessons and programs may be similar for urban industrial areas identified in the future.

The overall objectives of IRG community based natural resource management support are to:

1. Enhance community control over the natural resource base.
2. Support small-scale projects that are easily and affordably replicable in Sri Lanka.
3. Enhance community or NGO institutional capabilities.
4. Facilitate communication of project lessons and experiences among communities, NGOs, government agencies, and donors.
5. Compile information on and build awareness of community based management experiences that support and enhance devolution of authority to local levels.

### 7.1 Project Selection Criteria

Projects were identified from information gathered in interviews and from the Consultant's prior experience. Field visits to potential projects were essential to ascertain the nature of the organizations and projects. As time was limited, not all projects could be visited. Upon consultation with the NAREPP/IRG Chief of Party, certain organizations and projects were targeted for further investigation. Of the fourteen projects invited to request IRG assistance, eleven responded; four of the respondents submitted a joint request.

To be considered for selection, implementing organizations must meet the following criteria:

1. Must have a history of implementing participatory development projects.
2. Must have a history of implementing natural resources management projects.
3. The intended project beneficiaries must be the poorest people, because of the direct relationship between poverty and environmental degradation.

4. Must have an adequate number of field and support staff to facilitate project implementation.

## 7.2 Operational Approach

IRG's operational approach in project support should be to coordinate the provision of technical assistance in the form of training, training materials, short-term consultants, community based field staff, project proposal development, project management, networking, etc. according to the assistance requested. The scopes of work for projects to be supported will be reflective of the following specific tasks:

1. Identify specific training and other support needs of selected organizations.
2. Identify trainers, preferably local, but also foreign, as needed.
3. Gather and/or develop appropriate training materials, such as handbooks, pamphlets, slides, videos, etc.
4. Provide technical and participatory development project coordination and extension assistance.
5. Provide technical advice for project proposal development.
6. Coordinate workshops/seminars, especially in field areas.
7. Monitor and evaluate projects.
8. Develop and distribute case studies.
9. Provide logistical networking assistance, including support for NAREPP/IRG newsletter.
10. Analyze and articulate policy reforms identified from field experiences.

One of the most immediate needs of community based NGOs is well trained staff, so projects can be more effectively planned and implemented. The identification of training needs and trainers, and the development of appropriate training programs is vital to project success.

The provision of technical assistance is one of the primary intents of Special Projects; however, because of the present limited capability of many NGOs, they are also in need of other forms of assistance, such as technically qualified permanent staff in resource management and participatory development, vehicles, and office equipment. Strengthening NGOs' technical capabilities will better enable them to articulate their needs to potential funders

to secure other necessary financial support that NAREPP/IRG may not be able to cover. If requested, assistance for project proposal development will be provided. NAREPP/IRG will also provide assistance for project coordination, monitoring, and evaluation, especially during the initial stages of projects when the implementing organizations are strengthening their technical capabilities.

Potential support for community based natural resource management activities should be sought from various sources. Wherever possible the intention is to develop links of community groups with Government services and private enterprise. Despite the fact that, in general, Government agencies lack the capability to facilitate community participation, their services should be used, when appropriate, as a secondary line of support. By diversifying the sources of support, overall support for community based actions will be strengthened.

The development of community capability to manage self-reliant actions is a long-term process that will most likely require more time than the five-year life span of the IRG component of NAREPP. There is a need to develop indicators of progress in "human resource development" that will justify the continuance of such activities in a "Phase II" of the project. By demonstrating progress in human resource development, NAREPP/IRG can help to foster more understanding between NGOs and donors, and highlight the importance of community-led activities and needed policy reforms that will facilitate such actions.

### **7.3 Recommended Projects**

The projects and organizations listed below are preliminary recommendations for IRG assistance. Thus far only initial discussions have been held with potential recipients of IRG assistance; specific project proposals will be forthcoming at a later date. As the process is only in the preliminary stage, it remains to be seen how faithfully the organizations will follow through on their proposals. Therefore it is recommended that the process of identifying potential projects and organizations to support be kept open to include others that may arise.

The following projects are recommended for Special Projects support:

1. Satyodaya: Kandy Soil Conservation and Sustainable Land Use Project.
2. Vehilihini Development Centre: Siyambalanduwa Integrated Conservation Development Project.

## **7.4 Project Monitoring and Evaluating**

### **General Procedures**

Monitoring and evaluating will be essential aspects of NAREPP assistance to ensure that objectives are being met. Often objectives are neglected or not systematically carried out, because organizations may be engaged in implementing other projects, as well as planning for new ones, or the donor agency itself may have other priorities. Plans and timeframes are needed to ensure regular monitoring and evaluation as part of project support.

NAREPP-assisted projects can be monitored and evaluated in two ways: one by ensuring the specific assistance provided by NAREPP is properly applied, and the other by assessing the impact of the NAREPP assistance on the overall project objectives.

For specific NAREPP assistance provided to selected projects, the monitoring and evaluating can be conducted in several ways. Most important is for the intended project beneficiaries to be part of a self-monitoring and evaluating process conducted at regular intervals. This does not mean that outsiders should be excluded from the process. On the contrary, skilled and sensitive outsiders are necessary to provide a different perspective and to help overcome obstacles to participatory evaluation.

For short training of one week or so, evaluations can be held on a daily basis. These can be in the form of short informal meetings, in which a voluntary, group-selected, or rotational steering committee solicits feedback from the others. Problems can then be dealt with as they arise. For longer training programs, short evaluations held every few days, plus a longer mid-term evaluation can be used. These can be done through meetings, questionnaires, or interviews. At the end of the training, no matter what the duration of the course, an evaluation should be conducted. Finally, at specified intervals follow-up evaluations should be conducted to determine how useful the training has been in a practical sense. A similar framework can be used if the assistance was provided by a short-term consultant or permanent field staff.

Monitoring and evaluating the impact of the NAREPP assistance on the overall project will be judged upon the overall objectives of the project. This, too, should involve the various project participants and should be conducted at regular intervals. The methodology should be one of reviewing project documents, interviewing those involved, and/or using questionnaires, making field observations, and conducting group evaluation exercises.

### **Evaluation Indicators for Intangible Project Goals**

A key element of the activities recommended by NAREPP/IRG is the

focus on achieving intangible project goals, such as encouraging community involvement, strengthening leadership, and raising awareness, as well as the overall tangible goal of more effective natural resource management. Though achieving intangible goals is vital to the success of participatory development activities, often evaluations do not adequately consider such factors. Reasons may be a lack of awareness on the part of the evaluators regarding the need to do so, or regarding specific indicators and methodologies. Though intangible indicators are more difficult to measure than tangible ones, there are certain indicators which, if properly considered, can facilitate accurate evaluations.

As the role of the organization encouraging community participation to facilitate project implementation is a key factor, it is important to evaluate its internal functioning. If the implementing organization effectively operates in a democratic manner with regard to decision making and leadership, and if its staff are experienced in appropriate methodologies, they, of course, will be more effective translators of those skills to others. To assess the capabilities of an implementing organization, the following indicators should be considered:

- How are major decisions made and who makes them?
- How are staff lower in the hierarchy involved in decision making?
- Is there a sufficient delegation of responsibility?
- Is leadership concentrated in a few hands?
- Is leadership of the organization developed amongst staff and are the present leaders replaceable?
- How does the organization deal with dissent? Do staff feel comfortable openly expressing their opinions? Do the leaders encourage positive and negative feedback, and provide open, non-threatening forums to discuss problems?
- Does the organization attempt to reduce inequalities in salaries, benefits, facilities, training opportunities?
- What impact has the organization had on local conditions, i.e. in standards of living, conditions of women, lessening the influence of middlemen, encouraging favorable changes in official policies?

The skills of the implementing organization will be tested by its ability to transfer awareness and skills, and catalyze appropriate action at the village level. In regard to the formation of village groups, the following indicators can be assessed:

- Number of village groups formed over a given time period.

- Composition of groups, i.e. number of women and men, percentage of group members compared to the total number of poor in the area.
- Size of groups, increasing or decreasing.
- Number of meetings and attendance by women/men.
- Group dynamics, i.e. how are meetings facilitated? Are people effectively encouraged to express opinions? Is participation in discussion by group members increasing? Is decision making a group effort or dominated by one or a few people? Are issues discussed reflective of the interests of the group as a whole? Are women's issues being raised?
- Are people's awareness about identified issues increasing?
- What actions have been undertaken as a result of meetings? Has progress been made? Are the benefits fairly shared?
- What role do group members play in modifying actions and planning for the future?

Encouraging appropriate community development processes is as important as the outcome of the action, because through the former, can be realized the success of the latter. Though intangible goals may be difficult to measure, and are not usually focused on, because they have a direct bearing on the achievement of tangible goals, they must be included in participatory development project evaluations. The salient point of evaluations for both tangible and intangible goals is that the intended project beneficiaries are actively involved in the process.

## 8. CONCLUSION

All the actors in the development scene have awakened to the knowledge that sustainable natural resource management is the key to development. Because of the past failures of large-scale, centrally planned and implemented projects, more attention has turned to small-scale, community based activities, which seek to involve community groups in planning, implementing, monitoring and evaluating activities. There are a number of obstacles to fostering such a shift towards community based activities; however, none of them are insurmountable if the will to change among the various actors is genuine.

NGOs can be important catalysts in the process, as they are generally more able to identify the needs and concerns of the people than Government agencies. To do so, their institutional capabilities must be strengthened, as must their relationships with donor agencies, who are their lifelines. Successful NGO actions can be examples for Government agencies which also desire to move in such directions. For although NGO actions are important, it is

only Government that has the capacity to reach large numbers of people in need. As with any large-scale movement, it is only through common action that the various actors -- communities, NGOs, academics, Government, donors -- can bring about the necessary change.

## ANNEX I

### List of Meetings

1. W.P.P. Abeydeera  
Project Director  
Sri Lanka Canada Development Fund
2. Malcolm Jansen  
Program Officer  
United States Agency for International Development
3. Nalaka Gunawardana  
Coordinator, Special Projects  
Worldview International
4. Fred Spielberg  
Consultant  
Kim McQuay  
Program Manager  
Asia Foundation
5. Peter Burke  
Assistant Country Director, Administration  
CARE International
6. Nalin Laduwahetty  
Coordinator  
Sri Lanka Environmental Congress
7. R.B. Morapaya  
Program Officer  
Swedish International Development Agency
8. W.M. Leelasena  
Program Officer  
Norwegian Agency for Development
9. Lalanath DeSilva  
Executive Director  
Environmental Foundation Limited
10. Sukenya Devarajan  
Science and Technical Advisor  
Canadian International Development Agency
11. Sriyani Hulugala  
Consultant  
World Bank

12. F. Marikar  
Director  
Dr. D. Abeysekera  
Assistant Director  
G. Dharmawardena  
Environmental Unit Coordinator  
FORUT
13. Manel Jayamanna  
Program Officer  
United Nations Development Program
14. Indralal Jayasinghe  
Rehabilitation Officer  
OXFAM
15. V.C. Karunananda  
Assistant Director Development Projects Division  
MARGA
16. Aloy Perera  
Development/Public Affairs Officer  
Canadian High Commission
17. Winand Staring  
First Secretary  
Netherlands Embassy
18. N. Maheson  
Private Voluntary Organization Officer  
United States Agency for International Development
19. A.P. Dianies  
Director  
Rural Development Training and Research Institute
20. Irma-Liisa Pertunnen  
Counsellor, Resident Head of Mission  
Finland Embassy
21. Dr. R. Russell  
Director  
Central Council Of Social Services
22. A.K. Gunapala  
Director, Environmental Promotion  
Central Environmental Authority
23. C. Maliyadde  
Director, Institutional Affairs Division  
Ministry of Policy Planning and Implementation

24. D.G. Ratnayake  
Chairman  
Dunston Fernando  
Project Director  
Freedom From Hunger Campaign
25. Kay Salgado  
Agroforestry Project Coordinator, Women's Movement  
Sarvodaya
26. Gallege Punyawardana  
Director  
Swarna Hansa Foundation
27. M.B. Adikaram  
Chairman/Director  
K.N.B. Attanayake  
Manager Monitoring and Evaluation  
Nation Builders Association
28. Fr. Paul Caspersz  
Coordinator  
Lalith Abeysinghe  
Deputy Coordinator  
Satyodaya
29. Sarath Fernando  
Moderator  
Devasarana
30. B.M. Kiriwandeniya  
Director  
P.A. Kiriwandeniya  
Chairman  
Forum on Development
31. P. Wimaladasa  
National Trainer  
Bandupala Nanayakkara  
Senior Research Officer  
Tissa Bandara  
Researcher Agriculture Section  
Centre for Human Development
32. K.G.K. Weeraratne  
Secretary  
Herbert Vithanage  
Coordinator  
Vehilihini Development Centre
33. Alexander Korala  
District Fisheries Extension Officer, Ministry of Fisheries

## ANNEX II

### LITERATURE REVIEW

Annex II lists literature pertaining to reports and evaluations of community based natural resource management projects for both Sri Lanka, and the South and Southeast Asia region in general.

#### Sri Lanka

Canadian Hunger Foundation. 1991. "An Evaluation of the Dry Zone Revitalization Project in Sri Lanka". Canadian Hunger Foundation (internal report).

De Zoysa, N., et al. 1991. "Sinharaja and Knuckles Conservation Projects: Project Review - Phase I". Norwegian Agency for Development.

Laird, D. 1991. "Conflicts in Natural Resource Use and Degradation: The Case of Bundala Wildlife Sanctuary". USAID.

Maddugoda, P. 1991. "The Community Forestry Project of the Asian Development Bank in Sri Lanka". Forestry Department, Sri Lanka (internal report).

Overseas Development Administration. 1991. "Sri Lanka Forestry Project, Baseline Study of Sociological Aspects". Overseas Development Administration (internal report).

USAID. 1990. "Evaluation of the Private Voluntary Organization Co-Financing Project I and II, 1979 -1989". USAID.

Van der Blik, J. 1991. "Environmental Management in the Context of Sustainable Rural Development: A Case Study from Sri Lanka". Integrated Rural Development Project, Ratnapura.

Wickramaratne, S.N., et al. 1986. "Minipe Right Bank Transbasin Canal Conservation Forestry Project, Second Interim Evaluation". Nation Builders Association.

#### South and Southeast Asia Region

Halos, S. 1982. "Agroforestry: Opportunities and Constraints the Philippine Experience". Paper presented at conference on "Forestry and Development in Asia", Bangalore, India.

Kishore, K.C. 1988. "Participatory Inputs in Community Forestry: A Case Study of Chang Village Panchayat of Tanahu District". Winrock International, Forestry Research Paper Series, Number 12.

- Malla, Y. 1988. "The Case for Placing More Emphasis on Private Tree Planting Programs: A Case Study of Pakhribas Agriculture Centre's Private Tree Planting Program". Winrock International, Forestry Research Paper Series, Number 13.
- Neupane, I.P. 1987. "Community Forestry: An Assessment of People's Cooperation in Magapauwa". Winrock International, Forestry Research Paper Series, Number 8.
- Ojha, B. 1987. "An Evaluation of Lekhnath Panchayat Community Forestry Project". Winrock International, Forestry Research Paper Series, Number 9.
- Picornell, P. 1982. "The PICOP Agroforestry Project: Socio-economic and Forestry Aspects". USAID.
- Seymour, F. 1985. "The Lessons Learned From Agroforestry Projects in the Philippines". USAID.

## REFERENCES

- Abeygunawardena, P. and M.B. Agalawatta. "An Economic Evaluation of Conservation Farming: A Case in the Dry Zone of Sri Lanka". Journal of Agricultural Economics (publication forthcoming).
- Abeywardena, P. 1989. "Role of NGOs and Government NGO Relations". Ministry of Policy Planning and Implementation, Sri Lanka.
- Baldwin, M., et al., eds. 1991. "Natural Resources of Sri Lanka: Conditions and Trends". Natural Resources, Energy and Science Authority of Sri Lanka.
- Baldwin, M. 1991. "Institutional Analysis for World Bank Environmental Action Plan". World Bank.
- Benge, M. 1987. "Agroforestry Systems". USAID.
- Bhasin, K. and N.S. Khan. 1985. "Sharing One Earth". Food and Agriculture Organization.
- Bhatt, A., et al., eds. 1988. "Building From Below: Local Initiatives for Decentralized Development in Asia and Pacific". Asian and Pacific Development Centre.
- Bloch, P. 1988. "Land Tenure Issues in Sri Lanka: A Brief Overview". Land Tenure Centre, University of Wisconsin-Madison.
- Canadian Hunger Foundation. 1991, "An Evaluation of the Dry Zone Revitalization Project in Sri Lanka". Canadian Hunger Foundation (internal report).
- Centre for Women's Research. 1989. "The Hidden Face of Development: Women, Work and Equality in Sri Lanka". Centre for Women's Research.
- Chambers, R. 1983. "Rural Development: Putting the Last First". Longman Scientific and Technical.
- Food and Agriculture Organization. 1984. "Marine Small-Scale Fisheries of Sri Lanka: A General Description". Food and Agriculture Organization.
- Gibbs, C. 1982. "Institutional Obstacles to Effective Forestry for Local Community Development in Asia". USAID.
- Heise, L. 1991. "Trouble Brewing: Alcohol in the Third World". World Watch (4)4.

- Kalyalya, D., et al., eds. 1988. "Aid and Development in Southern Africa: Evaluating a Participatory Learning Process". Africa World Press, Inc.
- Leonard, A., ed. 1989. "Seeds: Supporting Women's Work in the Third World". The Feminist Press.
- Lynch, O. 1991. "Community-Based Tenurial Strategies for Promoting Forest Conservation and Development in South and Southeast Asia". Paper prepared for a USAID conference on environmental and agricultural issues. Colombo, Sri Lanka.
- Maddugoda, P. 1991. "The Community Forestry Project of the Asian Development Bank in Sri Lanka". Forestry Department (internal report).
- Ministry of Environmental and Parliamentary Affairs. 1991. "National Environmental Action Plan: 1992 - 1996". Government of Sri Lanka.
- Overholt, C., et al., eds. 1985. "Gender Roles in Development Projects". Kumarian Press.
- Overseas Development Administration. 1991. "Sri Lanka Forestry Project, Baseline Study of Social Aspects". Overseas Development Administration (internal report).
- Panayotou, T. 1989. "The Economics of Environmental Degradation: Problems, Causes and Responses". Harvard Institute for International Development.
- Participatory Institute of Development Alternatives. 1984. "People's Movements and Experiments". Participatory Institute of Development Alternatives.
- Rush, J. 1991. "The Last Tree: Reclaiming the Environment in Tropical Asia". The Asia Society.
- Tilakaratna, S. 1987. "The Animator in Participatory Rural Development (Concept and Practice)". International Labor Office.
- Van Koppen, K. "Community Forestry In Sri Lanka". (unpublished Master's Degree thesis).
- World Bank. 1990. "World Development Report 1990: Poverty". Oxford University Press.
- World Conservation Union. 1989. "Sri Lanka Forest Sector Development Project, Environmental Management Component". World Conservation Union.

World Resources Institute. 1985. "Tropical Forests: A Call for Action; Part II, Case Studies". World Resources Institute.

Worldwatch Institute. 1989. "State of the World 1989". W.W. Norton and Company.