

SHARED CONTROL OF NATURAL RESOURCES (SCOR) PROJECT

A Component of Natural Resources and Environmental
Policy Project, NAREP

COOPERATIVE AGREEMENT

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SHARED CONTROL OF NATURAL RESOURCES (SCOR) PROJECT

- A Component of Natural Resources and Environmental Policy Project, NAREPP -

COOPERATIVE AGREEMENT

OBJECTIVE

This Cooperative Agreement (CA) provides for the recipient, namely the International Irrigation Management Institute (IIMI), to execute a project entitled "Project for Shared Control of Natural Resources (SCOR)", in collaboration with the Government of Sri Lanka (GSL) and the United States Agency for International Development (USAID). The SCOR project proposals were based on the results of an elaborate participatory project design process spearheaded by a core group of senior government officials nominated by the Ministry of Lands, Irrigation and Mahaweli Development (MLIMD), funded by the USAID, and facilitated by the Sri Lanka Field Operations of the IIMI.

The CA sets forth the terms and conditions under which funds will be made available to IIMI by the USAID, under the SCOR Project, to provide technical assistance, training, commodities and sub-grants to assist Sri Lanka to sustain the productivity of land and water resources within selected watersheds through shared control by local user groups and the government.

The SCOR project will be implemented as a component of the Natural Resources and Environmental Policy Project (NAREP). The implementation will be over a period of six years, in two phases. This CA will cover only the 2 year initial phase, hereinafter referred to as the project.

The primary responsibility for project operation will lie with the Ministry of Lands, Irrigation and Mahaweli Development as the sponsoring Ministry, but this responsibility will be shared with other ministries, particularly the Ministries of Agricultural Devt. & Research, Environment and Parliamentary Affairs and Policy Planning & Implementation. For this purpose, a National Steering Committee (NSC) will be established. The NSC will also provide a locus for policy dialogue and direction as well as the senior level oversight needed to monitor progress and resolve problems. Similarly, at Provincial level, there will be a Provincial Steering Committee (PSC). In addition, the MLIMD will appoint a senior officer to help co-ordinate project implementation.

2. BACKGROUND AND SUMMARY

2.1 Need for enhancing user control over natural resources

There is an increasing body of evidence from Sri Lanka and other Asian countries that farmers, even those with very small holdings make production responses to the economic

environment within which they carry out their agricultural activities. These responses are influenced by the degree of control the farmers can exercise over their means of production, and the availability of information about market conditions and opportunities, and the necessary supporting services. In Sri Lanka, even the modest increase in control over water achieved by the farmer groups in projects such as the Gal Oya Water Management Project (GOWMP), the Integrated Management of Irrigation Systems (INMAS) Project and the Irrigation Systems Management Project (ISMP) through their group participation in the Project Management Committees has resulted in significant increases in agricultural production and greater efficiency in the use of the land and water resources. Increasing the users' share of control over natural resources and their active participation in making management decisions are, therefore, widely recognized to be vital pre-requisites to improve management of those resources, and interventions aimed at improving natural resource management through local control are known to yield high rates of return.

SCOR will build on the progress already made in Sri Lanka in irrigation management and in social forestry, apply an organizational approach on a watershed basis, and demonstrate the appropriateness of the approach in selected provinces of Sri Lanka, chosen for their differing social, agricultural and environmental characteristics.

2.2 Project Goal and Purpose

The project's goal is to increase the sustainable productivity of the natural resources base in Sri Lanka in ways that will improve people's livelihoods beneficially and equitably now and in the future with due regard for the environment.

The purpose of SCOR is to increase the share of users' control over land and water resources in selected watersheds through state-user partnerships that contribute to intensified and sustainable agricultural production while conserving the physical, biological and social environments. The project is designed to strike a balance between **"production"** and **"protection"** in relation to the utilization of land and water resources in selected pilot watersheds through the intensification and institutionalization of participatory processes coupled with appropriate technologies.

The focus on **watersheds** as basic planning, co-ordinating and implementation units is a unique feature of the SCOR Project. For project purposes, watersheds are defined as comprising the catchment, reservoir, command and drainage areas. The project will promote integrated planning for land and water resources utilization in these areas, gradually transforming the strategy of development of the resources from a "project" mode to a "programme" mode.

2.3 Specific Objectives

The activities comprising this project, to move towards its goal and to achieve its purpose are planned to be mutually reinforcing. The four specific objectives to be accomplished by this project which are common to both phases of SCOR, are:

- a) To improve the incentive and institutional context in which agricultural and other commercial activities are undertaken in pilot watersheds (Huruluwewa and Nilwala) through appropriate state-user partnerships and modes of production so as to ensure both productivity and sustainability of land and water use;
- b) To get resource user groups and managers to consider environmental implications of land and water use more explicitly and to internalize environmental considerations in decision making and implementation at all levels; and
- c) To enhance governmental, group and individuals' information and understanding about potentials of and prospects for natural resources (land and water) base for production and protection.
- d) To strengthen the capacity of the Provincial/Divisional level government authorities in planning for land and water resources utilization in an integrated manner, gradually transforming the strategy of development of land and water resources from a "project" mode to a "program mode".

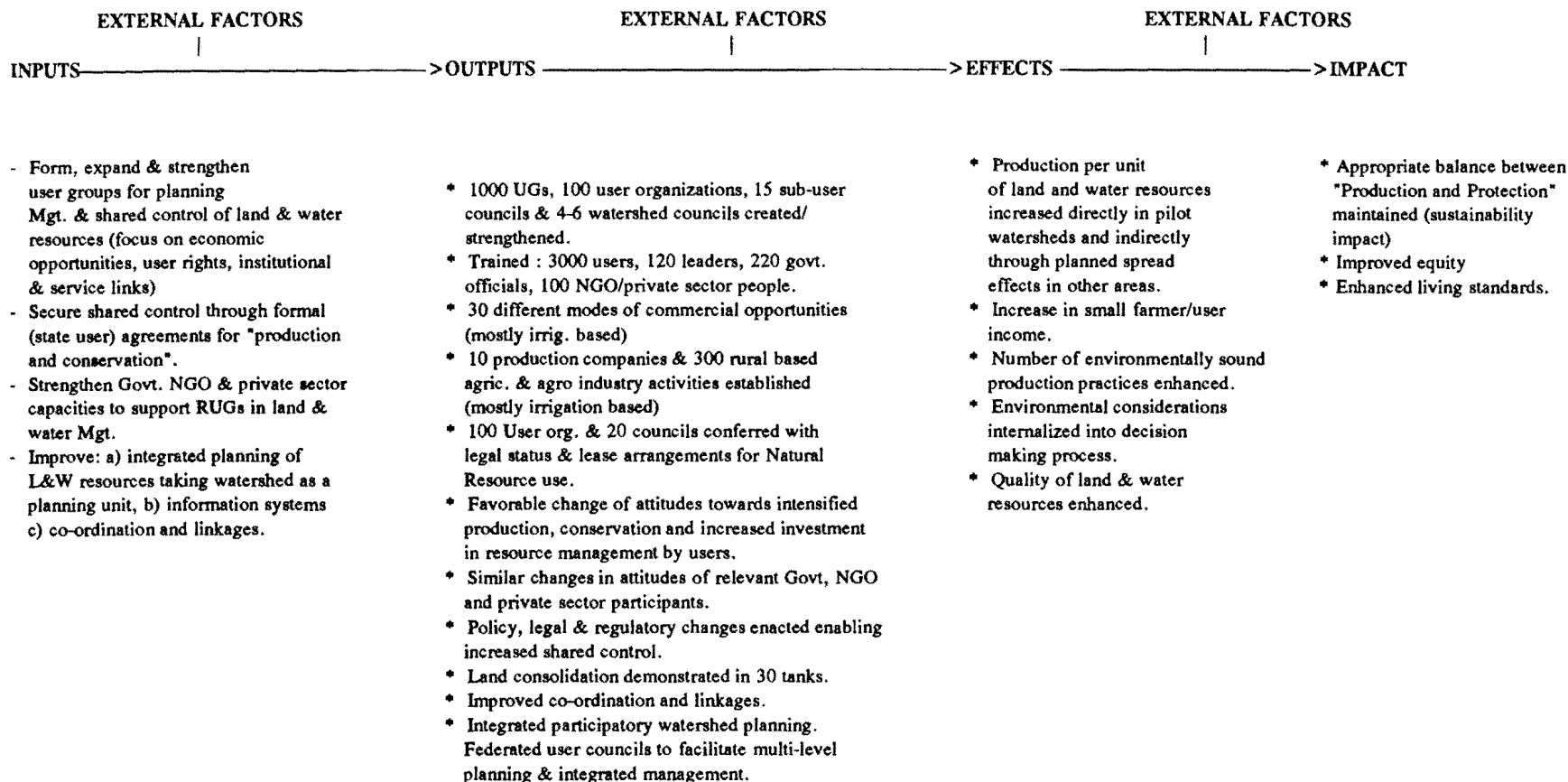
A logical framework, relating SCOR project inputs to outputs, effects and impact, is illustrated in Figure 1. Obviously, this agreement will not fully cover the impact generating period.

2.4 Project Approach And Implementation Strategy

The project activities will be implemented in selected areas of two pre-selected pilot water sheds - Huruluwewa and Nilwala River basin, located respectively in the North Central and Southern Provinces.

In the first few months of operation, IIMI will conduct a participatory assessment of the present land and water use patterns, capabilities of resources user groups, government agencies, NGOs etc. in the selected watersheds. Based on this assessment, the project will develop an integrated plan to improve land and water resources management in these areas, again, through a participatory approach. Planning will focus on efforts to intensify the utilization of existing resources through known technologies, and also to augment the resources base. Examples include (i) improving production through management changes; (ii) supplementary irrigation for high value cash crops in the highlands. Here, the technologies to be experimented may include exploitation of ground water for cash cropping, and the use of sprinkler and drip irrigation; (iii)

Figure 1 - SCOR PROJECT - FROM INPUTS TO IMPACT (6 - YEAR PERIOD)



linking user groups with markets and vertical integration of product disposal; and (iv) extracting of non-wood forest resources while ecologically restoring the forest resources base.

The project will then seek to intensify action to strengthen the user groups and assist them to experiment with innovative "production and protection modes" developed at the planning stage and implement the planned activities. User groups will be assisted to establish production companies. They will be linked to credit institutions for purposes of obtaining loans for their new ventures, and the project will support them with matching grants, to a limited extent.

The above efforts will be supported with a substantial package of dissemination of new knowledge, development of skills, and reorientation programs for user groups as well as for governmental and other institutions.

The project activities will be carried out through watershed working groups comprising the project's technical personnel, concerned officials at different levels, and representatives of user groups, User Organizations/ Federations/ Councils. Provincial steering committees chaired by the Provincial Chief Secretaries and co-ordinating bodies at the divisional level will provide guidance to the working groups and ensure inter-disciplinary and inter-project collaboration. At the national level, a steering committee consisting of representatives of the several relevant government ministries, non-governmental organizations, implementing organizations' representatives and USAID officers will provide a national focus for monitoring project activities and policy dialogue and direction.

A rigorous Monitoring and Evaluation process will be carried out through out the project implementation. This will include participatory self evaluation methods and advanced analytical techniques such as Geographic Information Systems. Towards the end of phase I implementation, an intensive evaluation will review progress and lessons learned and provide guidance for the extension of activities into Phase II. The latter phase will include the expansion of Phase I activities in the two pilot watersheds as well as the implementation of new activities including special mechanism to augment spread effects.

It is impossible to assess the full impact of SCOR project Phase I in the second year of its implementation. As indicated in **Figure 2**, after the initial one year period of planning and organization the experimentation and replication will take about two years and the SCOR project has been designed to take a 6-year cycle. Nevertheless, as shown in **Table 1** (pages 20-23), some important tangible benefits are expected by the end of the second year of project implementation. For other benefits (table 1) a trend analysis will be conducted. This assessment of Phase I output will be based much on the continuous monitoring and evaluation work of the SCOR project. In this way the assessment of output, and trends can be completed before the end of the second year so as to avoid a gap between the two phases. This, in turn, will facilitate the smooth functioning or continuity of on-going activities. The Cooperative Agreement will, therefore, be in two separate consecutive grants to reflect this "phased" plan for implementation.

Figure 2: Step-wise implementation schedule.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
First subset of pilot watersheds	POP	EXP & REP	CON	I & S		

Second subset of pilot watersheds

POP	EXP & REP	CON	I & S
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Third subset of pilot watersheds

POP	EXP & REP	CON
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Notes:

- POP - Planning and Organization Phase

EXP & REP - Experiments & Replication

CON - Consolidation

I & S - Institutionalization & Spread Effects
- Mechanisms to augment spread effects will be initiated in year 4.
- In addition to new modes of Land and Water Resources and environmental management institutional and legal support are also included here.

In addition to this Cooperative Agreement, funds from other sources will also be used to provide additional external assistance for evaluation and special studies to supplement SCOR assistance and activities.

The CA recipient, IIMI, will manage all activities of the project as specified under this Cooperative Agreement. IIMI, will work in close collaboration with the USAID, the Ministry of Lands, Irrigation and Mahaweli Development, other relevant Ministries, and Provincial, Divisional and field officials. The USAID project officer will liaise with IIMI in the execution of the Cooperative Agreement and manage contracts and agreements for other assistance which is not performed by the recipient of the Cooperative Agreement.

2.5 IIMI's Comparative Advantage as Executing Agency for SCOR

The IIMI will make available to the GSL and the USAID, the many distinct advantages it has, as a lead organization with experience in participatory management, knowledge of conditions and institutions in Sri Lanka and elsewhere, and demonstrated access to a range of international expertise and institutions in watersheds management issues, in the execution of the SCOR Project. Some selected experiences in several IIMI country operations related to institutional strengthening, research-management linkages, and strengthening policy making, are outlined in Annex I.

In countries like Sri Lanka, Philippines, Bangladesh, Nepal and Indonesia, IIMI supported -- mainly through collaborative modes of action-research-- the introduction of improved management and policy. It helped countries to apply the existing knowledge bases and use research results to improve performance of agriculture. IIMI also helped managing and policy making organizations to develop human resources and to undertake the organizational and operational changes needed to improve policy making and management.

For instance in the Philippines, IIMI facilitated a process of participatory project design, including elaborate implementation and M&E schedules, for improving irrigation system performance through joint management. The institutional, research and engineering staff of the National Irrigation Administration at regional and national levels, regional research institutions and farmer representatives were involved in this process. These plans were implemented in pilot irrigation systems in a participatory manner. The results of impact evaluation clearly indicated the program success in both institutional and irrigation system performance aspects.

Participatory management and shared control mechanisms which proved to be successful in the field of water resource management, may be applicable in land management as well. For example, in the Philippines, participatory management techniques originally developed in irrigation systems are being extended to such fields as watershed management, land reform etc.

From its inception in 1984, IIMI has been sharing, and enriched by the GSL experience of growing success with participatory management in irrigation systems. Selected experiences

of IIMI operations in Sri Lanka related to research-management linkages and policy making include (a) developing strategies for improving system management in two major irrigation schemes in Southern Sri Lanka through collaborative action research. The management innovations implemented jointly by the agencies and IIMI led to a significant increase in the area cultivated and in the water use efficiency; (b) developing and implementing jointly by the agencies and IIMI, management information and communication systems leading to increases in cropping intensity through efficient use of water; (c) improving research-management links through participatory processes of analyzing the country's experiences in managing rehabilitation and modernization; and (d) assisting in establishing a multi-disciplinary irrigation Research Management Unit (RMU) within the Irrigation Department.

IIMI also actively collaborated with the GSL and the USAID and made available its expertise in a participatory irrigation management policy formulation process (Irrigation Management Policy Support Activity - IMPSA 1990-1992). It is anticipated that the policies formulated through this process will pave the way for significant transformations, both institutional and technological, in irrigation management in Sri Lanka. IIMI was invited again by the GSL/USAID in 1992 to formulate the SCOR proposals following a consultative process similar to the IMPSA process.

IIMI's experiences of similar operations in Sri Lanka and outside keep on expanding. IIMI's widened mission and its revised strategy, consequent upon its membership in the Consultative Group on International Agricultural Research (CGIAR), in 1990, now calls for the Institute to "foster the development, dissemination and adoption of lasting improvements in the performance of irrigated agriculture in developing countries". As a decentralized Institute with a practical bent, and strong linkages with implementing agencies, IIMI is well-positioned to fulfil its widened mission through effective support for the introduction and implementation of improved policies and management systems, to bring about lasting improvements - those which are environmentally sound, economically viable and socially equitable.

IIMI is endowed with a highly qualified, international, inter-disciplinary staff with experience in several countries, working together in different teams to address individual problems. IIMI's specialists are used to supporting each other's work, coming together in informal groupings, as needed, to address specific project issues. The staff capacity is enhanced by a growing number of senior associates and consultants drawn from IIMI's contacts in the developing and developed world. The services of these staffs will be made available, as necessary and on the request of the Project Leader/Chief of Party, to enrich the field-based experimentation and research activities of SCOR.

Amongst others, IIMI expects to turn to several of the following sources; a) on policy issues -- National experts, especially those who had participated in the SCOR design process, international experts participated in the IMPSA process, IFPRI researchers etc.; b) on Land and Water Rights issues -- Legal consultants of IMPSA, Universities of Utah, Colorado, Cornell, Wageningen, Leuven; c) on National Resources Management -- Universities such as Cornell, Colorado, Clark, Cambridge (UK) and International consortia such as SARSA & NGOs, IUCN;

and d) Management and Geographic Information Systems -- SARSA. It should be noted here that IIMI has already established partnerships with several of these institutions.

3. PROGRAM - INPUTS AND OUTPUTS

IIMI will implement, jointly with the GSL and its agencies, resources user groups, NGOs and other agencies, a specific set of activities in the two pre-selected watershed areas, viz. Huruluwewa and Nilwala watersheds. IIMI will employ a methodology which has proved successful in Sri Lanka (mainly in relation to Irrigation Management) and other countries in the region - one of building small, local organizations around the use of a common resource, using organizers or "catalysts" backed up by experienced specialists, in-site training, and support of local authorities. This extra institutional effort, facilitation, training and dialogue have proven to be essential to identifying common interests, coalescing group dynamics, and developing the new incentive structures.

In order to achieve the purpose of the project, IIMI will provide technical, organizational, financial and training services in four sets of activities:

- * Forming, expanding and strengthening resource user groups;
- * Securing shared control of land and water resources by these user groups through formal agreements;
- * Helping government, NGO, and private entities to better support, and work with resource users and helping Govt. monitor resource use in watersheds; and
- * Improving: a) integrated planning of land and water resources by taking water shed as a planning unit; b) information and c) linkage among all groups and entities to promote sustainable land and water use.

The inputs and outputs under each of these activities is discussed below:

3.1 Forming, Expanding and Strengthening Resources User Groups

There is considerable unmet demand for the formation of new user groups in the water sheds and, although numerous such groups exist on paper, few are legally recognized, well-developed, or financially sound. Moreover, few have clearly defined rights and responsibilities vis-a-vis the government.

Inputs

In the initial two watersheds, the IIMI will:

- a. Survey, identify and assess existing local organizations in target areas to determine their willingness and suitability to work with SCOR. In Nilwala watershed, this inventory will be demanding in view of the relative under-development of organizations. In Huruluwewa, the inventory will be straight forward in the irrigated command area due to the numbers of existing organizations, mainly focussed on water management. In the upper catchment and drainage areas, however, the project will have to focus on the formation of new groups.
- b. Conduct watershed-specific constraints analyses, in collaboration with individuals, user groups, officials and NGO representatives. These analyses will assess the current and potential status and uses of resources in the area and identify economic, technical, informational, institutional or legal factors that prevent resource users from managing and utilizing land and water resources (as well as labor and capital) to best advantage. Other than some scattered experiences with "social mobilizers" in the provinces and with village irrigation systems, information on incentives and means for organizing farmers and other resource users in upland areas is limited. In such areas the project may help organize user groups for environmentally sound novel productive enterprises. **Intensive cash cropping with supplementary irrigation, possibly in conjunction with ground water sources may be quoted as an illustrative example. Hence, for instance, in Nilwala, the analysis will focus on land and water uses and mixed cropping systems. In Huruluwewa, revegetation of the catchment and water conservation and rights will be the focus of analysis.**
- c. Help user groups organize, register and formalize agreements with the government. In some areas, particularly in the catchment areas, few formally-organized groups currently exist. Working through organizers or "catalysts" the NGOs, IIMI will promote the organization of groups, orient them to sustainability considerations and to the benefits of organizing, support them through the process of registration or legalization and obtain for them appropriate legal status and powers for recognition and access to financial and other services. The organizational effort in Nilwala will be substantial and demand most of the early efforts, whereas in Huruluwewa formal contractual agreements or legislation may be the focus of the effort.
- d. Train user group representatives including appropriate NGOs in skills such as leadership, group dynamics, resource planning, sustainable practices, resource monitoring and reporting, financial management, assessing local skills and services, enterprise development, and marketing. The representatives trained will take these skills back to their groups. In order to carry out this training, IIMI will involve currently active NGOs. In addition to this formal training, additional assistance will be provided through regular visits by the catalysts who themselves have been trained in these skills. Training

in Nilwala watershed will likely be predominantly organizational environmental and entrepreneurial while in Huruluwewa water management and entrepreneurial skills will likely be dominant.

- e. Provide small grants for existing and new user groups. Such grants among other things, will enable the group to:
- Show collateral when seeking additional loans through private financial institutions;
 - Develop and promote insurance schemes for new crops, conservation schemes and investments;
 - Construct storage facilities, markets, terraces, nurseries or other small physical infrastructure;
 - Purchase equipment needed to initiate or upgrade joint enterprises to gain economies of scale and value added to their production.
 - Join with other user groups to establish revolving funds for conservation of investments and/or the purchase of agricultural inputs; and
 - Obtain legal, financial and other services associated with establishing user rights, small enterprises and productive ventures.

In Nilwala watershed, in addition to erosion and flood control, the IIMI will examine new commercial activities specially under supplementary irrigation in the valleys such as medicinal plants and vegetable and fruit production. Other enterprises may include: honey production, reed/rattan products, and kitul based industries.

In Huruluwewa, the IIMI will emphasize investments to improve water and land productivity, pasturage and woodlots, and fruit and vegetable production.

- f. Provide a variety of information, analyses, linkages and support services guiding the user groups through the establishment of commercial production ventures. Such assistance might include: provision of information and education materials and facilitating access to specialized services and expertise available from private firms, NGOs or government agencies.
- g. Build on efforts to strengthen user groups and organize a few associations/councils of user groups along geographic or functional lines to improve coordination and cooperation not only among users but also between government agencies and user groups. In both watersheds, the irrigation organizations have expressed the need to form a user

organization centered on various components of the watershed, such as above reservoir, command, drainage, etc., and to link all of them to a federation of users.

Outputs

Major outputs expected from this set of activities are:

- * 250 user groups identified, organized and/or assisted to take joint responsibility for management of land and water resources;
- * 1,000 users group members and entrepreneurs trained. An additional 30 officers in user group councils or associations will receive more extensive short-term training in country or overseas;
- * 2 user group Apex association/council(s) established at watershed level; and
- * 175 small grants to user groups made and invested into common user group assets.

3.2 Securing Shared Control of Resources by User Groups through Formal Agreements

A sense of security and a right to income streams generated from land and water resources is essential to users' adoption of more sustainable land and water management practices. At a minimum, this must include: guaranteed access to land and water resources by user groups; the authority for these groups to determine and control the best uses of the resources consistent with government guidelines for environmental sustainability and other reasonable considerations of society; and long-term (minimum 10 years) usufruct rights. During the initial months of implementation, the IIMI, through rapid diagnostic research will identify major policy constraints to such group action and shared control mechanism. The IIMI will propose and design studies to be conducted and ways to overcome these constraints through policy reform measures.

Inputs

The IIMI will perform the following activities under this component:

- a. Examine and evaluate regulatory and legal mechanisms concerning land and other natural resources. The project will ascertain the need for changes in the existing legislation to consolidate, modify and implement it as found appropriate. There are 15 different acts on water resources which are in operation at present.

Changes may include :

- Strengthening resource policy analysis, implementation and monitoring capabilities;
- Integrating water resources and irrigation development and management;
- Improving forestry land tenure or leasing procedures between Resource User Groups & Government; and
- Reorienting and privatizing land survey function.

Due to time constraints, SCOR project Phase I activities in this area will be confined to a special study on the items listed above. Pilot testing and follow-up action will be carried out in Phase II.

Anticipated improvements at the local level which can be undertaken during Phase I implementation will include:

- Land permitting and leasing to small farmer groups by the Government (eg. Forest Dept.), Divisional Secretaries and Provincial Councils;
- Formal, transparent procedures for resolution of conflicts over resource rights; and
- Interdisciplinary teams to serve user groups.

b. Conduct studies and applied research on the effects of resource tenure arrangements for land, water, and trees on production practices, cropping patterns, investment incentives, time horizons, etc. in the watersheds. As an illustration, examples of arrangements to be studied in Phase I of SCOR implementation may include:

- Streamlined procedures for commercial leasing of land or water rights to small farmer production companies based upon investment potential;
- Other land tenure arrangements such as sharecropping arrangements, rotational land use (thattumaru), and absentee ownership; and/or
- Community-based management of forestry reserves.

c. Where policy or regulatory changes are recommended, national-level policy dialogue, with the relevant Ministries and departments will be initiated during Phase II. This effort will draw on the results of project studies and experience, experiences from the Asia region, other USAID projects in Sri Lanka, and field experience in the country. (USAID

may support policy changes by large local currency performance disbursements through the PL-480 Title III program as agreed upon by the Ministry of Finance).

- d. The IIMI will conduct additional applied research on the concept of consolidated land management or production, potential mechanisms to increase productivity and sustainability mainly by introducing appropriate irrigation and land management practices and reduce pressures on the land. The research should examine both consolidation of fragmented private holdings, and pooling of resources to gain better access to credit, production inputs and economies of scale in order to demonstrate the technical, social and organizational feasibility and the economic viability of the alternative methods.

Outputs

The anticipated end of the project outputs for this component are:

- * Significant regulatory, procedural or organizational changes enacted by the end of 6-year project period to increase shared control by users;
- * Land leasing/usufruct processes accelerated, reducing the processing time for most mechanisms facilitating the establishment and functioning of 4 production companies and 100 rural based commercial activities.
- * Demonstration of the benefits of authorizing user groups, joint management arrangements, and consolidated land management or production systems in 10 small tanks.

3.3 Improving Government, NGO and Commercial Support to and Relationships with User Groups

In addition to analyzing the policy and strengthening user organizations, the IIMI will work with governmental organizations and individual officers, at various jurisdictional levels, to strengthen their attitudes towards user groups, to modify their traditional set of functions, and to establish new working relationships with those groups. Rather than providing all services and information directly, the IIMI will form linkages between user groups and appropriate information or service organizations, whether governmental, NGO or commercial, in order to effect implementation in the most efficient manner.

Inputs

(Under this component:)

- a. The IIMI will focus on those jurisdictions and organizations which provide information and services directly to the target watersheds:

- The technical staffs of the Provincial Councils have only been operational for the last year and a half. And, in this context, the IIMI will assist irrigation, lands, forestry, agricultural and planning staff of the Southern and North Central Provincial Councils to develop planning, monitoring and evaluation capabilities associated with their new responsibilities and devolution of land and water management;
- In each of the Provinces, there are 20-30 new Divisional Government Agents or Secretaries who have been appointed recently and are being receiving substantially increased authority and responsibility as a result of the devolution process. The IIMI will design and implement a program of technical and management assistance and training to be given to the Divisional Secretaries (and their technical assistants) in the two targeted watersheds to improve the implementation of their resource management functions, which include planning, inspecting and monitoring land and water uses, determining various usufruct rights, issuing leases and permits, registering organizations, working with user groups and NGOs, and using databases. The SCOR project will continue to work with these groups in Phase II to expand the efforts made during Phase I and help reinforce the existing Registries or develop new, possibly computerized Registries depending on the conclusions of pilot projects.
- b. The IIMI will also work with relevant national level departments and agencies to raise the level of staff awareness and qualifications for dealing with natural resource management in participatory ways. For this purpose the IIMI will arrange workshops, seminars, regional short-term training and study tours for selected officials.
- c. The IIMI will train some selected NGOs and private firms in pilot watersheds to ensure adequate and efficient private support services operating in target areas, e.g., services for banking, processing agricultural commodities, or for surveying in support of titling, leasing or co-management programs.

Outputs

The priority outputs of this component are:

- * Approximately 80 national, provincial and divisional officials trained in local level planning and user group formation, support and collaboration; and
- * 8 NGOs and other private sector firms actively providing technical, managerial and other information and support to user groups.

3.4 Improving Integrated Planning of Land and Water Resources, Information Flow and Inter-Organizational Linkages

In the pilot watersheds, the SCOR Project will take the leadership in bringing the activities (projects, programs etc) based on land and water resources into closer co-ordination. The project will strengthen the capacity of the Provincial and Divisional Administration in integrated planning for the utilization of land and water resources in the watersheds. The institutionalization of such an approach in Phase II will shift the strategy of development of land and water resources from an un-coordinated "Project mode" to a well coordinated "Program mode".

A steady and organized flow of information is essential for integrated planning of land and water resources. In addition, shared control demands knowledge and new skills. The shared control means that some individuals and groups will be assuming new and unfamiliar responsibilities, while others will be relinquishing control and shifting to support and monitoring. Still others will have significant opportunities to provide new products and services through commercial ventures once needs are known. This flux and informational "market failure" is evident in the target watersheds.

Inputs

The major activities, which the IIMI will conduct in order to achieve the goals of this component are:

- a. Working with user groups and divisional authorities in selected areas within watersheds, such as irrigated command areas, to introduce multi-level planning so that land and water resource uses are more coordinated for intensive, efficient production taking a long-term perspective. This will be done in cooperation with government and private agencies providing services and advice.

These efforts will be monitored and evaluated. Plans will provide for crop diversification or specialization depending on the circumstances, coordination of seasonal schedules, economizing on irrigation water, enhancing crop protection and making marketing more efficient and profitable.

- b. Building on efforts to strengthen user groups, the Project will support federations/councils user groups which use resources in different parts of the watershed and whose uses have impacts on one another. Such organizations can help improve coordination and cooperation not only among users but also between government agencies and user groups. For example, the irrigation-related users' organizations will form a users' organization centered on various components of the watershed such as above reservoir, command, drainage, etc., and to link all of them to a council of users.

Councils will be helped to undertake **participatory land and water use planning** at watershed level, including soil and forest conservation, working with the administrative and technical personnel sharing in local knowledge about sustainable resources use under local conditions.

- c. Watersheds are currently overseen or managed by different government agencies and they often cross administrative boundaries. This makes coherent planning, monitoring and evaluation difficult. The Project will seek ways to achieve more rational, long-term resources management through administrative mechanisms that achieve inter-departmental and inter-jurisdictional coordination.

The Watershed Resource Management Teams (WRMTs) proposed for Project implementation will be the main mechanism for this, as they are inter-departmental and, where the selected watershed crosses administrative boundaries, inter-divisional.

- d. Another focus of Project activity will be to strengthen connections between provincial and divisional planning and implementation. The powers and capabilities of both these governmental levels are still being determined and defined with respect to natural resources planning and management. The Project will facilitate productive working relations between these two levels in the selected provinces, to serve as models for evolving productive relations elsewhere. The structures and procedures worked out should include user participation or consultation as part of the coordination/linkage effort.

Appropriate linkages will be explored with local government bodies, though the Pradeshiya Sabha for land and water resources use or planning.

- e. Responsibility for land and water resource management is diffused within the Government of Sri Lanka. The Project will facilitate better communication and cooperation among government agencies and donors with regard to long-term, sustainable and productive use of these resources.
- f. Coordination among projects affecting land and water resource use is a specific aspect of this. Modalities for this will be developed inductively, as they are likely to be better grounded and more acceptable if flow out of experience and experimentation in the two provinces with pilot activities.
- g. The project will design a model for improved resource use information and monitoring system. An information system of this nature should support national and provincial and division level capabilities for monitoring and evaluating trends and performance in the target watersheds with regard to shared control of natural resources. Such a system will be useful to local communities and resource users; to national, provincial and divisional level decision-makers; to NGOs and others. The final system will facilitate information flow both from the field level upwards as well as from various government levels to the

resource users. Installation of this system will take place during the second phase of SCOR. Elements of the system will likely include:

- Information on new and sustainable technologies, involving both production and protection, will flow to the resource user groups. The catalysts and the Agrarian Service Centers in each division are reasonable means of disseminating that information;
- Information on products, markets and services, such as banking and credit facilities, markets, and processing facilities available in the area, should similarly be available to the users. Access to up-to-date market information is also critical to most producers; and
- Information on potential of and changes to the natural resource base in the target areas needs to be obtained, aggregated and made easily available to all of the groups noted above. Information expected to be collected includes: number of user groups, number of people using control practices, disputed raised and resolved, types of production, new investments, and changes in vegetative cover.

Outputs

The outputs expected from this component are:

- * Improved methodologies and tools developed and applied for multilevel integrated planning and coordination in pilot watersheds;
- * Annual land and water management plans for two of the four target watersheds produced jointly by user groups, NGOs and government; and
- * An improved land and water resource information and monitoring system designed.

4. MONITORING AND EVALUATION PLAN

IIMI undertakes the responsibility of designing and implementing a rigorous M&E activity through a participatory procedure involving user groups, government and other project participants. A continuous monitoring process will review the progress and act as a feedback/correcting mechanism to ensure that project inputs, work schedules, targeted outputs and other related actions are proceeding according to plan. This mechanism will provide data for continuous and periodic evaluations to determine systematically and objectively the relevances, efficiencies, effectiveness (and impact) of project activities in the light of their activities.

The end-of-project evaluation - that will primarily be based on the data generated through the continuous M&E process - will synthesize progress and lessons learned and provide guidance for the extension of activities into Phase II. As stated elsewhere, it is impossible to assess the full impact of SCOR project in the second year of its implementation. Hence, at the end of the second year, some selected tangible benefit areas (Table 1) will be evaluated and a trend analysis will be conducted for other on-going activities.

M&E activity of SCOR will monitor and evaluate project activities as well as the project's achievement of its specific objectives. These two are related to each other and will eventually lead to project's impacts.

Project Activity Monitoring :

The activity-wise data base for M&E can be classified as follows:

- i. Formation, expansion/federation and strengthening of resource user groups;
- ii. Shared control through state - user partnerships;
- iii. Enhanced and organized support to resource user groups (RUGs) by : Govt, NGO, and private sector.
- iv. Improved information, institutional linkages and integrated planning of watershed (Land & water) resources.

Time schedules of major project events relevant to these four areas of activities covering a 6-year period are listed in Annex II. A brief outline of the activity schedule of the initial 2-year period covered by this Co-operative agreement is given in Figure 3. The SCOR project involves experimentation and is a learning process. Hence, it is difficult to formulate a complete set of activities at this stage. These tentative schedules of proposed activity will be modified and refined on the basis of on-going M&E & feedback.

M&E of Project's Achievement of its Specific Objectives : A framework for the M&E of Project's Achievement of its specific objectives is given in Table 2. According to the logical framework presented earlier (Figure 1), if the project achieves its specific objectives, this in turn will help achieve projects purpose. If the project's purpose is achieved, this will contribute to project's goal. On this basis the framework proposed in Table 2 can be used to Monitor and Evaluate: a) the project's achievements of

Table 1 : Expected Output

Description of outputs under Activity <u>Components</u>	Outputs for <u>Total Project</u>		
	<u>Period</u> <u>(6 years)</u>	<u>Phase I</u> <u>Years 1&2</u>	<u>Phase II</u> <u>Years 3-6</u>
1. Forming, expanding and strengthening resources user groups			
(a) Identified, organized and/or assisted to take joint responsibility for management of land and water resource :			
- User groups	1000	250	750
- User organizations	100	30 30	70
- Sub-user councils	15	04 2-4	11 11-13
- User Councils	06 2-4	02	04 2-4
(b) Formally trained in such areas as group dynamics and leadership, resource use planning, sustainable practices, organization and financial management and marketing :			
- representatives of user groups	4 1000	1000	3 2000
- representatives of user organizations	100 400	1 20 30	30 70 250
- representatives of user sub-councils/councils	20	06	14
(c) Short term study/training abroad completed by			
- Selected user organization representatives	40	10	30
(d) Small grants made to user groups and invested into Common user group assets	1000	175	750

(e)	Different modes of existing and/or new commercial opportunities for user groups developed and/or supported	30	10	20
(f)	Production companies representing different models for intensifying production in watersheds in sustainable and environmentally sound ways established on an experimental basis and linked to new markets.	10	04	06
(g)	Rural based commercial activities linked to new markets, and provided matching grants.	300	100	200
(h)	User organizations within the pilot area (and outside through spread mechanisms) conferred with legal status and powers	100	30	70
2.	Securing shared control of Resources by user groups through formal agreements			
(a)	Significant regulatory procedural or organizational changes enacted by the end of 6-year period, to increase shared control by users.	-	-	Completed
(b)	Land leasing/user tract processes accelerated, reducing the processing time for most mechanisms facilitating the establishment and functioning of:			
	Production Companies	10	04	06
	Commercial Activities	300	100	200
(c)	Demonstrations of the benefits of authorizing user groups, joint management arrangements, and consolidated land management or production systems in minor tanks.	30	10	20

3.	Improving Government, NGO and Commercial support to and relationships with user groups.	Qualitative Assessment		
(a)	Improved resources use information monitoring systems developed and resources users operations monitored.	Qualitative Assessment		
(b)	Official trained in local level planning and user group formation, support and collaboration.			
-	National level	20	10	10
-	Provincial level	50	20	30
-	Divisional level	150	50	100
(c)	Representatives of NGOs and other private sector organizations trained in participatory natural resource management.	100	30	70
(d)	NGOs and other private sector organizations provided technical managerial and commercial information to user groups.	30	08	22
(e)	Short study tours abroad completed by			
-	National level officials	4	1	3
-	Provincial level official	6	2	4
-	Divisional level official	15	6	9
4.	Improving Information flow and Inter-organizational linkages.			
(a)	Improved methodologies and tools developed and applied for multilevel planning and co-ordination in pilot watersheds.	Qualitative assessment		
(b)	Groups/organizations support and promote planning and co-ordination in pilot watersheds.	Qualitative assessment		

(c) Annual land water resource management plans for two of the four target watersheds produced jointly by user groups, NGOs and Government.	-	-	-
(d) An improved land and water resources information and monitoring system designed.	Qualitative assessment		
(e) Institutional mechanism to co-ordinate and support land and water management practices made operational at provincial and and national levels.	Qualitative assessment		
(f) Short term training abroad (in progress by the end of Phase I and completed by the end of Phase II)			
- Provincial officials	4	-	4
- Divisional level	4	-	4
- National	2	-	2

Table 2 - Monitoring and Evaluation Framework

Project Goal, purpose of objective	Objectively verifiable indicators (illustrative)	Outputs/achievement in Phase I - 2 Years	Activities (illustrative) - Upto 6 years
1. <u>Goal</u> : To increase the <u>Sustainable</u> Productivity of the land and water resources base in pilot watersheds	<ul style="list-style-type: none"> • Production per unit of land and water increases. • Quality of land and water increases. • Number of environmentally sound production practices increases. 	<ul style="list-style-type: none"> • Bench mark assessment completed in regard to such indicators as productivity and quality of land & water resources (eg: illegal use of forest, forest cover, etc) • Few tangible outputs such as investment by user groups, environmentally sound prod. practices etc. will be measured. • A trend analysis of impact will be attempted. 	<ul style="list-style-type: none"> • Form, expand and strengthen user groups; • Secure shared control through formal agreements between users & state. • Introduce & internalize information & M&E systems. • Help improve support services - credit, market etc. • Improve integrated planning capacity.
2. <u>Purpose</u> : Increased shared control of land and water resources in pilot watersheds.	<ul style="list-style-type: none"> • Significant regulatory procedure or organizational changes exacted to increase shared control. • Land leasing to user groups/small farmer companies accelerated. • Joint management arrangements demonstrated. 	<p>250 User Groups, 250 ³⁰ User Organizations, 1 ² Sub-user Councils, 250 ² state ^{state} established and demonstrated formal state-user partnerships.</p>	<ul style="list-style-type: none"> • Form, expand and strengthen user groups, • Training & information systems. • Facilitate establishment of formal agreements between user groups & state. • Economically & environmentally sound production modes. • Other activities listed under objectives II & III below.

<p>3. Objectives :</p> <p>i. Enhance, Govt, User group & individuals' information base.</p> <p>ii. Form, expand and strengthen user groups; and</p> <p>iii. Securing shared control of land and water resources by user groups.</p> <p>iv. Strengthen capacity at National, Provincial, & Div. level in integrated watershed resource management/planning.</p>	<ul style="list-style-type: none"> Improved information on natural resources base. Improved MIS and dissemination systems for info. on national resources use. National, prov., div., level govt. officials, user groups, NGO & selected private sector people trained and made aware of environmentally sound production modes for intensified resource use. Organized and federated user groups <ul style="list-style-type: none"> User groups User organizations User sub councils User councils Formal and informal training. Economic sustainability enhanced through intensified production in environmentally sound ways. % area (land & water resources) jointly managed by Govt. & user groups increased. % area with improved conservation techniques, sustainable cropping patterns, proper drainage etc enhanced. Investment by user groups on environmentally sound production modes & techniques enhanced. Improved methodologies, tools & procedures developed & used for multi-level integrated planning of L&W resources on watershed basis. Participatory & integrated planning, involving federated user groups, internalized. Sustainable M&E info. systems. 	<ul style="list-style-type: none"> Significant improvement (over benchmark situation) in regard to : a) awareness of users Govt. officials, NGO & private sector, on land and water use. b) information base re: land & water. (Only in areas covered by Phase I). 250 user groups, 30 user org., 8 sub councils & 4 small farmer production companies established. 4 small farmer production companies established. A minimum of 5000 ha under joint management. % area with environmentally sound production increased. Significant improvement in small farmer investment on environmentally sound production modes. Improved drainage & conservation. 250 user groups, 30 user organizations, 8 sub councils & 4 small farmer production companies enhanced their capacity in resource mgt. & work closely with relevant agencies. Improved methods, tools & procedures developed for multi-level, integrated planning. (introduction & internalization of participatory planning on watershed will need more than 2 years) 	<ul style="list-style-type: none"> Conduct training for user groups, Govt. officials, NGO & private sector. Information Education & Communication (IEC) material preparation & dissemination. Establish information systems. Create/strengthen user groups Develop user groups skills in L&W mgt. Participatory design & implementation of economically & environmentally sound production modes. Enhance support services & institutional linkages eg: link RUG with Banks. Legal status & powers to RUGs to access to resource use. Establish small farmer production companies. Conduct studies on resource tenure arrangements Develop improved methods, tools and procedures for integrated planning. Strengthen linkages and co-ordination among line agencies user-groups and Div./Prov./ national authorities in regard to watershed planning. Help internalize participatory & integrated watershed planning. Info. & M&E systems internalized.
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Figure 3 - SCOR ACTIVITY PLAN FOR PHASE I (2 YEARS)

ACTIVITY	YEAR ONE					YEAR TWO				
1. Recruit staff and establishment of project offices at different levels	XXXXXX									
2. Establish Steering Committees and working groups (NSC, NWG, PSL, PWC, WRMT)	XXXX									
3. Procure equipment etc.,	XXXXXXXXXX									
4. Prepare workplans/Inception report	XXXX									
5. Assess present land and water use, constraints and potential	XX	XXXXXXXXXX								
6. Develop plans for water shed development		XXXXX	XXXXXXXXXX							
7. Strengthen and create resource user groups and state-user partnership. Link rugs with credit support services incl. markets, NGOs & organized private sector			XXXXXX	XXXXXXXXXX						XXXXXX
8. Initiate and pilot test new production modes development technologies, vertical integration of production and management				XXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXX
9. Develop human resources - rugs, local authorities, govt. agencies, NGO & private sector		XXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXX
10. M&E, MIS incl GIS	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXX
11. Phase I - End of CA Evaluation										XXXXXXXXXX

its specific objectives, purpose and Goal; and b) the assumptions of the LOGFRAME.

The Mechanism of M&E and Sources of Data : It is evident from the above discussion that the M&E during the project will concentrate on performance at the interface between the User groups and the Government Sector, but will include the necessary oversight of project activity at other levels. IIMI will obtain the necessary data on each of the four Project Components to review & report on the degree to which the indicators of progress have been satisfied. Quarterly progress reports and end-of-project (Phase I) evaluation reports will be furnished accordingly.

IIMI will maintain an M&E cell at the centre with the assistance of an M&E & GIS expert working under the guidance of project leader. The data necessary for M&E will come from several sources: records of self-M&E by user groups, process documentation by catalysts, structured data collection by SCOR project field research staff including direct measurements of selected indicators (such as canal flow, drainage flow, etc) and the observations/records of IIMI expert staff. This will be supplemented with information from normal monitoring activities of MLIMD, MADR and other Govt. agencies. The project may also strengthen the capacity of national research organization such as Agrarian Research and Training Institute or Universities to undertake monitoring and evaluation of SCOR.

Self Assessment by User Groups : User organizations will have to assume important (watershed) management responsibilities particularly under new forms of state-user partnerships introduced by the SCOR project. Hence the project must develop and internalize mechanisms that shall strengthen management capabilities of user groups in order for them to face the challenges poised by their new management responsibilities. Thus a process of self-assessment of organizational and production performance by user groups at different level (and also jointly by RUGs and state at watershed level) is considered as an integral component of the SCOR implementation. By adopting self-correcting mechanisms on a continuing basis, RUGs (incl. organizations and councils) should attain self reliance. Such a process of self-assessment has been successfully introduced to irrigators associations by IIMI & Bicol University in a major River Irrigation System in the Philippines, (Lauraya, Sala & Wijayaratna, 1991). The SCOR project will make use of this experience and facilitate the internalization of a Self-Assessment (and self-correcting) Process by User groups in the pilot watersheds.

Participatory M&E : Eventhough the M&E cell at the centre will be responsible for detailed statistical analysis, GIS systems and reporting, much of the M&E activity for feedback purposes will be conducted in respective watersheds. This will take the form of a participatory joint assessments at WRMT, PWG and PSC - involving User Representatives, relevant Govt agencies & authorities, MLIMD Project Co-ordinator, relevant NGO & Private sector representatives & IIMI staff. IIMI experience in countries like Philippines will be utilized in this process of participatory M&E.

5. TRAINING PLAN

The IIMI will develop detailed training plans during the Workplan exercise. Most training under SCOR will take place in-country in the form of short courses, seminars, meetings, discussion sessions, and workshops and most will be conducted by the IIMI in collaboration with local institutions. On-site training for user groups will be conducted primarily by the catalysts. The estimated quantity and forms of training activities during Phase I are included in Table 1.

The project's formal training activities will include user groups and trainers who can take leadership roles in this pioneering efforts towards improving watershed management through shared control of natural resources. The aim will be to strengthen different kinds of user groups in skills such as: environmental protection, land and water resources management -- including methodologies that can be used more broadly in the extraction of economic products from forests and their processing, introduction and management of irrigation technologies for cash cropping in highlands etc., -- enterprise planning and management, financial management etc.

In addition to Resource User Groups (RUGs), the target groups of SCOR project training activity will include: Govt. officials of relevant line agencies at different levels, Provincial Council and Divisional Secretariat staffs, selected participants from the NGO and private sector and Banking Institutions etc.

As much as possible, Training Needs Assessments will be conducted at different levels for different levels of target groups and existing capabilities for training will be engaged.

In addition to these formal methods of training, a large number of SCOR project participants will be benefitted by SCOR information systems, co-ordinating meetings and working group sessions, and planning and review meetings etc.

Figure 4 : SCOR Training Plan for Phase I (2 years)

Description of Training Planned	Year One						Year Two					
	XXXX	XX			XX	XX	XX					
1. Pre-service training for Catalyst												
2. Training in Group dynamics and leadership, resources use planning, sustainable practices, organization and financial management, marketing etc. for - 1000 reps. of User Groups <i>(1200)</i> 40 reps. of User Orgas. <i>heads of User Sub-councils & Reps of User sub Councils</i>												
3. Training in local level planning and user group formation, support and collaboration, for - 10 National level officials } 20 Provincial level officials } 50 Div. level officials }				XXXXX								
4. Training in participatory nature resources management and commercial information for 30 representatives of NGOs and the private sector organizations.				XXXXXX								
5. Short-term study/training abroad for 10 selected User Organizations repa.												
6. Short Study Tours abroad for 1 National level official } 2 Prov. level officials } 6 Div. level officials }												
7. Planning for Short-term training abroad for National, Provincial and Div. level officials.												
8. Indirect training for Nat/Prov/Div./Watershed level govt. officials and others involved through - - Steering Committee meetings - Working group meetings - Awareness, creation programs etc.												

6. SCOR PROJECT MANAGEMENT

6.1 Organizational Structure

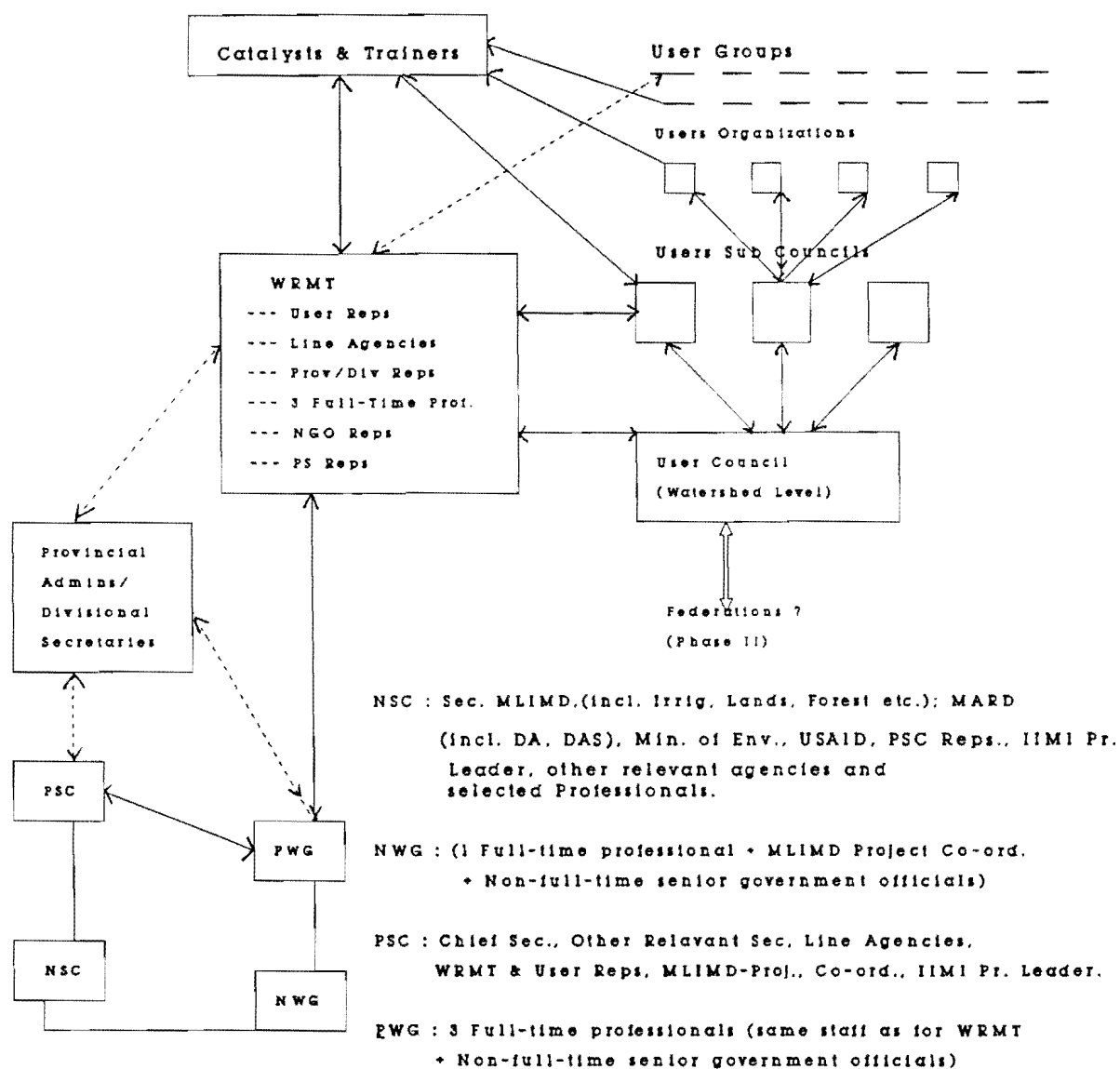
The SCOR project organizational structure is illustrated in **Figure 5**. At the national level the MLIMD will establish a National Steering Committee (NSC) for SCOR to provide a locus of policy dialogue and assessment of progress and constraints.

The National Steering Committee for SCOR will be comprised of senior representatives of the relevant GSL agencies and project implementors including: Ministry of Land, Irrigation and Mahaweli Development's divisions of lands, irrigation, forestry and planning, the Ministry of Agricultural Development and Research, the Ministry of Environment and Parliamentary Affairs, the North Central and Southern Provincial Councils, USAID and the IIMI. From time to time representatives of the NGOs, the private sectors, user organizations, and/or other donors may be invited to participate. The Steering Committee will be chaired by the Secretary, MLIMD and will provide a locus for policy level dialogue and direction as well as the senior-level oversight needed to monitor progress and resolve problems. The NSC will meet at least once every three months. Its specific responsibilities will include:

- * Reviewing program progress on a quarterly basis in conjunction with the quarterly progress reports prepared by IIMI. The committee will note any discrepancies between planned benchmarks and the progress actually achieved and make recommendations for accelerating progress in the upcoming quarter;
- * Reviewing and approving the annual workplans and budgets, recommending such changes (in collaboration with the IIMI and the USAID) as may be needed to maintain satisfactory progress towards overall program objectives;
- * Facilitating progress by adding to the effort of those implementing the project in the field; and
- * Discussing and resolving specific policy and/or procedural impediments to implementation of sub-project activities or achievement of the project's objectives.

The Project Co-ordinator - MLIMD will act as the Secretary to NSC and will perform functions similar to those of NSC on a continuous basis. For example, he/she will facilitate the SCOR project activities by adding to the efforts of those implementing the project in the field. She/he will make independent visits to SCOR project pilot sites, and, will help resolve procedural impediments, if any, through discussions with line agency staff, Provincial and Divisional Authorities and the IIMI professional staff. The performance of MLIMD project co-ordinator, therefore, will become a critical factor influencing the progress of SCOR

Figure 5 - SCOR Project Organizational Structure



Legend :

WRMT = Watershed Resources Management Team
 PSC = Provincial Steering Committee
 PWG = Provincial Working Group
 NSC = National Steering Committee
 NWG = National Working Committee
 PROV = Provincial
 REPS = Representation
 PS = Private Sector

efforts. Resolution of conflicts related to User groups and Technical Assistance, however, will be the responsibility of IIMI. It is expected that the MLIMD Project Co-ordinator will spend a minimum of 30 percent of his time on SCOR project.

Formal Provincial Steering Committees and less formal SCOR Working Groups will be established in the two Provinces to provide, in the case of the former, guidance and direction in planning and, in the latter, implementation and supervision of those activities carried out in each province. The Working Groups will be the actual locus of implementation of the activities of the provincial and line agencies and Divisional Secretariats in the target watersheds, within the overall guidance and coordinating provided by the Steering Committees. The Steering Committee will be chaired by the Chief Secretary, and include officers in-charge of land, irrigation, forests, agriculture, planning and environment, divisional level officials where appropriate, representatives of resource user organizations and NGO/private sector groups as appropriate, and the SCOR sub-project advisors. The Chief Secretary is also the Director of Planning of the Provincial Council. The Provincial Land Commissioner - the Chief representative of SCOR project host Ministry at the Provincial level will act as the Secretary to PSC and perform a task similar to the Secretary of NSC, but at the Provincial & watershed levels, on a day-to-day basis.

While the Steering Committee reviews, coordinates and advises, the Working Groups will actually assist or undertake the planning, analysis, implementation and monitoring to be done in the target watersheds. The working arrangements and tasks will be decided upon by its members. The Steering Committee will make inputs into the work assignments of the SCOR advisory staff and assist and oversee the various activities with the user groups. Responsibilities of the Provincial Working Group will include:

- * Providing professional expertise for project implementation;
- * Preparing work plans and budgets at the watershed and provincial levels;
- * Conducting regular sub-project reviews and analyses;
- * Arranging for specialized assistance as required including preparation of terms of reference, work supervision and evaluation;
- * Providing guidance and technical advice to the NSC, Coordinating Committee and catalysts, as required;
- * Developing close links and working relationships with relevant GSL or other donor funded projects operating in the area which address land, water, irrigation, forestry and environmental issues;
- * Monitoring sub-project progress and performance;

- * Sub-contracting project work to user organizations, NGOs and others, and monitor performance of the contractors;
- * Aggregating sub-project reporting at the provincial level;
- * Participating in provincial and divisional meetings; and
- * **Catalyzing all aspects of SCOR project implementation.**
- * Attending to other functions that may be decided upon by the NSC or PCCs.

6.2 Macro-Micro Functional Linkages

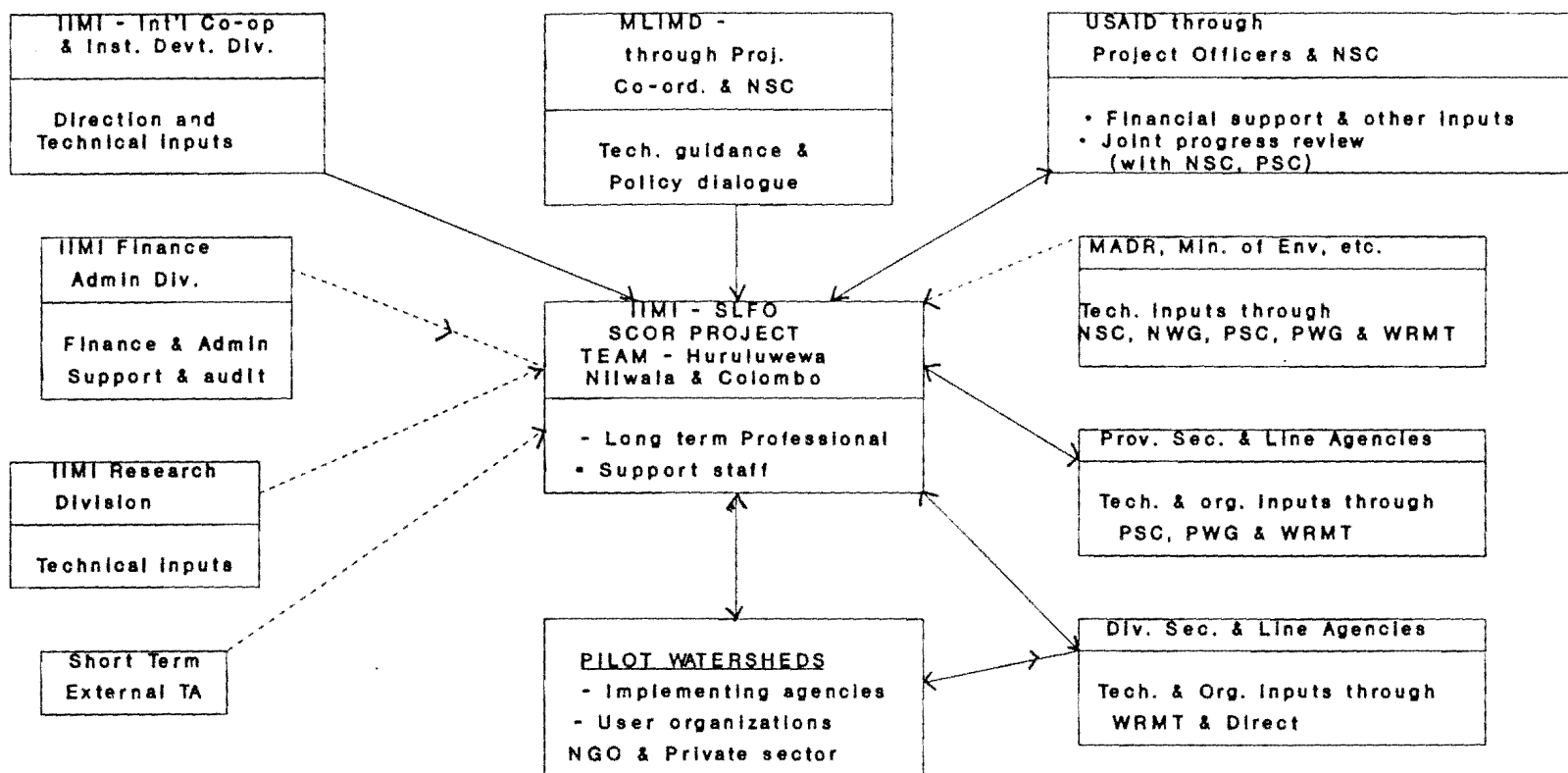
For the effective management of the SCOR programme, it will be necessary to ensure the high quality, adequacy, appropriateness and timeliness of the flow of all necessary inputs - technical, financial and administrative. Some of these flows will be direct and continuous while others will be occasional. The macro-micro linkages that will be established to facilitate these flows are illustrated in **Figure 6**.

6.3 Linkages with Other Projects

During the design process, the SCOR project design team identified about 50 projects and programs dealing with land and water Resources Management country-wide. These projects are implemented through four key Ministries: MLIMD, MADR, Ministry of Environment and Parliamentary Affairs and Ministry of Policy Planning. A large number of donors and NGOs are also associated with these projects.

The SCOR project will establish working relationships with other projects relevant to its scope of work. One of the major objectives of SCOR project is to enhance the capacity at Divisional and Provincial levels to integrate land and water resources management activities in a watershed basis. Hence it is essential that SCOR project maintain close working relationships with other projects/programs (dealing with land and water resources in pilot areas. In addition, SCOR will work closely with other component of NAREP and USAID-GSL Agro-Enterprises Project. (AGNET - 330111). Moreover, IIMI, being an International Agency, will also maintain links with relevant projects/programs outside the country.

Figure 6 - SCOR PROJECT FLOW OF TECHNICAL, FINANCIAL AND ADMINISTRATIVE INPUTS : MACRO - MICRO LINKS



MLIMD - Ministry of Lands Irri. Mahaweli Development
 MADR - Ministry of Agricultural Devt. & Research
 Tech. & Org - Technical Organizational
 Prov. Sec. - Provincial Secretariat
 Div. Sec. - Divisional Secretariat
 PSC - Provincial Steering Committee
 PWG - Provincial Working Group
 NSC - National Steering Committee
 NWG - National Working Committee
 WRMT - Watershed Resources Management Team

———— Direct/continuous

- - - - Occasional

6.4 Staffing

The heart of SCOR operations will be long-term professional assistance. **The SCOR project staffing plan is indicated in Table 3 and the detailed TOR of key staff is shown in Annex III)** These professionals will have the central role in assisting user groups and local officials in identifying problems, working together to resolve them, and generally informing, facilitating and institutionalizing the processes of shared control. It is therefore anticipated that the following mix of staff will allow the IIMI to achieve the project purpose:

6.4.1 Long-term International Specialist

An international professional approved by USAID will provide overall leadership and management for SCOR activities and link with international expertise and state of the art theory. He/she will be recruited as Chief-of-Party initially for the first two year phase and will start up the sub-project activities in both watersheds. The Chief of Party will be based in Colombo but will be required to travel frequently to watershed sites.

The primary responsibilities or Terms of Reference of the international specialist will be:

- Establish and supervise monitoring systems including MIS & GIS, offices staff and activities in the provinces;
- Liaise with Govt., Steering Committees and Working Groups, USAID and other partners.
- Manage and coordinate long short-term assistance, catalysts, training, and GSL inputs;
- Lead dialogue with central and provincial officials on sub-project issues and activities;
- Work with relevant institutions and specialists to improve information systems and coordinating mechanism;
- Maintain links with other relevant projects and programs;
- In consultation with USAID project management staff provincial working groups establish criteria for and review and approve all sub-grants; and
- Report on budgets, expenditures, activities, progress and issues to IIMI HQ the GSL, and USAID.
- Provide (overall) administration and financial supervision.

- Will be responsible for overall co-ordination of the SCOR Project.

The Specialist must have post-graduate degrees in rural, technical or social sciences and considerable broad experience in rural land and water management in developing countries. Proven, strong cross-cultural, interpersonal and management skills will be imperative, as well as an in-depth knowledge of the organizational, legal and political issues involved in natural resources management.

Table 3 - SCOR PROJECT STAFFING PLAN

POSITION/LOCATION	Year 1 Units	Year 2 Units	Year 3 Units	Year 4 Units	Year 5 Units	Year 6 Units	Total Units
I. PROFESSIONAL LONG TERM							
Project Leader (internationally recruited) (1,COL)(1)	1.0	1.0	1.0	1.0	1.0	1.0	6.0
Resource Management Specialist (NCP, SP) (2)	2.0	2.0	2.0	2.0	2.0	1.0	11.0
Institutional Development/Ext/Training Specialist (NCP,SP) (2)	2.0	2.0	2.0	2.0	2.0	1.0	11.0
Enterprise Dev/Marketing Specialist (NCP, SP) (12)	2.0	2.0	2.0	2.0	2.0	1.0	11.0
Agro - Forestry (1,50% in each Province)	2.0	2.0	2.0	2.0	2.0	1.0	11.0
M&E Specialist (COL) (1)	1.0	1.0	1.0	1.0	1.0	0.5	5.5
Co-ordinator - Water Shed Devt. (NCP,SP) (10)	8.0	10.0	10.0	10.0	8.0	4.0	50.0
Research Associate/Officer (NCP, SP, COL) (6)	6.0	6.0	6.0	6.0	6.0	4.0	34.0
Catalyst (NCP, SP) (30)	20.0	30.0	30.0	30.0	30.0	15.0	155.0
SUB TOTAL	44.0	56.0	56.0	56.0	54.0	28.5	294.5
II. PROFESSIONAL SHORT TERM							
International PM	3.0	3.0	4.0	4.0	3.0	3.0	20.0
National PM	16.0	16.0	16.0	16.0	16.0	15.0	95.0
SUB TOTAL	19.0	19.0	20.0	20.0	19.0	18.0	115.0
III. SUPPORT STAFF							
Administrative Officer (COL,NCP,SP) (3)	3.0	3.0	3.0	3.0	3.0	3.0	18.0
Finance Officer (COL) (1)	1.0	1.0	1.0	1.0	1.0	1.0	6.0
Secretaries (6) (COL,2,NCP 2, SP 2)	6.0	6.0	6.0	6.0	6.0	3.0	33.0
Divers (COL,1,NCP,3,SP,3)	7.0	7.0	7.0	7.0	7.0	5.0	40.0
Other miscellaneous (4)	2.0	3.0	4.0	4.0	4.0	2.0	19.0
SUB TOTAL PM	19.0	20.0	21.0	21.0	21.0	14.0	116.0

* Number of Positions is in parenthesis.

PM = Person Months

COL = Colombo, NCP = North Central Province, SP = Southern Province

6.4.2 Long-term Sri Lankan Professional Assistance

A range of experienced Sri Lankan specialists will provide the operational organizational and technical support and skills necessary to implement the project activities. Selection will be made by the IIMI.

(a) At Watershed Level

The IIMI will recruit several Sri Lankan technical specialists for the watershed working groups. These groups or teams, in each one of the two provinces, led by the international specialist as discussed above, could include the following Sri Lankan specialists:

- An Institutional Development Specialist with experience in training and facilitation of rural organizations with strong interpersonal and training skills
- A Resource Management Specialist with broad experience in Agricultural Extension, and Farmer Management, Agro-ecology and Irrigation and land use;
- A Enterprise/Marketing Specialist with diverse experience in developing micro-enterprises, financial management, cooperative business ventures, outgrower systems, and marketing outlets.

In addition, an expert in Agro-Forestry, Forest Management and Silviculture will be recruited to work in both pilot watersheds. A key position of the project implementation in the selected watersheds, will be the "Watershed Development Coordinator". Each of the pilot watersheds will be demarcated into operational zones and a Watershed Coordinator will be assigned to each one of the zones and will be responsible for facilitating all project activities in that zone. She/he will also be required to develop, maintain and strengthen close working relations with RUGs, Government and non government agencies.

Finally, the efforts of the professionals will be extended in each province by the recruitment by the IIMI, of young organizers or "catalysts" for each province. These catalysts will work closely with individual user groups under the guidance of Watershed Development Coordinators to facilitate their growth following the model which has been successful in several projects. Based upon the current model for irrigation management in Sri Lanka, the catalysts would generally be experienced young school leavers or university graduates preferably from the pilot areas who will be assigned to several user groups over a period of two years as change agents, service facilitator, and progress monitors. Interpersonal skills, problem-solving abilities, environmental awareness, and dedication to rural improvement are necessary requirements of their positions.

These professionals will be supplemented by research, evaluation and training assistants working closely with local government officials, user groups and short-term

technical assistants within the Provincial Working Groups. They will be the primary agents of project assistance in the field, both in terms of direct assistance of user groups and in obtaining assistance and services from other sources, public and private.

(b) Based in Colombo

A key position in the Colombo office will be the Monitoring and Evaluation expert. She/he should possess strong academic background (preferably an advanced post-graduate level) and considerable experiences in M&E and information systems. Knowledge of GIS as well as experience in coordinating field activities are desired.

In addition, an expert in human resource development/training will work closely with the Colombo office (about 15 days a month) to help design and co-ordinate Human Resources Development Activities of SCOR. She/he will be designated as "Co-ordinator - Human Resources Development". Funds for this position is allocated under short term TA.

Central accounts and audit, inventories and all procurement activities and sub-contracting will be handled by IIMI Headquarters (in association with USAID, whenever necessary). However, an Administration Officer and a Finance Officer will be attached to the Colombo SCOR project office to co-ordinate these activities with IIMI-HQ and to oversee administrative/accounting functions of the field offices.

The other staff at the Colombo office will include: two Research Officers, two Secretaries, driver and a messenger. Similarly, each one of the Provincial/Watershed SCOR offices will have two Research Officers, three drivers, one or two Secretaries and a messenger.

6.4.3 Short-term Technical Assistance

The sub-project will confront a broad range of special problems and issues in watershed management ranging from policies and institutions (water rights, land use agreements, etc.,) to products and technologies (irrigation technologies, medicinal plants, geographic information systems, environmental assessment, etc.,). The IIMI will identify, recruit and support qualified short-term technical assistance to address these special problems. USAID may assist in selecting international candidates and appropriate study topics. Short-term assistance may be required in the following specialties:

- Human Resources Development
- Organizational Development
- Agroforestry/Forest Management/Silviculture
- Usufruct/Tenure Law
- Geographic Information Systems

- Lease and Title Registration
- Product Technologies
- Enterprise Marketing

6.5 Administration and Logistics

IIMI will base the project headquarters in Colombo. Staffing will be adequate to respond to project requirements and allow for prudent management. Headquarters staff will include, for example, the Chief of Party, M&E Specialist, a Co-ordinator for Human Resources Development activities accounting secretarial and administrative staff, a diver and a messenger. In the initial 2 year phase of the project, IIMI will establish 2 field offices, one in each of the selected watersheds. Suggested staffing patterns for each of these offices include three technical specialists with the expertise discussed above, Agro-forester (one to be shared by both groups); research, evaluation and training specialists, a staff of upto 15 catalysts, three drivers and a messenger.

The Chief of Party will be resident in Colombo but, because of the nature of the project, he/she will be required to travel frequently to the two watersheds to monitor progress and manage implementation. It is anticipated, at this point, that only the Chief of Party will be "international", i.e. internationally recruited by the IIMI through open competition.

IIMI will provide housing and all logistical support to the technical assistance staff, in accordance with the policies of IIMI. Further, IIMI will also arrange all in-country travel in connection with project management and the training program. IIMI will also provide logistical support for the workshops, meetings etc.

Short-term consultants will primarily be based in sub-project sites. They may also be required to spend some time in Colombo depending on the substance of the issue they are brought in to study. IIMI will arrange all travel for these short-term consultants.

6.6 Sub-Grants

IIMI will administer a program of small sub-grants to be made mainly to user groups. A small amount will be available for NGO and the organized private sector. Each grant will not exceed \$ 1,500 and the total fund will be \$ 500,000. However, only \$ 29,000 worth of grants will be disbursed during the initial 2-year period. In addition the Government and USAID may also provide funds from the PL 480 Title III PVO Co-Financing project.

Criteria for making sub-grants as well as the procedures to be followed and the forms to be used for applicants will be developed by IIMI. The PSC approval is required for all the sub-grants made to User Groups, NGO and Private Sector. Progress in the sub-grant

component and a discussion of any implementation problems will be included in the quarterly progress reports. IIMI will be responsible for administering the program, making the sub-grants and accounting for them. IIMI will identify suitable candidates for sub-grants and facilitate the application process. IIMI will also spot check the sub-grantees to ensure that sub-grants are being used for agreed upon purposes. This component of the project will also be covered by the annual audit required of IIMI.

6.7 Procurement

The IIMI will procure the commodities required for implementing the project. This will include necessary office, training, and mapping equipment, automobiles (and associated operating expenses) both for project staff and for watershed groups and general project supplies. A detailed commodity procurement plan will be prepared by IIMI and approved by USAID in the initial stages of project implementation. This plan will include detailed specifications, cost estimates and source and origin requirements. The IIMI will be familiar with AID procurement regulations, particularly on source/origin, and follow AID procedures when procuring project commodities. For example, in the first year of the CA, the IIMI will be required to procure automobiles, office equipment, training equipment, some miscellaneous equipment for the divisional level, and will pay for office and vehicle operations and maintenance, and transportation stipends at the local level. The estimated procurement for the second year of the CA is very similar. It is anticipated that much of this procurement (except automobiles etc) will be local currency and from the local market. The required waiver of AID procurement regulations has been executed with the approved Project Paper Supplement.

Annex I

IIMI'S RECENT EXPERIENCE IN ENHANCING NATIONAL CAPACITIES IN INSTITUTIONAL DEVELOPMENT AND POLICY ANALYSIS

1. Introduction

Most of IIMI's institutional development work focussed on the people and institutions that manage irrigation systems, from the national policy level, through governmental and non governmental agencies that manage and support irrigation systems, to farmers and other individuals who manage irrigation water. Thus the IIMI efforts are aimed at improving the performance of these individuals and organizations in managing not only the water used for irrigation but also the irrigated agriculture sector as a whole. IIMI's mission in country operations aimed at: a) strengthening national research capacity, and b) strengthening national capacity for irrigation management. IIMI helps host countries to improve their own knowledge bases for managing irrigation systems by helping to improve their scientific capacity to conduct research on irrigation management. Moreover, IIMI supports - mainly through collaborative modes of action - the introduction of improved management and policy - making in a country. It helps countries to apply the existing knowledge bases and use research results to improve performance of irrigated agriculture. IIMI helps managing and policy-making organizations to develop human resources and to undertake the organizational and operational changes needed to improve policy-making and management.

As a decentralized institute with a practical bent and strong linkages with implementing agencies, IIMI is well-positioned to support the introduction of improved policies and management systems. Some selected experiences in several IIMI country operations related to Research - Management linkages and policy making are highlighted below.¹

2. Research Management Linkages

2.1 Bangladesh

- * IIMI's research with Bangladesh University of Engineering and Technology (BUET) and Bangladesh Water Development Board (BWDB) enhanced interaction between the staff of the agencies in diagnosing opportunities and constraints faced by irrigation projects in the pilot areas, which in turn led to defining management objectives and innovations that are feasible for adoption.

¹ Countries are listed in an alphabetical order

- * Dialogue and consultation has helped such as in the effect on BADC in its changing role in an environment of privatization, where aspects of the strategic planning methodology elaborated by the IIMI team in a workshop, are being applied by this agency.

Change is difficult to implement in bureaucracies, and irrigation management may not be accorded high priority due to a technical and hardware bias. The role of Government in a sector predominantly dominated by groundwater irrigation modes, is also rather uncertain. However, IIMI has been able to make some favorable impact in agencies and projects where its credibility and acceptance had been built up. The absence of strong teams for research work has also been a constraint.

2.2 Burkina Faso

- * The objective of the program is to improve reservoir based irrigation schemes through management innovations.
- * Progress to date includes:
 - improved counterpart staff capability in irrigation management;
 - broadening the insight of staff in operational agencies on irrigation management;
 - identify weaknesses and remedial measures in legislation and operational arrangements;
 - information dissemination - eg: through newsletters; and
 - high level of collaboration.

2.3 India

- * Program is focussed on collaborative research in four states; Tamil Nadu, Gujarat, Uttar Pradesh and Bihar by clustering academic institutions to work with irrigation management training institutions together with irrigation agencies.
- * Students working for advanced degrees had used research projects to do their field work for dissertation research.
- * Improved collaboration among institutions relevant to irrigation management research & training and the managing agencies.
- * Improved understanding of important issues related to irrigation management.

2.4 Indonesia

- * In 1989, a major field-based program was undertaken in West Java involving irrigation agency personnel at different levels. The activities focussed on: mapping of tertiary blocks, identification of the location and importance of the condition and function of control structures and measuring devices, calibration, flow measurement and identification of management problems of water user associations.
 - It was found out, from pilot testing, that the program was highly cost-effective; that operations at field level improved immediately; and improvements were within the constraints of staff levels and skills, because training was incorporated into the regular duties of local staff.
- * In Indonesia, IIMI worked closely with Universities in Bandung, West Java and Padang, West Sumatra; Centre for Agro Economic Research in Bogor, Agricultural Research Division, particularly Sukhmandi Research Institute and the University of Gadjaja Mada.

2.5 Morocco

- * In Morocco, national researchers were assisted through IIMI guidance & supervision to develop their skills. This modality has resulted in saving of irrigation water through innovative relations among farmers. However, it has been recognized that, in order to strengthen national capacity work has to be in the language used in the country, and funding and working capacity need to be reinforced.

2.6 Nepal

- * An institution building study of the Agriculture Development Bank was conducted and was focussed on its organization and programs. The recommendations made in regard to the organization, policies, procedure and proformas of the Bank's lending activities in irrigation were generally accepted for implementation.
- * An innovative skill enhancement programs were initiated in the Water and Energy Commission Secretariat to facilitate the undertaking of resource surveys, farmer to farmer training and the development of farmer consultants. IIMI efforts have broadened participatory approaches to human resource development.

2.7 Niger

- * The program aimed at the identification of strategies to reduce operating costs, diversify crops and to improve irrigation management along the Niger river. The following results were evident:
 - Collaboration with national partners evolved,
 - irrigation management interventions have been accepted by farmers, co-operatives and agencies,
 - training activities contributed to professional development of project staff, cooperative leaders and target farmers.
- * As there is no national irrigation management research institutes, IIMI launched collaborative research work in selected sites on a problem solving basis. This work is in progress.

2.8 Nigeria

- * IIMI is collaborating with the HJ River Basin Development Authority to promote Agency-Farmer cost sharing and joint management. The collaborative activities include: institutional development; change in management style; O&M procedures, and resource mobilization.
 - The institute has established "research partnership" with several local institutions including universities.
 - Collaborative activities are in progress.

2.9 Philippines

- * As IIMI has worked jointly with national partners, mainly the National Irrigation Administration (NIA) and Universities, the research process over the past seven years helped enhance the research and management capacity of IIMI partners.
 - the research on diversified cropping provided an opportunity to NIA research division to work with Universities to test research recommendations in farmers' fields and to identify management as well as technical constraints.
- * In the project on "Irrigation Management for rice-based systems, IIMI & IRRI bought the experiences and research findings of other countries as well. The project, co-ordinated by IIMI, helped NIA's research division and collaborative universities to further strengthen their capacities on irrigated rice-based systems.

- Better water control, supply augmentation through the use of shallow groundwater, system mapping, more accurate methods of predicting available water, crop and water scheduling & simulation were among the strategies identified.
- Field testing of selected innovations had proved their profitability.
- * The collaborative action-research under the Accelerated Agricultural Production Project (AAPP) adopted a participatory action mode through institutional linkages in all phases of research and development - design, conduct research to generate knowledge (or management innovations), field testing, assessing output etc. This has helped NIA and collaborating research institutions to develop partnership and improve their capacity. A unique feature of this research was that, at the end of diagnostic phase, the recommendations were translated into action plans and implemented on pilot basis jointly by NIA and the researcher at irrigation system level.
- * The participatory project design process catalyzed by IIMI has provided NIA management at various levels to work closely with researchers and farmer representatives; and helped improve NIA's capacity in developing cost-effective projects to match with country's needs.
- * IIMI's direct contributions to professional development (through collaborative action research etc) and information and training (eg: development of training manuals) have helped strengthen national capacity in irrigation management.

2.10 Sri Lanka

- * IIMI-SLFO, through collaborative action research, had developed strategies for improving system management in two major irrigation schemes in Southern Sri Lanka. In one of these projects, participatory management of rehabilitation has been enhanced. The management innovations implemented jointly by the agencies and IIMI had led to a significant increase in area cultivated and in the water use efficiency.
- * Middle-level agency officers worked with IIMI had significantly improved their understanding of the irrigation systems and acquired considerable expertise in research.
- * The management information and communication systems, developed jointly by IIMI and irrigation agency personnel, enabled the agency to increase the cropping intensity through efficient use of water.

- * The irrigation systems management project had analyzed the country's experience in managing rehabilitation and modernization of irrigation systems. This process, which was guided by a national advisory committee had contributed to improve research-management links.
- * Currently IIMI is helping the Irrigation Department to establish a multi-disciplinary irrigation research management unit, IRMU, within the agency. This will enhance research - management links and help ID solve irrigation problems.

2.11 Sudan

- * Institution building of the Sudan Gezira Board involved the provision of an IIMI consultant to assist the Board to advise on water management aspects, based on field experiment results; and helped establish an organization experiment results; and helped establish an organization unit within the Board to identify factors influencing performance. In certain cases initiatives have been taken towards implementing ideas for improving management practices such as constructing flow monitoring devices.
- * IIMI provided technical inputs and facilitated the research conducted jointly by the Hydraulic Research Station, Ministry of Agriculture and the Rahad Agricultural Corporation. This has led to changes in the perception of irrigation systems by respective agencies.

3. Policy Making

The Institute has primarily used a two-way interactive process-namely "dialogue and consultation on policies and management" - in working with managers and policy makers. This has provided the needed support in introducing improved systems and policies. IIMI staff had facilitated the process, contributed to the dialogue and learned from it. Such activities are "strategic" in the sense that they are oriented towards basic and systematic approaches to change. Few such examples are outlined below.

- * In Indonesia, the strategic dialogue and the informal set of linkages between IIMI and policy makers within the Directorate General of Water Resources, DGWRD, have led to a proposal by DGWRD to establish an irrigation management centre that would focus on research, training and dissemination of management innovations.
- * In Nepal, IIMI staff contributed to policy formulation on farmer-managed irrigation system in the deliberations of the National Planning Commission when finalizing the irrigation master plan for Nepal. The National eighth plan required that more farmer participation modes be adopted in irrigation, especially in agency-managed systems. Also, the results of a collaborative research effort by the Water and Energy

Commission Secretariat and IIMI have had an impact on the formulation of national policy measures related to improvements in FMIS.

- * In the Philippines, IIMI research on irrigation management for diversified cropping in rice-based systems had contributed to improve understanding of management constraints and recommended policy measures to enhance farmers' efforts to diversify cropping patterns in irrigated areas during dry season. IIMI's initiative in establishing a steering committee for crop diversification, at national level, has helped NIA, Department of Agriculture and other relevant policy making bodies to develop country's policy on crop diversification and to monitor and evaluate such policies. Also IIMI helped NIA to carefully examine and refine the irrigation sector review prepared by a team of consultants. Moreover, in regard to NIA's participatory policies in irrigation management, IIMI developed and implemented novel methodologies to assess such efforts country-wide.

In Sri Lanka, IIMI research have had an impact over the years in the promotions of "participatory irrigation management" as a government policy. One of the most visible activities carried out by IIMI in recent years has been its involvement within the "Irrigation Management Policy Support Activity" (IMPSA).

Following from a national workshop co-sponsored by IIMI, the IIMI-Sri Lanka Consultative Committee arranged consultations with relevant Ministries and consequently a cabinet paper containing the broad policy framework for participatory irrigation management has been approved in 1988. Subsequently, the IMPSA project conducted by the Ministry of Lands, Irrigation and Mahaweli Development, MLIMD, refined and elaborated on the policy. The IMPSA exercise, for which IIMI provided technical assistance developed a wide consensus on institutional reforms on strategies and has clearly demonstrated the effectiveness of a consultative consensus building approach to policy formulation. The IIMI and the Government are now planning to launch a project aimed at enhancing the share of users control over water and land resources in the watersheds through state-user partnerships that would contribute to intensified and sustainable agriculture production while protecting the physical, biological and social environment.

In Sudan, a workshop organized jointly by IIMI and the Government had discussed a wide range of policy options on irrigation charges and their implications. IIMI suggestion on the sale of water at selected control points is being considered by the authorities. Similarly, the workshop on privatization of irrigation schemes organized by IIMI (at the request by the Government) had shared international experiences on the subject to help Government to consider several policy options. As a follow-up IIMI has been requested to evaluate the on-going management turnover in the White Nile Pump Systems.

ANNEX II
SCOR PROJECT ACTIVITY PLAN - 6 YEARS

ACTIVITY	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1. Recruitment of Staff																								
1.1 Project leader	X																							
1.2 Long-term National Experts	XX																							
1.3 Watershed Co-ordinators	XX																							
1.4 Catalysts; Recruitment <u>or</u> Rotation	XX				XX				XX				XX				X	X						
1.5 Support staff	XX																							
1.6 Training of Catalysts, incl. in-service	X	X			X	X				X				X				X						
2. Establish project offices	XX																							
3. Establish Steering Committees and working groups (NSC, NWG, PSC, PWG, WRMT); and identify MLIMD Co-ordinator by Sec/MLIMD	X X																							
4. Procurement of Equipment/vehicles	XX	XX																						
5. Prepare: workplans, M&E plans, inception report (preliminary) etc.	XX	XX																						
6. Identify pilot areas within watersheds	X								X							X								
- Assess present levels of water and land resource use	X	XX							XX	X														
- Assess existing user groups	X	X	X						XX	X														
- Constraints analysis	X	X	X						XX	X														
- Benchmarks related to indicators	X	X	X						XX	X														

ACTIVITY	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
7. Participatory planning																								
- Planning workshops			XX	X					XX	X														
- Prepare detail action schedules for the four components of the project: creation & strengthening of RUGs; shared control mechanisms strengthen govt., NGO, private sector capacities to better support RUGs.			XX	XX							XX	XX												
8. Refine M&E indicators & plans				XX								XX												
9. Activities related to creation & strengthening of RUGs																								
- User group creation (incl. registration)			X	XX	X						XX	XX												
- User group training			X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
- Environmentally sound economic opportunities				X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
- Support services: Link RUGs with markets, credit, insurance, legal systems, extension etc					XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
- Information systems					XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
- Matching grants					XX	XX	XX	XX				XX	XX	XX			XX	XX						
- Production companies							XX	XX																
Legal status & powers																								
- Studies				XX				XX																
10. Activities related to resource tenure & shared control mechanisms.																								
- Studies on regulatory & legal mechanisms, resource tenure, land consolidation, land titling, policy & process reforms				XX				XX				XX				XX								

ACTIVITY	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
- Formal agreements between user groups & Govt.							XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
- Joint management (eg: prod. companies							X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
- Resource access to user groups							XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
- Policy and process reforms												XX				XX				XX	XX			
- Land consolidation demonstrations							XX	XX				XX				XX				XX			XX	
- Land titling/registration																XX				XX	XX			
11. Strengthening Govt, NGO, Private sector capacity to better support User groups																								
- Information Systems					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
- Institutional links internalized												X	X	X	X	X	X	X	X	X	X	X	X	X
- Training : Prov. & Div., Council staff, NGO, Govt staff, Banks & private sector; workshops with user participation			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
- Contractual agreements with user groups							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
- Sub grants		X		X		X		X			X			X			X							
12. Improving : a) Integrated planning of land & water resources on watershed basis; b) information systems & c) linkages among user groups & between groups and Govt. & other relevant entities																								
- Working relations between all projects & programs within pilot watersheds							X	X	X	X	X	X	X	X										
- Federation of user groups								X	X	X	X	X	X	X	X	X	X	X	X	X				

ACTIVITY	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6			
- Internalize participatory planning & co-ordinating mechanisms																	X	X	X	X	X	X	X	X
- Multi-level, integrated planning in pilot watersheds													X	X	X	X	X	X	X	X	X	X	X	X
13. M&E & progress reporting & process monitoring																								
- Preliminary planning	XX	XX																						
- Refine plans & establish M&E systems			XX	XX																				
- Bench-marks established			XX	XX					XX	XX							XX	XX						
- Activity, output/effect & impact M&E					X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X
- Progress reports		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14. Publications & Dissemination																								
- Inception report			XX																					
- Benchmark report				X																				
- Info. Education & Comm. material (IEC)					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
- IIMI publications on various subject re:Natural resource management						X	X			X				X				X				X	X	

ANNEX III

STAFF POSITIONS REQUIRED FOR SCOR

- Responsibilities, Qualifications and Experience -

A. LONG-TERM POSITION OPENINGS

Institutional Development Specialist - Ref. 2 positions

Responsibilities: He/She will be required to identify the different types of resources user groups (RUGs) in selected watersheds, and assess their potentials/constraints; develop and implement practical programs to strengthen the existing groups and /or establish new groups/entities including production companies; assist in identifying economic opportunities and developing sustainable enterprises for RUGs; provide guidance and leadership to Watershed Development Co-ordinators and Catalysts who will be directly involved in the above tasks; identify the capacities and weaknesses of governmental institutions, particularly at provincial, divisional and watershed levels, and of the private sector including the NGOs, in providing support and support services to RUGs/RUOs; help develop and implement programs to strengthen the above agencies to perform their services to RUGs/RUOs, more effectively; link RUGs and RUOs with Banks, lending institutions, and commercial firms in respect of production, processing and environmental protection ventures; assist in planning and implementing training programmes; identify any policy changes needed to support the formation and strengthening of RUGs including their federation at higher levels; and collaborate with other specialists in all watershed development activities and to work out and implement programs to spread the strategies developed, to outside areas.

Qualifications and Experience: An (advanced) University Degree in sociology, or other closely related subject with 10 years of job-relevant post-qualification experience. Only the persons with the skills to command the tasks assigned to this position are encouraged to apply for these positions.

Resources Management Specialist - Ref. 2 Positions

Responsibilities: He/She will be required to identify the different types of resources, resources uses and RUGs in the pilot watersheds and assess their potential/weaknesses; take leadership in identifying and preparing resource profiles of past and current projects and programs within the watershed area; design enterprises/projects jointly with the Enterprise Development Specialist and in consultation with RUGs, relevant government officials, and private sector representatives etc.; be responsible for implementing the proposed projects by RUGs; conduct and document economic evaluation of enterprises/projects; identify suitable sites, and plan and implement pilot projects for innovative production modes of user rights,

state-user partnerships, land consolidation etc.; assist in planning and implementing training programs; define, identify and demarcate on ground, the watershed and micro watershed areas; prepare and help implement, through RUGs, land use plans for the pilot watersheds; conduct and document analyses of constraints of resources use; conduct baseline studies of selected watersheds in association with other specialists, Watershed Development Coordinators and Catalysts, and prepare status reports; assist in developing indicators for monitoring and do field monitoring; plan and implement a programme of monitoring of commercial opportunities introduced to RUGs; participate in the formulation and review of policies on RUGs and natural resources management; and collaborate with other specialists in all watershed development activities and to work out and implement programs to spread the strategies developed, to outside areas.

Qualifications and Experience: An (advanced) University degree in resources management, agricultural production, agricultural economics, agricultural extension, or related subjects with over 15 years of job-relevant, post-qualification experiences. Work experience in project management, technology transfer, land use planning, irrigation management, and environmental conservation and management will be advantageous. Previous working experience with RUGs and similar organizations is deemed an additional qualification. Only the persons with skills to command the tasks assigned are encouraged to apply for these positions.

Enterprise Development and Marketing Specialist - Ref. 2 Positions

Responsibilities: He/She will be required to ensure collection and dissemination of information on agricultural production, processing and marketing to RUGs and link such groups with appropriate business establishments within and outside project areas; in collaboration with the Resources Management Specialist, identify and work out new economic ventures for RUGs; promote and link production companies with appropriate enterprises in selected areas on a pilot basis; promote linkages between NGOs and RUGs in developing and operating business enterprises within the project area; establish and develop contact with lending institutions and assist RUGs to obtain loans for their ventures; administer the Project's matching grants programme for developing the existing and the new ventures of RUGs; assist RUGs in managing existing agri-business enterprises, effectively; assist RUGs and NGOs in preparing proposals for new production, marketing and processing ventures; assist in analyses and evaluation of financial viability of these proposals; appraise agro-enterprise and credit investment proposals; assist in promoting investments within the area; assist in developing a monitoring programme for enterprises and business opportunities developed for RUGs; assist in planning and implementation of training programs; assist in analyses of constraints, especially in regard to the development of agro-production, processing and marketing enterprises; assist in conducting a survey of existing production and business enterprises within the project area and prepare profiles of such enterprises; and

collaborate with other specialists in all watershed development activities and to work out and implement programs to spread the strategies developed, to outside areas.

Qualifications and Experience: An (advanced) University Degree in commerce, business management, enterprise development or any other related subject with 15 years of job-relevant, post-qualification experiences. Previous working experience with RUGs or similar organizations, and proven ability in enterprise promotion for small groups, and linking groups with internal and external markets are deemed an additional qualification. Only the persons with skills to command the tasks assigned are encouraged to apply for these positions.

Agro-forestry and Forest Management Specialist - Ref. 01 Position

Responsibilities: He/She will be required to assist in conducting the analyses of constraints of resources use, especially in relation to forestry and agroforestry aspects; identify species of forest plants, and techniques suitable for planting these in the different sections of the watersheds; assist RUGs in the production of appropriate types of seedlings for planting; together with RUOs, plan and execute a programme of ecological restoration in degraded areas of watersheds; train trainers, Agency and Project staff in silvicultural, agroforestry and degraded area management; identify sites within selected watersheds, and organize, operate and maintain on these sites, demonstration plots of agroforestry; together with the Forest Department staff and members of RUGs, identify, plan and execute a programme of extraction of non-timber forest products from the designated management/conservation forests; test the feasibility of this practice as a source of income for RUGs; together with other staff and RUGs, plan and execute a programme of village forests and avenue planting along roads, streams and other public places; arrange to demonstrate benefits to community of such practices including protection of natural resources; identify gaps in research and technology pertaining to ecological restoration and forest products utilization and help implement strategies to overcome such problems in selected watersheds; and collaborate with other specialists in all watershed development activities and to work out and implement programs to spread the strategies developed, to outside areas.

Qualifications and Experience: An advanced University Degree in any branch of forest management with 15 years of job-relevant, post-qualification experiences. previous working experience in agroforestry and in working with rural organizations is deemed to be an additional qualification. Only the persons with skills to command the tasks assigned are encouraged to apply for this position.

Monitoring and Evaluation Specialist - Ref. 01 Position

Responsibilities: He/She will be required to identify, assess and strengthen on-going monitoring systems for land and water resources management in the pilot watersheds; identify indicators of performance, and design, operate and maintain a continuous project monitoring and evaluation system in consultation with other project specialists in a "participatory self assessment mode" covering production, protection, conservation, agro-processing, business enterprises, employment creation, women and youth activities etc.; design and produce various M & E reports, charts, brochures, visual aids etc.; develop an adequate data base covering projects and programs of different governmental and other agencies; develop and produce the different types of reports and documents required by the Project; design appropriate systems using GIS for project monitoring; Assist/train Project staff in monitoring, data presentation etc.; and collaborate with other specialists in all watershed development activities and to work out and implement programs to spread the strategies developed, to outside areas.

Qualifications and Experience: An advanced University Degree related to information systems and quantitative analysis, and 10 years of post-qualification experience in M & E and information systems. Knowledge of GIS and experience in co-ordinating field activities would be desired. Only the persons with skills to command the tasks assigned are encouraged to apply for this position.

Co-ordinator, Human Resources Development - Ref. 01 Position

Responsibilities: He/She will be required to take the lead in planning, developing and providing guidance in implementing the Project's education and training programme; guide and assist in conducting training needs assessments to be carried out at all levels; formulate and develop training curricula, modules and training master plans in consultation with field level specialists and with the assistance of other professional staff; Prepare and maintain an inventory of training resources; establish and develop contacts with resource persons; be responsible for planning and conducting and documentation of proceedings of meetings/workshops of the National and Provincial Steering committees; assist in the overall co-ordination of the Project; assist in exercising supervision over administrative and financial operations of the project; assist in the preparation and finalization of project reports; assist in the preparation of Project's budgets and work plans; establish and maintain close contact and interaction with local training institutes, NGOs and Private Organizations in arranging for short-term local training; arrange for short-term study tours/training for representatives of RUGs. and government personnel abroad; and collaborate with other specialists in all watershed development activities and to work out and implement programs to spread the strategies developed, to outside areas.

Qualifications and Experience: A relevant University Degree with 5 years of post-qualification experience in planning, implementing and documenting of training activity and

in administration of similar projects. Candidates who do not possess University Degree will be considered provided they have an excellent track record of planning, implementing and documentation of training activity, national/international workshops and conferences relating to subjects covered by the SCOR Project, and 15 years of experience at a senior management level, preferably related to land and water resources management. Only the persons with the skills to command the tasks assigned to this position are encouraged to apply.

**Research Associate/
Research Officer - Ref. 6 Positions**

Responsibilities: He/She will be required to collect and analyze data on various aspects of land and water resources management; do data entry and statistical analysis; prepare tables and graphs using standard computer programs; undertake library research; prepare written reports describing and analyzing findings.

Qualifications and Experience: A University degree in engineering or agriculture or social science or economics; and familiarity with standard computer packages for statistics and graphics; Candidates with advanced degrees, good publications record, and experience in activities relevant to SCOR, will be considered for appointment as Research Associates.

Watershed Development Coordinator - Ref. 10 Positions

Responsibilities: Watershed Development Coordinator will be responsible for facilitating all project activities in a designated area within selected watersheds. In this designated area, He/She will be required to provide professional guidance to all catalysts deployed in a designated watershed, and supervise their work; take the initiative in identifying, and help develop and implement profitable/sustainable watershed enterprises through resources users, RUGs, RUOs, relevant government officials, NGOs and private sector representatives; Develop, maintain and strengthen close working relations with all agencies dealing with agricultural production and other watershed enterprises; strengthen the existing resources user groups and/or establish new user groups through the participatory planning and implementation of the above programmes in close consultation with the Institutional Development Specialist; plan and implement programmes of training and education for resources users, their representatives, RUGs, RUOs, NGOs, government and Private Sector agency personnel; organize and conduct meetings and workshops involving the above groups; undertake continuous monitoring and evaluation of watershed development activities and processes; assist in carrying out constraints analyses, baseline surveys and preparation of profiles or organizations, projects etc.; assist in the preparation and dissemination of informational/educational material on watersheds enterprise development; and engage in any other responsibilities assigned by the Institutional Development Specialist/Project Coordinator.

Qualifications and Experience: A University Degree in social/agricultural sciences/engineering with over 5 years of experience in working with land and water resources user groups and/or farmers' organizations, in a supervisory capacity. Candidates who do not possess University Degrees will be considered provided they have an excellent track record of similar engagements for over 15 years. They should possess excellent interpersonal skills, problem solving abilities, environmental awareness and dedication to rural improvement. Preference will be given to candidates with qualifications and practical experience in fields such as crop production, livestock farming, agro-forestry and enterprise development. Only the persons with the skills to command the tasks assigned to this position are encouraged to apply.

Catalyst - Ref. 30 Positions

Responsibilities: He/She will be required to organize user groups in the selected watersheds; undertake all work pertaining to the formation, strengthening and linking with markets of RUGs and RUOs in the designated areas; establish personal contact with each stake holder in the designated area of the watershed; organize and conduct meetings and workshops involving resources users, RUGs and RUOs; assist in planning and implementing a programme of training for resources users, their representatives, RUGs, RUOs and the relevant agency personnel; assist in carrying out constraints analyses, baseline surveys and preparation of profiles of organizations, projects etc.; assist Watersheds Development Coordinators and other Project staff in undertaking continuous monitoring and evaluation work; and engage in any other responsibilities assigned by the Watershed Development Coordinator and the Institutional Development Specialist.

Qualifications and Experience: A University Degree in social/Agricultural sciences. Candidates who do not possess University Degree will also be considered if they have excellent track records of similar engagements for over 5 years. Previous experiences in establishing and strengthening rural organizations will be a definite advantage. Practical experience in any of the fields such as crop production, livestock farming, agro-forestry and enterprise development would be desirable. Preference will be given to candidates who are residents of pilot project areas. They should possess interpersonal skills, problem solving abilities, environmental awareness and dedication to rural improvement.

Administrative Officer - Ref. 03 Positions

Responsibilities: He/She will be required to be responsible for the efficient and effective execution of all relevant personnel, administrative/financial functions of SCOR offices; be responsible for planning and organizing logistics needed for all SCOR field operations, including meetings, workshops and training courses. Collaborate with SCOR Colombo office/IIMI Headquarters, and ensure that the offices are supplied with all essential requirements; ensure that adequate office management systems are planned and installed;

minimum; and error free typing speed of 40 wpm on electric typewriter or word processor, and a shorthand speed of 80 wpm.

Driver - Ref. 07 Positions

Requirements: Minimum of five years ' experience as a Driver in a recognized organization. Should possess heavy duty driving license.

B. SHORT-TERM POSITION OPENINGS.

IIMI also seeks to identify and shortlist specialists for contracting on a short-term basis, from time to time, to address special problems which the Project expects to confront in the course of implementation, in the following subject areas:

Human Resources Development
Organizational Development
Agroforestry/Forest Management/silviculture
Usufruct/Tenure Law
Geographic Information Systems
Lease and Title Registration
Product Technologies
Enterprise marketing

Candidates with advanced degrees in the above or related fields and/or with wide experience in planning and implementing programs related to these subject areas will be selected.