

RURAL WATER SUPPLY DISTRICT DEVELOPMENT PLANS

**MATARA, RATNAPURA AND BADULLA DISTRICTS
SRI LANKA**

Volume II

INSTITUTIONS, POLICY, IMPLEMENTATION STRATEGY

June 1991

Cowater International, Inc.

in association with

***Engineering Consultants Ltd.
Sarvodaya Shramadana Inc.***

***National Water Supply
& Drainage Board***

UNDP/World Bank

822-91-8902-2



INSTITUTIONS, POLICY AND IMPLEMENTATION STRATEGY

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 Tel. (070) 614311 ext. 141/142
 ISBN 8902-2
 LC: 822 LK91



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List of Acronyms and Abbreviations

ADB	Asian Development Bank
AGA	Assistant Government Agent
CBO	Community Based Organisation
CDR	Crude Death Rate
CEA	Central Environmental Authority
CIDA	Canadian International Development Agency
CISIR	Ceylon Institute for Scientific and Industrial Research
CPU	Community Participation Unit
CRB	Co-operative Rural Bank
DANIDA	Danish International Development Agency
DCB	Decentralized Budget
DDP	District Development Plan
DTCCS	District Union of Thrift and Credit Co-operative Societies
ESA	External Support Agency
FINNIDA	Finnish International Development Agency
FNS	Friedrich Naumann Stiftung
FTCCS	Federation of Thrift and Credit Co-operative Societies
GA	Government Agent
GM	Gramodhaya Mandalaya
GN	Grama Niladhari
GOSL	Government of Sri Lanka
GS	Grama Sevaka
GTZ	German Agency for Technical Cooperation
HEB	Health Education Bureau
HEO	health education officers
ICTAD	Institute for Construction, Training and Development
IDA	International Development Association (World Bank)
IDRC	International Development Research Centre, Canada
IFAD	International Fund for Agricultural Development
IMR	Infant Mortality Rate
IRDP	Integrated Rural Development Programme
IREP	<i>Innovations et Réseaux pour le Développement</i>
JEDB	Janatha Estates Development Board, Sri Lanka
JSP	Janasaviya Programme
JSTF	Janasaviya Trust Fund
Lpcd	litres per capita per day
MOE	Ministry of Education
MoH	Ministry of Health
MOH	medical officer of health
MPCS	Multipurpose Co-operative Society
MPPI	Ministry of Policy Planning and Implementation
NERD	National Engineering Resources and Development Centre
NIE	National Institute of Education

NGO	non-governmental organisation
NHDA	National Housing Development Authority
NORAD	Norwegian Agency for International Development
NOVIB	Netherlands Organisation for Development cooperation
NWSDB	National Water Supply and Drainage Board, Sri Lanka
O&M	operation and maintenance
ODA	Overseas Development Administration
PB	Peoples Bank
PHI	public health inspectors
PHMW	Public Health Midwife
PHN	Public Health Nurse
PIP	Priority Investment Programme
PLAN	Plan International
PS	Pradeshiya Sabha
RDHS	Regional Director of Health Services
RDTRI	Rural Development Training and Research Institute
RDS	Rural Development Society
RSC	Regional Support Centre, NWSDB
RWSSU	Rural Water Supply and Sanitation Unit
SEEDS	Sarvodaya Economic Enterprises Development Services
SEI	Socio-Economic Index
SIDA	Swedish International Development Agency
SLCDF	Sri Lanka-Canada Development Fund, Colombo
SLSPC	Sri Lanka State Plantations Corporation
SRTS	Sarvodaya Rural Technical Services
SSM	Sarvodaya Shramadānā Movement, Sri Lanka
TCCS	Thrift and Credit Cooperative Society
TSU	Technical Support Unit
UNDP	United Nations Development Programme
UNESCO	United Nations Economic, Scientific and Cultural Organisation
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VHW	Village Health Workers
WRB	Water Resources Board
WHO	World Health Organisation

Project Context

This project, which is funded by UNDP, focuses on the smaller towns, communities and hamlets in three districts. Two plans are being prepared, the first being these District Development Plans, taking the form of a strategic investment plan with a ten year horizon. The second, a Priority Investment Programme, will have a shorter time horizon and take the form of specific project preparation for external funding by the World Bank and/or other external assistance agencies.

The National Water Supply and Drainage Board within the Ministry of Housing and Construction is the key agency in executing this planning project. Three organisations carried out the planning; Cowater International Inc. of Canada, Engineering Consultants Limited of Colombo, and Sarvodaya.

The plans cover the small towns, rural villages and dispersed households in all three districts. Particular attention has been given to the poorest of the communities most in need of improved services. The approach taken is in line with the government's policies on self-help and self-reliance. Maximum effort has been made to ensure that the schemes will be self-financing at least in terms of recurrent costs.

The schemes planned will bring safe drinking water by tapping springs and rivers, feeding it into piped distribution systems and delivering it to stand-pipes and house connections. Other technologies include tubewells and shallow wells for smaller villages. Sanitation will come in the form of household latrines enabling families to reduce contact with wastes and thereby improving health. Most of the schemes have been planned assuming extensive community participation in construction and management. These schemes will be owned by the communities they serve, thereby ensuring long-term sustainability of the systems

These plans are part of a planned series of rural water supply and sanitation district development plans covering all 25 districts of the country. At the strategic level, the project objective is to define overall requirements and priorities for resource mobilisation, implementation, operation and maintenance, including technical, institutional and financial aspects. This should assist the relevant agencies in making coordinated contributions in the sector. At a more detailed level, the priority investment programmes will be drawn up in consultation with the local institutions involved, identifying key areas for investment in water supply and sanitation installations and the strengthening of institutions and groups responsible for implementation and sustained operation.

The project was broken into four phases, namely, inception, survey, district development plans and priority investment plans.

The **inception phase** began on November 1, 1990, and included mobilisation, collection of secondary data and short field familiarisation visits by expatriate and local staff, in addition to the workshop held on November 20-21, 1990.

The **survey phase** began with the workshop/ pre-testing session on January 21-24, 1991 and continued until mid-March 1991. The surveys collected data on sample communities and households, water supply and sanitation status and NGO and private sector activities.

Immediately following the conclusion of the surveys, the **district development plans phase** started with a workshop in the first week of April 1991. Preliminary survey findings were discussed, as well as the major issues and possible strategies pertaining to the district development plans. During this phase the institutional framework for the proposed programme was elaborated. The institutional framework, profiles of the sector institutions, a discussion of the principal issues and recommended policy, strategy and methods are elaborated here, and the district development plans are found in three companion volumes, one for each district.

The final phase of the project, the **priority investment plans phase**, will begin in June 1991 and end with submission of the Priority Investment Programme in October 1991.

1. Existing Policy and Institutional Framework

1.1. Sector Policy and Legislation

1.1.1. Global Sector Policy

Sri Lanka was one of the 115 countries which adopted the New Delhi Statement at the Global Consultation on Safe Water and Sanitation for the 1990s held in New Delhi in September 1990. This statement stressed the need for institutional, economic and social changes to create the right conditions for accelerated progress in water supply and sanitation coverage. In particular, the need was identified for reductions on the costs of services through increased efficiency and use of low cost appropriate technologies, and the mobilisation of additional funds from new sources, including the consumers.

The "guiding principles" recommended by the Global consultation are:

- protection of the environment and safeguarding of health through the integrated management of water resources and liquid and solid wastes
- institutional reforms promoting an integrated approach including changes in behaviour, and the full participation of women at all levels in sector institutions
- community management of services, backed by measures to strengthen local institutions in implementing and sustaining water and sanitation programmes
- sound financial practices, achieved through better management of existing assets, and widespread use of appropriate technologies

1.1.2. NWSDB Legislation and Policy

a) Legislation

The National Water Supply and Drainage Board was brought into being through the enactment of the National Water Supply and Drainage Board Law, No. 2 of 1974. According to this law, the Board has the duty to develop, provide, operate and control an efficient, coordinated water supply and to distribute water for public, domestic or industrial purposes, and to establish, develop, operate and control an efficient sewerage system. The Board has this responsibility only in its areas of authority, which are declared as such through an Order of the Minister (Minister of Housing and Construction). These areas were defined through Gazette notification in 1982 to be the entire island.

The Board consists of four members appointed by the Minister from among persons who have wide experience in engineering, finance, public health, administration or law; the Commissioner of Local Government, an officer of the General Treasury, an officer of the Ministry of Planning and an officer of the Ministry of Health. The Chairman and the Vice-Chairman are appointed by the Minister from among these members.

The Board has the power to enter into joint schemes with any government department or body approved by the Minister for the provision, development and maintenance of water supply and sewerage services. It has the duty and power to supervise and control the operation of all waterworks and sewerage works installed for the purpose of any joint scheme, provided that the Board has due regard to the needs of such department or body.

The Board has the right to fix and levy charges for water supply and sewerage services in any area of its authority.

b) Policy

The NWSDB recently released a draft version of its 1991 Corporate Plan, which includes a recommended new national strategy for the water supply and sanitation sector. The corporate plan points out that overall in Sri Lanka, satisfactory service levels are in the order of 22% for the urban population, 29% for the rural population, and 28% overall, where satisfactory services levels are defined as 24 hour per day service for piped water, a functioning handpump providing water of acceptable quality, or an open well with an apron, bucket and windlass. While the NWSDB has the responsibility for disbursing approximately 90% of the total national sector capital expenditure, by virtue of the fact that it concentrates on piped supply schemes (primarily in the urban sector) and to a lesser extent on handpumps, it serves only about 20% of the Sri Lankan population in terms of water supply, and a negligible proportion in terms of sanitation facilities. The rural sector and sanitation have not been one of the Board's priority areas.

The Board now faces a potential serious problem, as the recent water tariff increase will inevitably make consumers more critical of the quality of service they receive. Therefore, unless more emphasis is placed on system rehabilitation there is a real danger that there will be opposition to paying the enhanced rates, a situation which would have disastrous effects on the financial viability of NWSDB. The Board has thus decided to make the rehabilitation of existing piped supply facilities its number one priority, thereby upgrading service quality and securing consumer satisfaction.

The new national sector strategy puts the emphasis on the rural sector, and stresses the New Delhi philosophy, including community management, the strengthening of local institutions, and an integrated approach. This philosophy implies that future emphasis must be on rural and peri-urban sectors. As the NWSDB is of little significance in the priority rural sector, the new strategy recognises the limitations

of NWSDB, and proposes that its role be limited to implementation only in the urban areas, for integrated schemes serving more than one local authority, for schemes with full treatment, and for institutional consumers. For the rural sector, NWSDB would play an advisory role only, if requested. The Board would also advise on matters relating to technical guidelines, wastewater management and drainage works. It would be responsible for monitoring water quality supplied in piped schemes, and will establish a national water supply/sanitation sector database for monitoring purposes. The Board will also have a monitoring role to play in the coordination of sector inputs. It will be responsible for agency coordination, carried out through regular liaison meetings involving national implementing organizations (both governmental and non-governmental) and external support agencies.

The new national strategy stresses the need to stimulate consumer demand, accelerate community management concepts, and to meet demand through shared help and the use of the private sector. The Provincial Councils or some other organisation(s) are to be mobilised to serve as implementing agencies for simple, communal water supply systems and regional sanitation programmes, with technical assistance from the NWSDB. Consumer demand is to be stimulated through public awareness campaigns, the provision of credit facilities, the distribution of technical guidelines, and the training of local craftsmen.

The NWSDB initiatives planned in the 1991 Corporate Plan thus include the expansion of the role of the decentralized Community Participation Unit so that NWSDB can serve as a catalyst for the increased involvement of the community in the water supply project cycle. This relates not only to rural areas, but also to the community management of public taps in piped schemes through the formation of user groups. The target is to have fully staffed CPUs in five Regional Support Centres (RSCs) by December 1991, and complete formation of user groups for public taps in Greater Colombo by June 1992. Complete regional decentralisation to RSCs through the granting of enhanced financial authority is to be achieved by June 1992.

1.1.3. Legislation Governing Pradeshiya Sabhas

The Pradeshiya Sabhas are elected local authorities and were created by the passing of the Pradeshiya Sabhas Act in April 1987, with "a view to providing greater opportunities for the people to participate effectively in decision-making process relating to administrative and development activities at a local level". Political unrest in Sri Lanka delayed the election of the councils until May 1991. It is as yet unclear how they will function, although it is evident that the President plans to devolve power to these local bodies.

According to the Act, the Pradeshiya Sabhas have broad responsibilities with regard to water supply and sanitation. It is the duty of the council to take effective measures to secure that adequate and proper latrine accommodation is provided for all houses, buildings and lands, to provide public latrines as is necessary within all places of public resort, and to ensure that latrines are maintained in proper condition. The

council has the right to require that an owner build a latrine, water closet or bathroom on his property, and may levy a fine if the owner does not comply. The council also has the right to step in and carry out maintenance of a latrine or water closet if necessary, and recover the costs from the owner.

The Pradeshiya Sabha is not required by the Act to provide a water supply to the inhabitants of the area, but is given all necessary powers under the Act to do so, including entering into contracts, hiring and leasing equipment, constructing premises, and levying a water rate. Where a water rate is levied, the owner or occupier of any premises within the area has the right to a supply of water from the public standpipes for the domestic use of himself and household or tenants. The Pradeshiya Sabha may supply water for other than domestic purposes or allow a private supply of water to any premises under terms and conditions to be agreed upon by the council and the person to be served.

The council has the power to make by-laws with respect to water supply and waterworks, including among other things the provision, regulation, protection and maintenance of communal or private wells, springs or other watering places; prevention of waste, misuse or contamination of water supplied for public or private use; size, nature, strength and materials and mode of arrangement for carrying, delivering, regulating and storing water; and the prescribing of the procedure for the recovery of moneys due for the supply of water.

As stated above, it is not yet clear how the Pradeshiya Sabhas will actually function within the parameters of their legislation. The Act is permissive, rather than restrictive, that is the Pradeshiya Sabhas may establish water supply schemes, but this power has not been granted to them exclusively. The rights that Pradeshiya Sabhas will have, for instance, to water sources on public (state) land is not clear. In the past tapping of water sources for community supplies was almost always carried out by the state, through the AGA. Pradeshiya Sabhas are not viewed as the state per se, but rather as a local authority, and their status has been further undermined by their politicization. It may be that Pradeshiya Sabhas will view water projects initiated and carried out by communities and NGOs without their involvement as undermining their authority, and will seek to interfere with them or deny them access to public water sources. However, collaboration with NGOs and a source of direct funding could also help the Pradeshiya Sabhas themselves become the independent, democratic, responsive organisations they were envisaged to be.

1.1.4. Provincial Councils Legislation

The Provincial Councils were established in 1988 by the 13th Amendment to the Constitution of the Republic of Sri Lanka and the Provincial Councils Act No. 42 of 1987. The Provincial Councils appear to have come into being because of a political need to respond to the demands of minority ethnic groups for autonomy. Provincial power groups did not actually exist, and this has made the process of power sharing and administrative devolution slow.

The ninth schedule of the constitution specifies the devolved functions which Provincial councils are empowered to carry out. However, to a large extent these powers have not in fact been devolved as most of the enabling legislation has not been worked out.

1.1.5. Current Legislation Governing NGOs

At present there is no general legislation by which voluntary service organizations in Sri Lanka are regulated. The two main pieces of current legislation relating to such organizations are the Societies Ordinance (Chapter 124), and the Voluntary Social Service Organizations (Registration and Supervision) Act No. 31 of 1980, which came into operation from February 1982.

The Voluntary Social Services Organizations Act "provides for the registration with the government of voluntary social services organizations, to provide for their inspection and suspension, to facilitate coordination of the activities of such organizations, to give governmental recognition to such organizations which are properly constituted, to enforce the accountability of such organizations in respect of financial and policy management under the existing rules of such organizations, to the members of such organizations, the general public and the government, to prevent malpractice by persons purporting to be such organizations, to regularize the constitution of voluntary social service groups which have not been legally recognized, and for matters connected therein or incidental thereto". In order to be registered under this Act, organisations must already have legal status.

There are four ways in which NGOs can obtain legal recognition ;

- by an Act of Parliament (incorporation)
- under Section 106 of the Trust Ordinance
- under the Societies Ordinance
- under the Companies Act

a) Acts of Parliament (Incorporation)

Various organizations have been incorporated by Acts of Parliament which give them legal status for their existence. Examples of such organizations are Sarvodaya, Lanka Mahila Samithi, All Ceylon Buddhist Congress, and Ceylon Pentecostal Mission.

A group of persons may form an Association with specified objectives which are not contrary to the general law of the land. This Society or Association will then continue for a period of time with the assistance of a set of Rules which is called the Constitution of that Society or Association. After a length of time, having performed their function in keeping with their objectives, they may if they desire, ask Parliament to grant them incorporated status by an Act of Parliament. A bill is presented in Parliament by either a government or an opposition MP and published in Gazette for the public to object to if they desire. Through the government legal media a bill is drafted for final introduction in Parliament. At this point the Attorney General has

to give an opinion as to the constitutionality of the provision of such a bill. A Society or Association incorporated by an Act of Parliament grants such society or Association the power to sue and to be sued in its Corporate name.

b) Section 106 of the Trust Ordinance

Under the provisions of the trust ordinance, the Minister of Public Administration by order published in the Gazette may permit the trustees to engage in certain activities. Specific areas of voluntary activities can thus be permitted without resorting to the cumbersome procedure of going through an Act of Parliament.

c) The Societies Ordinance

The large majority of smaller NGOs are registered under the Societies Ordinance. The village level Sarvodaya Shramadana Societies are examples of such societies registered under the Societies Ordinance. The societies that may be registered under this Ordinance are;

- Mutual Provident Societies established with the object of providing thrift, of giving relief to members in times of sickness or distress or aiding them when in pecuniary difficulties and for making provision for their widows and orphans.
- other societies established for promoting educational and religious objects and for improving agricultural and social services may be registered as Specially Authorized Societies.

A society seeking legal recognition under this Ordinance is required to have a capital of at least Rs. 10,000 for registration. Upon formation of the Society, a formal application signed by 8 members of the Society, including the President, Secretary and the Treasurer, with a copy of the rules of the Society are forwarded to the Registrar of Companies. Up to recently the registration was done by the central government. However with the introduction of the Provincial Council System, societies are registered with the Provincial Registrar of Companies. This is problematic, as in many cases the necessary administrative machinery has not been set up, thus making registration virtually impossible.

The registration under the Societies Ordinance provides the legal basis for such societies to sue and be sued, apply profits to any legal purpose, make investments, and enter into contracts with other parties.

d) The Companies Act

A group of persons, by a 'memorandum of association' or 'articles of association' may specify the objects for which a company is formed for the purpose of engaging in voluntary activities, and register under the Companies Act. A few NGOs are registered as non profit distributing companies under this Act, for example the Marga Institute and the Dry Zone Development Foundation. These are limited liability

companies which reinvest their profits in the organisation. They have a Board of Directors, appoint an auditor and are required to send audited statements to the registrar every year.

e) Other Legislation

The provisions of numerous other Acts enforced in Sri Lanka also have their effects on the activities of NGOs. An example of this is the Inland Revenue Act No. 11 of 1963 by which a certain degree of control is placed on the funds of the NGOs. In addition such other Ordinances as the Customs Ordinance, the Finance Act and legislation such as the Finance Companies Act No. 73 of 1988 and the Finance Company Act No. 78 of 1988 also have a bearing on NGO activities, especially on credit programmes. Societies that are mainly involved in credit programmes come under the jurisdiction of the Cooperatives Societies Law No 5 of 1972 and No 37 of 1974.

f) Future Legislation

At present, a special Presidential Commission has been appointed to look into all aspects of the activities of NGOs functioning in Sri Lanka. This commission is to make such recommendations as are deemed necessary for the regulation of NGOs and also to make recommendations with regard to such remedial measures as it deems necessary. The commission has been conducting an exhaustive investigation of the activities of NGOs. It appears that new legislation may be expected for increased government monitoring and regulation of the NGOs.

1.1.6. Legislation Governing the Estates

The two parastatals controlling the tea, rubber and coconut plantations both have their own legislation. The Sri Lanka State Plantation Corporation was created by the Ceylon State Plantations Corporations Act of 1957 and the Janatha Estates Development Board (JEDB) was created by the State Agricultural Corporation Act of 1972. Each organisation reports to its own Ministry. They are both divided into a number of Regional Boards, and these are set up under the State Agricultural Corporations Act. The two corporations were nationalised under the Plantations Industries Act of 1974.

The Medical Wants Ordinance of 1912 places the responsibility for the safeguarding of workers' health on the estate superintendent. This legislation should be enforced by the Ministry of Health, but is currently not enforced. The ordinance was revised in 1976 and renamed the Estate Health Law, but the revisions have not been passed by parliament.

1.1.7. Legislation Regarding Water Use and Water Rights

The majority of Sri Lankan legislation regarding water deals with its use for irrigation. Use of water for domestic purposes has had low priority in legislative enactments. In general, responsibility for domestic water supply rests with local authorities.

An important legislative enactment relating to the law of property in Sri Lanka is the Crown Lands Ordinance, which vests the right to use, manage, and control water in any public lake or stream with the state. However exercise of this right is subject to restrictions such as rights conferred by any other law, rights of the occupiers of the banks of lakes and streams and holders of permits. Permits may be granted by the state (by the GA) to allow water to be diverted from a public lake or stream. The GA is required to consider the rights of riparian proprietors in issuing permits.

In practice, local authorities obtain permits to use water sources for domestic use from the GA without difficulty. Communities, through recognised CBOs and NGOs also have the right to approach the GA for permits. Occasionally an advisory board is appointed by the Minister to assist the GA in granting permits, but this is usually done in the case of permits for use of water for irrigation.

In addition to the CLO, legislative enactments such as the Waste Lands Ordinance, the Encroachments on Crown Lands Ordinance, the Land Settlement Ordinance and the Land Acquisition Ordinance also have relevance to water use and rights, usually relating to irrigation works.

1.1.8. Likely Developments in Local Government

Local bodies have played an important role in the polity of Sri Lanka since independence. However, during the 1980s much of their power eroded as the demand for decentralisation of administration and devolution of power led to the creation of District Development Councils, which in effect usurped the powers of Village, Town and Municipal Councils. This politically inspired action made the local bodies ineffective and over time special commissioners were appointed to administer these bodies in the absence of elected representatives.

However Government commitment to decentralising administration to local bodies continued to be part of the political rhetoric, and in the 13th amendment to the Constitution and the Pradeshiya Sabha Act, found legal form. Provincial Councils came into being soon after Provincial Council elections in 1988 and the Pradeshiya Sabhas were elected in May 1991.

Provincial Councils as they are constituted, while exercising a wide range of activities, have two major weaknesses. Firstly, the creation of an administrative structure which has become another bureaucratic layer at the provincial level in the absence of anticipated devolution from the centre, which still holds all non devolved and line ministry functions, and secondly, the interpretation of the 13th Amendment is heavily weighted against the Provincial Councils acquiring genuine power. These

limitations on powers range over whole areas of apparent provincial competence from law and order and public services to education, transport, planning and development.

The limitations of the Provincial Councils are built into the legal framework from which they came into being. The reserved list which gives the centre complete authority for National Policy on all subjects and functions and the concurrent list which overlaps with the Provincial Council list are some of the fundamental problems which would take several years to clarify.

However in the creation of the Pradeshiya Sabhas the Government has endeavoured to take its administration arm at the district level, the Kachcheri system, to a lower level at the Assistant Government Agent's (divisional) level. AGAs are now expected to play a key roles at the divisional level as they have now been designated as Additional Government Agents of the Centre, Divisional Secretaries of the Provincial Council and Secretaries to the respective Pradeshiya Sabhas.

For the local bodies to have autonomy, whether they are Provincial Councils or Pradeshiya Sabhas they must have independent powers to collect revenue. However the pattern that has been adopted so far is simply one of grants from the Treasury for recurrent and capital expenditure. It is unlikely in the near future that the Provincial Councils or Pradeshiya Sabhas would substantially increase their revenue to be able to independently finance development projects planned by them.

The casualty of the new decentralised system is the administrative structure that existed at the District level with the Government Agent at the apex. Most of the day-to-day functions of the Government Agent have been either taken over by the Provincial Council or by the AGAs.

Whatever happens to the Provincial Councils, it seems clear that the Pradeshiya Sabhas and the divisional administrative structures are taking hold because there is political will at the centre to decentralise administration. On the political level it is at the Pradeshiya Sabhas that leadership is identifiable because both members of Provincial Councils and MPs are elected by proportional representation, thereby blurring on a district basis the original idea of a constituency represented by a member. Pradeshiya Sabha members, however, are the old elite in the Village and Town Councils and now exercise power in the divisions. It can be expected that Pradeshiya Sabhas and the divisional administration will be strengthened in the future as the administrative functions of the Government begin to be decentralised.

1.2. Institutional Roles & Responsibilities

1.2.1. Overview

There is a wide variety of institutions working in the rural water supply and sanitation sector, either as direct implementing institutions or as supporting institutions. These include:

- government institutions
- non-government organisations, both indigenous and international
- community based organisations
- the private sector

Each of the organisations active in the sector has been examined in depth in terms of organisation, activities, staffing and capacity. A profile of each is included in Annex 1.

a) Government Implementing Agencies

The current major government implementing agencies in the sector are:

- The National Water Supply and Drainage Board (NWSDB)
- plantations (SLSPC and JEDB)
- Integrated Rural Development Projects (IRDPs)

The NWSDB has the mandate for water supply in Sri Lanka, but is increasingly recognising its limitations in rural water supply. Although NWSDB expenditure in water supply and sanitation is high (the highest of all the institutions) the number of beneficiaries is low, being restricted primarily to the urban population. The Board plans look to local authorities and NGOs to carry out rural water supply projects in the future. It has proposed, as part of this policy shift, to promote the establishment of a national coordinating committee to oversee rural water supply and sanitation, and to assist it with draft policy formulation and planning.

The plantations have been the recipients of large amounts of donor funding to improve the living conditions of resident estate workers, which have historically been notoriously low. A part of this funding is for water supply and sanitation, which has made the plantation sector one of the larger implementing agencies.

Each of the project districts has an Integrated Rural Development Programme which acts as an intermediary for channelling funds to water and sanitation projects as part of overall rural development. They are thus not strictly implementing agencies, but have ventured into the rural communities with change agents (mobilisers) in the absence of other agencies to do this. They are funded to a large degree by external donor agencies, with funds being channelled through the MPPI. They are the main

agencies with an overall rural development strategy in their districts, combined with the funds to carry this out.

The expenditure of these organisations on water supply and sanitation in the three districts is as follows:

Expenditures in Rs.M

Institution	1986	1987	1988	1989	1990
NWSDB	n/a	n/a	76.5	22.7	79.1
Plantations (SLSPC/JEDB)	18.9	14.6	15.6	8.0	8.9
IRDP	13.9	12.2	8.0	8.5	20.1

In addition to the above agencies, there is a series of agencies under the Ministry of Lands, Irrigation and Mahaweli Development which implement irrigation projects. These are the Mahaweli Development Authority, the Land Commissioner and the Irrigation Department. They may all become involved with the provision of all types of infrastructure, including domestic water supplies and sanitation, as part of their responsibility for developing new agricultural land and new settlements for the immigrants who will work the land.

The newly created local authorities, the Pradeshiya Sabhas, despite their broad mandate regarding water supply and sanitation, have played a minor role so far, as they have run out of very small offices, with insufficient staff and funding. As they become established after the recent elections they will have an increasingly large role to play in the future. Plans have already been made to recruit more technical and planning staff. The Provincial Councils have implemented some water supply schemes, mostly through the NWSDB. The Ministry of Health has a programme which promotes and subsidises latrine construction by private households.

b) Non-government Organisation Implementing Agencies

The largest NGO active in the sector is Sarvodaya, which is also the largest NGO in Sri Lanka. Sarvodaya has a Rural Technical Service (SRTS) which carries out a variety of rural works projects in villages in 14 districts. SRTS plans to carry out Rs. 11.0 million of rural projects in 1991, of which Rs. 2.72 million is for water supply and sanitation projects in Badulla, Matara and Ratnapura. SRTS initially proposed a considerably larger budget to its major donor, which would have had the organisation execute Rs. 17.9 million of projects, of which Rs 4.1 would have been for water supply and sanitation projects. A detailed profile of Sarvodaya is included in Annex 1.

In Badulla, PLAN International has a large programme, and water supply and sanitation is a component. PLAN spent 1.145 million rupees on water supply and sanitation in 1990/91, and plans to spend 2.0 million in 1991/92.

The Thrift and Credit co-operative Society is a large organisation with extensive network of societies at village level. TCCS is active in all three districts. The society has carried out water projects in a few of its villages, and is interested in carrying out more. It is an established, well organised organisation and as such has high potential as an implementing agency in the future. TCCS and one of its water projects are described in Annex 1.

There are many smaller NGO groups which sometimes carry out water projects as part of their programmes. These include Mahila Samithi (a women's organisation), Satyodaya, Saukyadana, Uvagram and others. These organisations tend to carry out very small scale projects, often restricting their activities to one particular area, such as latrine construction or health education. Many of these are inactive, but this type of small organisation is responsive and can mobilise if funding is available. Their capacity is low, however, and is limited to a few small projects in a restricted geographical area.

c) Community Based Organisations

Community based organisations are numerous in Sri Lanka, and are found throughout the Grama Sevaka Divisions and villages of the three districts. These small organisations include the Rural Development Societies, Gramodaya Mandalayas, Youth Clubs, Young Farmers' Clubs, and religious societies. Some of them have been involved in the past in water supply and sanitation projects, often initiating the request to an implementing agency and organising local inputs such as communal labour.

A few representative CBOs are described in Annex 1. The wide variety of CBOs is an indication of the capacity for community organisation and mobilisation, including organising communal labour and the collection and management of funds.

d) Service Organisations

Service organisations are those which can offer assistance and services, primarily training, to implementing agencies. They are mostly NGOs, although there are a few government service organisations.

There are three major indigenous non-government organisations carrying out training of fieldworkers; Centre for Human Development (CHD), Participatory Institute for Development Alternatives (PIDA) and Forum on Development (FOD), although the training they currently offer is not geared to water supply projects in particular. Many of the trainers from these three NGOs came from the Change Agents Programme, which was a government programme initiated in 1978 to train a cadre of trainers, who would in turn train thousands of village level development workers

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called "changé agents". The programme used a practical, effective and widely applicable method of poverty-oriented participatory development, which is the same approach used by many of the NGOs today.

The NGO Decade Service has carried out training of their member NGO staff for water projects. Sarvodaya also offers training to both its own staff and other organisations in community mobilisation, technical skills and management. TCCS has a large training capacity, and trains its own staff in accounting, and to a lesser extent, in community mobilisation.

The Rural Development Training and Research Institute is a government training institute started by the Department of Rural Development and now under the Ministry of Public Administration and Provincial Councils. It has carried out much of the training of Rural Development Society office bearers and of workers in the Change Agents Programme.

Both the NWSDB and the Water Resources Board have drilling equipment with which they can provide well drilling services on a contract basis. In the past the NWSDB has used most of this capacity for installing public wells free of charge, whereas the WRB generally caters to the private sector or major agricultural development projects.

e) Facilitating Institutions

There are a few other institutions which are instrumental in sector activities. The private sector is dynamic and healthy, and through it goods and services are readily available. There are small banks such as the Co-operative Rural Banks and TCCS which make credit available to households wishing to construct their own water supply and sanitation improvements.

1.2.2. Institutional Coordination

There is little formal coordination of the institutions working in the sector. Each of the major government implementing agencies falls under a different ministry (NWSDB - Ministry of Housing and Construction; Plantations - Ministry of Plantations and Plantation Industries; IRDPs - Ministry of Policy and Plan Implementation). A government policy of decentralisation has resulted in devolution of many government activities to the Provincial level in 1987. The administrative level below this is that of the Pradeshiya Sabhas, which have yet to be fully established as they have only recently been elected. The GAs at District Level previously coordinated the activities in their districts, but now have much less authority vis-a-vis line ministries controlled by central government. The District Level administration may be phased out as Pradeshiya Sabhas take up their broad mandates.

Since early in the British colonial period and up to the recent formation of the Provincial Councils, the district was the basic unit of local administration.

Interestingly, it was also identified by participants at the third project workshop (see Annex 2) as the most appropriate level for coordination, below central government. Certainly, it represents a more manageable administrative pyramid: 25 districts each with 10-20 divisions, as opposed to 8 provinces with 30-40 divisions. The theory behind the new system is for coordination of government development activities to take place at divisional (Pradeshiya Sabha) level. This leaves a serious vacuum at present, since many times more staff will be required than when these activities were coordinated at district level.

A related problem is the lack of correspondence between the new decentralised structures. The GOSL, NWSDB and plantation corporations all work on a regional system, but these regions cover different districts or areas. Some line agencies, such as the Ministry of Health, still maintain a strong base at district level. Thus there is no clear forum, as was previously provided by the district administration, where different agencies can come together to coordinate their activities.

Against this background, the more conscientious agencies have been forced to develop informal linkages to ensure good coordination and ensure the cooperation of the elected bodies. The most notable of these is perhaps the IRDPs, which, whilst maintaining a fair degree of autonomy in each district, have good working linkages with the Provincial Councils, district administrations (GAs), Pradeshiya Sabhas/AGAs, the plantation corporations and some of the NGOs. This will be reinforced by a series of planning officers at provincial, district and divisional level who fall directly under the MPPI.

In the case of the large agricultural development projects, principally Mahaweli system "C" (Badulla) and Uda Walawe (Ratnapura) in the project area, all aspects of human settlements development tend to be devolved to the executing agency. This generally ensures a systematic attempt to provide water supplies and sanitation, but the engineering-oriented focus on irrigation system development which is the driving force behind these schemes leads to the sort of top-down approach which fails to address the issue of community involvement for system sustainability.

There is no coordination of NGOs, as most of them are so small as to make coordination unnecessary. Sarvodaya has good relationships with the AGAs and GAs of the areas in which they work, and PLAN works with MPPI, but both plan their programmes independently. The NGO programmes are also very much dictated by the funding and priorities of the donors.

1.2.3. Strengths and Weaknesses of the Institutional Framework

The NWSDB and the Ministry of Health hold the mandates for the provision of water supplies and sanitation respectively. The recent policy statements by the NWSDB have restricted its effective role in the rural sector to overall policy, monitoring, technical guidelines and standards, and direct project implementation primarily only under contract to other agencies. This does not put it in an effective position to

provide the driving force and coordination required with the multiple agency approach necessary to mobilise sufficient capacity for sustainable project implementation. The Ministry of Health's official role is perhaps better suited to this approach, and it has successfully cooperated on various sanitation (and water) projects with other agencies. The split in responsibilities for water and sanitation between two Ministries does, however, greatly hamper the integration of water and excreta disposal improvements to maximise health benefits from sector investments.

Mandates of the other sector agencies mentioned in the previous sections are usually primarily directed towards different ends, and include water supply and sanitation as a subsidiary element in their programmes. Thus, the prime objectives of the NGOs and IRDPs are social and economic development, whilst the plantation sector corporations and agricultural development agencies are oriented towards agricultural production. Water supply and sanitation can, and should, be viewed in this wider context. However, methodological and technological advances can be overlooked, and duplication of effort occur in the absence of effective coordination of the water supply and sanitation sector as a whole.

As pointed out in the previous section, coordination within the sector is presently extremely weak, and worsening rather than improving as a result of the move towards decentralisation. Thus, the extent and type of sector investments can vary widely from agency to agency, leading to inequitable and sometimes wasteful distribution of limited resources. Target communities are also not systematically chosen; NWSDB concentrates in the towns, the plantation corporations on the plantations, and the other agencies in rural communities selected according to criteria which often have little to do with needs for water supply and sanitation. In the government sector this often means political influence. The existing institutional framework thus allows many of those most in need of improved water supply and sanitation facilities to be ignored, and serves the rest inefficiently.

Extensive information on the strengths and weaknesses of the various individual agencies is given elsewhere. Some general points arise from these assessments, however.

An important factor is that of the incentive environment within which workers of the individual agencies carry out their jobs. It is, as always, a major problem in the government sector agencies, where low salaries and rigid hierarchical structures do not allow individual initiative and dynamism to be sufficiently rewarded. This is an important reason for opening up the sector to inputs from other agencies. The IRDPs are again a somewhat brighter spot in this sector, possibly because of their unusually high degree of independence from the centre, and pressure from the external donor funding agencies. With the NGOs, a greater or lesser spirit of idealism and voluntarism runs through the organisations, so that individuals are prepared to do their work more conscientiously. However, the same factors can often lead to inadequate technical and accounting standards, since these matters, particularly the latter, are regarded as peripheral to the main goal of working with the underprivileged. The CBOs have a better incentive environment, since their members

benefit directly from the results of their work. Increasing incentives at this level revolves around social marketing and health education to increase the perceived value of the work they do.

The greatest proportion of sector expenditure is taking place through the government implementing agencies, which for the most part do not have the emphasis on sustainability and community management that the NGOs have. The focus of both the NWSDB and the plantations is provision of services to beneficiaries who are passive recipients, rather than on promotion of services which are actually largely implemented and managed by the community itself. IRDPs have an increasingly stronger community management approach derived from their now substantial experience of channelling funding for projects in small communities, where the role of CBOs in particular as a link between project and people has been recognised. They have, however, been somewhat constrained by a tendency to implement projects through government agencies, rather than NGOs, who have the necessary experience in working with CBOs.

The NWSDB has recognised that it is severely limited in the rural sector, and has stated that its policy in future will be to make rehabilitation of existing schemes (mostly urban) top priority, leaving the rural sector to other organisations. It will maintain a coordination and advisory role.

The plantations are limited by their lack of capacity to supervise scheme construction, as all responsibility for implementation falls on the estate superintendent. Estate schemes are implementing water supply and sanitation improvements with little community participation and no cost recovery for either capital expenditures and operation and maintenance, due to the traditional nature of the estates. While resident workers are being gradually covered by new or upgraded schemes, non-resident workers are often left out. Both plantation corporations have carried out trial schemes with non-resident workers, but on a small scale. The estates and the donors who fund the estate social development programmes recognise the need to serve these people, but it is unclear how the plantations could undertake this given their unfamiliarity with community mobilisation and organisation.

NGOs exist in all three districts, and have an interest in implementing water supply and sanitation schemes in order to satisfy basic human needs of rural inhabitants and improve health status, but also in order to contribute to community development and empowerment through participatory development. This is the driving force behind these NGOs, and as such their implementation methods tend to be very different. NGOs also do not have the capacity to take on responsibility for on-going operation and maintenance, and therefore promote projects which are self-sustaining. NGOs are usually limited, however, by lack of funds, lack of trained personnel (especially technical personnel), lack of logistical support (offices, vehicles, equipment etc.) and lack of management expertise. The NGOs, in particular the small ones, need to work within a structured programme in order to avoid the rather ad-hoc nature of their past projects.

NGOs also need to work in a supportive environment which fosters collaboration between government and non-government organisations. The current atmosphere of suspicion regarding both indigenous and international NGOs is hampering NGO activity.

CBOs are found in nearly all villages, and are the essential last link in the chain that stretches from the external donor agencies to individual project beneficiaries. As they mostly have little capacity to generate their own funds, they rely to a great extent on agencies from outside the community to achieve their objectives, resulting in many of them existing in little more than name. CBOs which are primary societies of larger NGOs (eg. TCCS or Sarvodaya) are generally the most active as they have ready access to outside support.

It is important to realise that a large proportion of CBOs tend to be unrepresentative of the population as a whole. Whilst many may exist in any one community, it is common for most of them to be dominated by the village elite. This militates against the involvement of disadvantaged groups such as women and the poor. Another problem with some CBOs arises from their semi-governmental status (eg. Rural Development Societies and Gramodaya Mandala). These may be subject to undue political influences from within or outside the community.

Nevertheless, CBOs are a valuable and essential resource for any programme oriented towards community mobilisation and participation. They can assist effectively with this if their shortcomings are recognised and efforts made to increase their representativeness.

2. Principal Issues

2.1. Sustainability

2.1.1. Operations and Maintenance

Any proposed investments in infrastructure, such as rural water supply and sanitation facilities, is meaningless without provision for ensuring its continued usefulness. Indeed, the cost-effectiveness of such investments is affected as much, if not more, by their useful lifetime than any savings made on initial capital costs. Effective operation and maintenance systems are thus a prerequisite for a successful project.

There are two basic models for operation and maintenance systems, namely the centralised, agency-based system and the decentralised, community-based system. These are not necessarily mutually exclusive, and the optimum mix depends to a large degree on the complexity of the technology employed. However, the problems encountered by centralised agencies in maintaining widely scattered facilities in rural areas are well known, both in Sri Lanka and worldwide, and the principle of maximising community involvement in this activity is well established. This process starts with the planning and construction of the water supply system.

It was notable during the field surveys that all gravity systems which had been constructed with a high degree of community participation and a clear sense of ownership by the community were in reasonable working order, whilst all the vandalised or broken down systems had been planned and constructed by non-participatory methods. The importance of community participation in the planning, construction and maintenance of this type of system is greater than with wells since it is a facility common to the whole community rather than for a smaller group sharing a single water point (well). Similarly, the UNICEF-funded handpump programme in Anuradhapura and Kalutara found that the establishment of an effective maintenance system was much easier in those cases where the community had been involved fully in the project planning and implementation prior to using the facilities. In these cases of sustained operation and maintenance, the bulk of responsibility lies with the community.

The Sri Lankan experience thus shows us, as expected, that a decentralised, community-based maintenance system is the better option for rural communities. However, the need for backup services for more complicated tasks beyond the capabilities of village people or caretakers and mechanics still remains. The prime importance of preventive maintenance is also further enhanced in such decentralised systems, since repairs may necessitate calling on the services of the outside backup organisation, which would not be the case for a centralised system.

The management of an operations and maintenance system aims to minimise the interruptions in service. The main prerequisites for achieving this are:

- regular preventive maintenance
- effective reporting and rapid response to breakdowns
- availability of spares and materials

The first two of these factors depend heavily on personnel motivation, whilst the third depends more strongly on the availability of funds. The successful examples observed in Sri Lanka achieve motivation through financial incentives (private sector maintenance) or peer pressure (village-based maintenance). The collection of funds is also much easier when they are managed by the community, rather than paying an outside organisation over which it has little control, and which may or may not provide the services. Agency inputs into the management of such systems would include training village-level technicians, assistance to the community in setting up its own management machinery (water committee or consumer society), keeping stocks of necessary spares readily available, arranging for major repairs/maintenance as required and monitoring system effectiveness.

2.1.2. Finance

Recurrent expenditure can be financed by a variety of methods, including regular tariffs or water charges, through general taxation or supplementary water taxes, or on an ad-hoc basis. Of these methods, taxation is perhaps the least appropriate, as it does not encourage consumers to use their systems wisely, and has a high potential for the diversion of the funds to alternative uses. Most community-managed systems collect recurrent funds on an ad-hoc basis, often maintaining a small fund of a few thousand Rupees for use as required. For systems where an appreciable agency input into maintenance is required, such as handpumps or motor-pumped systems, regular water charges are more effective. Regular charges should also be encouraged for systems with a higher degree of community management, since they will allow the generation of a surplus over the early years of system operation which will help to cover higher expenditures later on as the system ages.

Sri Lankan policy in the sector states clearly that operation and maintenance costs should be covered completely by water consumers. The NWSDB is achieving this by a large cross-subsidy from Colombo to other systems, based on a politically imposed national tariff. For schemes outside NWSDB jurisdiction, this national tariff does not apply. Subsidy for community-based operation and maintenance is in any case impractical, and the benefits in terms of more appropriate designs and better system use of a scheme-specific charging policy make it the obvious choice. The most effective method of collecting such charges is through the community group responsible for the water supply.

The simple skills required to manage funds on this scale are available in many communities, and can easily be brought into play with a little outside assistance in



setting up systems. Accountability to the community should not be a problem if the community water organisation is strong enough.

The sustainability of capital investments in the sector is, however, more problematic. Whilst full capital cost recovery is undoubtedly possible for simple systems in some communities, poor communities and those forced by environmental factors to use expensive systems will continue to require subsidies for some time to come. Indeed, the rationale for producing this report is to plan for and justify donor-supported investment in the sector.

One important move being made towards capital cost recovery already is the requirement for community contributions in kind (labour and basic materials available or manufactured in the community) to construction. This also has an important spin-off in helping to raise community awareness and interest in the system. It has been successfully applied by Sarvodaya, amongst others, and typical contributions range from 15%-30%. With adequate training and orientation for other agencies in community participation methodologies, there is no reason to suppose that this is not replicable.

The principle of cash cost recovery is, however, less well established, if at all. A few small schemes have been constructed by community groups on their own initiative, and TCCS has expressed an interest in using its expertise in providing finance to rural people for this purpose. The welfare mentality engendered by successive government policies is, however, still prevalent, and is a great impediment to moving towards sustainability in capital funding. With this in mind, it would be appropriate at this stage to establish the principle of at least a token cash cost recovery, which could be developed over time. This is discussed further in section 3.3.

2.1.3. Consumer Involvement

In the previous two sections the importance of consumer involvement from planning through design and construction to operation and maintenance is clearly identified as one of the most important factors leading towards sustainable progress in the sector. It is a theme running right through this report, and perhaps needs no extra emphasis here.

Similarly, the methods of ensuring community involvement are amply discussed elsewhere. The key to these methods, and to the question of sustainability, is in making the consumers the driving force rather than passive recipients of services. For the implementing agencies this implies the generation of maximum community participation at all stages, and a sensitive and responsive attitude. In terms of management systems, accountability to the consumers must be maximised, which can be achieved by devolving management functions to the community whenever possible.

Both these factors require the existence of strong CBOs to act on the community's behalf and to stimulate direct participation by consumers. The CBOs are also necessary to act as a link between people and agencies. Development of existing CBOs, or support for the formation of new ones, is thus an essential element of the work to be undertaken by implementing agencies.

2.1.4. Capacity of Implementing Agencies and CBOs

The foregoing discussion shows that, in addition to technical factors, appropriate management systems and community mobilisation are crucial to sustainable progress. Capacity within implementing agencies is lacking in all three of these fields, particularly the last-mentioned. This lack of capacity is a greater constraint to the achievement of programme targets than the availability of funds, with present annual capacity corresponding to only about 3% of the need for new and rehabilitated facilities. In order to make a significant improvement in the existing situation, these capacities must be tripled or quadrupled

Such ambitious targets must be approached gradually; over-rapid expansion can often lead to failure of an organisation, which must consolidate itself as it grows. A prime example of this is the severe problems faced by TCCS as a result of a rapid and major expansion to on-lend funds for housing loans. This resulted in many primary societies (CBOs) being set up for the sole purpose of obtaining the loans, without time being allowed for the other awareness-raising activities which made this NGO so successful previously, and because of which it was selected for the task. The organisation has now embarked upon a five-year programme of consolidation to absorb these extra primary societies and bring them into the main stream of the operation. Nevertheless, over a 4-5 year timespan, and allowing the agencies involved to apply their own internal system to the task in hand, it is possible to dramatically increase capacity to something near the levels required.

A particularly difficult area will be the Pradeshiya Sabhas, set up by the government to play a pivotal role in development projects, but presently being built up from more or less zero. Additionally, a government "corporate culture" that has only recently started to recognise the importance of community participation will require extensive reorientation. It will be essential to draw to the maximum on agencies with successful experience in the sector to help develop the others.

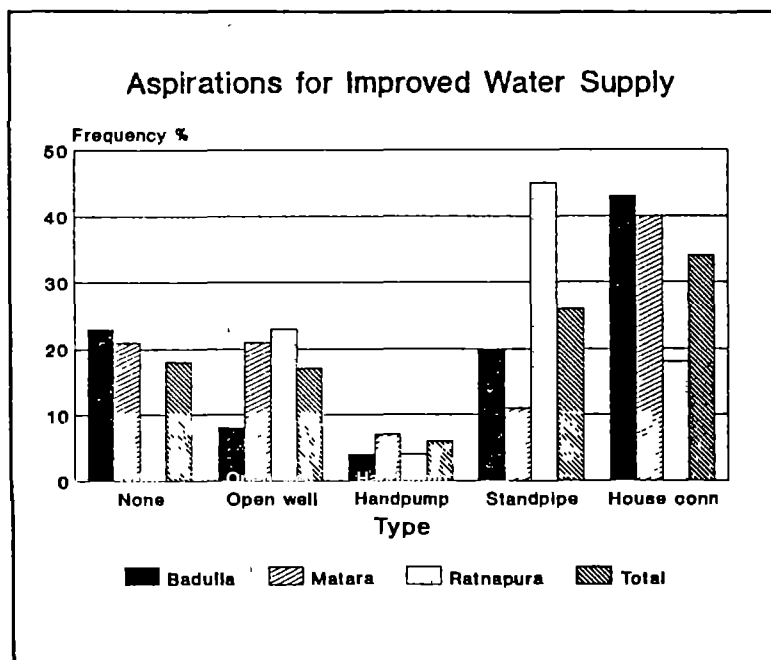
The existing CBOs are also far from sufficient to the task. Many of the poorest communities have no strong organisations, and many existing CBOs represent richer communities, or the interests of the richer members of one community. Of the existing CBOs, many are moribund and are not actively seeking assistance for new activities. A major element of implementing agency activity in the early stages of a project will have to be the support and development of CBOs to a position where they are strong enough to take on the management functions which have to be devolved to community level for sustainable operation.

2.2. Affordability and Willingness to Pay

2.2.1. Willingness to Pay

The household survey questioned people about their willingness to pay for improved water supply and sanitation, both for the costs of construction and for on-going operation and maintenance.

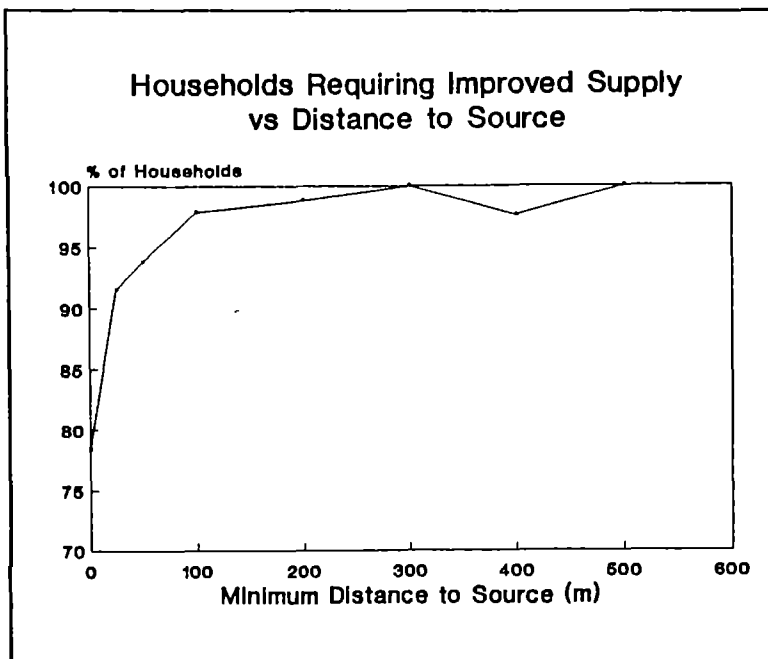
Figure 1 Aspirations for improved water supply



It was clear that there was a felt need for water supply improvements, as overall 83% of households stated that they required improved water supply (77% in Badulla, 81% in Matara and 91% in Ratnapura). In the order of stated preference the type of water supply desired was house connections, standpipes and protected wells. (Figure 1) It is interesting to note that in Ratnapura, desire for a house connection is lower than desire for a standpipe. This may be due to the perception that the service from house connections is unreliable and expensive.

A simple plot of percentage of households requiring improved supply vs distance to source (Figure 2) shows that the desire for an improved supply is more common among households whose present supply is more distant. Requirement for an improved supply reaches close to 100% at distances above 100 m.

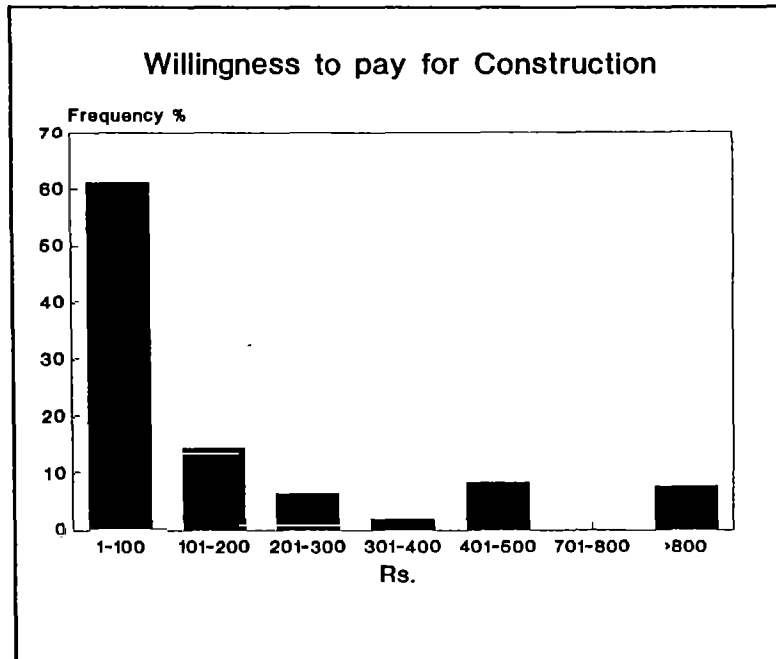
Figure 2 Households requiring improved supply vs distance to source



Approximately two thirds of respondents stated their willingness to contribute labour or materials to water supply projects. Only 6% of households are currently paying for water (4.4% for house connections, 1.2% for water from water vendors, and 0.2% other).

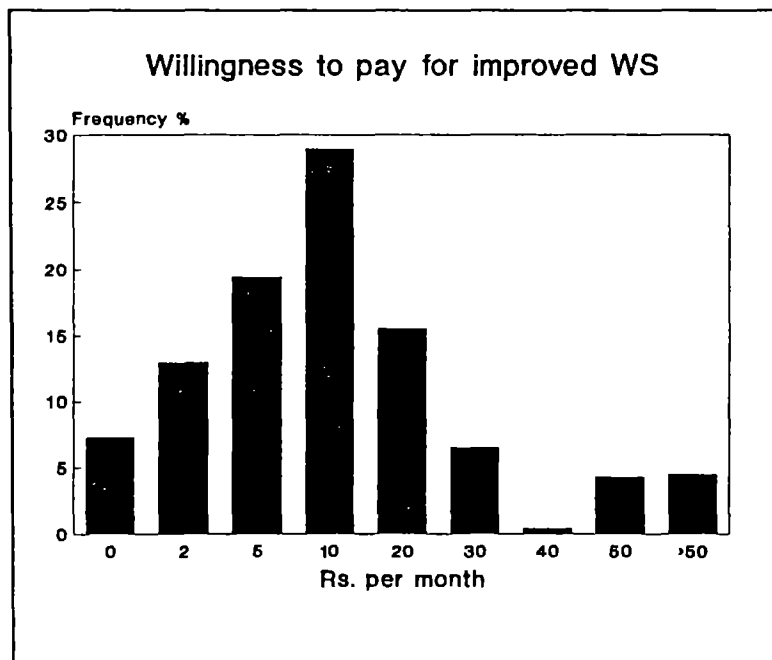
Over 60% of households were willing to pay up to Rs. 100 for construction, and some households were willing to pay over Rs 800 (Figure 3).

Figure 3 Willingness to pay for construction



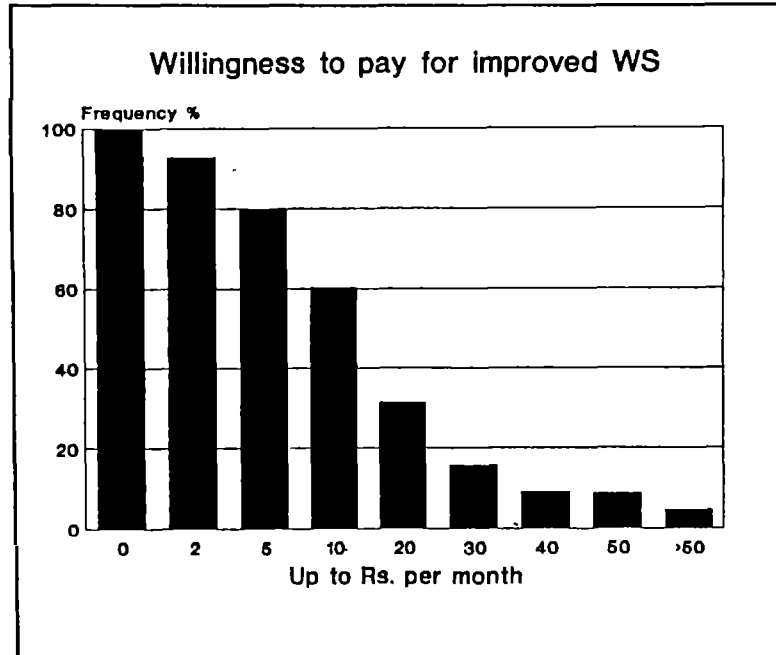
About 60% of households who said they required an improved water supply stated their willingness to pay up to 10 Rs/month for operation and maintenance costs. If the payment is reduced to 5 Rs/month, nearly 80% of households are willing to pay. The distribution of willingness to pay is presented in Figure 4.

Figure 4 Willingness to pay for O&M of improved water supply



The cumulative willingness to pay is presented in Figure 5.

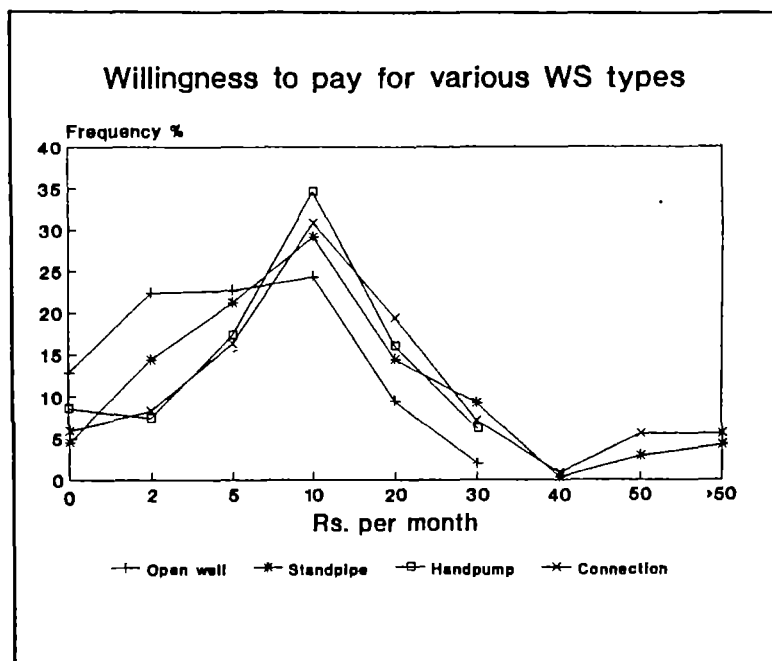
Figure 5 Cumulative willingness to pay



The cumulative willingness to pay follows a similar pattern for each type of water supply, as shown in Figure 6. The willingness to pay for open wells is significantly lower than for other water source types.

In an attempt to analyze the motivation behind willingness to pay, multiple regression analysis was carried out on the household survey data. Regression of willingness to pay for construction was carried out on the variables household income, socio-economic index, house area, household size and average distance to source (see Table 1). It was found that the socio-economic index has a positive impact on willingness to pay in all areas except the towns. Willingness to pay was influenced by household income in Matara, Ratnapura and the rural category. Only in Badulla was the distance to source a factor. This may be due to the fact that of all districts, Badulla has both the highest distances to sources and the greatest amount of time spent on collection.

Figure 6 Willingness to pay by type of supply



Although regression equations were developed, two factors indicate that they may not be reliable; the equations have different and sometimes conflicting patterns from one data category to another, and the pair-wise correlation between the dependent and independent variables is weak. In several data categories, the assumption of linearity and homogeneity of data variance was not valid. However, these regressions were all significant at the 95% level or above.

Table 1 Factors Influencing Willingness to Pay for Construction

District	Distance	SES	Household Income	House Area	Household Size
Badulla	+	+			
Matara		+	+		
Ratnapura		+	+		
Towns				+	-
Rural		+	+		

2.2.2. Experiences With Cost Recovery

There are several projects in Sri Lanka which have had positive experiences with cost recovery. The FINNIDA project in Kandy experimented with cost recovery on a scheme designed to serve an area which had an existing distribution system which had never given adequate service. In some areas the system had never actually provided any water, in others people had water twice a week. FINNIDA indicated it was willing to finance improvements to the scheme if the beneficiaries were willing to pay all O&M costs and 15% of the capital costs, with 12% interest. Some of the labour for pipe laying was to be contributed by the community. The community agreed, aware that the tariff would be fairly steep, and that no allowance would be made for an initial free allotment, like other schemes. Water is progressively more expensive under the tariff structure as consumption goes up. The tariff starts at Rs 4/m³ for the first 5 m³ and goes up to Rs 12/m³ for consumption over 30 m³. Standpost supplies are priced at Rs 1.5/m³. If a family carefully conserves water, the monthly cost of a house connection will be in the order of Rs 80 to 100.

The community was organised into 14 Water Consumer and Sanitation Societies to carry out community labour and to ensure that tariffs are paid. Societies were also formed to represent the standpost users, which are responsible for collectively paying for the water used at the standpost as recorded on the meter. Each society has about 7 to 9 members and a constitution. The societies are registered with the Pradeshiya Sabha. The societies each send a representative to the Central Management Body, which looks after the entire scheme. Each society has a non-voting member from the Pradeshiya Sabha. The constitution prevents anyone who has been elected to the Pradeshiya Sabha to serve on the Central Management Body.

Operation and maintenance is to be carried out by the Pradeshiya Sabhas, using money collected by them through tariffs. The project is depending on the democratic nature of the Pradeshiya Sabhas to ensure that operation and maintenance are properly carried out. FINNIDA has trained Pradeshiya Sabha staff, and has purchased a computer and software for billing.

A system set up in Kalutara and Anuradhapura districts with UNICEF assistance is showing promising results for maintenance of wells and handpumps by consumer societies. Under this system, the tubewells are handed over to the Pradeshiya Sabha, which in turn supports the formation of consumer societies for individual wells. This process is also promoted by village health volunteers, the Grama Niladharis and the handpump mechanics themselves, who receive payment only on the authorization of the consumer societies. Mechanics are allotted about 25 pumps which they visit monthly to check and carry out preventive maintenance and repairs. The consumer society records these visits and work done and informs the Pradeshiya Sabha, which pays them (Rs.10 per visit plus Rs.30 if repairs are carried out) out of funds (Rs.25 per pump per month) collected by the society and deposited with the Pradeshiya Sabha. The community, in the form of the consumer society, is in full control of the maintenance process, as it both pays for and supervises the mechanic. Community participation in planning the installation of the facility is very important.

It has been found to be much more difficult to establish consumer societies in cases where this was not done.

Few households are currently paying for water either in the form of tariffs for house connections or to water vendors. Where payment to water vendors is being made, however, it can be substantial. Households in Matara, where salinity intrusion causes well water to be brackish, especially during the dry season, purchase river water delivered by water vendors. These households pay approximately Rs 15 to 25 per month, but in extreme cases such as in Weligama AGA Division the monthly amount may be as high as Rs. 130. Some households reported a vendor water price of Rs 1 per gallon.

The household survey showed that 81% of households had latrines, despite the fact that few households had received any financial assistance to build them. Only 6% of households surveyed had received assistance through the MOH latrine subsidy programme. This programme in any case provides only Rs 1000 (previously Rs 750), whereas latrines cost on average Rs 3000 to build, and may cost as much as Rs 5000 or more.

Willingness to pay for water supply and sanitation may be enhanced by increasing demand through social marketing and health education. Social marketing borrows techniques from commercial marketing, and presents water supply and sanitation improvements as "products" and households as "consumers". The product is developed with the consumer's interest in mind, and is offered in a form based on the user's perception of efficacy. In the case of water supply and sanitation improvements, this may mean putting stress on the increased convenience, prestige, or privacy offered by the improved service, rather than on the public health impacts.

Communities have demonstrated their willingness to contribute labour and materials as well as cash. Sarvodaya usually raises 15 to 30% of total project costs through labour and in-kind contributions. The household surveys showed that 74% of those people who said they required an improved water supply were willing to make this type of contribution.

2.2.3. Objectives of the Programme

One of the objectives of the programme with respect to willingness to pay is to achieve 100% community financing of operations and maintenance. Community management of maintenance will be a strategy of the programme, and it is envisaged that this will enhance willingness to pay as people will be aware that the money they contribute is being used directly for repairs of their own system. If community user societies which are open and whose dealings are familiar to the entire community are the bodies who collect and use funds, households will be more willing to make contributions. Likewise, payments for capital costs must be perceived as repayments on a loan for which the community has responsibility. Payment for system rehabilitation or replacement may be more problematic, as households may be unwilling to pay into a fund which will be used at some unspecified point in the

future for major system overhaul. The community may also not have the skill or discipline to manage such a fund. For this reason, it may be necessary to make financing, possibly in the form of a revolving fund, available on a loan basis to communities requiring money for rehabilitation. These loans would then be paid off over time through payments from the community, using money from household contributions.

2.2.4. Affordability

Willingness to pay may be higher among some individuals in a community than others, and willingness to pay for certain service levels may also be higher. For this reason, households desiring and willing to pay for a higher level of service should be allowed to do so, provided the full additional cost is recovered from the household. This could come about, for example, in the case of a household which requires a house connection from a system of standposts, or a household or group of households who wish to add a handpump to an open well. In addition, there may be communities who have as a group a higher willingness to pay. Communities who are willing to make a larger contribution in order to be provided with a higher level of service should be allowed to do so. This community willingness to pay could be a criterion for selection of communities, and those willing to pay enough to reduce the cost of the scheme significantly could be given priority in project selection. This must, however, be balanced by project selection criteria which also give priority to poor villages which are greatly in need of water supply and sanitation improvements.

Affordability of schemes has been assessed by comparing the expected monthly cost with mean monthly household income as reported during the household survey. The capital cost has been estimated by assuming recovery over 10 years at 15% interest. This is in addition to contributions in labour or in kind at the time of scheme construction, which have been deducted from the total cost.

With 10% recovery of the capital cost, the amounts for operation, maintenance and cost recovery are seen to be affordable, especially as there is evidence that income was often under-reported during the surveys. The highest level of service (pumped schemes) does not exceed 4% of the mean monthly income of Rs 1900.

If 100% cost recovery is to be obtained, shallow wells, at less than 3% of mean monthly income, still look affordable. Gravity schemes and tubewells at around 5% are less affordable, and pumped schemes are definitely not affordable.

Table 2 Scheme Costs as a Percentage of Monthly Income

Type of supply	O&M Costs Rs/month	Contribution in Kind	Capital Rs/month		Total Rs/month		% of Mean Monthly Income	
			% Cash Recovery		% Cash Recovery		% Cash Recovery	
			10%	100%	10%	100%	10%	100%
Protected Wells	1.8	26%	2.6	26.4	4.4	28.1	0.2%	1.5%
Handpump Dug Wells	3.0	23%	5.1	51.2	8.1	54.2	0.4%	2.9%
Handpump Tubewells	9.0	10%	7.9	78.9	16.9	87.9	0.9%	4.6%
Gravity Schemes	10.0	19%	9.7	97.2	19.7	107.2	1.0%	5.7%
Pumped Schemes	50.0	5%	23.7	237.2	73.7	287.2	3.9%	15.1%

2.3. Institutional Roles & Responsibilities

2.3.1. Coordination

The previous chapter outlines some of the major institutional problems in the sector, and shows a large number of agencies acting independently with no coherent overall plan. The lack of implementing capacity of the right type (ie with full community participation) is compounded by the failure to exploit what capacity there is, and to build upon it. A further negative factor is the inequitable and wasteful distribution of resources, which sees the lucky few as targets of an arbitrarily-defined programme, whilst the majority are never taken into account.

The New Delhi statement on water supply and sanitation for the poor of the developing world, accepted by GOSL as an overall strategy document, calls for the equitable distribution of sector resources to reach as many as possible. This objective can only be achieved if financial, material and institutional resources are used within a rationally-planned framework which avoids overlapping responsibilities and sets out clearly the areas of activity for each institution in the sector, matching requirements to capabilities.

There is thus a critical need for the establishment of such a framework. One element of this is an overall plan for physical targets in the sector, which is presented in the District Plans (Vols. III-V). The other element is the establishment of an institutional structure within which the potential of each agency can be maximised. This can be achieved by examining the agency potentials and matching them to the tasks to be performed, identifying gaps wherever they arise. A programme of institutional



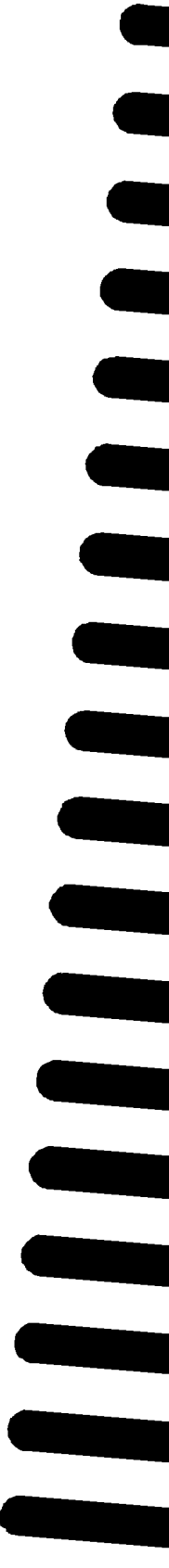
development can then be elaborated to fill these gaps. In order to fully exploit the capacity thus obtained, the activities of the individual agencies have to be coordinated so that they do not duplicate their efforts, and assist each other whenever necessary and possible. Such a coordination mechanism is an essential part of any plan for the sector.

In the specific context of Sri Lanka, this mechanism needs to be developed against a background of poor administrative coordination in the government sector which has arisen as a result of recent moves towards decentralisation. Different agencies have adopted different strategies for decentralisation, leading to a lack of correspondence at provincial and district level. The new focus of development activity is to be the divisions, with their elected Pradeshiya Sabhas, and there seems to be some hope in the government that once they become fully established they can serve as centres for the coordination of these activities. However, this will take some considerable time, as a whole cadre of staff needs to be built up to serve at this level. Therefore, as well as ensuring coordination at divisional level, any national framework for a development programme must be able to draw upon strong powers of coordination at the central level so as to exert the necessary influences on the various agencies involved.

In such a multi-agency programme as this one, this is particularly important. This means establishing rural water supply and sanitation as a "lead programme", with overall responsibility vested in an apex organisation. This must have sufficient political weight to be able to call on other agencies to conform to the plan and carry out their allotted tasks. Coordination at the divisional level can be more informal, and related to the day to day activities of the agencies mobilised for the programme. For administrative practicality, an intermediate level may also be required, where decision-making on operational matters can be devolved closer to the implementation activities. These three levels of coordination need to be built into any programme for rural water supply and sanitation development in Sri Lanka.

2.3.2. Integration of Water Supply, Sanitation and Hygiene Education

The health benefits of integrated water supply, sanitation and hygiene education projects have been found to be substantially greater than those arising from any of these interventions alone. A study by Esrey and Habicht found that "projects combining water supply, excreta disposal and hygiene education can be expected to reduce diarrhoea morbidity by 30 to 50%, and reduce mortality by an even greater extent" (Esrey and Habicht, 1986). There is a tendency to put the emphasis on water supply in projects, yet it has been found that safe excreta disposal is the most effective intervention in reducing the incidence and severity of several of the major diarrhoeal diseases and worm infections. Making water available for domestic and personal hygiene has also been found to be important in achieving broad health impact, yet improvements in hygiene cannot be brought about without hygiene education and changes in water use practices.



Water use education is particularly important in the areas where open wells are used, as it is clear from bacteriological analyses that, despite protection against surface runoff, there is heavy contamination of unprotected wells which is due to the use of unclean utensils. Water from improved supplies is also often contaminated during collection, storage and handling.

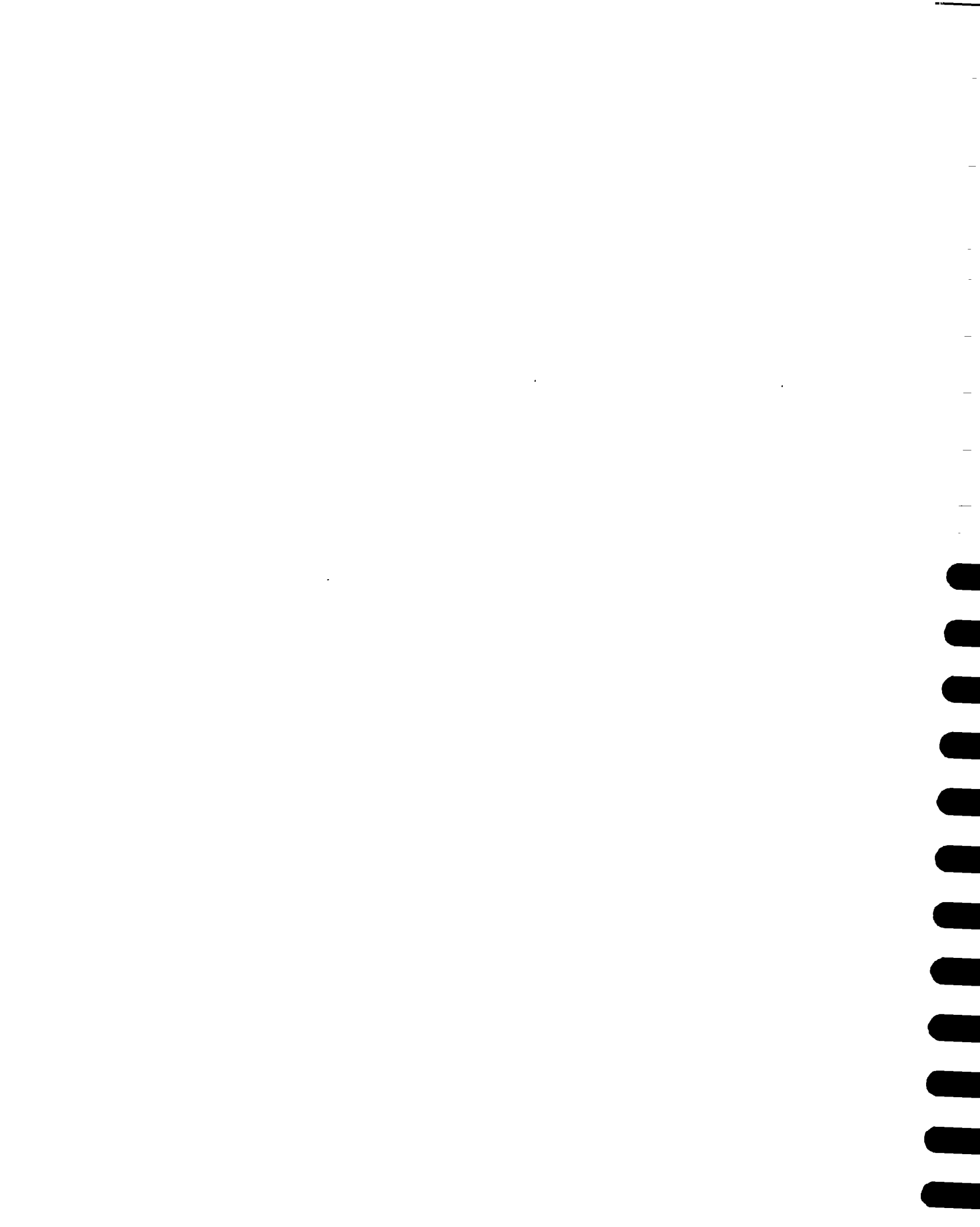
Integration is not easy to achieve, however. Implementing agencies are not always able to undertake all types of projects, and certain institutions are better than others at certain tasks. In Sri Lanka, there are organisations which have made health education their particular area of expertise, for instance. Organisations with a strongly technical orientation, on the other hand, are not necessarily good at health education. The implementation dynamic of these different interventions also differs considerably. Whereas a water supply system is implemented on a community basis and requires a slow process of community mobilisation, sanitation improvements are often implemented by individual households. The decision making process is faster, and implementation may also be rapid. (Coverage, however, will build up slowly for sanitation, whereas a community water supply will affect a large number of people at once.) Hygiene education is directed at individuals, and often at those not involved in water supply implementation activities, such as schoolchildren and mothers.

These differences mean that water supply, sanitation and hygiene education may not always be introduced in a community simultaneously, by the same organisation. This problem must be taken into consideration while planning programmes, and a framework which plans for each activity while recognising the strengths and limitations of each organisation must be developed.

The household survey results showed that there were important gaps in hygiene knowledge in the project districts, particularly with regard to excreta disposal. There is a high level of demand for latrines, as evidenced by the large number of households who have constructed a latrine with no external assistance, but children are still allowed to defecate in the house compound, and handwashing with soap is rare. Hygiene education is mainly carried out by government, and is limited by the lack of personnel and resources. Some of the more effective hygiene education is being done by NGOs, but on a small scale.

While demand for latrines is relatively high, there are still some households with no latrines who practise open defecation, and many existing latrines are in poor condition. Despite a Ministry of Health programme to promote and subsidise latrine construction, only 15% of households surveyed had received this assistance. The largest NGO working in rural water supply and sanitation, Sarvodaya, sometimes combines latrine construction with water supply improvements, but is more likely to combine latrines with improved housing.

From the point of view of any proposed intervention programme, there also arises the fact that whilst some communities have already been effectively served with water supplies, some individuals in those communities still require new or upgraded latrines. Any social marketing of latrines, and hygiene education in general, must



therefore reach all, or as many as possible of the communities in the project area, whilst water supply provision will be restricted to a smaller target group.

The activities involved in social marketing of latrines and hygiene education have a high potential for community mobilisation and awareness building, and could thus have wider reaching results if integrated with the mobilisation-planning-construction cycle in communities targeted for water supply improvement. In other communities, the water supply element would be limited to improving management of the water supply facilities and making better use of the water they provide. In communities with weak CBOs, the "soft" sanitation and hygiene education elements may well be a better entry point than a more ambitious community water supply scheme.

2.3.3. Women's Roles in the Water Sector

In Sri Lanka women have been the traditional water carriers and primary users of domestic water. It is evident that governmental and non-governmental organisations have not traditionally consulted or involved women in planning, construction and maintenance of water projects. In spite of constraints and problems, women must be involved in water and sanitation projects if they are to meet with any measure of success.

Women's economic status has remained low in Sri Lanka due to patriarchal norms and traditional attitudes toward them. This has had a negative impact on the emancipation of a large sector of the female population in this country, and is more evident in the rural areas where access to resources and services are minimal.

Development programs geared toward women do not take into consideration the current exploitative economic structures and oppressive social practices in villages. Only very rarely do NGOs work with women's groups to challenge these structures in order to change them. Unless government and NGOs shift their focus to participatory development, women will continue to be marginalized within these structures. Usually, development programs geared toward women are welfare oriented, and women are seen as receivers of goods, services, benefits and not as catalysts of their own development.

Sri Lanka is a heterogeneous society and the traditional beliefs and practices of water use must not be neglected when a project is at the planning stage. In order to plan and implement water projects successfully, cultural and socio-economic factors must also be taken into consideration. Development planners must try to ensure that their projects and programs do not reinforce or create oppressive situations for the people they intend to assist, rather they must be liberated from such structures. A lot will depend on women's own ability to get themselves organised and skilled social mobilizers will play a major role in this process.

a) Women's Issues in Existing Sector Institutions

The sector institutions examined do not have a proportionate representation of women planners, engineers, managers or extension workers. All the institutions are male-dominated, even though there are qualified women to fill these posts. Training for government and NGO extension workers and social mobilizers is critical to sensitize them to women's issues. Sri Lanka being a patriarchal and hierarchical society, it is important to train these workers on issues of women's oppression and to make it clear that women's participation is an on-going process.

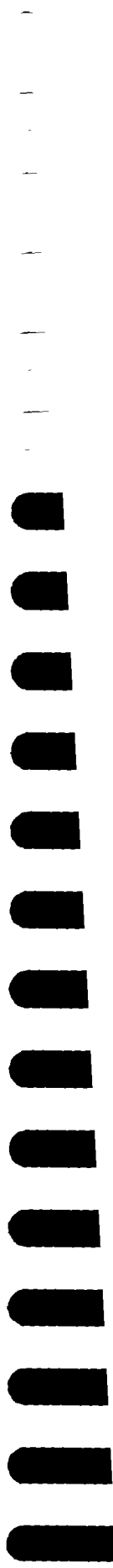
Sarvodaya

Sarvodaya has Mother's Groups (Mau Haules) in some of the villages in which they work in. Some Mother's Groups are active and some are inactive. These groups are comprised of mothers of pre-school children at village level. The mothers pay a small fee which is collected monthly to pay the village pre-school teacher. These groups are rather ad hoc and they are dysfunctional in some villages. There is no awareness building or consciousness raising work being carried out in these groups. These Mother's Groups do some small projects like preparing kola kande (green porridge) for the pre-school children, sewing, mat-making and coir yarn production in the villages where they are better organized

The Sarvodaya WID program is suffering numerous shortcomings at present. Lack of trained staff, funds, transportation problems and time are major factors that hinder their work. Women village volunteers are assisting the staff but they work on a purely volunteer basis and wish to be remunerated for their travelling costs and would like Sarvodaya to assist them to do income-generating activities. They also complain of lack of time to do volunteer work. Village volunteers should be compensated by IGP's, self-employment opportunities, training and access to credit facilities. At present village women do not receive any formal training on women's issues by Sarvodaya.

The Sarvodaya WID program is further affected by staff retrenchment. If the Sarvodaya women's program is strengthened and the above shortcomings looked into, the Mother's Groups in the villages can form the basis for building water committees and taking on the responsibilities of maintenance and management of water projects in villages. Monitoring of water systems can be done by the Sarvodaya Village Society.

Since Sarvodaya has experience in rural credit and savings programs this program could be rejuvenated in order to involve women in water projects. Their Mother's Groups have a lot of potential for trained Social Mobilizers to go into the villages and mobilize the women and assist them in a process of conscientisation and empowerment.



TCCS (SANASA)

TCCS mobilizes the women of their credit societies in the villages and forms women's societies. The main thrust of these groups is carrying out income-generating activities. The women undertake individual projects such as food processing, cloth and paper flower making, sewing, animal husbandry, handicrafts, poppadoms, joss sticks, envelopes, cake-making, cordials, jam making and curry powder packeting. Sometimes TCCS organizes training for women prior to starting IGP's. If the women are mobilized to form sub-groups based on similar economic activities, they can join forces and collectively market their produce/products and at the same time strengthen their women's groups.

The weaknesses of the programme include a lack of vehicles for staff, funding for women's activities and subsistence or travel allowances for village volunteers. To strengthen these groups TCCS staff and women social mobilizers from the villages must be trained in group formation and group building, mutual support systems, consciousness raising, group responsibility and the development of staff-reliance. All TCCS staff should go through a WID orientation and training program to sensitize them to women's issues in order for the TCCS women's program to succeed.

Women's Bureau

The Women's Bureau was first established in 1978 under the Ministry of Plan Implementation. In 1983 it came under the Ministry of Health & Women's Affairs. It operates as a "project" department under this Ministry and so it lacks power in resources and personnel to intervene in planning or implementation at national level. Its projects operate within IRPDs. The main activities of the Women's Bureau over the years has been to organize income-generating activities for women from low-income groups. This work is carried out by the Kantha Samithis (women's societies), in the villages. Kantha Samithis are the women's counterpart of Rural Development Societies in the villages.

The Women's Bureau lacks resources, staff and funds to shift their focus from supplying services to mobilizing women to be true partners in the development process.

Plan International - Badulla

Out of the 3 districts that are targeted for water and sanitation projects, Plan is operating only in the Badulla district. Plan has 56 group Promoters (field officers) out of whom 8 are women. Recently Plan has started organizing women's groups in some villages, initiated by the Women's Program Coordinator. Usually these women's groups are comprised of older women who are mostly mothers of foster children, and a few mature single women. In some groups there are also women from Plan target families. The women's Program Coordinator is trained in participatory methodology, WID issues as well as the issue of violence against women. At present she is training female group promoters as well as older village women. In time these

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women's groups may be able to form water committees and successfully manage water projects.

IRDP - Matara

The first priority of IRDP-Matara is to provide a package of supports to benefit poor families as a whole and as far as possible work through existing government agencies. Within this package however, there are activities such as health programs, day care centres, fuel efficient stores and home economics training that primarily benefit women leading to greater economic independence which elevated their social standing.

The WID model followed by IRDP-Matara is a good one. Social mobilizers are trained in mobilizing groups of 10 - 15 villagers with a criterion that women have to be members of the group. Social mobilizers are sensitized to women's issues and trained in participatory methodology.

The cumulative effect of these activities is enabling and empowering women as well as providing a more conducive environment for them to enter into self-employment and income-generating activities on a more sustainable basis than self-employment projects in isolation which usually do not last very long. Since village women are involved directly in project implementation as catalysts, they may be capable of being managers of water projects in their respective villages.

IRDP-Ratnapura and IRDP-Badulla are hoping to implement this model in the near future.

b) Women's Participation in Water Projects

Experiments with women's groups (in other developing countries) initiating or managing their own water systems show that there is potential for greater involvement of women in these areas, especially if the systems cater for both domestic and income-generating use, such as small scale agriculture, animal husbandry or reforestation.

When the water system is managed by a mixed group of men and women, the women are often responsible for fee collection, book-keeping, and supervision of the use of the water system. NGO's can assist women's groups to develop "revolving fund" based credit programs for their members. Currently TCCS, Sarvodaya, Plan International-Badulla, and IRDP-Matara have village based credit and savings components for women's groups. Borrowing for latrine and private well construction may be channelled through this route.

Time gained from permanent reduction in the work of water collection does not necessarily mean benefits for women unless they have control over the time they save and any money they make from income generating projects. A women's group which maintains a group fund may help ensure this control.



In order to involve women in maintenance, their tasks can be decided upon by the water committee in consultation with the implementing agency. Methods they can adopt are :

- a site committee with women members
- a user roster
- a team of a male and female caretaker to share hygiene and technical maintenance
- basic training in maintenance and repair of pumps for women

Maintenance responsibilities should be decided by the group and not imposed upon village people by agencies. The Social Mobilizer and the group must decide collectively on who is responsible for what, and whom to contact about major repairs and problems. Women should learn what to do and why they are doing it and it is imperative to establish two way communication between village people and agencies.

Experience in other countries has shown that women are usually more conscientious pump and well caretakers than men. Women have successfully been trained in pump maintenance and repair. Women are quick to respond to problems with the water schemes with the water source, as they are the first to suffer from the interruption in supply. This has to be balanced against local perceptions that technical work is not suitable for women. However well hygiene, in particular the control of contamination of open wells by dirty buckets, is well within the normal purview of women.

Institutions involved in water and sanitation projects must ensure that their staff are trained in WID issues. Achieving high levels of community participation requires difficult and painful changes within some organizations. It also requires greater flexibility, sensitivity, and less paternalism within communities which have come to expect governments to take care of them. NGO's that work with the most disadvantaged village people need greater support in terms of institutional, technical and financial support to carry out their work. Undoubtedly women play a key-role in achieving project success. It is important to involve them in local planning and management. Participation of women should be encouraged by indicating during project identification program planning how and for what purposes they will be involved in each phase of the project, and by allocating required resources for project staff, research, training and financing.

c) Health Education for Women

Women have been actively participating in health education programs in the villages to a much greater extent than men. Women work as Health Promoters in NGOs, as Family Health Workers, midwives and nurses in the Ministry of Health, and as Village Health Volunteers. Poor health is one of the most important topics that women talk about at women's group meetings. At mixed group meetings of men and women, they usually keep silent about their personal health problems but talk about their children's illnesses.



Women's practical knowledge of community practices, conditions, and beliefs must be taken into consideration when planning health care activities. Women should not be treated as passive beneficiaries of general health education programs, but as active co-planners, implementers and evaluators.

It is important to have female staff who the women can relate to and interact with comfortably. Experiences in villages has clearly shown that women find it a barrier to talk to male staff regarding their own health problem because of cultural and social conditioning processes.

Very often NGOs utilize the services of VHVs to do village-based health education work. They are mostly young girls who have finished their high school education and have more spare time. They work with 10 to 20 families each and are unpaid. The problem is that they feel uncomfortable talking to mothers and older women about sensitive issues like family planning, breast-feeding and child care. Experiences show that mature women are especially stable and effective in communicating and motivating people to improve their health standards. NGO's must encourage older women to be VHV's and provide childcare services to free up their time in order to enable them to do this work. Two or three young women can be trained to look after the children collectively while the mothers are busy with health and hygiene education.

A Mother's Group (Mau Haule), can bring older women into project activities. During meetings social mobilizers can facilitate discussions on ;

- the connection between water, sanitation and environmental conditions
- home improvements such as dish-racks, garbage pits and latrines
- children's excreta disposal
- improved personal hygiene
- improved water use practices
- well hygiene

Mobile clinics conducted by health personnel in villages, lectures with discussions, demonstrations, slide shows, skits, village drama, puppetry, radio programs and children's participation are all useful methods organisations can utilize.

d) Strategies for Women's Involvement

Considering the multi-dimensional roles women play in and out of their homes, holistic development programs are more meaningful than specific projects. Involvement of women in water projects can lead to an integrated approach to rural development. Water leads to health, hygiene, sanitation, nutrition, childcare, education and land use activities.

When women take responsibility for water projects, for example being on water committees, managing the repairs and maintenance work, they benefit from increased



self esteem and a greater degree of respect from their husbands and other men in the village.

Methods that can be applied to increase women's involvement are ;

- organising women into small groups in order to work collectively and to ensure that each and every member of the group participates. This is an effective strategy to draw out women who would not otherwise participate in formal village organisations. The Social Mobilizer must make sure that the poorest women in the villages are in these groups and it is not dominated by the elite women in the villages.
- visiting women individually at home and encouraging them to join a group and overcome their initial hesitation and fears. Social Mobilizers and village volunteers must be sensitized to traditional power structures in the villages and they should ensure that the traditional leaders do not take over and dominate water projects. They must have facilitation skills to involve women in group discussions, encourage women's attendance at village meetings and make sure that as far as possible the group functions in an egalitarian manner.
- utilizing village-based women's organizations for credit schemes, training, extension services, and project monitoring. Village hierarchies mistrust and belittle women's groups, which leads to further deterioration of their self-confidence and capabilities to manage water projects (or any other project). It is important to build their self-confidence through training in group building, leadership, conscientisation promoting self-respect, dignity, strength and self-determination.
- carrying out community surveys during the project planning phase which include questions in survey forms that relate to women's involvement in water projects. It is important to ask the women, what kind of groups they prefer, and if women-only groups will be more effective.
- recognizing that the need for childcare facilities, (pre-schools, creches etc.) and access to health services are very high priorities for women. Organisations must ensure that these needs are met in order to enable the women to participate in project activities. NGOs must assist and monitor the women's groups until they can function independently and are able to network directly with government and private extension services.

Powerful tools and methodologies have been developed to aid communication with grass-roots women's groups. Attitudinal changes can be accomplished through visual presentations, role plays, skits, drama, games, thought provoking materials and small group discussions. A UNDP organisation, PROWESS (Promotion of the Role of Women in Water and Environmental Sanitation) has developed many effective mobilization methodologies and produced manuals and materials.



2.3.4. Private Sector Potential

The recognition of the potential of the private sector in the delivery of goods and services has been an important issue during the last decade. The private sector in Sri Lanka does not lack innovation and ingenuity, and is already playing an important role in the water sector. Both institutions and private households make use of private sector services in constructing schemes. Retailers make such materials as pipe and cement available at local level. Local manufacturers produce components such as latrine pans, pumps and concrete blocks at low cost, and are responsive to demand for new products. However the real strength of the private sector is in its artisans; masons, carpenters, mechanics, welders and well-diggers who permeate the urban and rural areas, and who provide efficient services at low cost. These artisans may also actively market their services, further creating demand for water supply and sanitation improvements. The private sector as an institution is discussed in Annex 1.

Many households have carried out water supply and sanitation improvements on an individual basis, either financed by themselves or through local lending institutions, and using the products and services of the private sector. The village survey showed that funding for both water supply and sanitation often comes from the household, reflecting the significant number of households who finance their own small systems, particularly wells. The household was the funding organisation in 44% of water supplies. The household survey showed that latrines were predominantly a private undertaking; 78% of latrines had been built with household financing. The village survey revealed that about a third of the existing water sources had been built by private builders, that is, the household themselves had arranged construction, perhaps hiring a mason or other skilled worker. Wells were more likely to have been built privately; over half of wells surveyed had been built by private builders. Latrines were more often built by a mason than by the family itself. A mason had been hired in 59% of cases.

M a s o n s , **Table 3** Percentage of Villages in Which Artisans Found

carpenters, mechanics and well-diggers are found in most villages.

There is considerable training of artisans in the rural areas.

Sarvodaya has trained a great

many masons in the last few years, and these masons have particular expertise in the building of water supply schemes and latrines.

District	Carpenter	Mason	Plumber	Well Digger	Mechanic
Badulla	93	95	55	92	63
Matara	76	82	12	34	42
Ratnapura	95	95	63	97	66
Overall	88	90	42	73	56



A healthy manufacturing sector means that components such as ceramic latrine pans and PVC pipes are readily available on the local market. Other building materials such as bricks and concrete blocks are also available. Handpumps are also manufactured in Sri Lanka to high quality standards.

Planning and design expertise is available in both small and large firms. The small firms in particular can respond quickly to the needs of projects and expand their capacity, drawing from the large pool of trained engineers. Private sector engineers and artisans are also available to implementing institutions such as government agencies and NGOs to plan, design and build larger systems. Consulting firms can provide technical assistance on a short term basis to organisations which do not have the volume of work to make full-time technical staff necessary. There are also firms with the capacity to undertake billing and tariff collection if this function were to be privatised.

The private sector is also efficient in carrying out maintenance, given adequate supervision. Small bicycle mechanics, auto mechanics and electricians have the skills and often the tools to carry out maintenance of handpumps and motorized pumps. A maintenance system set up by UNICEF in Kalutara and Anuradhapura districts based on local private sector mechanics has been very successful. The mechanics are identified by the AGA Divisional Secretary and are trained and supplied with tools and a stock of small spares by the NWSDB. The mechanics are allocated an area of about 25 pumps, which they visit monthly to check and carry out preventative maintenance and repairs. They are paid on a "piece-work" system, and are paid for only what they do. They are paid through the Pradeshiya Sabha, on authorization from the village consumer societies. There is thus an incentive for them to keep in regular contact with the Pradeshiya Sabhas, and to support the consumer society. In fact, mechanics have been instrumental in promoting the establishment of the consumer societies.

The village survey and the household survey revealed that close to 50% of water source maintenance in the three districts was being carried out privately. While some of this maintenance is no doubt carried out by the beneficiaries themselves, a portion of it is contracted to the private sector.

The private sector is thus well placed to assist individual households to improve their water supply systems, both in building private wells and latrines. The inputs needed to harness this considerable potential are strategies to further strengthen the private sector, creation of demand, and access to credit



Strategies to strengthen the private sector include:

- logistical support to entrepreneurs in manufacturing and contracting to create new markets and successfully manage their companies
- demand creation
- testing and standardisation of technologies
- dissemination of technical information
- the creation of linkages with investors, inventors, designers
- technical and managerial training
- provision of fiscal incentives
- provision of access to credit

These strategies are discussed in greater depth in Annex 1.

The creation of demand for water supply and sanitation improvements at the household level through social marketing and health education is an important factor in providing a fertile environment for the private sector to operate in. If the improvements achieved through the services of the private sector are seen as products, marketing using techniques borrowed from commercial marketing can stimulate demand and provide opportunities for the private sector to fill this demand. This involves identifying the "consumer" of the product, developing the product with the consumer's interest in mind, and offering this product in a form based on the users perception of efficacy. In the case of water supply and sanitation improvements, this may mean putting stress on the increased convenience, prestige, and privacy offered by the improved service, rather than on the public health impacts. Health education through schools and mother's groups may stimulate demand among children and women, who in turn will influence family decision-making with regard to the installation of improved facilities.

Access to credit is important because it permits entrepreneurs to start new undertakings or expand existing ones and allows manufacturers to develop new products and artisans to undergo training to acquire new skills. It is also important to give private households access to credit so they can borrow money to finance private projects such as the building of a well or latrine, using private sector artisans.

2.3.5. NGO Potential

Sri Lanka has a long history of non-government organisations, which is held to date back to the time under the ancient Sinhala kings when villages organised in order to build irrigation systems. During British colonial rule, NGOs with foreign origins were introduced, such as the YMCA, YWCA, Boy Scouts, Girl Guides and the St. John's Ambulance Brigade. The nationalist movement, which had political independence as its objective, aided in the growth of local NGOs such as Mahila Samithi (Women's Societies) and Young Men's Buddhist Association. Today there are over 150 recognised NGOs in Sri Lanka, many of them well established and dating back to the last century. Numerous international NGOs have set up operations, including CARE, Save the Children and PLAN International. There are

also young, active indigenous organisations. Many NGOs have had an urban and international bias, and some of the NGOs are actually "government induced" NGOs, such as the Rural Development Societies. NGOs have had to be vigilant to avoid politicisation and to resist government control.

Given the large number of organisations, both large and small, both indigenous and international, at national and village level, there is great potential for implementing projects through NGOs. NGOs traditionally have a community based approach, and are in tune with and trusted by the rural population. They have developed methodology for community-managed projects, and their inherent decentralisation allows them to work in close proximity with rural people. They also exhibit flexibility and responsiveness in operations. In terms of project costs, NGOs are often run by committed workers or volunteers who keep overheads to a minimum. Their driving force is a genuine desire to improve standards of living and bring about social change, rather than political or monetary gain.

Although NGOs have proven abilities in community mobilisation, often their technical and management expertise is lacking. Especially small NGOs with little or no permanent staff find it difficult to have technical expertise in-house. Management skills are often missing as there is a perception that they are not necessary for the type of work NGOs do. NGOs also lack official recognition in many cases. Registration requirements are often onerous, and building up a track record of successful projects is difficult. NGOs who receive government or international donor funding have to be able to account for it, and this often strains their capacity.

In order to draw upon the considerable experience and resources of NGOs it is necessary to provide institutional strengthening. This will mostly take the form of training, providing skills in accounting, management, needs assessment, technical design, construction supervision, mobilisation methods and other subjects. NGOs have to be assisted to scale up and professionalise their operations.

2.3.6. Issues in Community Mobilisation

Not all communities are easy to mobilise. Projects may be severely hampered by an assumption that all communities require the same inputs in order to achieve the same results in terms of level of motivation, commitment and ability to carry projects through to completion.

Communities which approach an implementing agency for assistance are naturally those communities in which there is initiative, and where community members are aware of the existence of agencies who can assist them are organised enough to identify a need and express it. Communities who are approached by agencies as part of their regular extension are often close to main centres (where agencies have offices), easily reached by road, and receptive. Communities which are remote, disorganised, unable to express their needs, controlled by small factions and apathetic pose enormous problems for agencies, and are often overlooked. Agencies are



reluctant to waste resources on communities where success is far from assured. Unfortunately these communities are usually the poorest and most in need.

A variety of factors have been identified by agencies and field staff as making communities difficult to mobilise. Many communities demonstrate a lack of cohesiveness and have little in the way of informal leadership suitable for self-help projects. Often there is a great deal of control over the community in the hands of influential middlemen, landowners or moneylenders, who may oppose initiatives aimed at making credit available, improving marketing facilities or generally empowering the rural poor. In addition, there are many petty jealousies and inter-family feuds which interfere with development activities requiring strong community collaboration.

Communities are often discouraged by the bureaucracy associated with carrying out projects, such as arranging approvals, permits or permission to use land or water sources. Apathy and inertia are factors which prevent villagers from initiating or pursuing projects. One fieldworker described this as a "God will help me" attitude, which prevents villagers from thinking in terms of empowerment. Sometimes fear of or respect for a middleman or moneylender cause people to continue to use their services, and prevent them from carrying out projects which would displease them. Whether people are landless labourers is another important factor influencing their involvement in community activities; people such as labourers for whom time is money are less likely to have the desire or leisure to attend meetings or contribute labour than landowning small farmers. Labourers are also more likely to be under the control of wealthy landowners, who will threaten to withhold earnings if their workers get involved in development activities.

A programme which seeks to penetrate the most needy villages must take these factors into account. If agencies are to approach communities with which they have previously had no contact, and which, in the normal course of events, would not be part of their programme, to undertake projects which by their nature require a high degree of community mobilisation, they must be provided with institutional strengthening, logistical support and staff training to assist them in overcoming some of these obstacles. Agencies must also identify and target these villages, as otherwise the tendency will always be to fall back to working with the "easy" villages.

Some of the NGOs have begun to recognise the fact that they do not penetrate all parts of the country or sectors of the population. Sarvodaya has targeted its new Poverty Eradication and Empowerment of the Poor (PEEP) programme to poor communities in certain areas and sectors, due to a growing realisation that Sarvodaya is not reaching the poorest of the poor, and that the overall Sarvodaya aim of the transformation of society cannot be achieved by working only with the best villages. The new programme will reach out to new villages rather than being limited to the villages where Sarvodaya is already working. However, the organisation is limited by a shortage of funds, lack of infrastructure in remote areas, and a committed but not necessarily highly professional cadre of fieldworkers. Training of fieldworkers



and improvement of their salaries are priorities in order to prepare them to tackle villages which have had no previous experience of the organisation.

Sarvodaya has no lack of requests for Sarvodaya Societies to be established in new villages. The Chief Executive of PEEP estimates that 35% of non Sarvodaya villages would be interested in having the organisation work with them. There is particularly high demand for pre-schools, which are often Sarvodaya's first contact with the village and lead to further activities. Sarvodaya's mobilisation process can be quite long, as it requires training of village leaders, preparation of a village development plan, formation of various groups and registration of the society. This model has been successful in the past and prepares villages for a variety of activities. For a single purpose programme such as a water supply and sanitation programme, Sarvodaya can use a "fast track" village mobilisation strategy. SRTS has used this in the past to carry out water projects when a group in a non-Sarvodaya village has funds (from another agency or a Member of Parliament) for a water project. In this case, village leaders are taken to visit nearby villages where SRTS has constructed schemes, and to spend several days with the people in these villages discussing how the scheme was implemented. Sarvodaya provides organisational training to strengthen the group, and the project is carried out with local labour and materials. After implementation, the group members are trained by Sarvodaya in operation and maintenance. Although the group may then go on to form a Sarvodaya Society, the project can be carried out without this ever happening. This approach has worked well on some plantations.

Many of the field workers working for NGOs in Sri Lanka today are trained by trainers who were part of the change agents programme in the which was initiated in the late 1970's and operated until the late 1980's. TCCS and IRDP both use the methodologies of this programme, and PIDA, FOD, CHD and RDTRI train people to use them. CHD is carrying out training for PLAN which incorporates many of the same principles. The approach of the programme is to use fieldworkers (trainers) to train village level development workers referred to as change agents. The trainer selects a cluster of 6 to 8 villages and takes up residence in one of the villages. From there he carries out reconnaissance of the area, meeting low income people and discussing their problems. Once he has a grasp of the situation, he organises group meetings and stimulates people to analyze their problems and look positively towards some practical ways of improving their situation. The trainer (who is really more of a motivator) trains the more active members of the group to assist him, both in their own and in other villages. The strategy of the programme is to foster self-reliant development among the poor. Self help, cooperation and self reliance are the key concepts. Awareness creation is the first step and provides the foundation for all subsequent activities. A key principle is that low income groups must form organised groups and take collective action if they are to realise their potential.

The advantages of this approach for a water supply and sanitation programme are that it is based on self reliance and therefore creates long term sustainability. A disadvantage is that it focuses on small groups within the community, and low income groups only, rather than working with the community as a whole as may be required



in some schemes. However the methodology is adaptable, and the trainers at PIDA and CHD have expressed their willingness to develop a training programme specifically for water project fieldworkers, based on the same self-help concepts.

2.4. Water Resources & Environmental Protection

As populations grow and the number and population density of settlements increase day by day, it is only natural that the settlers will interfere more and more with the environment in which they survive. Unfortunately, it is known from past experience both globally and locally, that man has brought about environmental changes that threaten his own survival.

2.4.1. Forests

In the absence of human settlements, the land would be covered by natural vegetation, the intensity of which would be controlled by the climatic and physiographic features of the respective regions. In Sri Lanka this would mean lush green rain forests with a complete canopy in the wet zone and scanty shrub jungle in the flat, low rainfall areas of the dry zone. With the development of human settlements, however, the natural forest cover is replaced by relatively open areas for the purpose of settlement, while the community continues to depend on the surrounding forest for obtaining its daily needs of food, clothing and shelter, which include a minimum daily requirement of water, partly for drinking and partly for other purposes.

One of the positive influences of forests is in relation to soil and water, especially in upland areas. Research and experience has shown that forest cover is a major component in regulating run-off and stream flow, increasing infiltration and groundwater storage, maintaining spring flow, drastically reducing floods, controlling erosion of topsoil, preventing siltation and improving the purity and potability of water. All these features contribute favourably towards improving the quality of life of the settler/citizen.

In as much as environment determines the type and distribution of forests, forests in turn exert numerous influences on the environment. They act as a moderating influence on climate, producing distinct microclimates where solar radiation, mean temperatures, evaporation rates and wind speeds are lowered, and atmospheric humidity increased, as compared to the open. This equable effect is a matter of common experience under the shade of trees and forests. Regular annual rainfall which sustains the forest can also be affected by changes in forest cover. The advantages of maintaining a uniform or widespread forest cover are therefore quite apparent.

In Sri Lanka the factual position with regard to forest extent was determined as far back as 1956 when an air survey and inventory were carried out. Since that time,



wide ranging changes in land use have taken place. The forestry scene too has changed. According to records, there were 2.9 million hectares of forests in 1962, when the population density was 54 persons per square kilometre, or the equivalent of 0.8 hectares of forest per capita. Due to a rise in population density to 131 persons per square kilometre in 1956, the amount of forest, which had remained more or less unaltered, had dropped to 0.32 hectares per capita. A further rise in population density to 231 persons per square kilometre at the present time has been at the expense of forests which declined in extent to 0.12 ha/capita. Forests have declined from the 1956 position at the rate of 1% of total land area per annum or roughly 64,000 hectares each year. After the completion of the Mahaweli Project, it is expected that the balance, which amounts to about 20% of total land area, will remain. If this 20% can be preserved, then at the present rate of population increase which is expected to give rise to a population density of 400/square kilometre by the year 2000, there would then be a meagre 0.04 hectares of forest per capita.

The causes for the contraction and degradation of forests, and their implications, are worth considering. A significant primary cause for depletion of the forest base has been the rather steep rise in population. Apart from legally alienated lands, forests have often been subjected to illicit encroachments, often aided by political forces or with the tacit acceptance of the authorities. The indirect demand has been substitution of agriculture for forest, either under irrigation schemes or by chena (slash and burn) cultivation. Another outcome of population pressure has been the increased demand for timber and forest produce from an ever dwindling extent of forest. An inevitable result has been over-exploitation of accessible forests and consequently their degradation.

a) Rainfall

Against this background of a steady reduction in forest cover over the past 35 years or so, as well as regular warnings of climatic changes detrimental to both plant and animal life, rainfall data recorded at a number of rainfall stations located in and around the 3 districts have been analysed. For each station, the 10 year moving averages of annual rainfall were computed and plotted against time. Since rainfall is the primary source of water for use by man, either as surface or ground water, any gradual reduction in rainfall over the years should be a warning signal that the basic resource is getting scarce. The plots of the 10 year moving averages of annual rainfall, for the 24 rainfall stations analysed, show very conclusively that in the case of 21 of them the trend in the period between 1960 to 1989 is for the rainfall to decrease from year to year. The magnitude of this decrease varies from 0.088% per year in the case of R.F. station Welimada Group to 2.53% per year in the case of R.F. station Horaborawewa. In the earlier paragraphs it has also been stated that forest cover has also been reducing at a steady rate of approximately 1% of total land area per year from about 1950 to date. It is highly probable that these two phenomena are related.



b) Rainfall and Runoff

Another consequence of forest degradation which has a direct impact on the water supply to human settlements is the increase in runoff in streams and rivers. A watershed with a well developed canopy of forest cover slows down the runoff process and provides better chances for the rainfall to infiltrate into the ground, thereby substantially increasing the groundwater storage. When this forest cover is reduced, and more open areas appear in the same watershed, the surface runoff also increases and reduces the chances for infiltration. Consequently, groundwater replenishment is reduced, and the period of surface runoff in the streams and rivers will also decrease. Once perennial streams become non-perennial and groundwater sources become less reliable. Another study was therefore carried out by plotting the annual runoff/rainfall ratio obtained each year against the year of record, for a few selected flow measuring stations located in and around the districts of Matara, Ratnapura and Badulla. The results are plotted and presented in Annex 3. The plots show that in the case of stream flow stations Kalu Ganga at Malwela, Wey Gang at Dela, Kudu Ganga at Millekanda, Uma Oya at Welimada & Mahaweli Ganga at Watawala, the runoff/rainfall ratio tends to increase with time, thereby confirming that the situation could become dangerous if left unchecked. Further research on this subject is warranted.

A question that arises and has been often debated is how much of the land area should be under forest cover. The situation in other countries is no guide, as circumstances and conditions vary from country to country. A review shows that it varies from 0 to 80%. A number of other factors like the state of agricultural or industrial development, population densities, etc. need to be considered.

Environmental considerations, however, complicate the problem of estimating minimum percentage of forest cover in relation to total land area. A rule of thumb often suggested is 20%, a figure which tallies with the estimated percentage of forest cover that would remain after completion of the Mahaweli Project. A concerted effort by both the government and the community is needed to conserve the remaining forest cover if not actually increase effective forest cover in the future.

A further factor that was noted during the field surveys was that replanting areas with fast-growing trees (conifers and eucalyptus) was said by local residents to deplete groundwater resources in wells and springs. This could be expected, since this type of forest draws much more water from the soil than natural forest, with a high proportion of slow-growing hardwoods. This is clearly an important factor to consider when formulating policy on forest management with relation to water resources.

c) Forest Conservation Measures

The importance of forest conservation for maintaining water resources emerges clearly from the foregoing discussion. A wide variety of forestry-related projects is being carried out at present, and it is not the place of a domestic water supply project



to make great investments in the forestry sector. However, it must be very clearly emphasised that present efforts are by no means enough, and that substantial improvements must be made in order to conserve the fragile water resources base without which water supply programmes become meaningless.

The importance of the right type of forest cover also needs emphasis. This may bring the water supply sector into conflict with the efforts being made to increase rates of reforestation, since the economically high-yielding fast-growing trees seem to have the same impact on groundwater resources as deforestation. The solutions to these problems must be sought both at national level, in terms of policy, and at the village level, in terms of tree planting and other conservation measures. This should be taken up by the agency nationally responsible for water supply, and the water supply implementing agencies respectively.

2.4.2. Overpumping of Groundwater

The problem of the long-term lowering of groundwater tables by exploitation for water supply has been raised by various agencies. However, closer examination of these concerns showed that they stem from instances, mostly in the dry zone and therefore outside the project area, where tubewells have been used with motorised pumps for piped water supplies. This is unlikely to be required except in a very few cases in the project area, and so should not arise. It can be prevented by careful assessment by responsible professionals in the field, and resisting political pressures that may arise to use this type of system where it is inappropriate. This underlines the need for independence of action by water supply agencies.

The use of handpump tubewells, as proposed for a proportion of the communities to be served, will have no detrimental effects on groundwater levels.

2.4.3. Salinity of Water in Coastal Areas

Salinity intrusion into the groundwater in the coastal areas is an unavoidable environmental hazard, although a few pockets of fresh water do exist in the coastal strip, where the groundwater is reasonably palatable. In some instances, controlled tapping of the groundwater at shallow levels enables the extraction of palatable water. In these same locations deeper groundwater is saline and should not be disturbed while the shallow fresh water layers are being tapped.

Any tapping of deep groundwater for settlements close to the sea coast must necessarily be carried out from sources substantially away from the coastline, so as to avoid extracting saline water. Shallow fresh water aquifers close to the coast may, however, be exploited, provided the water lifting devices are limited to hand pumps. The possibility of using wind mills to tap these aquifers may also be explored.

2.4.4. Fertilisers and Pesticides

A common feature of the environment in Sri Lanka is agricultural development on a scale ranging from home gardens to major projects. With the increase in farmer education, agricultural extension services and model agricultural demonstration plots, there is a significant increase in the use of agro-chemicals. The need for the use of such agro-chemicals is further increased as a growing population has to find sustenance from the same area of agricultural land as was available in the past, when the population was significantly less. Herbicides and pesticides especially are physiological poisons and have to be handled and dispersed carefully. During rainfall, the run-off from these agro-chemically treated lands finds its way into the nearest stream and thereby pollutes it. This stream flow could be a source of water supply to settlements downstream. Such instances are common in hilly areas, where a single stream is often the main source of irrigation and domestic water for many settlements along its course.

Under such circumstances continuous monitoring of the water quality is necessary. The assistance of the affected community should also be sought to carry out this task.

2.4.5. Industrial Effluents

The effluent from tea, rubber and other industries contains pollutants that can seriously affect water quality downstream of the location where it is discharged. Even effluents discharged into catchpits gradually pollute the groundwater, which may be the source of water for a settlement in the vicinity.

Under the National Environmental Act No.47 of 1980, the industries concerned should obtain a licence from the Central Environment Authority (CEA). The CEA would issue the licence after confirming that all precautions and measures have been taken by the industry to ensure that the quality of the effluent discharged into the waterway is within the tolerances laid down by the authority. However, this agency is still relatively weak, and pollution, particularly from factories and cottage industries associated with the plantation sector, will undoubtedly continue. It may be possible to make some progress in this regard through the plantation corporations, especially if they can be brought into the main stream of a better-coordinated water supply sector.

3. Implementation Policy, Strategy, Methods

3.1. Policy

The programme will be rooted in a community-based approach which places emphasis on community development and empowerment as well as achieving explicit project objectives. *The overall objective is to make projects self-sustaining.* Community participation will be an inherent part of the programme, and will take the form, not only of provision of labour and materials, but of decision making and planning. Projects will be largely community initiated, and there will be a component of community self selection, as communities will be made aware of the conditions under which they will become part of the programme, and will be expected to adhere to them. This will include taking on responsibility for financing and management of all on-going operation and maintenance, and funding part of capital costs, both through cash and in kind (labour and materials) contributions.

The programme will take an adaptive approach to planning, as experience has shown that "blue-print" planning is ineffective and marginalises the community.

A substantial part of the programme will be implemented through NGOs, because of their existing experience and capacity, and because of their close proximity to rural people. Despite the fact that NGOs often need considerable institutional strengthening in order to be able to participate in a programme such as this, it is preferable to use these existing, trusted and effective institutions rather than create new ones. Likewise, the capacity of the existing private sector will be strengthened and harnessed.

3.2. Strategy and Methods

3.2.1. Project Selection

There is a need for coordinated planning in order to maximise project inputs to the sector. In order for planning to be effective it has to take place in an environment free from political interference. Project selection must follow the criteria set out by the programme in order to ensure that coverage is increased starting in the areas where the need is most acute or the willingness of communities to contribute is greatest. This process must not be hampered by selection of projects based on political objectives or the influence of individuals.

Individual projects will be selected using a transparent selection process. The programme will have clear and published criteria. The objective of the criteria is to



give priority to those communities and areas where the need for improved water supply and sanitation is greatest, and also to those where potential for community mobilisation is highest. Need will be determined on the basis of the level of service offered by existing facilities, in terms of quality, reliability, and distance. Potential for community mobilisation will be determined by the level of organisation in a community (existence of an active CBO, formation of a users' group etc.) and willingness to pay a proportion of up-front costs.

Communities should be made aware of the programme through publicisation and through the field workers of the implementing agencies in their areas. As much as possible the initiative for projects should come from the community, rather from external agencies. This will provide a degree of community self-selection and ensure that only those communities which are genuinely interested in working towards improvements are involved. It will also foster a sense of ownership of the project. This may be in a constraint in remote and disorganised villages where people are unlikely to be aware of programmes and agencies, and where organisational capacity is low. Building awareness in these communities will be a particular challenge of the programme.

A transparent process will be established whereby communities are made aware of the availability of assistance, and make applications for this assistance (perhaps through the implementing agency). The applications will be assessed by the RWSSU at district level. They will be considered in light of the project selection criteria and the capacity of the implementing agency.

The criteria for providing higher levels of service than the basic ones within the programme will be willingness to pay the full incremental costs. Both communities and individuals will be given the opportunity to do this.

3.2.2. Resource Mobilisation and Cost Recovery

Operation and maintenance costs are to be covered completely by water consumers. A portion of capital costs will also be recovered, both through in-kind contributions (labour and materials) and through cash payments to cover what are essentially loans taken out for the construction of the facilities. This will require community-based methods of tariff collection and funds management. The overall strategy is to keep communities aware that the money they pay for both capital cost recovery and operation and maintenance is used directly for their own systems, and any default or mismanagement is a problem for the whole community. Self reliance in this area is extremely important. Community user groups will be responsible for collection of funds and operation and maintenance of the water supply, plus repayment of any loans taken out to cover capital costs. The user group will be directly accountable to the community for use and management of the funds. Repairs or preventative maintenance will be carried out either by the community members themselves or by hiring private sector artisans.



Methods of cost recovery will vary from agency to agency. In the case of lending institutions such as TCCS, cost recovery methods are already in place and effective, as these agencies are run on a strict cost recovery basis. Other agencies, however, will have to establish the principle of cost recovery and institute methods for ensuring that it takes place. This will be done through users' groups in most cases. The groups will collect funds on a monthly basis (or time collection to coincide with the harvest or other times when money is more abundant if they wish) and maintain bank accounts. Members of users' groups will be elected, and the accounts will be open to scrutiny by anyone in the community.

Training for private sector artisans in handpump repair and maintenance of other systems will be provided in order to make communities self sufficient, and not dependent on external agencies for maintenance. Spare parts will also be made available through the most efficient route possible, either commercially or through local authorities.

3.2.3. Mechanisms for Community Participation

Communities will be mobilised using participatory techniques which bring all sectors into the planning and implementation process - the poor, women, members of low caste groups etc. Wherever possible, user societies will be formed, and will take responsibility for making decisions regarding service level type, organising communal labour and material inputs, carrying out construction, operating the scheme, collecting money for maintenance and carrying out repairs when necessary.

Each agency identified has its own mechanism for working with communities, depending on its objectives and vision. Agencies will be expected to continue working with communities in their usual manner, but with increased understanding of the dynamics of water projects and training in new methodologies. Each agency will continue to start from its own entry point (welfare of children in the case of PLAN, small credit cooperatives in the case of TCCS, pre-schools in the case of Sarvodaya etc.). Agencies will not be required to bypass their usual community selection and mobilisation techniques (as, for instance, TCCS found itself doing for the NHDA programme). They will, however, be trained in community mobilisation skills which are particularly appropriate to water projects, such as community mapping exercises to identify water sources and environmental problems in the village and the formation of users' groups.

Agencies with expertise and experience in a specific area, such as hygiene education or the promotion of latrines will continue to work in that area, and through planning and coordination mechanisms to be established, will complement the efforts of other agencies. The linkages created between institutions will be valuable, especially between NGOs and government. The programme will create opportunities for institutions to work together and thus learn about each other's strengths and weaknesses.



Health and hygiene education will be an important part of mobilisation, as the programme will seek to raise awareness and demand through a greater understanding of the health aspects of water supply. The impact of water supply and sanitation on health, well hygiene, improved water handling and storage and the benefits of better personal hygiene will be components of hygiene education.

The considerable potential of the private sector has been discussed previously. Many households can be mobilised to implement their own water supply and sanitation improvements, particularly the construction of latrines. Demand stimulation on the form of health education and social marketing will be effective in harnessing this potential.

Demand on a community basis will be stimulated by social marketing and health education, and also by the work of community mobilisers and by witnessing the experiences of other villages who undertake successful projects. This type of demand stimulation will be the task of the implementing agencies.

As women will be important participants, special techniques which bring them into the planning and implementation process will be introduced. This may involve forming women's groups, ensuring that women are represented on committees, approaching women in their own homes, and organising activities around issues which women already consider a high priority, such as child health and alleviation of drudgery.

3.2.4. Institutional Strengthening

Institutional development will take the form of training of implementing agency staff. Training will be in such skills as technical design and needs assessment, but will also cover community mobilisation techniques and the fundamentals of community-based projects. This type of institutional strengthening will be particularly important in the institutions which have not traditionally used this approach, for instance the NWSDB, the Pradeshiya Sabhas and the plantations.

NGOs will require managerial and technical training, as well as training in community mobilisation techniques appropriate to water projects. As capacity of existing organisations is to be expanded considerably, there will be the additional staff for these institutions to train, as well as existing staff to orient and train.

Technical assistance will thus largely take the form of training in order to increase the capacity of implementing agencies to carry out projects using the methods described. Training in technical matters will be required, in order to ensure systems which meet acceptable design standards. Training of trainers in needs assessment, water resource identification and evaluation, system design and construction supervision will be carried out. Community mobilisation techniques will be researched through visits to other projects in other areas and countries. Community management models, including operation and maintenance systems, will also be



examined. Training in community mobilisation techniques will be carried out, and a cadre of trainers prepared to assist implementing agencies in the future formed.

Training in management at both implementing agency and community level will be part of the programme. This will include accounting, information management and personnel management (development of incentive systems, improving staff morale etc).

A social marketing programme will also be researched and developed, and the necessary training done to ensure that it is put into use. Likewise health education materials already available in Sri Lanka will be examined, and additional ones developed to fill any gaps. The materials will be produced in sufficient quantities and distributed to health education fieldworkers in the various agencies, who will be trained in their use.

In addition to the above direct technical assistance, a proportion of the technical assistance package will be dedicated to the development of structures from national to local level to run and coordinate their sector activities.

3.2.5. Involvement of Women

The full and meaningful participation of women is vital to the sector. The centre of demand for water is the woman of the household, who is the primary user of water. Women must be involved not only as beneficiaries, but as agents of development. The particular interest in family health which women have (especially the health of children) will be harnessed. Women already bear most of the responsibility for safeguarding the health of the family, and will usually collaborate enthusiastically with projects which aim to assist them. They have shown themselves to be excellent "frontline" workers in health and hygiene education, and also in operation and maintenance. Women must be given the opportunity to participate fully in public meetings, and be given support to build their self esteem and confidence. They must also be given opportunities to work as professionals in the sector, as mobilisers, planners, engineers and trainers.

There are a variety of strategies to involve women. Each agency has its own experiences in this area, and its own approach. Some agencies have been considerably more successful than others, and their methods should be researched as models and their experiences disseminated to other organisations.

The strategies already in use include organizing women's groups to participate in the planning, implementation and operation of water facilities; training women as pump and well caretakers, and mobilizing women through health education focussed on their particular concerns.

Involvement of women during the initial planning stages, and ensuing their representation on committees and other decision making bodies is essential.

3.2.6. Sanitation

As the demand for latrines has been demonstrated to be high, and the large majority of existing latrines have been built with no external assistance, but with funds raised by the household, the strategy of the programme is to continue and support this tradition of self help in the area of sanitation. Arranging access to credit and support, if necessary, to the private sector (masons, latrine pan manufacturers etc.) are the inputs of the programme in this area. Despite large numbers of households with latrines, many are of unacceptable type or in poor condition, and require replacement or upgrading. Promotion of the desirability of a good, clean latrine will be carried out through social marketing and health education.

In order to facilitate the building of latrines, a revolving fund at village level will be established. The fund will be administered by a CBO or implementing agency, and will provide households with part of the cost of the construction of a latrine as a loan at soft interest rates (in the order of 5 to 6%). Peer pressure will play a large factor in the repayment of this loan, as other families will be waiting to use the money for their latrines.

4. Proposed Implementing Institutions

4.1. Options for an Institutional Framework

4.1.1. General

The foregoing analysis has shown that much can be improved in the institutional mechanisms for increasing coverage by rural water supplies and sanitation. In this section the rationale and some of the basic principles underlying an appropriate institutional framework will be examined and applied to the existing situation to develop a series of models for selection of the best option.

The fundamental problem is presented graphically in Figure 7. Funds have to be channelled from external support agencies (ESAs) and the Ministry of Finance down to the level of individual communities to provide the required services, in a way that ensures their sustainability. The first two actors in this chain have just been named and need no further description at this point.

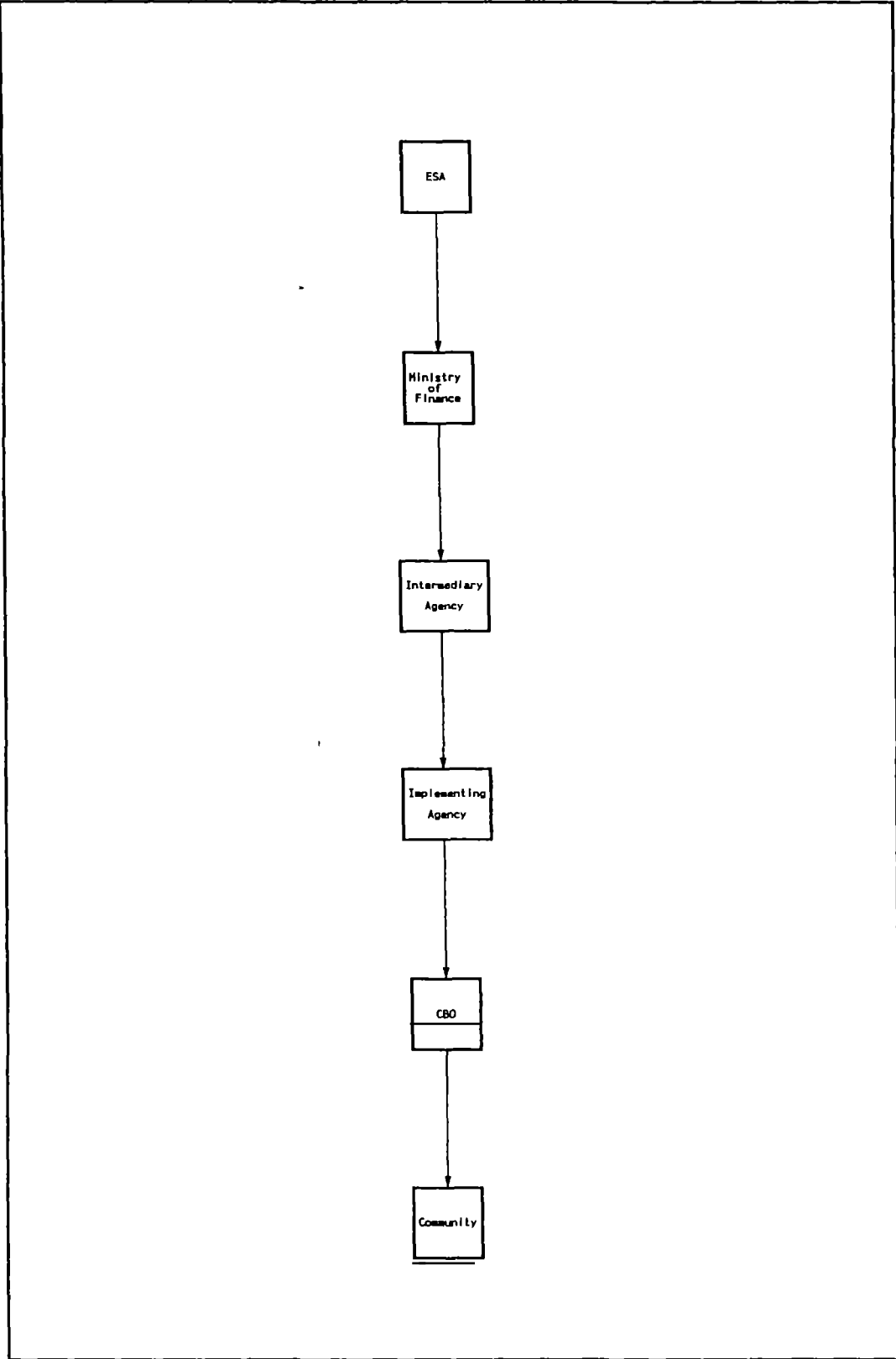
The next link in the chain is what has been termed an *intermediary organisation*. This has the responsibility for overall control of the programme, and must be accountable financially to both the GOSL and the ESA, and to the community at large for delivering the programme effectively.

Following this comes the *implementing agency*. This is the institution which actually builds the facilities according to the programme and norms set up by the intermediary organisation, thus bringing the service to the community.

The community itself may be represented by a *CBO* (community based organisation or water committee) which acts as the interface between the implementing agency and the community.

Not all institutional models comprise all these different elements. For instance, a classical and widely used model has the intermediary and implementation functions being carried out by a single specialised water supply and sanitation agency which has a direct, if remote, contact with the community without the mediation of a CBO. At another extreme, multiple agencies may exist at all levels below the Ministry of Finance, acting in parallel.

Figure 7 Basic Institutional Model for Water Supply





In order to develop a working model from these basic elements, a set of criteria need to be applied so as to identify which existing or planned institutions can best fulfil the functions outlined above in the specific context of the proposed project area. Five main groups of considerations have been evolved for this purpose, and are discussed below.

a) Programme Accountability

A major reason for formulating the District Development Plans is the existence of many different agencies in the sector, responding to many different motivations and pressures. The plan aims to reduce inefficiency, wastage and inequitable distribution of resources in the sector by analysing it as a whole and clearly defining what needs to be done where and with what order of priority. The institutions involved must therefore be willing and able to *conform to the plan*, despite any outside pressures that may be brought to bear, and mechanisms must exist for *feedback* through the system from the communities served, to whom they are accountable. Also included under this heading is the maintenance of adequate *technical standards*, or, in other words, that whatever is done be done properly. If many different implementing agencies are to be involved, then *coordination* will be another essential task in ensuring the satisfactory execution of the programme.

b) Financial Accountability

All those contributing to the programme will obviously require that funds are being properly utilised. This *financial accountability* works in both directions; contributions will be made by the ESAs and GOSL, but also a proportion by the communities served. The main expenditure will be by the implementing agencies, sandwiched in the middle of the chain of responsibility. Essential to achieving this type of accountability are effective *financial controls* which must be built into the system. Linked to this question is the factor of *cost effectiveness*, in terms of expenditure both on actual facilities and also on the institutions involved. Finally, elements of *cost recovery* will be built into the system, and the main financial contributors, the ESAs and GOSL, will be most concerned that this is as effective as possible.

c) Sustainability

All the proposed programme will be in vain unless both the institutional structure providing the services, and the facilities themselves continue to function. The analysis in the previous sections has highlighted the fundamental importance of *community participation* as an indispensable precondition for sustainable use of the facilities built under the programme. This participation must therefore be built into the system. Sustainability on the institutional side means that any proposed system must be inherently feasible and within the

capacities of the organisations involved, even if this means making some compromises with the overall objectives of the programme.

d) Management

This factor links back to some of those already covered, and is obviously crucial to programme success. All the individual institutions involved require effective internal *organisation* and external *coordination* to function efficiently and cost-effectively. Their personnel management must also be such that it provides the incentives, working conditions and training required to *maximise the human resource potential* available. An intangible but important factor is what might be called *corporate culture*, even if applied to a CBO. This comprises the general attitudes and outlook of institutions, and has particular relevance to financial management and community participation.

e) Replicability

Finally, in the particular context of this project, the feasibility of extending the approach recommended for the three districts to the sector island-wide needs to be examined. The NWSDB has recently produced a new corporate plan in which it withdraws from direct involvement in most of the rural sector, so the need for a new national institutional structure in the sector has been recognised, and this is a first attempt to address the questions that must be answered.

The simplest form of the institutional model is that presented in Figure 7, and could be referred to as the single agency model. Typically, this agency might be the NWSDB, but could be another, to the exclusion of all others. However, the model fails at the first hurdle, since the analysis of needs compared to capacity in the sector clearly shows that no single agency has the required capacity at present, or is capable of growing at a sufficient rate to generate the required capacity within an acceptable time frame. This analysis shows, rather, that the critical lack of implementation capacity in the sector is probably the single biggest impediment to achieving a significant impact at present. To overcome this constraint, all possible implementing capacity has to be mobilised, brought into the system and developed.

A second simple model considered and rejected is the devolution of responsibility to the private sector, which probably does have the required capacity. However, expertise in promoting community participation is notably lacking, and the incentives for this type of activity with social rather than profit objectives are not there.

Therefore, a model with one intermediary and multiple implementing agencies has been chosen. Multiple intermediaries were rejected on the basis that the coordination required to ensure programme accountability would then have to be carried out at the level of the Ministry of Finance which clearly lacks the mandate and specialised expertise to coordinate such a programme directly. The question of which institution should take on the intermediary role is discussed in the following sections, whilst the

lower part of the model, dealing with implementing agencies and CBOs, is built up here.

4.1.2. Implementing Agencies

At a workshop held in April 1991 (see Annex 2) with representatives of many of the possible implementing and intermediary agencies, together representing hundreds of years' experience in the sector, the options for implementing agencies were closely examined, and have been used as a starting point in this analysis. The agencies or groups of similar agencies identified are examined below with respect to the criteria set out above.

a) NGOs

Programme Accountability

One of the main reasons for the existence of the NGOs is that they are formed by committed people who see the need for activities beyond the confines of existing official organisations. They thus inherently possess the independent attitude necessary to resist any pressures to deviate from the plan. With their generally excellent relationships with the communities in which they work, any feedback obtained from them should also be sensitively received and acted upon. Technical standards are, however, more variable. Sarvodaya has a demonstrable capacity in this regard, developed through years of cooperation with Helvetas. Some other agencies have a small amount of experience; TCCS has successfully carried out small schemes, either drawing on the capacities of its members, or using outside specialists, an approach also adopted by PLAN. Most of the other (small) NGOs have little experience in this field, and it is an area where they will have to be strengthened. Several agencies, mostly NGOs, are ready and able to provide suitable training to other NGOs. With respect to coordination, NGOs often fit in to larger projects, with their own specific contributions, and they generally maintain good relations with local officials. Hence this is unlikely to be a problem.

Financial Accountability

Much has been said recently in Sri Lanka about spurious NGOs which divert funds into the pockets of their leaders. Whilst this is undoubtedly true in the case of a few small ones, examination of the three biggest (Sarvodaya, TCCS and PLAN) showed that they have a clean bill of health in this regard. For the purposes of the programme they would accept auditing of their accounts for examination by the intermediary agency. Smaller organisations will have to be assessed individually by the intermediary agency before acceptance into the programme. Accountability to the communities is not a problem, since the main strength of these organisations rests on their credibility at this level, and they will be concerned to maintain it. Financial controls are good in Sarvodaya and PLAN, but weaker in TCCS and the smaller NGOs. This is another area

where training and institutional strengthening will have to be carried out by the programme. Cost effectiveness in the NGO sector is good, provided technical standards are maintained, due to the low salaries or voluntary inputs of their workers. For the smaller NGOs, further savings are achieved by their small size and lack of offices etc. Cost recovery in the form of contributions in kind (amounting typically to around 20% of direct capital costs) is a basic element of Sarvodaya projects, and works effectively. The organisation also has experience with loans, and has achieved recoveries in excess of 80%, although this was in production rather than infrastructure oriented projects. TCCS is essentially a banking organisation and works on the basis of loans and their recovery (generally more than 90%). Other NGOs have less experience in cost recovery and would require strengthening. The recovery of part of the capital costs in cash is a new departure for water supply projects, and will be experimental at first with any of the organisations involved, but the NGOs can demonstrate the basic skills required.

Sustainability

This is where the NGOs score highest, and why they must be brought into the programme. They are the only sector organisations with a long track record of effective community mobilisation and participation, essential to sustainability. They will be an invaluable training resource for other agencies, regarding methods of achieving effective community participation. Capacities, as mentioned elsewhere, are insufficient to meet present demand, but investigation and dialogue with the principal NGOs has allowed reasonable estimates of sustainable capacity-building to be established. This is another area for the technical assistance element of the programme.

Management

Management within the NGOs has often been criticised, and is certainly weaker than in the private sector. Quite possibly, the same factors that make them acceptable and effective at community level are responsible for producing a looser management approach. Accepting this management style is a compromise that may have to be made in order to benefit from their positive points. However, many NGOs already have experience of working with ESAs, and have had to bring management standards up to a certain acceptable level. Regarding staff motivation and training, the NGOs' record is generally good. With sufficient strengthening on the financial management side, management of the NGOs should be satisfactory to achieve project objectives.

Replicability

All NGOs have a very decentralised structure, and most only exist in a limited geographical area. The main national ones, Sarvodaya and TCCS, also have a strong district and subdistrict structure. Therefore, extending the programme to other areas would strain the existing framework no more than the three districts programme.

b) Pradeshiya Sabha

Programme Accountability

The whole theory behind the formation of the PSs is to bring development work closer to the people through locally elected bodies, accountable through the ballot box. It is hard to tell how effective this will be in practice, as at the time of writing they have only been in position for a month, and still have a very long way to go before they will be administratively and technically capable of carrying out their designated functions. Experience to date under the previous, non-representative, system shows that at this level, local politics exerts a strong influence over the distribution of resources. However, there are more than 50 PSs in the programme area, and it is certain that at least some of them do have the independence and sensitivity to community aspirations to make them accountable. This factor will have to be assessed on a case by case basis when implementing the programme one or two years from now, by which time they will have built up a track record. Technical capacity is presently severely limited, with one Technical Officer per PS, generally with no specific water supply and sanitation skills. Again, this will be built up now that they are established, with plans showing a technical staff of three or four, whose skills may be supplemented by the newly-established provincial engineering units at the Provincial Councils. This also remains to be assessed at programme implementation, but it can be said that there is a firm GOSL commitment to this capacity-building programme in the PSs. With regard to coordination, the PSs are the official coordinating bodies for all GOSL sponsored activities in their division, and have powers to back up this role.

Financial Accountability

As part of the government system, PSs are subject to all the same financial discipline as the rest of the government apparatus. Audit, financial controls and accounting are generally adequate, even if not to the highest standards. The programme could require internal auditing to be carried out as a cross-check. Training in this field may also be required. Their record to date on procurement and contracting seems to point to a tendency to favour members of the local elite, and would have to be guarded against by applying clear procedures. Financial accountability to the communities is hard to estimate at present, but it is to be hoped that the democratic process will exert a positive influence here. Cost effectiveness, as in all branches of government, is likely to be low, but could be countered by allowing only a fixed proportion of direct costs as overheads, as proposed by the Janasaviya Trust in its project implementation procedure. The PSs main revenues will be from taxes, and they have the legal power to levy a water tax for those areas served by a PS scheme. However, this form of cost recovery could have negative impacts on peoples' perception of ownership of the schemes, thereby affecting sustainability. Recovery through loans may be difficult for them, and would have to be tried on a pilot basis, with adequate technical assistance backup from the programme.

Sustainability

Experience throughout the government sector with community participation is weak, and the PSs would have to learn a lot from the NGOs in this regard. For this reason they will have to start slowly, carrying out pilot projects with technical assistance from the programme, probably through NGOs, and allowed to consolidate this experience before expanding their activities. Underlying capacity in the PSs is more than sufficient in terms of gross manpower and ability to handle funds, but this capacity can only be put to good use when the necessary skills for working with communities have been acquired, as well as improved technical and accounting expertise.

Management

At present, management of the PSs is rather poor, often being left in the hands of the chief clerk, while the generally more experienced AGA, now designated as secretary to the PS, runs the divisional office dealing mostly with government administrative matters. It is to be expected that this will change as the PS starts to exercise its new powers, and the AGA's office and the PS will gradually merge. Coordination of local development activities is the prime task of the PSs, so it should be expected that coordination of water supply and sanitation activities will not present difficulties. Even at present, nearly all agencies working in a given AGA division maintain close links with the AGA and PS, who are thus always well informed about conditions and activities in the villages. Being government agencies, personnel management tends to be poor, and staff incentives are generally lacking. It is the elected members of the PS rather than the staff who are accountable to the population at large, so it will be worthwhile to carry out a series of seminars and other training activities for them so that they will bring more pressure to bear on the staff to carry out their obligations under the programme. Regarding the corporate culture of the PSs in general, the fundamental principle of comprehensive and effective community participation in their projects remains to be established, so, as mentioned above, the programme will have to proceed cautiously at first with the PSs until they have absorbed this approach.

Replicability

The PSs are by their very nature decentralised bodies, and have the same levels of capacity island-wide. There is therefore no constraint on extending their involvement to other areas.

c) Plantation Corporations (JEDB/SLSPC)

Programme Accountability

These institutions have a very rigid top-down management structure, and once a plan is adopted it is very difficult to change it. The problem that might be faced by the programme is in getting them to agree to a plan in the first place. There is an ongoing Medium Term Investment Programme which allows for the upgrading of 12 divisions per region per year, a level of activity beyond which

they are resistant to go. However, a recent increase of interest in dealing with non-resident estate workers, and the impending privatisation may both contribute to a more open approach to cooperating with outside programmes as the new management makes its accommodations with the unions and explores new sources of funds. Feedback mechanisms do exist despite the authoritarian management, through the labour unions, which place a high priority on housing, water supply and sanitation. Technical standards are generally adequate, having much improved in recent years with an extensive ESA-funded technical assistance programme. The high degree of independence of these corporations may make coordination difficult, although it is encouraging to note that all staff approached have been willing and constructive when discussing possible cooperation within a sector-wide programme.

Financial Accountability

Various funding agencies, such as the IRDPs and UNICEF, have worked through the corporations with satisfactory results, and the combined pressures of a very poor liquidity situation in recent years due to low commodity prices, and union demands on living conditions on and off the estates, have forced tight controls on social programme expenditure. Thus, financial accountability to the intermediary agency can be expected to be good. The question of financial accountability to the community does not really arise, as the position of the estate workers relative to the management is one of almost total dependency, with the idea of community contributions being out of the question. Financial management and control in the corporations is satisfactory, if bureaucratic. Cost effectiveness is reasonable, due to the financial discipline imposed by circumstances, but as in any public sector corporation there are areas of overstaffing or underemployment. The JEDB charge-out rate of 5% on direct costs for works executed with external support is, however, extremely cheap, and seems to reflect a hidden subsidy.

Sustainability

It is extremely hard to imagine estate-run projects with any degree of community participation or the intention of vesting ownership in the workers, at present. Community-oriented activities are presently limited to the use of health volunteers for simple health education programmes. This may change radically with privatisation, and the growing realisation that the current worker management system is completely anachronistic. On the other hand, the paternalistic management of estate workers does provide more commitment to institutional maintenance of infrastructure than is likely in the government sector. The ongoing technical assistance programme has greatly improved operations and maintenance, to an acceptable level. With regard to capacity, the current rate of progress in the estate sector seems to be very much in tune with the proposed water supply and sanitation development programme.

Management

As mentioned above, internal organisation is strict and quite good, especially with the recent introduction of computerised MIS. Prospects for coordination with a wider programme also appear satisfactory. Personnel management suffers from all the usual problems to be found in the public sector, but within the confines of the estates it functions reasonably well.

Replicability

The capacity of the corporations is directly related to the numbers of estates in each region and so will not be overstretched if the programme is extended to national level.

d) NWSDB

Programme Accountability

Water supply is a politically sensitive issue, and the NWSDB has suffered in the past from considerable pressure to install facilities in many individual settlements designated by certain influential persons. The situation has improved greatly in recent years as the Board has developed a stronger planning division and decentralised its operation to 8 regional centres. It is still, however, the institution with the official mandate for water supply, and when political questions arise related to the sector, the NWSDB is called upon to answer them. However, if the plan to be followed is clear and properly publicised, especially amongst the politicians (much as suggested in the section on Pradeshiya Sabha above), potential for following it will be good. The Board is very much an engineering agency, and links with the communities are few; the Community Participation Unit, set up in recognition of the need for such activity, has low status and has been involved up to now only in pilot projects with little replicability. Potential for feedback is thus low. This may be of lesser importance for pumped, piped schemes in urban areas where agency (NWSDB or Local Authority) rather than community management will be the rule. Regarding technical standards there is no problem, and the Board can be expected to advise and provide technical assistance to other agencies on these matters. The NWSDB has in the past and will increasingly in the future offer its services to other agencies at cost, and so can be expected to fit in to any multi-agency programme.

Financial Accountability

As a government agency, the Board is subject to the usual government financial management system, being accountable to its parent Ministry of Housing and Construction. Financial control in the organisation is quite good, and gradually improving under the USAID-funded institutional development programme. As a central government agency, financial accountability downwards to the community is very poor, and special arrangements would need to be made if it was to handle community-managed projects, although accountability to Local Authorities where these share responsibility for the systems with the Board

seems to be satisfactory. Its cost-effectiveness can only be characterised as poor, despite attempts to cut down overheads and overstaffing. With its weak community participation experience, cost recovery by any other means than household tariffs is presently not possible, although recent experiments with user groups for standpipes have shown some positive results.

Sustainability

As a major implementing agency, it is not hard to determine the NWSDB's past record in this area, which is not impressive. Even in the urban sector, rehabilitation of systems after ten years seems to be the rule rather than the exception. This has been recognised, and attempts are being made to hand supplies over to local authorities and consumer societies. However, without upstream involvement of the communities in project planning and execution, this is proving difficult. For the time being, and in line with NWSDB policy, the Board's role may be better restricted to providing design and installation services, or treated water in bulk, on a contract basis. With regard to capacity, however, the NWSDB is in a very favourable position, and is a resource that other agencies can draw on for technical services.

Management

As with financial management, overall management has improved dramatically under the institutional development and restructuring programme and is now quite good. The inevitable problems of low staff motivation encountered in the public sector remain, however. There is also a lack of experience of working with other agencies on anything other than a contract basis. The corporate outlook is now changing, with a critical reevaluation of its roles and responsibilities leading to new policies, and the establishment of a corporate planning division which will undertake continuous criticism and development of Board policy. The underlying corporate culture remains, however, one of provision rather than promotion, and will change only gradually.

Replicability

As mentioned above, the Board has sufficient capacity to be able to expand what will be a minor role in rural areas, in comparison with the large-scale urban works, to the rest of the country.

e) CBOs

The role of CBOs will be different from that of the implementing agencies, but it is still convenient to examine them according to the same criteria as the rest of the model.

Programme Accountability

CBOs will have a very important role to play in community mobilisation and the organisation of community inputs in cash, kind and labour. If this fails it can seriously affect the implementing agencies, which need to plan their

activities, and cannot afford unexpected delays. They may also be susceptible to pressure from influential villagers regarding such matters as the location of water points and spring catchment reserves. They will generally need assistance to overcome these constraints, and to become more representative of the community as a whole, so as to be better accountable to it. This will require the patient work of experienced community workers.

Financial Accountability

CBOs will be called upon to handle programme funds in the form of sanitation revolving funds, and community funds generated for operations, maintenance and any elements of capital repayment. They have a fair record in the management of these types of funds in other projects, and nearly all villages have one or two people with basic book-keeping skills. Support from implementing or service agencies may be required, but not to a large extent. The hardest message to get across will be on the need to keep up cost recovery payments, especially against the background of the welfare mentality engendered by successive governments.

Sustainability

CBOs can be a potent tool in the generation of community participation, but only if they are fully representative, whilst not seen to be acting against the interests of influential villagers. There are two potential problems here: firstly, most CBOs are set up to represent the interests of specific sub-groups in the community (eg. women, youth), and secondly, there is a tendency for most CBOs in any one community to be under the control of the village elite. The development of a CBO which is fully representative will thus take time, and can not be rushed. Typically, a minimum of 6 months may be necessary, but in many cases it will take longer. Sufficient resources and time must be allowed for this to happen, even if it holds back the programme.

4.1.3. The Basic Model

From the previous section it can be seen that there are a variety of implementing agencies available, with certain limitations, to be applied in any given situation. Five main scenarios corresponding to different target community and technology types, which cover the vast majority of the work to be accomplished under the programme, are examined below, and the roles of the implementing agencies in each scenario defined.

a) "Typical" Villages

These make up about 80% of the total population to be served under the programme. In these cases, implementing agencies would first make contact with the communities (or vice versa) to help them assess their needs and prepare a project proposal for assessment. This will typically take anything

from a bare minimum of about four months, to more than a year in some communities. Where it appears that communities are simply not ready to participate in the water supply programme, and intensive grass roots institution (CBO) building is required, simpler projects such as starting health education through volunteer villagers, and setting up a sanitation revolving fund will be used as catalysts for community development.

Once the project is approved and funded, a process that should not take more than about 6 months if momentum built up during assessment and design is not to be wasted, and the implementing agency's credibility lost, the implementing agency will return to the village. Arrangements for the provision of labour and materials will be agreed, and any cost recovery contract signed. Construction will follow, depending on the time taken to assemble the materials, and seasonal labour and water resource factors.

During construction, selected villagers in teams of one man and one woman will be trained in operations and maintenance, and given some backup by the implementing agency in the months following construction to ensure that preventive maintenance is being properly carried out.

Throughout this process, stretching over 1-2 years, or more, it will be the task of the implementing agency to support and strengthen the partner CBO in the village, help it to become more representative, and provide or channel in any assistance necessary for formally establishing the organisation or building up skills (technical, book-keeping etc.)

b) Small Towns and Piped Scheme Extensions

Coverage in these towns is already at an average of 88%, 83% of their population being served by piped systems and the remaining 5% by protected wells. Given this fact, and the higher priority for hygienic water supplies in these centres of commerce and human contact, there would seem little alternative to increasing coverage by piped supplies to cover the remaining population. As gravity sources of sufficient size will be hard to find, pumped schemes will be the answer in nearly all cases, and therefore within the purview of the NWSDB. As these schemes are more complicated to run than the other types of simple rural systems, agency management of pumping and treatment plant will be required. The present policy is for the NWSDB to operate and maintain the bulk supply, and the local authority (Pradeshiya Sabha, or Urban Council) to look after the distribution system and revenue collection.

Thus, while the NWSDB will carry out the main part of planning and construction with little community input, the local authority will have to discuss the placement of standpipes with the community, and stimulate the formation of consumer societies to arrange revenue collection from the standpipes.

c) Estates

There is a well established pattern of providing water supplies and sanitation to the estates, and the JEDB and SLSPC have plans for the next five or more years for serving an average of twelve divisions (something akin to villages) within each region every year. It is envisaged that this programme will continue, quite possibly with renewal of the present ESA funding agreements. Depending on the situation after privatisation, which will occur in the near future, it may be possible to convince the estates to build up their capacity, and execute a somewhat accelerated programme. The top-down decision-making process and lack of community involvement make implementation a simple task. It is simply required to build the investments in water supply and sanitation into the overall investment plan.

d) Villages with Non-resident Estate Workers

This is a more challenging case, and arises with the interest now being shown by estate management and unions in providing services to these workers. The present intention, in the absence of strong sector coordination, is to develop a programme of providing piped supplies where nearby estates can provide them, or shallow wells where this is not possible, to the households of these workers. Such an approach of serving only a proportion of village residents is clearly not cost-effective, so it should be possible to work out incentive mechanisms whereby the whole village is served with cooperation between the estate and village authorities. Such cooperation would have extra non-financial benefits such as improving the traditionally poor relationships between the estates and the surrounding population, and making available many good gravity sources on the estates which the estate management has previously not been willing to allow.

Two possible strategies could be adopted for this cooperation and would need to be worked out in detail during preparation of the PIPs. One would see the plantation authority approaching the local implementing agencies when non-resident worker projects were being planned, drawing up a common design for a supply for the whole village, with the normal community participation methods, and splitting costs on a per capita basis. The estate workers would be exempted from any capital cost recovery requirements. Implementation would be by the normal methods of communal labour (see (d) below), with skilled labour being provided by the estate baases. A second possibility would be the provision of bulk supplies to the village by the estate, at an agreed flat rate, or even by metering, with meter maintenance contracted out to the NWSDB.

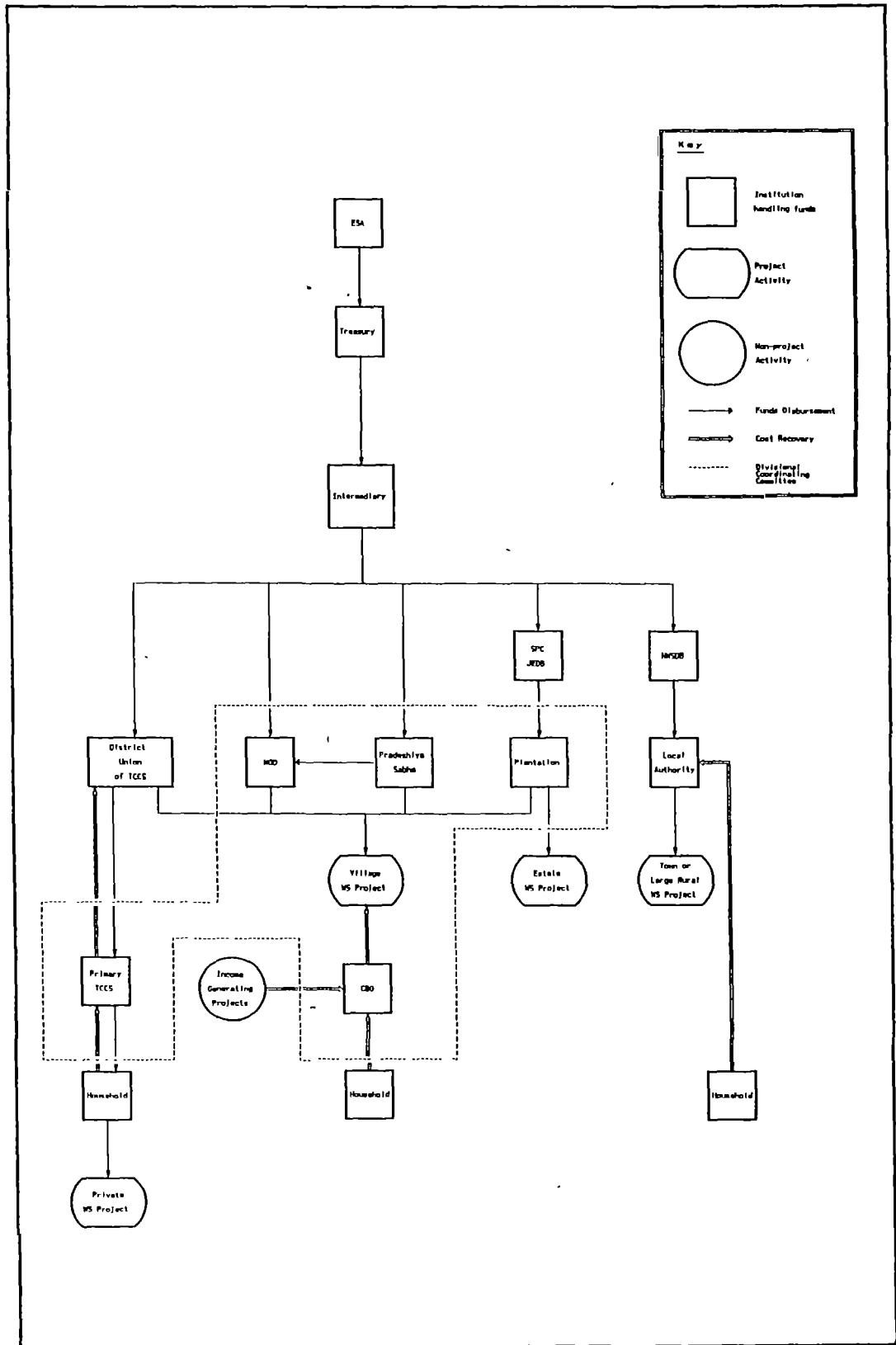
It is to be hoped that drawing the estate corporations more into the main stream of sector activities will improve village-estate relations and allow further use of valuable gravity sources situated on many of the upland estates.

e) Isolated Houses

These are not common in the relatively densely populated areas covered by the programme, although villages often have quite low population densities. Where they do occur, shallow wells will be the only affordable solution unless the household is in the unusually fortunate position of having a suitable spring very nearby. Credit for construction of facilities by the private sector is the most feasible solution in these cases, and TCCS the most appropriate agency to provide it. This should be relatively easy in cases where these households are members already (this applies to an average of about 17% in the three districts), and they might be targeted by TCCS for taking up membership when they are not. Depending on the performance of village revolving funds for sanitation, this approach could be tried for private water supply facilities as well.

The above discussion is consolidated into a generalised institutional chart, shown in Figure 8.

Figure 8 General Institutional Model for Implementing Agencies



4.1.4. Intermediaries

Selection of the right intermediary organisation is critical to the success of the programme. It must have the appropriate orientation towards the participatory methodology to be adopted, be supportive of the idea of working with NGOs and measure up to all the criteria listed in 4.1.1 above. Following extensive discussions with sector personnel, a short list of three was prepared for analysis. These are the Janasaviya Trust Fund, a new organisation being established with World Bank funding, that will channel funds to a multiplicity of grass roots "partner organisations", the IRDP programme of the MPPI, selected as being the existing organisation whose procedures are closest to those proposed for the programme, and the NWSDB, which still has nominal overall responsibility for the water supply (though not the sanitation) sector. These are considered in the light of the criteria developed for assessing institutions for inclusion in the programme.

Due to the scale of the proposed programme, and its potential expansion into a national operation, it is envisaged that the intermediary agency would host a Rural Water Supply and Sanitation Unit (RWSSU), which, although fully integrated into the agency's structure, would maintain an identity and meet regularly to discuss issues related specifically to the sector.

a) Janasaviya Trust Fund

At the outset, it must be stated that the JSTF is an essentially new organisation (although built on the foundations of the old National Development Fund) and, as such, is difficult to assess as it has no track record. The assessment made has been based on the project documents describing the Trust, and extensive discussions with its top management.

Programme Accountability

The JSTF is established as a trust fund under the control of a Board of Trustees and an executive management. Although it is thus not directly integrated into the government structure, the chairman of the Board is the president of Sri Lanka, and he regards it as an important element of the national development strategy aimed at reducing poverty. It therefore has a high political profile which could, under some circumstances, lead to sudden changes of policy dictated from above. The management is, however, fiercely independent and committed to the goal of working with the people to achieve the stated aims of the Trust's programme. It is also closely watched by the World Bank, the major donor supporting it, which has a certain amount of leverage with the GOSL in ensuring it keeps to its agreed programme. It can therefore be rated as having a good degree of independence and motivation to conform to the rural water supply and sanitation development plan.

The JSTF operational system calls for direct interaction between its officials and those of partner organisations (implementing agencies), and a system of

"people's forums" at divisional level where the partner organisations meet publicly to discuss registration of organisations and project selection. These mechanisms should ensure good feedback to the centre, as long as sufficient contact can be maintained as the programme grows; no intermediate level of Trust activity is proposed between the centre and the partner organisations.

Technical standards should be easily maintained, as all rural infrastructure projects will be subject to scrutiny by a committee of well qualified engineers in the Trust's Community Projects division. The proposed district development programme would have district level units, working alongside the JSTF's proposed district engineers which would be able to carry out this task, with the backing of the central project selection committee.

The Trust's ability to coordinate the activities of different implementing agencies should be good, set up as it is to deal with thousands of small organisations, although not within the context of a concerted sectoral programme. How the mechanism for dealing with government agencies (in this programme, principally the NWSDB, JEDB and SLSPC) through the MPPI will work is as yet unclear, but what is certain is that the JSTF has considerable weight and influence by virtue of its eminent chairman.

Financial Accountability

A great deal of thought has gone into the elaboration of an effective financial accountability structure for the Trust, including the appointment of an external auditor and the establishment of accounting practices along commercial lines. As the Trust depends upon the World Bank for the majority of its funding, it is to be expected that good standards will be maintained. Financial controls will include regular monitoring aided by a modern MIS system. Cost effectiveness should be good, as there is no intermediate administrative level although some activities which might appropriately be carried out there will be contracted out to the private sector. The proviso is again that the number of projects should not overwhelm the system.

The potential for running cost recovery systems is quite good, as the credit division will have all the machinery in place for lending and receiving money at village level, albeit on a generally smaller scale.

Sustainability

As an agency entirely dedicated to reaching the poor, the JSTF's commitment to community participation is unquestionable. In addition, adequate plans for maintenance must be written into projects before they can be approved. Regarding the capacity of the organisation to handle the proposed level of programme funding there should be little problem as it would amount to about one third or less of total currently projected expenditure, and is of a similar order of magnitude as the community projects fund.

Management

The standard of management at the Trust is high, with professionals being drawn in from both the public and private sectors at competitive salaries. It is currently in the throes of setting up the organisation, but gives the impression of dynamism. A management style that encourages open discussion of issues is evolving, and should help to bring the best from staff.

Replicability

This may be a problem for the JSTF, as expenditures that might be required for a national programme would exceed by a factor of two or three the current throughput.

b) IRDP

Programme Accountability

The IRDP structure is of a small central unit (in the regional development division of the MPPI) and essentially autonomous district units, which receive support from different ESAs for their own distinct programmes. Their ability to draft and conform to plans is demonstrably good, and may be aided by their decentralised structure. With new emphasis now being placed on community participation in IRDP projects, and the use of change agents in the field, there is an established two way dialogue which feeds into the planning carried out at district level. Technical standards on IRDP projects observed were somewhat variable, despite sound project appraisal and monitoring procedures. This might require improvement. Coordination between agencies is, however, excellent, with well established links to all the major implementing agencies and authorities.

Financial Accountability

Long experience of cooperation with ESAs has led to the establishment of adequate accounting practices in the MPPI/IRDP system. As a government agency, audit is by the Auditor General's department. Depending on ESA requirements, this could be supplemented by the appointment of an external auditor. In any case, an internal auditor would be appointed to monitor financial management. A minor potential problem arising from being within the government apparatus is the need to separately specify proposed expenditure through NGOs in the annual budget application, which would prevent the transfer of allocations from proposed private or public sector expenditure to NGOs if it became necessary. However, provision for supplementary estimates exists, and, in any case, the proposed programme would operate on the basis of a stable and planned division of expenditure between the various implementing agencies.

An existing MIS system is under improvement, and will enable problems to be detected early. Cost effectiveness is satisfactory and has proved acceptable to ESAs in the past; having been set up as an intermediary agency in the first

place, the organisation was designed expressly for the efficient channelling of funds to their destination.

The IRDPs presently operate a number of small rural credit schemes, and are thus set up to give and recover loans as might be required under a cost recovery system.

Sustainability

The IRDPs have learnt through bitter experience the importance of community participation for sustainability of projects, in parallel with the same lesson that has been learnt by the international development community as a whole. Their increasing commitment to this approach is thus a practical principle rather than a grand statement of intent, and is backed up by the use of trained social mobilisers in the villages. Similarly, practical experience has made them acutely aware of the limitations of implementing agencies and the need for assisting in their development. This depth of experience built up over ten or more years will be a great asset in programme implementation.

Management

Although within the government system, the importance of ESAs to the IRDP programme has engendered a more open management style than in many other government agencies, and it was observed that the senior staff are competent, dynamic and fully committed to their task. The decentralised system, with clear divisions of responsibility avoids overlapping responsibilities and allows for independence of thought in adapting to situations as they arise in the field. Seminars and training courses for staff are regularly carried out. In general, the attitudes encountered among IRDP staff are appropriate to the programme methods and objectives.

Replicability

Fourteen districts are presently covered by IRDP programmes, with more planned, thus covering around two thirds of the island at present. This is more than satisfactory as a base from which to start national coverage by a rural water supply and sanitation programme that will take some considerable time to develop.

c) NWSDB

Programme Accountability

It has been a perennial problem for the NWSDB to avoid political pressure on its planning process, although, as mentioned in the previous section, this is now improving, and is aided by the decentralisation process that removes decision-making power from Colombo. Nevertheless, politicians are accustomed to look to this agency to perform favours, and this will take time to change. Regarding feedback from the communities, the Board is also in an early stage of development, and it will be several years before the CPUs are fully effective.

With respect to technical standards, the NWSDB has the mandate to set and supervise them on a national scale, and is the greatest repository of technical knowledge on water supplies in the country. It is partly this preoccupation with the technical which holds back its development in other fields. On coordination, too, the Board is weak, having little experience of coordinating the work of different agencies, especially NGOs.

Financial Accountability

This is covered in the previous section, under implementing agencies. Financial accountability is adequate, under the government system, whilst cost-effectiveness is low. This is particularly true for any potential intermediary activities, since the agency is set up principally for implementation work, and needs the overhead organisation to support the large number of workers required. On cost recovery, again, Board procedures and experience are somewhat at variance with programme plans.

Management

This is also covered in the previous section.

Replicability

The NWSDB is a nationwide organisation, and will have completed its decentralisation programme by the end of 1992. Its annual budget far exceeds anything that might be spent in the rural sector at present due to the lack of implementing capacity. If it had the other requisite qualities, the Board would be well capable of replicating the proposed three districts programme throughout the island.

4.1.5. Coordination

Before going on to the relative evaluation of the three potential intermediary agencies, it is pertinent to address the issue of coordination. Poor coordination is probably the second most important factor responsible for poor sector performance, after the lack of suitable implementing capacity. The ability of the intermediaries to engender the required degree of coordination is thus critical.

Three levels of coordination have been identified as being necessary to achieve efficient programme implementation. These are the national level, the divisional level and an intermediate level, perhaps more appropriately district level, but which could also be at provincial level.

a) Divisional Level

The division is the appropriate sub-unit within which the various implementing agencies can coordinate their activities on a day to day basis. At this level, implementing agency workers and Pradeshia Sabha officials are familiar with the individual communities in the area, and will be able to identify areas where

the agencies can help each other overcome operational problems, or with information on communities and water resources. The division will also be the forum where the relative priorities for intervention in different villages can be discussed. Thus, although the individual agencies will have a fair degree of autonomy in selecting which communities they will work in, this coordination will help to ensure that needy ones are not neglected.

Coordination at this level is particularly important for making the best use of the potential in the NWSDB and JEDB/SLSPC, which have their primary target groups limited to the small towns and estates, but will have valuable inputs to make in the rural sector as well, particularly in the extension of piped schemes to areas adjacent to their own existing systems. The feasibility and priority of such extensions will be discussed in the light of what the other agencies are doing.

A third function of this coordinating body will be to make an initial assessment of any small NGOs wishing to participate in the programme in terms of what they might most usefully do, and what sort of support they will require.

It is suggested that a group consisting of the implementing agencies, Pradeshiya Sabha officials and any other interested parties, such as CBOs representing the interests of residents in the area should meet regularly, perhaps every two months, to discuss the issues raised above.

Janasaviya Trust Model

Such a group is already provided for under the Janasaviya Trust, and is called the People's Forum. It elects a committee from amongst the interested parties, which in turn elects its own chairman and other officials. This would be suitable for the purposes of the proposed programme, with the proviso that, if necessary, the NWSDB and local estate corporation be coopted onto the committee as well.

NWSDB and IRDP Models

Both these agencies are more accustomed to working within the existing government apparatus, and it might therefore be appropriate to form the coordination committee directly from representatives of the implementing agencies under the chairmanship of the Divisional Secretary. However, to ensure transparency in programme management, a public meeting should be held when the programme first moves into an AGA division to elect members of the public, in their private capacities or as CBO representatives, to ensure proper accountability to the target population.

b) Intermediate Level

Coordination at the intermediate level will be required to maintain balance between activities in the different divisions and decide when service coverage



in the priority divisions has increased sufficiently to warrant expanding programme activities to other areas. Secondly, problems and disputes which were unable to be resolved at the divisional level committee can be brought up. If necessary, one of the more senior people working at this level can be delegated to make representations to the regional management of the NWSDB, JEDB, SPC, Provincial Council or any other body whose cooperation may be required.

This is also the level at which proposed projects and implementing agencies can be assessed to see that they meet the project selection criteria, or if supplementary plans or information are required. The proposed RWSSU would have a presence at this level, and would both monitor ongoing projects and arrange for technical assistance to be channeled to those organisations requiring it.

At the third project workshop, participants spent some considerable time discussing whether the appropriate level for this activity should be the district or the province. As people involved in the practical implementation of projects, the conclusion reached was that the provincial level is too remote from the communities served, and the AGA divisions too numerous to allow effective coordination. A second reason for choosing the district as the intermediate level is the pragmatic one that funding for the implementation of this plan is to be for the three districts of Matara, Ratnapura and Badulla, which are in three different provinces (Southern, Sabaragamuwa and Uva respectively), and that therefore, at this stage, any provincial body would be forced into a district orientation anyway.

As it is proposed that the programme management, in the form of the Rural Water Supply and Sanitation Unit (RWSSU) be present at this level, in the form of one engineer and one software specialist (dealing with social marketing, health education, community mobilisation and training), day to day matters can be handled by them with their executive powers. However, to keep the programme on track, quarterly meetings should be held with an advisory committee consisting of representatives from the divisional coordinating groups, the district level of the implementing agencies and the Provincial Council.

Janasaviya Trust Model

The Janasaviya Trust has no plans for an intermediate level between the division and the centre, with some some of the functions described above being delegated to private consultants (who may be drawn from government institutions, but in their private capacity). However, recognising the lack of technical skills for project implementation, it is now proposing district engineers to help monitor and channel support to the implementing agencies, so the district RWSSU would be based in the same place, wherever that turns out to be. This raises the question of how much support and executive power could be centred at district level under this model.

IRDP Model

The IRDPs have a strong existing presence at district level in all three project districts, with well-established links to the major institutions which would be involved. The proposed RWSSU district unit would fit easily into this structure.

NWSDB Model

This institution is decentralised to Regional Support Centres (RSCs) in regions composed of 2-4 districts, with district offices in the districts where there is no RSC. In this case, the district level RWSSU is perhaps in slight conflict with the established structure, but there is no major reason why it cannot be based in the district office, with the RSC manager in overall charge and attending the quarterly advisory committee meetings. Flexibility will be required in any case to bridge the differences between the NWSDB regions and the administrative Provinces.

c) National Level

National level coordination will be required to establish compatibility of policy between the government agencies, overall policy on target service levels, coverage and subsidies, and funding arrangements. It will also be necessary to establish agreement on technical standards. A second group of issues for national level consideration would include overall physical and financial monitoring of programme performance.

Two national level bodies will be required. Firstly, to ensure smooth operation and monitoring of such a large and complex undertaking, involving considerable amounts of ESA money and many different agencies, a full time executive body will be required. This is the proposed national level RWSSU. In line with the programme policy of avoiding the creation of new institutions wherever possible, it would be integrated into the existing structure of the intermediary agency. Thus, its members might be distributed between different departments or divisions (eg. operations, planning, finance) but would devote their time to RWSSU activities and meet formally as a group on a weekly basis, and informally as the need arises from day to day.

The second national level body would be a national steering committee, composed of the relevant ministries and agencies. These would include:

- Ministry of Finance
- Ministry of Policy Planning and Plan Implementation
- Ministry of Public Administration, Provincial Councils and Home Affairs
- Ministry of Housing and Construction
- Ministry of Health
- Ministry of Plantation Industries
- NWSDB

- SLSPC
- JEDB
- Sarvodaya
- TCCS (Sanasa)

The last two are included as the two biggest NGOs involved, to represent NGO implementing agencies who will be carrying out more than a third of the programme. The RWSSU would also be represented.

This advisory committee should meet twice a year under the chairmanship of the parent ministry of the intermediary agency to review progress reports and physical and financial audits of the programme, and to address policy issues raised by the RWSSU, arising from project implementation. The NWSDB has a key role to play here in supporting both the RWSSU and the steering committee in its policy-making, and would act as a secretariat to the committee.

Janasaviya Trust Model

The Janasaviya Trust has, amongst others, a finance division and a community projects division into which the RWSSU would be integrated. It is set up to deal with small partner organisations (implementing agencies) and responds to an independent Board of Trustees. Its official links with government agencies (NWSDB, SLSPC, JEDB) would be through the MPPI, although this is supposed to be flexible, and will become clearer once the Trust starts operating in earnest.

IRDP Model

The IRDPs are coordinated centrally at the MPPI Regional Development Division, which carries out all the same functions for the IRDPs that the RWSSU national body will carry out for rural water supply and sanitation. As the IRDPs are already working with all the proposed implementing agencies, suitable coordination structures already exist.

NWSDB Model

The NWSDB has no rural water supply section as such, but the nature of the tasks allotted to the national RWSSU would place it most appropriately in the planning and finance divisions. The Board has working links with all the agencies involved except the JEDB and SLSPC, with which it might appropriately coordinate its activities through the respective parent ministries (Housing and Construction and Plantation Industries). The corporate planning division of the NWSDB should also be involved in drafting policy papers for the steering committee.

4.2. Proposed Model

The analysis presented above shows a variety of implementing agencies which will be able to perform satisfactorily, each within its allotted target group and level of technology. Considerable technical assistance will be required, particularly in developing community mobilisation and technical skills, as well as overall capacity building. However, this is considered feasible on a scale commensurate with the scope of the proposed programme

Of the three potential intermediary agencies considered, the NWSDB is the least appropriate to the aims and methods to be employed in the programme, and therefore receives no further consideration here. The balance between the other two (JSTF and MPPI/IRDPS) is fine, and further complicated by the need to compare an organisation with an established track record with a new venture, the intentions of which are undoubtedly excellent, but which will inevitably have to compromise on some of them as it establishes its field operations. Table 4 sets out a summary comparison of the two agencies, based on a points system. This is inevitably somewhat arbitrary, but given the uncertainty associated with the comparison of two unlike bodies is considered at least not to add to this uncertainty.

As can be seen, there is little to choose between the agencies, the main difference being due to better projected financial accountability in the JSTF. This has therefore been selected as the proposed intermediary agency. Due to the narrow difference between the two, however, it is recommended that a final decision be based on policy discussions within GOSL, and a further appraisal of the JSTF once it has commenced project execution in earnest.

An overall organisation chart is presented in Figure 9.

4.2.1. Institutional Strengthening Required

This is discussed above in the sections evaluating the various institutions, so is needs no further elaboration here. The required training will be provided by the service organisations described elsewhere in this volume, consisting mostly of NGOs. This training will take both formal and informal forms, the latter including the sharing of experiences between agencies by exposing trainees to their working methods in the field. Seminars and workshops will also be held for the exchange of experience, particularly for more senior staff and politicians. Provision is also made for study tours in the region to gain from the experiences of other countries.

Table 4 Comparison of JSTF and IRDP as Intermediaries

Criterion	Max. score	JSTF	IRDP
<i>Programme accountability</i>			
Conform to plan	5	4	5
Feedback	5	5	4
Technical	5	4	3
Coordination	5	4	5
<i>Financial accountability</i>			
Accountability	5	5	4
Control	5	5	4
Cost-effectiveness	5	4	4
Cost recovery	5	5	4
<i>Sustainability</i>			
Community participation	5	5	4
Capacity	5	3	4
<i>Management</i>	5	5	4
<i>Replicability</i>	5	3	4
Total	60	52	49

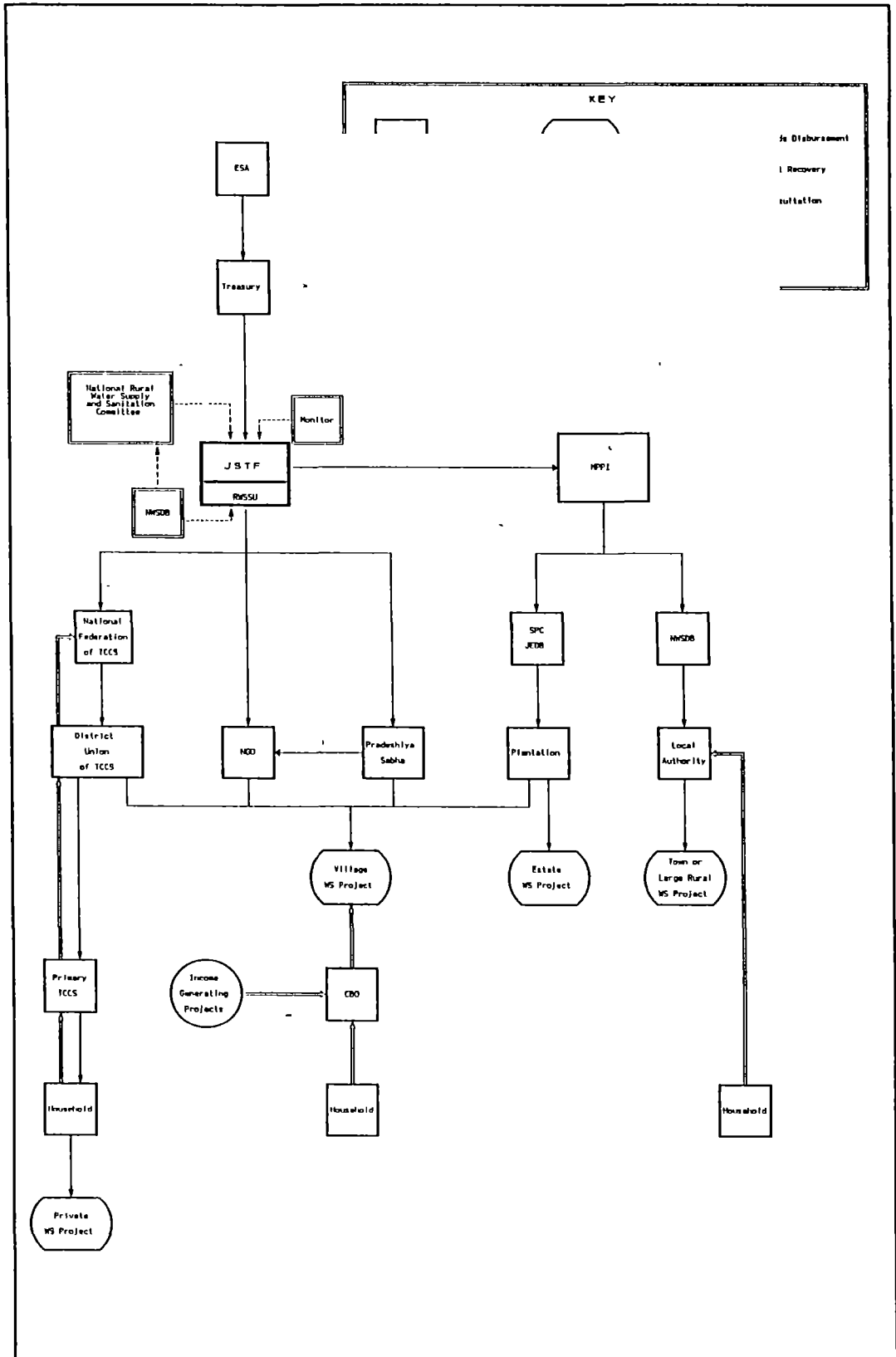
Scores: 5 - very good
 4 - good
 3 - fair
 2 - adequate
 1 - poor

4.2.2. New Institutions Required

It has been an objective when planning the new institutional structure to avoid the formation of new organisations wherever possible, but rather to build on existing ones. However, given the ambitious nature of the proposed rural water supply and sanitation programme, both in terms of the application of innovative community participation methodologies and the level of investment in comparison with what has gone before, it is clear that there must be an agency in overall charge of the sector. This does not at present exist, so the formation of a Rural Water Supply and Sanitation Unit (RWSSU) is proposed, and is mentioned in the discussion above.

The RWSSU will be embedded in the JSTF structure at national level, in the form of a small team of professionals with associated support staff. Five professionals are proposed, being an engineer, a training specialist, a specialist in social marketing, health education and community mobilisation, an MIS specialist and an accountant. The engineer and MIS specialist will be incorporated into the Community Projects division, the software personnel into the Human Resources and Institutional

Figure 9 Proposed Institutional Structure



Development division, and the accountant in the finance division. They will, however, meet formally at least once a week to coordinate their activities, and informally from day to day as the need arises.

The engineer and MIS specialist will be responsible for ensuring the smooth operation of the implementation programme, and monitoring physical progress and technical standards. The software specialists will liaise with outside agencies (service organisations) to procure training and materials according to identified needs, and will be involved in promoting information exchange at the official, implementing agency and community levels. They will also organise the training of trainers as required. The accountant will be in overall charge of project expenditure and cost recovery procedures. The group as a whole will discuss and draft policy and overall plans for the sector.

At district level, the RWSSU will be represented by an engineer and a software specialist. They will be on hand to visit projects and agencies in the field, to monitor and arrange support where necessary. They will liaise with the centre to ensure the efficient flow of information in both directions. Two technical assistants and an accounts assistant will support each district unit. It is not quite clear yet as to which organisation they will be attached, since the JSTF is still formulating plans for its own district engineers.

In addition to the RWSSU, the need has been identified for coordinating committees to take on an advisory and information exchange role at national, district and divisional levels. These are discussed in the section on coordination, and summarised here.

Divisional Coordinating Committee (monthly)

Members:

- Implementing agencies
- Pradeshiya Sabha officials
- CBOs and citizens

Functions:

- Exchange of information
- Resolution of operational problems
- Setting of relative priorities between villages
- Identifying possibilities for extension of piped schemes
- Assessment of small NGOs

District Coordination Committee (quarterly)

Members:

- RWSSU
- Representatives from divisions
- Implementing agencies
- Provincial Council

Functions:

- Distribution of resources between divisions
- Resolution of operational problems and disputes
- Obtaining official cooperation when required from district and provincial level agencies
- Assessment of projects against selection criteria
- Ensuring conformity with local government policy

National Steering Committee (bi-annually)

Members:

- Ministries of:
 - Finance
 - Policy Planning and Plan Implementation
 - Public Administration, Provincial Councils and Home Affairs
 - Housing and Construction
 - Plantation Industries
 - NWSDB
 - SLSPC
 - JEDB
 - Sarvodaya
 - TCCS (Sanasa)
 - RWSSU

Functions:

- Review physical and financial performance
- Policy decisions (targets for coverage and service levels, subsidies, funding arrangements)
- Agree technical standards
- Ensure compatibility of government agency policies

4.2.3. Projected Capacity

The projection of implementing agency capacity according to present capacity and assessed potential for growth is a fundamental part of the development of the district plans. It will be further refined during preparation of the priority investment plan on an institution by institution basis. The overall inputs by the different agencies are

built into the individual district development plans (Vols. III-V). A summary is given below of the basis for the projections.

4.3. Individual Institutional Roles

4.3.1. Institutional Capacity

The capacity of each institution was estimated based on a variety of factors. The existing expenditure was examined, and any district-wise variation taken into consideration. Several organisations have high capacity to implement schemes, but and using traditional technology-oriented methods, which merely provide services to passive recipients and do not incorporate community participation, cost recovery or on-going community management. The participation of these institutions was scaled back, and a low level of increase in their expenditure assumed, as they will take time to learn and effectively implement the proposed strategies and methodologies.

The differences in coverage require that 44% of expenditure be in Ratnapura. This will make institutional strengthening of implementing agencies in that district a priority.

a) Sarvodaya

Sarvodaya's existing capacity is very high compared to the other NGOs in the sector, and the organisation uses an effective participatory, community-based approach, which in fact can serve as a model for other organisations. Although the implemented 1991 workplan was for Rs. 11.0 M (Rs. 2.72 M for water supply and sanitation in the three project districts), SRTS originally proposed a workplan to execute nearly double the number of projects, for Rs. 17.89 M (Rs. 4.085 M for water supply and sanitation in the three districts), using the same institutional framework, and increasing their field staff at the mason/supervisor level only slightly. The lack of donor funds was the reason this second, larger budget was not implemented. SRTS is actively seeking the remaining funds from other agencies in order to carry out more projects.

Sarvodaya currently has 5 technical and senior supervisory staff in the three districts, overseeing the work of 10 mason/supervisors. With the current small number of projects the present structure is somewhat top heavy for the 28 project sites. Additional supervisors could be engaged in each district without adding to the number of AICs or OICs, bringing the capacity to 48 projects supervised at any given time. With a full complement of AICs (the addition of one in Badulla, one in Matara and two in Ratnapura), 16 supervisors could be at work in each district, overseeing a total of 96 construction sites at any given time. SRTS could thus rapidly quadruple its capacity in the three districts.

The SRTS programme in Ratnapura is much smaller than the other two districts, being approximately one-third the size in terms of rupee expenditure. The SRTS

capacity has been estimated at Rs. 4.3 M in the first year, of which 2.0 M is spent in Badulla, 1.5 M in Ratnapura and 0.8 M in Ratnapura. The programmes in Badulla and Matara would increase annually by 50%, levelling off in 1996 at 10.1 and 7.6 M respectively. The programme in Ratnapura would start at 0.8 M, and increase annually by 100% to level off at 12.8 M.

b) TCCS

The current sector expenditure of TCCS is negligible, as only a handful of water projects have been carried out by the organisation. However their capacity is high, and their success with projects has been proven. They do not lack the management expertise other NGOs lack, but obviously have very little technical expertise. Technical training will have to be provided, or arrangements made for them to contract out technical design work. Their capacity for training is high, as they have their own training facilities. They work in a community based manner, and cost recovery and on-going sustainability are inherent to their organisation.

There are more TCCS societies in Matara than the other districts, so the initial capacity has been estimated as slightly higher in that district. The expenditure in the first year of the programme is estimated at 1.2 M, rising by 50% per year. Expenditure in Badulla and Ratnapura would start at 1.0 M per year, and increase in Badulla by 50% per year, and Ratnapura by 70% per year, levelling off in 1996 to 5.1 M in Badulla, 6.2 M in Matara and 8.4 M in Ratnapura.

c) PLAN

PLAN's expenditure on water projects was 1.145 in 1991, and the organisation is planning to execute 2.0 M of projects in 1992, using existing staff. They have an interest in expanding their activities in the sector further, but are limited by a need for technical training and suitable community mobilisation techniques. Their approach is based in overall community development, but they have had difficulty in establishing on-going management of schemes. Their capacity has been estimated at 2.0 M in the first year of the programme, increasing by 50% annually. PLAN operates in Badulla only.

d) Small NGOs

There are numerous small NGOs operating in the sector, who carry out small water projects with funding from a variety of sources. It is difficult to accurately estimate the total expenditure of these organisations, but it can be safely assumed that it is less than 1.0 M. These small NGOs have valuable community mobilisation experience and are close to the rural population. Their capacity could be increased with training and other assistance. Their capacity has thus been estimated as Rs 300,000 in each district in the first year, increasing by 50% each year for to years to level off at 700,000 in 1994.

e) NWSDB

While the Water Board's expenditures in the sector are very large (in the order of 75 million in 1990), a very large percentage of this is in urban areas, and benefits a small percentage of the population. The NWSDB has few skills in community based approaches, and despite attempts at a pilot level to develop a community participation model, the approach used by the Board is not replicable on a large scale. The NWSDB recognises its limitations in rural areas, and has identified rehabilitation of its deteriorating urban schemes as a priority. However, as the NWSDB will be restricted to piped schemes, mostly in urban areas, a less participatory approach can be accepted. In view of the small expenditure involved under the proposed programme relative to the overall scale of NWSDB investments, it has been assumed that it will easily be able to handle the investment required.

f) Pradeshiya Sabhas

It is very difficult to estimate the capacity of the Pradeshiya Sabhas as they have not been fully operational to date. They are also destined to be highly political organisations, and it is not clear to what extent this will hamper their activities. Their current expenditure has been estimated based on the population in the AGA divisions. Assuming that expenditure of capital works in big PSs (defined as those in AGA divisions with more than 70,000 inhabitants) is in the order of Rs 3.0 M and in small PSs it is 1.0 M, and further assuming that 10% of this is on water supply and sanitation projects, the PSs in the three districts are spending approximately 6 M on the sector at the moment. Their starting capacity in year one of the programme has been estimated at 6.9 M, distributed among the three districts roughly according to population. Their rate of increase has been set at 15% in Badulla and Matara, and 30% in Ratnapura, levelling off in 1997.

g) Plantations

The plantations corporations are already making large expenditures on water supply and sanitation in the three districts. The technical capacity of JEDB and SLSPC is fairly high. Their capacity for community based projects, however, is low at the moment. It is hoped that they will increase this capacity through staff training, and will also begin serving some of the non-resident workers living off the estates in neighbouring villages.

Their initial capacity has been estimated at 16 million in total for the first year, half of which will be spent in Ratnapura, largely by SLSPC as there are very few JEDB estates in the district. The other half will be spent in Badulla, and only a very small percentage in Matara, as coverage on the estates there is already fairly high, and the unserved population is much lower than on the estates in the other districts. Capacity will increase by 15% per year, as the plantations absorb new methods and branch out to serve the non-resident workers.

The percentage of the total programme by district and institutions as summarised in Table 5.

Table 5 Percentage of Total Programme by District and Institution

	Badulla	Matara	Ratnapura	Total
SRTS	21	22	26	23
TCCS	10	18	18	15
PLAN	12	0	0	5
Small NGOs	2	3	3	2
NWSDB	15	40	16	20
Pradeshiya Sabhas	13	13	22	17
JEDB/SLSPC	28	3	15	18
Total	37	19	44	100

4.4. Technical Assistance Package

The first task of the Technical Support Unit (TSU) will be the setting up of the RWSSU, to which it will act as counterpart in the early part of the project, providing technical orientation, advice and training. Programme quality would be maintained by these activities, in addition to the monitoring of programme outputs. In order to ensure effective monitoring, and channeling of TSU inputs to the many agencies involved in the field, the team would divide its time between the districts where the programme is being implemented and the central RWSSU. Its main functions can be divided into three areas: training, technical assistance and monitoring.

4.4.1. Training

Direct training will be carried out by the TSU in the operation of the accounting systems set up, so as to ensure adequate financial control. Training will also be provided for managers in project and institutional management. In addition, a series of seminars and workshops will be held for the various groups of officials and politicians involved with the programme to educate them on and refine the objectives and methods employed. The TSU will also arrange for workers of different

implementing agencies to learn from the successful experiences of others (particularly the NGOs).

The team will also carry out training of trainers within the implementing agencies or "service NGOs" (those providing training services to other implementing agencies). This will focus on both technical aspects of scheme design, construction and operation, and software skills for those working on community mobilisation, social communications and marketing, hygiene education, and sanitation promotion.

4.4.2. Technical Assistance

As mentioned above, an important early task for the TSU will be the setting up of the RWSSU. This will comprise the establishment of the overall organisational framework so as to ensure good coordination, efficiency, control and accountability. In parallel, systems and procedures to back this up will be developed. Related to this activity will be the establishment of relationships between the RWSSU, the implementing agencies and third parties such as the service NGOs or the Health Education Bureau.

The long-term sustainability of any programme depends upon the motivation and performance of those contributing to it. The establishment of good personnel management, incentive systems and working conditions, in addition to training, have a major role to play here. The TSU will be able to apply this directly to the establishment of the RWSSU, and should try to promote improvements in this sphere in the implementing agencies, although scope may be limited.

A third major area for technical assistance will be the provision of resource materials, such as manuals and flip charts, for use by the implementing agencies. Much of this already exists, and needs only to be discovered and channelled to where it is required. In other cases, the need may be identified for new materials, the production of which would be supervised by the TSU.

The establishment of an effective MIS will be important, and although included in the remit of the JSTF, the technical assistance would allow for a few months of input from an outside consultant to help set up the system, and check its operation at a later stage.

The establishment of overall planning and programme management methods will be a joint task of the TSU and RWSSU.

4.4.3. Monitoring

Because of the new approaches to be employed, there will be a substantial lag time at the beginning of the project while the institutional development activities are building up implementation capacity. The TSU will play the key role in generating

and maintaining momentum in this period and will effectively have overall responsibility for project management. As time passes and the tempo of implementation picks up, the main responsibility for project management will pass to the RWSSU. Simultaneously, the TSU will take on an increasing load of monitoring work as the implementation programme grows. Effective monitoring is vital to the success of the programme, especially considering the many agencies which will be involved, so the team should be given ample time to set up and consolidate the monitoring systems before it is phased out.

Besides this internal monitoring system, it is recommended that an independent monitor be appointed to make periodic visits and provide an outside assessment to the RWSSU and the funding agency.

4.4.4. Timing

It is considered that it will take at least four years to properly establish the RWSSU, given the slow buildup of capacity in the field, and the need to forge new relationships between sector organisations. The two main TSU members should thus stay for at least this period. The services of the training specialist will be required for about two years to establish the necessary programmes to suit the various implementing agencies. It is considered that one year will be sufficient to set up and train staff in the use of the accounting and financial control systems, and hand over to the RWSSU accountant. Four months have been estimated in two visits for the MIS specialist, two months for the external monitor (two weeks per year) and six months as required by individual specialists, most probably in the software field.

5. DDP Targets & Policy Framework

5.1. National Policy & Legislation

5.1.1. Policy Implications

The most major implications of the proposed programme for GOSL policy are in the field of institutional structures. A concerted effort to establish a national framework along the lines recommended will involve the taking of a clear decision on responsibility for the rural water supply and sanitation sector. It is doubly important that this be done now, so as to fill the institutional vacuum left by the formal withdrawal of the NWSDB from the rural sector.

It is also of prime importance to realise that the inclusion of many different implementing agencies in the rural water supply and sanitation programme, particularly NGOs, is essential if sustained progress is to be made in the sector. This will require shifts in attitude, and possibly enabling legislation, to simplify CBO registration procedures and facilitate the use of government funds by NGOs.

It is generally agreed that subsidies to the water supply and sanitation sector must be reduced, if not entirely phased out. This requires political will on the part of the government, which has a long tradition of giving away such services free of charge, often in an arbitrary way which does not reflect needs in the sector. This phasing out should be gradual, however, and take account of beneficiaries' financial capabilities

The recommended approach has two elements. Firstly, direct cost recovery from community inputs in kind should be maximised, and possible "up-front" capital contributions from communities encouraged, even if for only a token amount. Where communities or individuals are willing to pay the extra costs of higher service levels (house connections instead of standpipes, for instance), and it is technically feasible, they should be encouraged to do so. This encouragement could take the form of giving increased priority for programme funding. Secondly, capital cost recovery through loans given by the implementing agencies to beneficiaries should be instituted. The repayments would enter a revolving fund held by the implementing agency, the value of which, allowing for 10% default, would be deducted from future funding through the agency. In order to avoid erosion of the funds, realistic interest rates should be charged, to take account of inflation and service costs. The proportion of total cost to be repaid would be reviewed periodically against repayment records and affordability. In the first instance, a target of 10% cash cost repayment might be suitable.

5.1.2. Legislative Implications

a) NWSDB

Under the NWSDB legislation, the area of authority for the Board was declared in 1982 to be the entire island. In light of the new policy of the NWSDB to prioritise the existing urban schemes, and largely leave the rural areas to other agencies, this area of authority should be changed.

b) Provincial Councils

The enabling legislation which is required for the Provincial Councils to take on their devolved functions has not been enacted. This should be done as soon as possible to make the councils fully operational. The registration of societies has been effectively halted because of the delay in establishing the responsibilities of the Provincial Councils, and this prevents NGOs and CBOs from acquiring official recognition and legal status.

c) Plantations

The impending privatisation of the plantations will have a major impact on the way social development and infrastructure improvement projects are carried out. Legislation does exist to guarantee that estate superintendents, on both private and state owned estates, take responsibility for the resident workers' welfare. As it stands, the revisions to the Medical Wants Ordinance (renamed the Estate Health Law) have not been passed by parliament, and in any case the previous ordinance was not enforced. This situation should be remedied, and effective, enforceable legislation put in place to ensure estate workers' well-being.

d) Water Rights

The legislation regarding rights to use of water for domestic purposes is not clear. Communities wishing to use public water sources will be required to apply to the GA for permission. Government policy should facilitate the granting of this permission and ensure that the process is not onerous and prone to delay, especially as the organisations applying (CBOs and NGOs) often have limited capacity to go through long and bureaucratic procedures.

e) Pradeshiya Sabhas

Although Pradeshiya Sabhas have a mandate to carry out water supply and sanitation improvements and establish new facilities, they must not view this as an exclusive right, and government policy must make it clear that other organisations, such as NGOs and CBOs have the right to undertake water projects and that their participation in the sector should be facilitated.

f) NGOs

There is evidence that new legislation to control and monitor NGOs may be proposed shortly. If this legislation is overly restrictive it will hamper the NGOs in their activities. Controls may be implemented on the way that NGOs receive funds from external agencies, requiring that such funds flow through government. This may result in a situation where government effectively controls all NGO operations.

While NGOs have worked well with the GAs, AGAs and IRDPs, it is not clear how they will interact with the newly elected Pradeshiya Sabhas. It will be difficult to establish good collaborative links in the atmosphere of suspicion that exists regarding NGOs at the moment, and even more difficult if NGOs are working under strict government control, caught in a web of bureaucracy.

5.2. Targets & Service Levels

There are three main elements that can be used to define water supply service levels, namely, quality, reliability and accessibility. These have to be balanced according to available resources, perceived needs, and estimated impact (benefits).

As this is a strategic planning exercise, data are not available at the level of detail required to carry out detailed analyses of the above factors, which apply only to a specific set of circumstances. In any case, the calculation of benefits from water supply and sanitation projects is speculative at best, and can only give general guidance which must be backed up by informed judgement.

The approach adopted was to set an order of priority for the selection of different technologies for water supply and then to fine tune it according to the existing situation. This was done for two different service level scenarios. The factor of reliability was taken into account by admitting only reliable sources, and was reflected in the proportions of population served by different technologies.

The basic order of priority is headed by gravity piped supplies. These have a high potential in the study area, and combine the virtues of quality, reliability and accessibility. Shallow wells were given second priority, as being the cheapest type of supply. Tubewells (boreholes) with handpumps were ranked third, being a more expensive substitute when shallow wells were not possible. Pumped, piped supplies are the most expensive and were restricted to special environments such as towns (where piped coverage is already standing at 83% in the study area), and areas such as the coastal belt where other options are not feasible.

Two accessibility levels were considered. Initially these were set at a maximum distance to source of 200m and 400m for high and low service level respectively. However, further analysis of the data showed that very few people (less than 10%) use sources at more than 400m, so these standards were revised to 150m and 250m, the latter being a standard yardstick used in the water supply sector in Sri Lanka.

The major variable differentiating the two service levels was, however, quality. All the sources considered have a generally high level of quality, with contamination by faecal coliforms usually limited to well under 10 per 100ml, except for protected shallow wells, where contamination, apparently from unhygienic use of the well, is much higher. The two service level scenarios examined were thus as follows:

High Service Level

Gravity, <150m
Handpump shallow well, <150m
Handpump tubewell, <150m
Pumped, piped, <150m

Low Service Level

Gravity, <250m
Open shallow well, <250m
Handpump tubewell, <250m
Pumped, piped, <250m

In addition, allowance was made for marginal increases in coverage by piped schemes and handpump wells caused by other factors (eg. political imperatives).

Applying these criteria to the data on existing sector status and water resources availability was performed assuming that areas where overall coverage is lowest would be served first. Coverage targets were set by adjusting expenditure required on facilities to the implementing capacity available. The results of this analysis are presented in the district plans, chapter 4.

Three scenarios are presented, and show that, with the estimated implementing capacity, coverage of effectively 100% can be reached over 10 years at the low service level, while only 60% coverage can be achieved for the high service level. If a pessimistic estimate of implementing capacity is made, by halving the baseline estimate, about 80% coverage is achieved in the 10-year planning frame for the lower service level. On the basis of this analysis, the lower service level was adopted as being more appropriate to the resources available.

The inclusion of open protected wells as a source type has been the subject of some debate, as the water quality is not good. However, better access to water sources in itself has significant health benefits, whilst the benefits of a clean water supply are hard to realise without intensive health education, leading to behavioural change. Such intensive education may well have potential to improve open well water quality, and should be explored.

Service levels for latrines were defined as one pit or water seal (pour flush) unit per household, considered the minimum necessary to bring about improvements in environmental hygiene. Upgrading of these latrine types when in poor repair was also included.

5.3. Project Selection Criteria

5.3.1. Objectives

Project selection criteria are required in order to ensure that coverage is increased starting in the areas where the need is most acute or the willingness of communities to contribute is greatest.

In order to prevent political interference in project selection, a transparent process is needed, using clear and published criteria. The criteria will give priority to those communities and areas where the need for improved water supply and sanitation is greatest, and also to those where potential for community mobilisation is highest. The community itself, with the assistance of the implementing agency, is expected to illustrate that the proposed project fits the criteria. The investigation of the community in the process of preparing the proposal is a form of needs assessment, and should be carried out in a participatory manner.

Communities should be made aware of the programme and its selection criteria through publicisation and through the field workers of the implementing agencies in their areas. As much as possible the initiative for projects should come from the community, rather from external agencies. This may be in a constraint in remote and disorganised villages where people are unlikely to be aware of programmes and agencies, and where organisational capacity and the ability to research and write proposals is low. Assisting these communities to obtain assistance will be a particular challenge of the programme.

Project proposals will be simple documents, probably handwritten and a few pages in length, and the implementing agencies will assist communities to prepare them. The project proposals will be assessed by the RWSSU at district level.

5.3.2. Need Criteria

Need will be determined on the basis of the level of service offered by existing facilities, in terms of quality, reliability, and distance.

a) Quality

Quality will be assessed by examining the potential for bacteriological contamination.

This is largely determined by type of source; rivers, streams and unprotected wells being the most prone to contamination.

b) Reliability

Reliability will be determined according to whether sources provide year-round coverage or dry up during certain times of the year.

c) Distance to source

Distance to source is an indicator of the drudgery associated with water collection and the time required. Communities using sources which are very distant or over rough terrain will be considered as being in greater need than those with sources nearby and easily accessible.

5.3.3. Community Mobilisation Criteria

Potential for community mobilisation will be determined by the level of organisation in a community and willingness to pay a proportion of up-front costs.

a) Level of Organisation

The level of organisation will be assessed by examining the groups and activities of the community. The existence of community based organisations such as Death Donation Societies, RDS, Mahila Samithis, Youth Clubs or Young Farmers Clubs (even if these groups have not carried out any water or sanitation projects) will be considered an indication of the ability of the community to organize itself and take action. The track record of the groups will be examined to see if they have planned activities and carried them out according to plan and collected funds and managed them correctly.

b) Willingness to Pay

The willingness of communities to pay for capital costs is an important criteria for two reasons; firstly if communities pay a greater proportion of costs the overall programme will be able to reach more communities, and secondly, willingness to pay is a good indication of real commitment to the project. Communities will be required to indicate their willingness to pay the pre-determined a capital cost contribution, which will range from 10 to 15% of capital costs. In addition, communities must commit themselves to providing labour and materials. This in-kind contribution is estimated to be between 5% and 30% of project costs.

The criteria for providing higher levels of service than the basic ones within the programme will be willingness to pay the full incremental costs. Both communities and individuals will be given the opportunity to do this.

The project proposal should indicate how the community intends to operate and maintain the system once it is built, and to explain how funds will be raised and managed. It should also indicate what assistance the community needs in setting up an operation and maintenance management system, and the training required for community members to run it.

5.3.4. Pre-Project Activities

It is envisaged that some communities will propose projects which it is obvious they do not have the capacity to implement. In these villages, pre-project activities will be initiated. these will take the form of community awareness building, health and hygiene education and sanitation projects.

Community awareness building will be carried out using the implementing agency's methods. Most NGOs use a variation on the change agent programme, which emphasises community based assessment of needs, identification of possible action, and self-reliance.

Health and hygiene education is carried out both by the government through schools and health units, and by NGOs. There are some NGOs which specialise in health education, such as Saukyadana and they should be mobilised to provide hygiene education.

Small sanitation projects, carried out on an individual household basis using a revolving fund established at village level, will help communities to organise on a small scale. successful implementation of these projects will build management capacity, raise confidence, and prepare communities for larger water projects.

6. Economic Justification

6.1. National Affordability

The proposed programme will generate a variety of benefits, including:

- health
- time saving for women
- employment
- stimulation of private sector manufacturing enterprises

Most, if not all, of these are unquantifiable, so it is hard to define exactly what the country will be getting for its money. The social objective of improving water supply and sanitation is, however, very clear, and has a certain political priority.

The proposed expenditure on the three districts' programme was compared to overall GOSL development expenditure, and to sector expenditure, to see if it would significantly skew the existing situation. Total planned development expenditure for 1992 is about Rs.40,000M, whilst total water supply and sanitation expenditure is planned at Rs.2,000M. Thus planned expenditure on the programme will amount to only 0.1% of total development expenditure and 2.3% of sector expenditure in the first year of the programme. If total development and sector expenditures are assumed to rise with the rate of inflation, the programme would amount to 0.5% of total development and 10% of sector expenditure respectively in the fifth year of the programme, when expenditure peaks. The equivalent figures aggregated over the whole ten years are 0.3% and 7% respectively. As the rural population of the area is more than 10% of the country's total population, it can be seen that the expenditures proposed are very reasonable, and reflect only the giving of due priority to the rural sector.

6.2. Non-quantifiable Benefits

Water supply and sanitation improvements provide many benefits which are difficult or impossible to quantify. As well as quantifiable benefits such as time saved, there are benefits such as improved health, environmental protection, spin-off economic development and improvements in the status of women.

The job of fetching water is primarily the responsibility of women. Women water collectors outnumbered men by approximately 6 to 1 overall, and by 10 to 1 in some areas. Women often walk long distances to fetch water, and carry heavy loads. There is some evidence that water carrying over many years can lead to adverse

effects on the skeleton. It is believed that miscarriages and premature births are sometimes due to the general levels of exhaustion common among women. Women are unable to rest sufficiently during and after pregnancy as they must continue to fetch water. Improvements in the availability of water and in the distance to the source will considerably lessen the burden on women.

As well as the health benefits which accrue from reduced morbidity and mortality due to cleaner drinking water, better personal hygiene and improved excreta disposal, improvements in health may also be realised because women have more time and energy to spend on caring for children and improving the household environment. Increased water supply and easier access will allow women to provide a cleaner environment in their homes, to wash their children more often, wash their own and their children's hands after defecation and to keep the kitchen clean. Greater availability of water will allow women to raise their own level of personal hygiene, and being able to accomplish these things will contribute to raising women's self esteem. Improved sanitation facilities provide greater privacy for men and women alike.

An emphasis on community participation that includes the involvement of everyone in the community, including women and other normally marginalised members (such as low caste members) can change the perception these people have of themselves. Meaningful involvement in a successful project will give people confidence and self esteem. This type of project may break down barriers between otherwise isolated groups and overcome petty jealousies and rivalries. Effective mobilisation techniques will bring the very poor into community activities, and give them confidence and experience with which to tackle other projects.

Implementing projects using participatory methods exposes many more community members to the planning, construction, operation and maintenance processes. This results in the acquisition of skills, as community members are shown how to identify their needs, plan a system, carry out simple construction tasks, and operate the system on a long term basis. Many of these skills can be used on other projects in different sectors. Health education aimed at improving water use and excreta disposal practices will instill an understanding of disease transmission routes and other general health subjects.

The reduced burden of fetching water will also result in more time for small projects such as vegetable growing, and for which improved availability of water will be a contributing factor. The advantages of this will be both improved nutritional status and possibly increased income. It is an important consideration that the income from this type of small activity usually stays in the hands of housewives, who are more likely to spend it on food, medicine or the needs of their children.

As many of the schemes to be implemented are gravity supplies, there will be an emphasis on protection of the water catchment area. This may take the form of encouraging local residents to plant trees in catchment areas and protect them from

deforestation. This in turn will have a positive influence on erosion and other forms of environmental degradation.

At the household level, environmental improvements will be brought about by better sanitation facilities, reducing faecal contamination of soil and water. Proper drainage of the areas around wells will prevent ponding of water and reduce the number of insect breeding sites.

6.3. Cost Benefit Analysis

A cost-benefit analysis of the ten year development programme was carried out using the following factors:

shadow unskilled labour rate	90%
tax component of costs:	15%

Operation and maintenance costs are found in Table 6.

Table 6 Operation and Maintenance Costs

Scheme Type	O&M Rs./household.month
Gravity	10.00
Handpump shallow well	3.00
Tubewell	9.00
Protected well	1.75
Pumped, piped	50.00

Using the costs set out in the preceding sections, economic costs were calculated for the whole programme as were the monthly benefits per household required to give different internal rates of return over a 20-year period. The same exercise was carried out using only the programme costs directly related to water supply, assuming that the institutional strengthening and technical assistance element will have a lasting value through continued application to other populations, and excluding the sanitation element also, so as to allow evaluation of time savings through shorter water collection journeys.

Table 7 sets out the required benefits per household per month for differing internal rates of return for the whole programme and the water element only.

Table 7 Required Benefits for Project Justification

Internal Rate of Return	Benefits per Household per Month (Rs.)	
	Whole Programme	Water Only
5%	40.00	33.00
10%	51.00	42.00
15%	63.00	51.00
20%	76.00	61.00

At a rate of 10%, which would give a strong justification, the programme needs to generate benefits of just over Rs.50.00 per month, decreasing to around Rs.40.00 for a 5% internal rate of return.

The required benefits were translated into values of water collectors' time by comparing the distances travelled to existing improved and unimproved water sources. This is a conservative assumption as about a quarter of existing improved sources are at distances above the 250m maximum adopted in setting service levels. The mean distance to improved sources was 90m, while the figure for unimproved sources was 119m. The proportional reduction in mean collection journey time per household per day comes to just under half an hour. Applying this to the figures in Table 7 yields the implied values for womens' time presented in Table 8.

These values compare favourably to the mean hourly wage rate for women derived from the survey of around Rs.5.00 per hour. Assuming the real value is around half of this, the internal rate of return would be around 7% for the water expenditure only case, which is a satisfactory value

Table 8 Implied Value of Womens' Time

Internal Rate of Return	Values for Womens' Time (Rs./hr)	
	Whole Programme	Water Only
5%	2.80	2.30
10%	3.60	2.90
15%	4.40	3.60
20%	5.30	4.30

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Rural Development Societies	51
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NGOs



Sarvodaya

History

The Sarvodaya Shramadana Movement is the largest NGO in Sri Lanka. Sarvodaya, which means "the awakening of all" had its beginning in 1958, under the leadership of Dr. A.T. Ariyaratne. The philosophy of the organisation is self-development through spiritual and moral values. It works through self-help programmes to relieve poverty in rural villages in Sri Lanka.

By the late 1960's Sarvodaya was a people's development movement working in about 1000 villages, with almost all resources collected locally. In the 1970's foreign partners such as NOVIB (The Netherlands Organisation for International Development), FNS of the Federal Republic of Germany, a Swiss Development Agency HELVETAS and the Canadian International Development Agency began to fund SSM, which brought about rapid expansion. The movement now works in about 6800 villages (one third of the villages in the country), and carries out relief and rehabilitation in the north and east of Sri Lanka.

An independent national organisation was formed in 1962 under the name Lanka Jathika Sarvodaya Shramadana Sangamaya (LJSSS), which the government declared an approved charity in 1965. This organisation was incorporated by an Act of Parliament in 1972. Today the LJSSS is the principal organisational arm of the Sarvodaya Shramadana Movement (SSM).

Organisational Structure

Sarvodaya is headed by an executive council, which is elected annually by the general membership, and a Committee of Office Bearers. The President is responsible for overall guidance and represents the organisation in international fora. The Committee of Office Bearers implements the policies and decisions of the Executive Council. The Committee is made up of volunteers, and as it is not possible for them to attend to the day to day work of implementation, the post of Executive Director has recently been created. The Executive Director is responsible for financial functions, implementing field programmes, monitoring, evaluation, research and planning. Each outreach programme has a Chief Executive, a post recently created under the new management structure, who is responsible for management of the section. The Chief Executive reports to the Executive Director, and liaises with the Chief Executives of the other programmes.

Sarvodaya works through a series of outreach programmes. The Sarvodaya organisational structure has recently been re-organised. There are now five main programmes:

- Poverty Eradication and Empowerment of the Poor (PEEP)
- Sarvodaya Economic Enterprises Development Services (SEEDS)
- Early Childhood Development Programme (ECDP)
- Sarvodaya Rural Technical Services (SRTS)
- Relief, Rehabilitation, Reconciliation, Reconstruction and Re-awakening (RRRRR)

The PEEP programme seeks to work through a process of capacity and empowerment in order to assist the poor to acquire for themselves the capacity to initiate, undertake and sustain their own development. The establishment of the PEEP programme follows on Sarvodaya's growing awareness that it is not necessarily reaching the poorest of the poor. The organisation has established this new programme to develop a list of indicators to identify the poorest of the poor, to carry out surveys, to establish lists of village needs and to develop village profiles. The programme will target need areas such as the plantation sector, urban slums and the coastal belt. The ongoing community development programme will be incorporated into this programme, through which existing Sarvodaya Shramadana Societies are strengthened and village development plans prepared, however the PEEP programme will seek to penetrate further into Sri Lankan society. The programme is thus Sarvodaya's "lead" programme.

Sarvodaya Economic and Enterprises Development Services (SEEDS) was set up to promote villagers' economic self-development. A savings and credit programme was established in 1987 to allow farmers and entrepreneurs to build up savings and obtain small low-cost loans. This programme, called the Rural Enterprise Programme (REP) now works in 517 villages in 15 districts. 12,000 savings accounts have been opened, and 13,000 loans made. Rural Enterprise Development Services (REDS) was started in 1990 to offer advice and training to small scale producers in agriculture, product technology, marketing and business skills. Sarvodaya also runs its own small businesses through SEEDS for income generation (mostly in small scale manufacturing), and runs a management training institute (MTI). The loans given out by SEEDS are normally used for income generating activities, and are not intended or used for home improvements such as water supply and sanitation.

The Early Childhood Development Programme (ECDP) is important to Sarvodaya's overall approach, as it is through pre-schools that Sarvodaya usually establishes its presence in a village. The objectives of the programme are to satisfy the health, nutrition and child care needs of the rural population. This is achieved through the training of pre-school teachers who organize mother's groups, run pre-schools, carry out health education and are the nucleus for several other village activities such as the establishment of a village library, organising community kitchens and home gardens for feeding the pre-school children and growth monitoring,

The RRRRR programme is at the moment acting solely as a relief organisation. It was started three years ago to provide assistance to the areas disturbed by the war. It works in 11 districts in the north and east of the country, mostly helping people to reconstruct their homes.

The Sarvodaya Shramadana movement also has other organisations besides the LJSSS. These include The Sarvodaya Women's Forum Ltd., Sarvodaya Suwasetha Sewa Services Ltd. (a welfare programme for the disabled and abandoned children), the Sarvodaya Samodaya Society Ltd. (a prison rehabilitation programme), the Sarvodaya Shramadana International, Sarvodaya Shanthi Sena (The Peace Brigade which mobilises in the case of national disasters, provides first aid at functions etc.), Sarvodaya Legal Aid Services and the Sarvodaya Trust Fund.

Village Mobilization

Villages follow a five stage development process according to the SSM model. These are described as 1) psychological infrastructure building 2) social infrastructure building 3) satisfaction of basic needs 4) self financement 5) assisting neighbouring villages.

Village involvement starts through invitation by a local leader. Sarvodaya field workers (gramadana workers) visit the village and organise a village level discussion about local needs. This is usually followed by organisation of a *shramadana* ("sharing of labour" in Sinhalese) during which the village people donate their labour and other resources to satisfy a community need such as building an access road or putting up a community hall. After this village groups are established (children's, mother's, youth, farmer's and elder's groups). The mother's group chooses two young women to be trained by Sarvodaya in early childhood education (a two week training course) and her return to the village is followed by the establishment of a pre-school. After working in the village for six months the pre-school teacher is called back for an intensive three month training course which covers health, nutrition and first aid matters in greater depth.

The pre-school is the first permanent activity in a Sarvodaya village, and it becomes the nucleus of all other development activities in the village, such as health, nutrition, education, housing, water supply and sanitation, savings and credit, rural industries and marketing, legal aid and institution building. Village leaders, especially young leaders, are identified, and are offered a two week community leadership training course at the district training centre. This training covers assessment of village resources and needs and coordination with the Sarvodaya movement as a whole. After training, the leaders return to their village, where they work preparing a development programme for the community. After another three to six months, they are offered a longer training course, which is held at one of four Regional Development Education Institutes.

Once village groups are active, the village forms a Sarvodaya Shramadana Society, which is an independent entity registered under the Societies Ordinance. The application forms for registration are filled out by the village and sent to the Moratuwa headquarters, where they are checked and corrected if necessary. They are then forwarded by the head office to the Provincial Council Registrar of companies. Each society is required to have opened a bank account, and to have deposited Rs 3,000 (this is a concession made to Sarvodaya - in the case of other societies the minimum deposit is Rs 10,000). These funds have to be in the bank at the time of registration, confirmed by the submission of a balance certificate, but after registration the money may be withdrawn. Once registered, the society is a legal entity, and is capable of entering into contracts, suing other parties, and being sued. The registration procedure takes about two to three months to complete once the forms are submitted (in Colombo - other Provincial Councils vary)

There are 3800 registered Sarvodaya Shramadana Societies in Sri Lanka. Sarvodaya works in many more villages than there are registered societies. This is partly due to the long period of time often required to organise and register a society, and also to the initial capital required

to register a society. At the present time, no new societies can be registered as there is uncertainty over how much the new initial capital limits will be under the provincial councils.

Sarvodaya distinguishes between a formed society, which has elected office bearers and is active, but is not yet a legal entity; a society which is ready for registration, and has opened a bank account, accumulated the required deposit, and filled out the registration forms, and a registered society, which has completed the legal procedures.

	Badulla	Matara	Ratnapura	Sri Lanka
Total number of villages	2350	1598	2061	23,000
Number of villages in which Sarvodaya works	297	240	284	6,800
Number of Registered Sarvodaya Shramadana Societies	75	77	32	1,462
Number of Sarvodaya Shramadana Societies ready for registration	85	104	57	1,994
Number of formed Sarvodaya Shramadana Societies	181	147	96	2,644

Source: 1989/90 Annual Report and PEEP records

Field Operations

Sarvodaya has a district centre in each of the 25 districts in the country. Some districts (Colombo, Ampara, Kurunegala and Monaragala) are further divided into two for reasons of size or ethnic diversity. There is also a centre in Hatton which in the past dealt exclusively with Sarvodaya's programme on tea estates, but this is to be gradually integrated with the overall programme. At each District Centre there is a District Coordinator, plus a coordinator of the PEEP programme, ECDP and SEEDS. RRRRR operates in certain areas only, in the north and east of the country. At the district level there is also a pre-school instructress, an assistant pre-school instructress, and a number of pre-school supervisors. SRTS also has district level staff, as will be described later. In each AGA Division there are Divisional Coordinators in each of these programmes. The coordinators have been through the Sarvodaya Leadership Training plus management training at MTI (Sarvodaya's own management training institute in Ratmalana). Some also receive training from the Sri Lanka Institute for Development Administration (SLIDA), a government institute in Colombo. Logistical support includes a vehicle for the district centre, and motorcycles for the Divisional Coordinators. In



some districts permanent Sarvodaya divisional centres exist, in others the work is carried on out of private homes.

The initial organisation of village shramadana work is carried out by PEEPS. This is done through the Sarvodaya field workers, called Gramadana Workers ("village workers") In general, there are two Gramadana Workers in each division, although some may have three. The Gramadana Workers work full time for Sarvodaya, and are given an allowance (between Rs 750 and 1200) and a bicycle. They are village residents themselves, and each one works in 10 villages (There used to be 4 Gramadana Workers in a division, each responsible for 5 villages but this was increased when recent budget cutbacks forced a reduction in the number of field staff.) About 60% of the Gramadana Workers are women. The capacity of the Gramadana Workers is a maximum of 10 villages; it is felt that they cannot handle more communities than this. Some areas are more difficult than others to work in, depending on the degree to which the villages are scattered.

Sarvodaya Field Staff and Centres, 1991			
	<i>Badulla</i>	<i>Matara</i>	<i>Ratnapura</i>
<i>District Level</i>			
District Centres	1	1	1
District Coordinators	1	1	1
<i>PEEP Programme Staff</i>			
PEEP Coordinator (formerly Deputy District Coord.)	1	1	1
Coordinator Education	1	-	1
Coordinator Sports and Youth	1	1	1
Organiser Shramadana Camps / SSS	1	1	1
<i>ECDP Programme Staff</i>			
ECDP Coordinator	1	1	1
Assistant ECDP Coordinator	1	1	1
Coordinator Savings	1	1	1
Assistant Coordinator Savings	1	1	1
<i>General Staff</i>			
Coordinator Finance	1	1	1
Coordinator SRTS	1	1	1
Cashier	1	1	1
Accounts Clerk	1	1	1
Typist	1	1	1
Driver	1	1	1
Cook	1	1	1
Total District Staff	16	15	16

The Gramadana Workers are selected after they have been involved, in their own villages, in Sarvodaya activities. They are identified by Sarvodaya staff as having leadership potential, and given the two week leadership training. After they have worked for about 2 to 3 years in their communities, they are sent to undergo a three month leadership training course. After this, if they are selected to be Gramadana Workers, they are appointed by the District Coordinator and begin to draw an allowance and work full-time for the organisation. A recent

Marga Institute study found that the training offered to Gramadana Workers was too theoretical, and Sarvodaya plans to incorporate more skills acquisition, participatory methods and on-the-job training into it.

Gramadana Workers earn low salaries, and this contributes to a high dropout rate (approximately 30 to 40 % per year). The organisation recognizes that the new strategy of reaching the poorest of the poor will require a more highly skilled and professional staff of fieldworkers. The number of Gramadana Workers has recently been cut back because of reduced donor funding, however Sarvodaya intends to pay the remaining fieldworkers higher salaries and provide them with more training.

Sarvodaya Field Staff and Centres, 1991			
	<i>Badulla</i>	<i>Matara</i>	<i>Ratnapura</i>
<i>Divisional Level</i>			
Divisional Centres	14	12	13
Divisional Coordinator	14	9	13
Pre-School Instructress	1	1	1
Assistant Pre-School Instructress	1	1	1
Pre-School Supervisor	14	12	13
Total Divisional Level Staff	30	23	28
Gramadana Workers	26	24	22

<i>SEEDS Staff, 1991</i>	Badulla	Matara	Ratnapura
Rural Enterprise Programme (REP)	1	1	1
Manager	1	1	1
Assistant Manager	1	1	1
Accountant	1	1	1
Trainer	1	1	1
Secretary	1	1	1
Fieldworkers	12	9	9
Rural Enterprise Development Services (REDS)			
Business Liaison Officer	1		
Agricultural Extension Officer	1		
Total SEEDS Staff	19	14	14



The size of the Sarvodaya field staff has changed many times over the last few years. The organization has often taken on large numbers of new field staff to accommodate special programmes.

Field Staff, 1989/90 Levels	Badulla	Matara	Ratnapura
District Level Staff	22	23	23
Divisional Level Staff	28	24	26
Gramadana Workers	56	48	52

Training

Sarvodaya carries out a great deal of training, both for their own programmes and for other organisations. They have four Regional Development Education Institutes with residential facilities, and a fifth is being set up.

Sarvodaya Regional Development Education Institutes

Centre	Capacity (No. of Trainees)
Anuradhapura	50
Tanamalwila	100
Kandy	50
Colombo	50

Village leaders are given a three month leadership training course, which is also the basis of training for the Gramadana Workers and many of Sarvodaya administrative staff who have previously been fieldworkers. Sarvodaya also carries out training of trainers, using a six day course which provides instruction in various training methods, including lectures, demonstrations, role playing, case studies and group dynamics. At the request of SRTS, 5 technical training courses have been organised, including one on the Community Information Planning System (CIPS), a system developed in the Philippines. SRTS has also assisted with vocational training offered by Sarvodaya. In masonry, the organisation has trained approximately 1775 people over the last 5 years, in programmes offering several months residential training and up to a year of on-the-job training. Sarvodaya also runs training courses for AGA Division and IRDP staff at the District Centres.

SEEDS has established a Management Training Institute which offers training in management, accountancy, computer operation and other subjects to Sarvodaya staff and volunteers. SEEDS also trains small businessmen and producers.

Sarvodaya Rural Technical Services (SRTS)

If a village identifies infrastructure such as water supply and sanitation, roads, bridges or culverts as a need, Sarvodaya Rural Technical Services offers assistance. SRTS maintains 14 field offices which are situated all over the country (except for the north and east) Rural infrastructure projects are initiated and implemented wherever Sarvodaya is active. Requests for such projects from the village Shramadana Societies are screened by the District Centres to assess the necessity and extent of village participation. SRTS determines the technical and financial feasibility of a project, makes available required technical expertise, skilled manpower and the necessary funds. SRTS does not initiate or implement projects on its own. The Swiss development agency HELVETAS has played a decisive role in the development of SRTS since its inception in 1977, and has provided most of the funding. HELVETAS is now reducing its involvement to an advisory role, and SRTS will start looking elsewhere for funds.

SRTS carries out the construction of simple gravity water supply schemes, without pumping or treatment, and hand dug wells. Standard designs are used, which have been developed with technical assistance from HELVETAS. Detailed construction manuals have been prepared for use by field staff. It is planned to update these in the near future and make them available to other NGOs. SRTS assists with the construction of private latrines by providing certain materials (cement, reinforcing bar, pipes, squatting pans, pit lining materials) and helping to organise families to hire a mason. SRTS also helps villages build bridges, culverts, bus stops and other small scale infrastructure.

SRTS Management Staff

At the Head Office, SRTS is run by the Chief Executive, who reports to the Executive Director of Sarvodaya. The Chief Executive is responsible for management of SRTS, plans the annual work programme and prepares the budget. He is the liaison with the HELVETAS team, and negotiates assistance from third parties. He is responsible for financial approval of projects, monitoring and evaluation. The Chief Executive is supported by a Coordinator (Administration) who is responsible for the day-to-day management of the SRTS office in Moratuwa, including authorising travelling expenses and annual leave, and maintaining the office. There is also an accountant who is responsible for annual verification of all SRTS accounts, and who liaises with the Sarvodaya Finance Director and the Internal Auditor. Technical matters relating to SRTS projects are handled by the Technical Advisor. He verifies surveys, technical drawings, estimates, standards, material requisitions and water resources studies. He approves the technical feasibility of projects and monitors and evaluates the technical aspects of projects. He also trains technical personnel, prepares technical reports and liaises with the technical advisor of HELVETAS.

SRTS Field Staff

SRTS has Area Technical Advisors (ATAs) in Anuradhapura, Kandy, Matara and Nuwara Eliya. Each ATA has two or three Officers in Charge (OIC) or Area in Charge (AIC) under him who are responsible for the nearby districts, plus the ATA acts as OIC for his own district. There is thus at least one technical officer in 14 districts. There is a total of 4 ATAs,



8 OICs and 8 AICs. The ATAs are the most experienced of the technical officers, with academic qualifications such as a National Certificate of Technology in quantity surveying or civil engineering in addition to practical experience. The OICs have similar academic qualifications, or may have practical experience only. The AICs are usually draughtsmen or quantity surveyors. The AICs have under them a total of 31 Supervisors/Masons, who are skilled labourers and carry out day-to-day supervision of projects. The OICs and AICs are given motorcycles for transportation, and the Supervisors/Masons usually take public transport.

Ratnapura and Badulla each have an OIC who is supervised by the ATA/OIC of Nuwara Eliya. Ratnapura has 3 Supervisors/Masons, and Badulla has an AIC and 4 Supervisors/Masons. Matara has an ATA/OIC, a AIC and 3 Supervisors/Masons. The staffing and number of projects to be carried out in 1991 in each of the three districts is as follows:

SRTS Field Staff and Projects, 1991							
District	ATA	OIC	AIC	Super	Total	Projects	Allocation (Rs)
Badulla		1	1	4	6	7	905,000
Matara	1		1	3	5	13	1,125,000
Ratnapura		1		3	4	8	690,000
Total	1	2	2	10	16	28	2,720,000

Source: SRTS Workplan and Budget, 1991

The Supervisors/Masons generally supervise one construction site at a time, sometimes two. The S/M lives in the village where the work is taking place. He may be the only mason working on the project, or SRTS may hire additional local masons if required. Sometimes local masons volunteer their time, but the Sarvodaya staff report that this is becoming less frequent, as the rising cost of living makes voluntary labour less and less popular. Over 1500 masons were trained by Sarvodaya over the past 5 years under two programmes. One, under SRTS, gave a one month residential training course followed by one year of on-the-job training on SRTS projects, including water projects. The other, under the Lifeline Programme, consisted of a 3 month residential course followed by 6 months on Sarvodaya construction sites. There are hundreds of Sarvodaya trained masons in the villages, and these masons have the advantage that they also have some village organisation skills and understanding of the Sarvodaya philosophy. SRTS pays less than market rates; whereas a mason may normally expect to make about Rs 150 per day, Sarvodaya pays about Rs 100 per day.

The time necessary to complete a project is variable, depending on the type of project. A gravity water scheme may take from two to eight months, although there are cases of projects taking considerably longer. Small projects take less time; a month is typical for culverts. It is thus possible to plan for a supervisor to move from one project to another and supervise several projects in a season.



Project Cycle

After a project has been identified, the village Sarvodaya Shramadana Society makes a request to the divisional centre. The OIC visits the village three or four times to discuss with the villagers, meet with the society and collect information for the project proposal. The OIC may be accompanied by the Divisional Coordinator (PEEP Coordinator) and in some cases the District Coordinator. The project proposal is written by the OIC and is submitted to SRTS headquarters. The proposal contains background information on the village, a brief needs assessment, and the technical information on the project. As information such as stream measurements must be collected during the appropriate season, it may take several months to plan a project. Staff at SRTS headquarters assess whether the project is feasible, and if it is funds are allocated. There are at present more approved projects than funds, so villages are obliged to wait for projects to be implemented. This sometimes causes villages to become discouraged, and occasionally to give up on the project.

If the scheme is a gravity water system, the community is asked to form a water committee, which is usually a sub-committee of the Sarvodaya Society. The committee holds regular meetings and organises the communal labour, the storage of pipes and cement, any accommodation necessary for skilled labourers from outside the village, and the collection of local materials. In the case of a well project, no committee is formed, but small groups of users are organised by the Sarvodaya Society.

Once implementation is to begin, a supervisor is assigned to the project, and the villages are instructed to begin collecting the materials which they are to contribute. A deadline is set for the collection of the materials, and the Gramadana Worker follows up. Once the materials are ready, the village informs the OIC, and the work on the project begins.

"Fast Track" Village Mobilisation

SRTS has been requested in the past to carry out water projects in villages that have had no previous involvement or contact with Sarvodaya. This normally happens in the case that a village group (of mothers, youth, farmers etc.) makes a request for a system to a local Member of Parliament, who has funds, and who tells the group to approach Sarvodaya for technical assistance. In these cases, village leaders are taken to visit nearby villages where SRTS has constructed schemes, and to spend several days with the people in these villages discussing how the scheme was implemented. They then return to their village to strengthen their group (without necessarily turning it into a Sarvodaya Shramadana Society). Sarvodaya gives the group some organisational training at the Development Education Section of the District Centre, and the group then makes decisions regarding system layout and organises local materials, storage, and labour. After the system has been implemented, group members are trained by Sarvodaya in operation and maintenance.

The whole process takes 6 to 7 months if the funding is available from the beginning of the project. A workplan is set out at the beginning of the project, which the community has to adhere to. Motivation is very important, and there is no formal society to deal with problems as there is in Sarvodaya villages. This method has worked well on some plantations.

Project Allocations - 1991

The allocation for infrastructure expenditure in 1991 is Rs 11 million, plus Rs 5.5 million for salaries, administration, transportation, training, Sarvodaya overhead plus capital costs for vehicles and equipment, for a total of Rs. 16.5 million. Originally SRTS had hoped to carry out more projects than this in 1991. They prepared a budget of Rs 24.5 million (Rs 17.89 million projects and Rs 6.606 million general expenditures). This budget would have allowed them to carry out the same number of projects as the previous year. However, HELVETAS was prepared to contribute only Rs. 16.5 million, and the organisation was unable to find other sources of funds.

The allocation for training is to be used to organise refresher courses for field staff in hydraulic calculations, hydraulic, land and quantity surveying and concrete technology.

Table 8 The numbers of each type of installation are in the following table

District	Water Supply	Wells	Latrines	Bridges/ Culverts	Houses	Various	Rs. Allocation
Anuradhapura		49	30				795,000
Badulla	3	32	15				905,000
Colombo	2	8	115	4	5		650,000
Galle	1	25	30	6			735,000
Gampaha		12	75	11			690,000
Kandy	2		16	5		2	900,000
Kegalle	2			14			650,000
Kurunegala		53	15	13			690,000
Matale	1	22		19		3	795,000
Matara	3	46	15	7		2	1,125,000
Nuwara Eliya	6	1				3	1,050,000
Polonnaruwa		16	30	23			515,000
Puttalam		33	135				810,000
Ratnapura	1	24	15	3		1	690,000
Total	21	321	491	105	5	11	11,000,000

Source SRTS Workplan and Budget, 1991



For the three districts, the allocation (in rupees) for water supply and sanitation is approximated in Table 9.

Table 9

District	Gravity Water Schemes	Wells	Latrines	Total Water Supply and Sanitation	Total District Allocation	Percent WS/San
Badulla	490,000	385,000	30,000	905,000	905,000	100%
Matara	465,000	460,000	30,000	955,000	1,125,000	85%
Ratnapura	125,000	205,000	30,000	360,000	690,000	52%
Total	1,080,000	1,050,000	90,000	2,220,000	2,720,000	82%

District accounts are maintained by account clerks at district level and monitored by the SRTS accountant at the head office in Moratuwa. Periodical financial reports are made by the Finance Division.

SRTS sometimes carries out third party projects, whereby SRTS does the work on a project funded by another organisation, under contract to that organisation. A few such projects have been carried out for Pradeshiya Sabhas, IRDPs, JEDB and NGOs such as Save the Children US and the PALM Foundation of the Netherlands. These projects sometimes come about when Sarvodaya villages identify and prepare a project, but find funding from another source. The District Coordinator may also look for alternate sources of funds. There are numerous difficulties with carrying out these projects, ranging from simple differences in accounting and estimating to problems with arranging voluntary labour. There are particular problems when SRTS is asked to carry out a project in a village with no Sarvodaya Shramadana society. On a Sarvodaya funded project, in a Sarvodaya village, if problems are encountered with the voluntary labour contribution, SRTS has the option of suspending the project and discussing the problem with the society, however, on a third party project SRTS does not have this option, and is under contractual obligation to complete the project within a certain time period.

Procurement

For purchase of pipe, Sarvodaya calls for quotations from Sri Lankan manufacturers, such as Maharaja, Central Industries and Duro. A discount is negotiated based on the volume of pipe purchased. A year's worth of pipe is purchased at a time, but delivery takes place over the year. Pipe is distributed through the dealer's local outlets. Delivery is included in the price.

Motorized pumps are purchased from Jinasena in Colombo. The handpumps used on Sarvodaya projects are the ones produced by Sarvodaya itself, through SEEDS.

Cement is purchased by the OIC, AIC or supervisor/mason from shops in the district towns. Sarvodaya asks for quotations, which are submitted to the District Centre, not to the head office.

Health Education

Sarvodaya carries out health education through the pre-school workers, largely thought those who have successfully completed the three month training course in addition to the two week course. The course is a comprehensive one, covering aspects of health, nutrition, sanitation and hygiene, and includes sections given by government health workers as well as consultant doctors, nurses and nutritionists acting on a voluntary basis. The trainees are given practical field experience as well as training at government institutions such as hospitals and maternity clinics. Of the existing pre-school teachers in 1991, 1240 have completed this training, and 3260 remain to be trained. Most of the pre-school teachers receive some sort of remuneration from the community; only about 19% overall work on a voluntary basis. The pre-school teachers/community health workers are all women, and they are approximately evenly split between young, unmarried women (the youngest is 17) and older, married women up to about age 40.

Pre School Teacher Training, 1989/90	Badulla	Matara	Ratnapura
Number of Preschool Teachers	335	223	233
Number with 3 month training	75	43	71
Number with 2 week training	213	143	156
Number Unskilled	80	74	50

note: data not available from all areas source: Sarvodaya Annual Report, 1989/90

The pre-school teacher will carry out a village survey to assess the health status of the community. She will then plan out a programme of activities with the help of other trained volunteers in the village, and, if available, the government health workers. The main focus is on prevention through increasing awareness and coordination with other village health related activities such as water supply and sanitation improvements. She will organise village meetings, mothers' group meetings and demonstrations. At regular village meetings the health worker will give talks on health related subjects, concentrating largely on mothers and children. Talks may also be given by government health workers covering sanitation, personal hygiene, environmental health, communicable diseases, breast feeding, family spacing and first aid. Sarvodaya has produced a series of posters on subjects such as nutrition, sanitation etc, but they have exhausted their supply. An illustrated manual for training in nutrition has been produced with funding from NOVIB, and the organisation would like to produce one for sanitation. The Sarvodaya audio-visual division has produced a number of video films on



water supply, sanitation and health. In addition, the division organises showings of films such as "Prescription for Health".

Sarvodaya plans to increase both the number of preschools and the attendance at them. Their target is to increase by 4 to 5% per year. There are daily requests for new pre-schools from the villages. The problem facing Sarvodaya is the lack of funding for training of the teachers. Funding for both the two week and three month training courses has been cut back, so they can neither add new trained teachers at the rate they need, nor can they bring all teachers up to the point of being fully trained (teachers are considered to be fully trained, after the three month training). According to the proposed operational plan, the existing teachers will not all have received three month training until the end of 1993. A further difficulty is that Sarvodaya has no funds to pay the pre-school teachers, and they must rely on the villages to contribute to their allowances. The organisation is trying to encourage awareness of this need, especially among the mothers.

Financial Management

Financial Reporting and Coordination

The district organisation is comprised of Sarvodaya Shramadana Societies (SSS), Divisional Offices (DO) and a District Office. The SSS comprises of members from the community. It is involved in identifying community needs and mobilising resources towards fulfilling the needs of the community. The DOs and the District Office provide the necessary supervision and technical guidance to the SSSs at the divisional and district levels.

The SSSs are financed by the District Office on an imprest system. In order to obtain the monthly imprest of funds, the SSSs should submit a monthly Progress Report together with a breakdown of expenses. This enables the District Office to maintain financial records of all activities pertaining to the SSSs. This centralised system of recording and distribution of funds adopted at the district level, enables the District Office to exercise control over the mobilisation of funds and the activities of the SSSs. Each SSS too maintains prime books of account to record its own transactions.

The District Office prepares and submits to the Head Office, the Progress Reports and a Trial Balance on a monthly basis for the purpose of obtaining the monthly advance. Detailed records pertaining to the District Office and SSSs are maintained at the Head Office.

The foregoing paragraphs show that there is up-to-date financial reporting at the district and national levels of the organisation. This imposes financial discipline, coordination and control over the mobilisation of funds and therefore are features of good financial management techniques.

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Financial Planning, Budgeting and Monitoring

The planning process commences at the SSSs with the preparation of annual work plans. Subsequently these work plans are submitted to the District Office, where they are evaluated for their socio-economic and technical feasibility (only registered SSSs submit work plans). The work plans are then prioritised within the available funds. The individual project planning, designing, costing and the preparation of water project proposals are done by the SRTS division of the District Office. There are about five to ten requests per month from each of the 17 DOs.

All work plans approved by the District Office are compiled into a budget and submitted to the Head Office and other local donors for funding assistance. With the funds being disbursed by the Head Office using the District Office, project implementation and actual expenditure are monitored at the divisional, district and national levels, on a monthly basis. Further, the Executive Committee of the SSSs have to submit details of income and expenditure to the members on a monthly basis. This monitoring mechanism is facilitated by the reporting and coordinating method described. It appears from the foregoing paragraphs that the organisation is in possession of effective planning and monitoring techniques.

Control and Audit

The registered SSSs maintain their own bank accounts. Cheques can be signed only by the Chairman, Secretary and the Treasurer. All cheques must be signed by two signatories. The transactions pertaining to the SSSs are recorded both at the District Office and at the Head Office and are subject to periodic scrutiny.

The statutory audit of the organisation is carried out at the Head Office, by a private firm of auditors. The auditors visit the District Offices annually on a sample basis. Therefore the auditors may not visit all District Offices during a given financial year. However, since financial records of all District Offices are available with the Head Office, all financial transactions of the organisation are subject to audit annually.

Fund Mobilisation, Savings and Table 11 Recovery

The value of funds mobilised by SRTS in the three districts concerned in the year 1989/90 give an indication of the volume of work that the organization can handle at a given moment of time.

The value of single projects handled by a District Office may give an indication of the size of an individual project that

District	Sarvodaya (Rs)	Approximate Overall Sector (Rs)	%
Ratnapura	630,145	7,908,000	8
Badulla	1,981,198	11,506,000	17
Matara	986,864	13,314,000	7

the organisation has been handling in the past. These projects were selected from Matara District. (Table 12)

The data relating to Sarvodaya were obtained from the Annual Report of 1990 published by the organisation. The sector expenditure was obtained from SLSPC, JEDB and IRDP. The expenditure incurred by the National Water Supply & Drainage Board (NWSDB) on rural water supply and sanitation is marginal and hence excluded. These figures indicate that the proportion of funds invested by the organisation in the Badulla district is fairly small compared to the total sector expenditure. In the other two districts, the percentage invested by the organisation is higher but the value of funds handled is still not substantial. However, Sarvodaya is the largest NGO operating in this sector. It is evident that the financial management systems are designed to handle a small number of projects and that if the organisation is to be selected as an implementing institution and scales up its expenditure, its institutional capacity should be further strengthened.

The organisation's capital cost recovery mechanism is such that the beneficiaries provide the required labour and locally available materials. The cost is therefore partially recovered in lump sum as an initial contribution in kind and not in the form of cash recovered over a period of time. Therefore the RTS division at the District Office is not equipped with loan disbursement and recovery techniques. However the SEEDS division of the organisation does give loans for income generating programmes and recover them through the SSSs.

Table 12 :

Name of Project	Value	No. of Beneficiaries
Illukpitiya (Gravity)	623,000	866
Pasgoda (Gravity)	517,000	756
Mahengoda (Gravity)	116,000	284
Thihagoda (9 wells)	88,000	200 families
Lalpe (15 wells)	319,000	300 families

PLAN Badulla

PLAN International is Foster Parents Plan International, an international NGO founded in England in 1937 to assist children during the Spanish Civil War. It also worked for children in Europe during World War II, and in the war affected areas of Korea and Vietnam. PLAN started working in developing countries in the 1960s. It now works in 25 countries in Africa, Asia, south America and the Caribbean, supported 400,000 foster children in 1988 and disbursed over US\$100 million.

The organisation works through child sponsorships, whereby a donor in a Western country (the US, Canada, Japan, Australia and several countries in Europe) becomes a Foster Parent and contributes through PLAN to a particular child, the child's family and the community in which the child lives. PLAN aims to carry out integrated programmes which build self-reliance and economic independence.

PLAN has a regional office in India. It has been working in Sri Lanka since 1981, and operates under the auspices of the Ministry of Policy, Planning and Implementation. The first programme was begun in the Gampola area of Kandy District, and PLAN maintains an office in Kandy. The programme in Badulla was set up in 1983, and a field office was established there in 1987. This office now has a Field Director, and a staff of 120, including 72 field staff, five administrative staff, and 42 support staff. There are 6 field supervisors, 56 field officers (Group Promoters) (of whom 8 are women) and 5 Health Promoters. The basic qualification of the field officers is a B.A., usually in the social sciences such as sociology or geography. Some have diplomas in social work from the School of Social Work in Colombo, and a few have A levels and field experience. The organisation usually provides an orientation for the field workers when they are recruited, and has recently introduced a training programme carried out by the Centre for Human Development in Kegalle. This programme, requiring 6 weeks over a 6 month period; covers participatory development and the fostering of community leadership potential.

PLAN has had problems with fieldworkers; they find it difficult to find good people who are good communicators and facilitators. They feel it is most important to find people who have these skills and then train them in health, water and other subjects. They feel experience is crucial, and it takes several years to build up a good fieldworker. They would like to have more women fieldworkers, but find it practically impossible, as during the JVP disturbances they could not ensure the safety of women in the villages, and women have great difficulty in using the motorcycles PLAN gives its fieldworkers. At present the 8 female Group Promoters live in the villages where they work. In order to use more female fieldworkers, PLAN would have to provide jeeps and drivers. In terms of transportation, the office has 32 motorcycles, 4 jeeps and 2 pickups.

PLAN works in five AGAs in the district; Hali-ela, Ella, Badulla, Soranatota and Meegahakiula. PLAN sets up planning units in each village. The first step is to form and develop village associations. Based on the needs of the village, as identified by the village itself and the PLAN Group Promoter, associations such as a Farmer's Society or Income Generating Society are formed. Sub committees of these groups may be formed on an ad hoc

basis, such as a Water Committee or a Home Repair Committee. These committees will be dissolved when the particular project is completed. Wealthy families are excluded from PLAN projects. Poor families with children under 12 are identified for foster parent sponsorship.

If a need for water supply and sanitation improvements is identified, PLAN has two technical officers based in Badulla who are responsible for design, surveying, and making up bills of quantities. These officers have a National Diploma in Civil Technology or the equivalent. Technical drawings are prepared by hand, in order to be simple and easy to understand by villagers. The project committee in the village undertakes the construction, using local contractors and voluntary village labour. Projects are first approved by the AGA or the GN. The village seeks this approval, with assistance from the Group Promoter if needed. PLAN has established guidelines which are distributed to villagers. Villagers are expected to comply with all stated conditions, to get approval for any changes in technical details, to work through the project committees and to get participants' signatures to show commitment.

PLAN had expenditures of Rs. 1.145 million on water supply and sanitation in 1990/91. They carried out 49 projects including the construction of tanks, wells and gravity schemes for 1566 beneficiaries. Community contributions were at least 10% of project costs, and were often higher, sometimes exceeding PLAN's contribution. The allocation for water supply and sanitation in 1991/92 is Rs. 2 million.

PLAN has had major problems with the technical side of water projects, and some of their projects have been failures because of poor choice of system, poor design and inadequate construction quality and supervision. A recent evaluation cited problems with poor construction, lack of maintenance, vandalism and illegal connections. Some projects collect money for maintenance, but people are reluctant to contribute, and the community arrangements for O&M are not up to expectations. There are also problems with ownership of installed facilities. PLAN is in the process of having groups registered, but at the moment they are not legal entities and are thus not entitled to ownership of facilities. Ownership may be in any case difficult to establish due to the use of public property in the form of public land, rights of way etc. The project committees are reluctant to transfer ownership to authorities.

PLAN has a programme to train health volunteers. These are usually young women about 16 or 17 years old who have finished school. There are a few married women, and some young men. The volunteers are trained by the Ministry of Health using a curriculum developed in collaboration with the PLAN Health Coordinator, and financed by PLAN. They try to train at least two volunteers per hamlet, and to have a volunteer for every 20 families. The volunteers are expected to visit the families regularly. They concentrate on teaching women how to better keep the kitchen and bathroom (food hygiene etc.) and maternal and child health issues (breast feeding etc). This is why they find women make the best volunteers, as it is hard for men to communicate on these subjects. The training is also linked to the health related home improvements PLAN finances, such as building of smokeless stoves, dishracks, compost pits and improved toilets.

The health volunteers are given refresher courses, and PLAN brings them together once a month so they can share experiences. The PLAN director feels their training could be better,

more practical and hands on, but they are limited by the trainers they can find. They have 6 health promoters at the moment, of whom one is a woman. They would like to have dynamic older women who could spend time in villages with the young female health volunteers. Neither the health promoters or the volunteers have a background in health when they are recruited. They are given an initial Primary Health Care training course of 5 days.

They find that there is a high drop-out rate among their volunteers, as the women get married and then cannot carry out the work any more, or else they find employment. The PLAN training is quite highly regarded by the MoH, and the women who have PLAN certificates can get jobs in hospitals.

PLAN is not in need of funds for water projects. They expressed a need for training and technical know-how. One of their greatest problems is in overcoming the non-cohesive nature of the communities, and the petty rivalries and jealousies which undermine community projects. They need skilled, experienced and committed trainers and catalysts to carry out their village programmes, and they need to improve the technical quality of their water projects. They need assistance in the form of technical support and training in water resources surveying and inventory, needs assessment, technology selection, design and construction supervision.

Thrift and Credit Co-operative Societies (TCCS)

History

The original Thrift and Credit Societies were formed in 1906. The rapid growth of the plantation sector in the late 19th century had brought colonial Ceylon into the market economy which also embraced the rural sector. In the absence of a banking system outside commercial centres, moneylenders emerged to service small and marginal farmers. The exploitative methods adopted by the moneylenders and the antagonistic relationship they formed with the rural poor was identified as one of the focal points of discontent in rural communities. Co-opting the fundamental value of thrift in the rural communities, the colonial rulers successfully motivated rural people to start savings clubs to provide credit. There are approximately 1000 of the societies in existence today with a history of around 7 or 8 decades. Until recently, they functioned as individual entities without co-ordination and with little potential for expansion.

In 1977 a development activist, Mr. P.A. Kiriwandeniya, recognised their potential as a mechanism for self-reliant and co-operative development amongst the rural communities, and started the revitalisation process which in the last 12 years has turned the thrift societies into a strong financial institution.

In 1978, several individual societies were brought together in the Kegalle district to form the first District Union of Thrift and Credit Co-operative Societies. By 1980 the number of district unions had increased to 5 and by 1984 they covered all the administrative districts in the country. Meanwhile in 1980, District Unions Federated at the national level to form the National Federation of District Unions of TCCS. By 1990 there were 6821 primary societies in 28 District Unions with a total membership of 675,000 persons. The TCCS has a unique democratic structure wherein independent primary societies come together at the district level and district unions came together to form the Federation.

TCCS is often referred to as "Sanasa" which is the acronym for TCCS in Sinhalese.

Organizational Structure

The primary societies are usually registered under the Co-operative Societies Law (No.5 of 1972 and No.37 of 1974) with the Department of Co-operative Development. All registered societies are legal entities with powers to enter into contracts to sue and be sued. Liability of members is normally limited to give times the value of their shareholding. The major objective of these societies is to "promote the economic, social and cultural needs of their members according to the co-operative principles and the promotion of thrift, mutual help and self reliance and thereby create a co-operative community." Members must be permanent residents of the area of operation of the society, over 18 years of age and persons of 'good character.'

By early 1980 the basic model for the functioning of a primary society, which has largely remained unchanged, was laid down. To become a member of the primary society it is necessary to purchase at least one share worth Rs. 240 to be paid over 24 instalments of Rs. 10/- each. The membership of the society at the annual general meeting establishes by-laws

by which it is governed, which are then approved by the Department of Co-operative Development). The By-laws specify loan arrangements (usually up to 10 times the share holding), repayment arrangements, interest rates etc., The membership also establishes other conditions for membership, for eg: compulsory attendance at no less than 50% of meetings, good behaviour etc.

Office bearers are elected at the Annual General Meeting. A President, Vice President and an executive committee of not more than 7 are elected for a period of one year. A secretary is appointed by the executive committee from amongst the members or a full time salaried office is created with the concurrence of the General body. The executive committee meets at least once a month and is responsible for all the transactions of the society. An audit committee, of 3 individuals, is also elected by the General body.

Usually in small societies the office bearers are volunteers. Where individual societies are able to employ personnel there are full-time or part-time employees. All the planning and implementation of programmes at the local level is done by the primary societies with assistance from the District Union wherever necessary. There are also Divisional Offices, based in AGA Divisions, which have been created by the Federation in order to give support to the Primary Societies.

The District Union is managed by a Board of Directors elected by the membership, which is comprised of all primary society members in the district. Usually office bearers of primary societies are elected to the Board which comprises 11 to 15 persons. The District Union is also an independent entity whose members are the primary societies. At the District Union most of the inter-lending, special focus programmes, training and other activities are decided upon and carried out for the entire district.

All district unions are federated at the Federation of TCCS. The Federation provides assistance and guidance to the District TCCS. The functions of the Federation include campaigns for the promotion of co-operative principles, promotion/strengthening of societies and organizing educational and training programmes.

The financial strength of the movement comes from the savings of individual members. PTCCs not only buy shares at the district level but also contribute to savings at the district level. In 1990 the total savings in Primary Societies amounted to Rs. 491 million, of which Rs. 86 million was saved with the district societies.

The Federation also has a capital structure made up of shares, compulsory savings and revolving funds (usually grants for special purposes). The total share capital and savings of the Federation stood at Rs. 101 million in 1990.

Mobilisation

Mobilisation of a village where a TCCS is formed is usually undertaken by the divisional level full-time workers. In a typical situation the divisional field officer would be invited by somebody in the village (or the field officer interacts with the village directly) who is interested

in forming a society. A group of potential members are initially brought together to discuss the concept of TCCS. Of this group 4 or 5 individuals are selected to visit a functioning neighbouring society to study the process. It is these individuals who play the role of mobilisers in their own village. Several meetings will be held in the village to talk about the benefits of TCCS. After about 2 months draft by-laws are introduced and taken up for discussion. The potential members make their specific amendments sometime after the third month in a formal meeting and the group elects its office bearers and formally declares itself a TCCS primary society.

The co-operative officer of the area is invited to attend meetings to facilitate registration process. Usually the officer would have attended 3 or 4 meetings before recommending registration. Once registration is completed the society comes into being and starts saving up to six months before lending.

Table 13 : TCCS Membership

	Badulla	Matara	Ratnapura	Total Sri Lanka
<i>Membership</i>				
Male	7892	14525	8820	303760
Female	9645	17752	10778	371240
Total	17537	32277	19598	675000
Primary Societies	184	302	255	6821
Registered PTCCS	145	280	245	5776
Divisional Offices	14	12	9	

There are 6821 primary societies in 28 district unions with a total membership of 675,000. The general trend in the movement is that women slightly outnumber men in most societies. Approximately 55% of the membership is female.

Table 14 : TCCS Coverage

District	Membership	Population	Coverage (% of population)	Coverage (% of households)
Matara	32,277	706,877	4.6	25
Ratnapura	19,598	943,751	2.1	11
Badulla	17,537	673,903	2.6	14

If it is assumed that only one member of each family is a member of TCCS (in actual fact there may be more than one) it can be approximated that in Badulla 14% of households have a TCCS member, in Matara 25% and in Ratnapura 11%.

It has been the experience in TCCS that women usually save more and are more conscientious when it comes to repayment of loans obtained. Of late quite a lot of the initial mobilisation in a village is done among the women. The involvement of women in decision-making at the primary and district levels has also increased dramatically.

Table 15 : Women's Participation in TCCS Leadership

	No. of Women's Committees	No. of Women Leaders in PTCCS	No. of Women Leaders in the DTCCS
1984	6	34	20
1986	213	440	140
1988	820	575	200
1990	1841	925	295

Many societies have women's committees which organize special programmes for women. From only 34 office bearers in 1984 the number of women leaders has increased to 925 by 1990. However, their participation is not proportionate to their strength in membership. Nevertheless conscious decision has been made by the leadership to increase the participation of women over the next few years.

Staffing and Field Operations

There are 20 full-time employees at the Federation under the General Manager and around 600 at the district union offices. In addition there are 221 divisional level extension officers (out of a cadre allocation of 280). Most of the primary societies have a s f u l l - t i m e employees. TCCS

Table 16 : TCCS Employees

District	District Union	Divisional Office	Cluster*	Primary Society	Total
Matara	22	12	46	64	144
Ratnapura	18	9	41	38	106
Badulla	16	14	25	17	72
Total	56	35	112	119	322

* to be recruited in August 1991

has organized the primary societies into clusters of 5 to 6 societies and plans to hire a full-time person to assist them. Of the 1400 posts identified 56 have been filled so far. Every primary society is visited by the District Union staff at least once a month to provide supervision and assistance in loan appraisal and book-keeping and monitoring.

Table 17 :

The Primary Societies which have received banking status within the organisation employs a full time Officer. Each Divisional Office has a Manager who is a salaried employee. The other Officers of the numerous committees are selected from the level of Chairman of the Primary Societies.

	Loans Granted Rs.	Savings Rs.	Total Assets Rs.
<i>District Unions</i> Ratnapura	6,087,600	2,338,338	789,500
Badulla	5,118,645	1,398,076	88,857
Matara	18,890,745	6,917,967	296,512
<i>Primary Societies</i> Ratnapura	23,469,410	8,363,753	N/A
Badulla	5,588,000	5,759,740	125,000
Matara	25,469,410	22,561,941	3,667,000
<i>Ratnapura</i> <i>District Union</i>	3,500,000	7,500,000	

Source : *The Federation Report published for the year 1990*

The District Union has a stronger team of paid employees. It consists of a General Manager, Additional General Manager, Accountant, an Internal Auditor and General and Typist Clerks. This structure is based on the Matara District Union and differs only slightly in the other two districts. The elected body of the District Union is comprised of a Board of Directors, Chairman, Vice Chairman, Secretary, Treasurer and many committees to overlook the different activities of the District Organisation. The numerous committees formed by the

members within the Society may possess certain skills and qualifications that can be made use of by the Society.

As the TCCS movement grew, it required an increasing number of competent and co-operatively oriented people to ensure the efficient management of credit societies. In the early phase from 1978 to 1984 the number of full time staff grew from around 20 to 238, especially at the District Unions, and part-time staff increased from 260 to 4800.

Salary scales attached to these positions are low compared with those of comparable grades in both the public and private sectors. The TCCS policy in recruitment has been towards

recruiting younger people who have both the disposition and experience in working with the rural poor rather than looking for people with high educational qualifications. TCCS seeks staff with a sense of commitment to the improvement of living conditions of the rural population.

Permanent employment is often gained after a period of voluntary service. The leadership believes that orientation received during this period of voluntary service, together with the on-going training programmes, will govern their performance and behaviour of staff than to a greater extent than educational qualifications.

Volunteers at the Primary Society level increased from 9025 in 1980 to 47747 in 1990. The increase for the corresponding period at the District TCCS was from 72 to 550. At the divisional level starting with 90 volunteers in 1986 the number had risen to 1476 in 1990.

All volunteers are also trained in various aspects of TCCS functions. They are mostly unemployed educated women. The potential for increasing extension workers from the reservoir of volunteers is enormous. They are also the motivated active members of the primary societies.

Training of TCCS workers and members is undertaken in-house at the TCCS training centres in Kegalle (80 km from Colombo) and Paranthan in the north. Apart from the full-time training staff, several others are hired on assignments to conduct these training programmes. Unit costs of TCCS training have been extremely low at around Rs. 20/- per participant for member education. The Change Agents Training Programme conducted in 1988 for 2734

Table 18 : TCCS Employees at Primary and District Level

	No. of Employees at PTCCS	No. of Employees at DTCCS
1978	20	1
1980	64	8
1982	124	10
1984	210	28
1986	340	38
1988	440	168
1990	920	562



trainees cost Rs. 220/- per participant. However these costs do not include the overheads at the Federation of TCCS which is responsible for conducting these training programmes.

Apart from the major activity of savings and credit the TCCS has been involved in other community development activities. For example, the Kegalle District Union has developed a replicable model for working with Janapada Colonies (landless who were given government land adjoining an existing village under the village expansion programme of the government). Lack of education, confidence, skills and organisational capacity amongst these people made them vulnerable to exploitation, to the extent that often they lose ownership of their land. TCCS gave non-monetary assistance to a Janapada group in Allawatta over a period of six years. Only after the people had proven to themselves that they could efficiently manage their own resources and develop long-term plans was the TCCS prepared to provide external resources. By 1990 TCCS was replicating the Allawatte experience in 65 Janapada Colonies.

Between 1985 and 1987 the Ratnapura DTCCS implemented an IRDP loan scheme for agriculture, self employment and small industries. Total disbursement was around Rs. 300,000/-. The Matara DTCCS disbursed 1.3 million in 1988 under the IRDP in that area. Loan schemes for IRDP's in Nuwara Eliya and Hambantota were also handled by the respective District Unions of TCCSs.

TCCS has also been promoting cultural activities also as a means of communicating the philosophy of the movement. In addition, depending on the interests of each Primary Society, activities such as environmental protection, child health and water and sanitation have been undertaken. Of these environmental management is one of the principal concerns of the movement as a whole.

TCCS Water Scheme - Gallbokka, Kegalle District

Galbokka is a village of about 1100 residents (257 families) about 25 km from Kegalle town. In 1939, 123 families were given 2 acres each on an uneconomical rubber plantation and were settled in a Janapada colony. Large areas of the original rubber plantations were cleared to enable the planting of jack, mango, avocado and other local trees. Each household still owns a few rubber trees from which they tap the latex and make low grade rubber sheets in private smoke-houses. Their major source of income is from the fruit grown in the area supplemented by a very small income from rubber. Men also find other work outside the village.

Forum on Development, an NGO based in Kegalle, helped residents of this village form a Janapada Society in 1987. The society started a savings club and a poultry project (from their own funds) and after 8 months FOD assisted the society to become a registered Sanasa Society (TCCS). The society has 87 members, about 15 of whom are women.

The community had an old water scheme dating from about 1939, which was built when the land was a British colonial rubber plantation. The system functioned until about 1955, when it broke down altogether through lack of maintenance. Some wells in the village which dry up during the dry season and a stream flowing about 2 miles away were the remaining sources

of water for the population. The Sanasa society members thus identified a water supply scheme as a need, and started planning it in 1988. One of the members of the society was a pipe fitter and mason, who had experience working with the State Engineering Corporation, and he helped measure distances and prepare a proposed layout for a gravity water scheme with house connections. The project identified was very small, benefitting 12 families. An estimate was prepared, which showed total material costs (pipes, fittings, cement, sand and transport) to be Rs 53,700. This was divided by 12 to give a cost per family of Rs 4475. Each family contributed a certain amount in cash (some from their Sanasa savings accounts) varying from Rs. 2500 to 3000, and amounting to a total of Rs 36,000. For the Rs 17,700 balance, the Sanasa society approached the District Union, and negotiated a loan at 10% interest. Forum on Development provided funds to the DTCCS to on-lend to the Janapada Society at this concessionary interest rate. Each family then signed a loan agreement for their share of this loan, at 12% interest. The period of the loan was 18 months.

The society purchased the materials, and the project was carried out using additional locally collected materials (stones) and some voluntary labour. The plan was initially to use all voluntary labour for the unskilled work, but after several days of work, it was decided to pay the labourers. The wages were taken out of the surplus in the budget, which had been overestimated. Both beneficiary and non beneficiary members worked on the scheme.

The loans were all paid back within the prescribed term, with no defaulters. Although there is no formal arrangement for maintenance, the beneficiary group is small enough that it has been able to carry out any maintenance required to date by themselves.

The community is now planning a second phase of the scheme, which will involve building another tank, replacing the 1½" PVC pipe with 2" pipe, and using the 1½" pipe to extend the line to provide house connections to 15 more families. These families will also be Sanasa Society members. The same technician will carry out the design work, but for this scheme he will be paid, as he is not a beneficiary. There are also plans for another larger system, using a different, remoter source, which would serve 125 families.

The constraint on this type of scheme is that TCCS will only extend loans to Sanasa Society members, so on a full cost recovery basis working through loans only 1/3 of the village could be served (as this is the proportion with a family member belonging to the Sanasa Society at the moment). The number of members will not necessarily increase, as there are community members who do not perceive any benefit from joining. However, if the village is successful in securing funding from another source, the Sanasa Society could plan and carry out implementation of the project on behalf of both members and non-members.

The success of this project seems to be due to a number of factors:

- the presence of FOD in Kegalle to act as a facilitator and catalyst, and to assist the village to organise a Sanasa Society
- the dynamic nature of the Kegalle TCCS District Union
- the close links between FOD and Sanasa which makes their collaboration very effective
- the presence in the village of someone with technical skills who could design the system.

TCCS and the Million Houses Project (MHP)

The MHP aimed at assisting low income groups (households with incomes less than Rs. 1250/- per month) to build and develop their own houses on a self help basis using small loans to pay you building materials, skilled labour and supervision as needed. The MHP took place between 1982 and 1987, was administered by the National Housing Development Authority (NHDA), funded by USAID (US \$ 40 M loan to the GOSL)] The programme was implemented through Gramodaya Mandalayas starting in 1984. An evaluation of the Project (MHP) carried out in late 1985 revealed that the recovery of loans was less than 45% and with such a rate of recovery, it was argued, the MHP could not achieve its targets.

The MHP was extremely important to the GOSL as a symbol, both nationally and internationally, of its commitment to the well being of the low-income groups. In 1985 TCCS was identified and invited to participate in the implementation of the MHP.

TCCS had maintained credit discipline and high repayment rates amongst its members (the reason which attracted the USAID & GOSL) precisely because they were handling their own resources. The sudden infusion of large amounts of 'easy credit', the leadership argued, could undermine that credit discipline and therefore the co-operative spirit and sustainability of the movement. On the other hand, if TCCS refused to channel the housing loans the GOSL would undoubtedly set up a structure which would function in competition with TCCS, offering credit on easy terms, which would also have the effect of undermining the movement. In addition, to refuse to implement the MHP would be refuse to accept a challenge which could potentially enable TCCS to dramatically increase its membership base (particulary amongst the low income groups) and improve its resource base, thereby bringing tangible benefits to rural people. TCCS therefore agreed to channel housing loans as part of the MHP. This was the first time that TCCS had deviated from its policy of and commitment to growth from the mobilisation and use of its own resources. The only previous outright assistance between 1978 and 1985 had come from an Australian NGO which supported some institution building and training activities.

In 1985 Kandy district was chosen by TCCS for implementation of the programme. A priority list of housing beneficiaries, selected from amongst the membership, was to be prepared by the primary society. This list was forwarded to the GM and from there for approval by the

District HDA. Once the loans were approved the DHDA released the loan amount to the District Union. The District Union then released the loan money to the relevant primary society and the society in turn released the money to the prospective house builder. Although the inter-lending mechanism between the District Union and the Primary Society remained unchanged the interest rates on housing were preferential. NHDA lent to the District Union at 2% interest which lent to the Primary Society at 4%, which in turn on-lent to the individual at 6%.

In the first year of implementation, Kandy District Union disbursed Rs. 14.2 million in housing loans. The effect of the MHP on the TCCS in the Kandy district was dramatic. The rate of growth of Primary Societies was 25% (as previous years) with 424 societies in 1986. However, membership increased by 85% to 17,760. Growth rate in the share capital of Primary Societies increased by 71% (from 7%) to a value of Rs. 2.25 million. This pattern was repeated in the other districts where TCCS implemented the MHP. By 1987, 24 districts participated disbursing Rs. 77 million in MHP loans.

Table 19 :

The rapid growth of TCCS during this period was primarily due to the MHP. Since the Department of Co-operative Development was the registering agency it came under some political pressure to register new societies some of which were purely formed to obtain the housing loans. In some Primary and District Unions as much as 88% of loans disbursed were for housing, which significantly skewed the loan portfolios of these societies.

Year	MHP Loans granted Rs. Millions	Average Default	No. of Beneficiaries
1986	37 612	8.6%	6,265
1987	76 977	10.3%	13,131
1988	46 056	6.6%	16,040

Although the TCCS leadership had developed strategies for expanding the movement, based on systematic training and education of members, leadership development, creation of new societies and the introduction of rural development programmes, implementation could not keep up with the rapid rate of expansion experienced during the years 1985-1988.

The leadership was aware that societies were coming into being simply so that members could take advantage of the MHP. Without a commitment to credit discipline, co-operative principles and self reliance which are the building block on which TCCS is built, these new societies it was feared, would become a liability and not an asset. In fact the default rate of the housing loans was higher than TCCSs normal default rate thereby blemishing what had otherwise been an excellent repayment record. However, it should be noted that TCCS had a much higher repayment rate than the NHDA which was only 32% in 1989.

In 1988, frustrated by the very low repayment rates being achieved through the NHDA, USAID refused to re-finance the loan for the MHP. In response the GOSL wrote off all outstanding housing loans in August 1988. This breached a fundamental principle of TCCS:

never write off loans - an act known to seriously undermine credit discipline. This action also meant, within TCCS, the default rate rose to 80% in 1990.

Participating in Government financed programmes where political factors arbitrarily come into play during the course of implementation is one of the main concerns of TCCS where its own institutional discipline is undermined. Rural credit in Sri Lanka has a history of being a 'giveaway' with the exception of TCCS. Any programme in which the TCCS would participate in the future, where the line of credit is via the Government, would have to be negotiated in the light of the bitter experience of the movement in trying to implement the MHP.



TCCS into the 1990's

The targets for the 1990/95 Development Plan of the TCCS is quite ambitious. By 1995 it plans to increase the number of primary societies to around 8000 from the present level of 6871, and the membership to around 1,000,000. If it achieves these targets while maintaining its democratic structure it will be a unique organization in Sri Lanka which is national, covering all districts in the island and with 25% of the households represented in the movement.

TCCS leadership has planned to train all the Primary Society office bearers and as many members as possible in accounting, management and community development skills. This will be carried out by TCCS itself, at its training centres in Kegalle and Paranthan. By 1995 it has also planned to upgrade 2000 societies which have been identified as weak by TCCS standards.

A cluster system (up to six societies in a geographic area) has been introduced with full-time workers to consolidate existing societies and to ensure adequate support to new societies. About 1400 clusters are expected to be formed by 1995. A specific function of the clusters is to facilitate small scale credit programmes to special groups such as, low income earning groups, women's groups and landless poor groups.

By 1995 the movement expects to have formed 2000 Low Income Earning Groups, 8860 women's groups and 4000 landless groups. The total cost of organising these groups is estimated to be in excess of Rs. 9 million.

In addition, the movement has developed a National Rural Development Plan, built upon development plans of each of the primary societies and District Unions. These plans are based upon a realistic assessment of member capability, credit needs, institutional development requirements, sector plans (agriculture, trade, industry, housing etc) manpower training requirements and need for human resource development. This plan is expected to be integrated into the "National Plan for Co-operative Development" prepared by the Ministry of Co-operative Development. This is the first time that such a plan has been developed from the grass-roots up.

Financial Management

Financial Reporting and Coordination

The basic methods and structure of reporting within the district level organisation is similar in all three districts. The Primary Societies maintain independent records of their financial activities. In an ideal situation these records should reflect information such as sources of funds, assets and liabilities, loan balances, and membership. The Primary Societies report to the Divisional Offices on a periodic basis. However the frequency of reporting differs from one district organisation to another, depending on the requirement of information and resources available. The Divisional Offices in turn report to the District Union. However the reporting channel linking the District Union, Divisional Offices and the Primary Societies works only for the funds channelled by the District Union to the Primary Societies. Therefore the funds

collected locally by the Primary Societies by way of membership fees and deposits are not reported to the Divisional Offices and the District Union.

Even though primary societies work as independent bodies rather than as branches of the District Unions, it is necessary that periodic reporting by the Primary Societies to the Divisional and District Offices is undertaken for funds collected locally. Such financial reporting will result in greater mobilisation of funds through better financial management facilitating the optimum utilisation of available organisational resources within the district. The lack of suitable and adequate staff and the absence of modern technology in reporting are the reasons for inadequate reporting from the Societies. However limited statistical data pertaining to the Primary Societies are collected annually by the District Union.

The Federation too maintains records of the financial activities of the District Unions and the Primary Societies. It publishes a statistical report annually reflecting the financial performance as to savings, deposits and total assets of District Unions and Primary Societies. Significant differences were identified when comparing the figures in the statistical report with the records maintained at the respective District Union.

At the District Union proper and up to date records are not maintained for Primary Society transactions. For instance, neither the District Union nor the Divisional Offices can readily provide the savings and loan balances for a particular Primary Society at a given moment of time. As the policy of the organisation is to decentralise the autonomy in decision making to the community (by forming Primary Societies) there has to be effective feedback from the Societies to the Centre periodically to assess the efficiency and effectiveness in decision making and performance of the Societies. This would enable the District Union and the Divisional Offices to identify Societies that are inefficient and not meeting organisational objectives with a view to effecting the necessary improvements to them. The main constraint faced in maintaining an effective feedback system with the Primary Societies is the serious shortage of skilled staff and other hardware resources at the District Union. However, the number of Primary Societies are increasing against the static resources at the District Union. For instance, the Matara district has 281 Primary Societies and it is impossible for the District Union staff of five people to manually maintain up to date records of the Primary Societies. The overall reporting system could be improved

Table 20

	Federation Records Rs.	District Union Records Rs.
<i>Ratnapura DTCCS</i>		
Savings	2,338,331	7,500,000
Loans	6,087,600	3,500,000
<i>Matara DTCCS</i>		
Loans	18,890,745	19,495,819
<i>Matara PTCCS</i>		
Loans	25,469,410	34,799,243

with more skilled accounting personnel and/or perhaps modern technology such as a computer for each District Union to maintain such a large data base. This would enhance the coordination of Primary Society activities at the district level.

It was observed that the statistical report published by the Federation contained a significant error with regard to the Badulla District Union fixed assets figure which was stated as Rs.8 million when it should have been Rs 80,000/=.

The foregoing weaknesses reveal that the reporting system on the whole is not impressive. Therefore serious emphasis needs to be placed to improve the accounting and reporting system of the entire organisation in the three districts.

The Books of Account of the Primary Societies are maintained by the respective Secretary and are presented to the members both monthly and annually. However, both monthly and annually the accounts of the Primary Societies are not consolidated at the district level.

Financial Planning, Budgeting and Monitoring

Financial planning is initiated at the level of the Primary Societies. All members requiring credit facilities are required to submit a description of his/her economic status together with an indication of the purpose of the loan. The planning committee of the Society evaluates each application and prioritises them according to pre-determined criteria. This forms the basis of the Primary Societies' annual budget. These budgets are thereafter submitted to the respective Divisional Office forming the basis of their budget. The purpose of submitting the budget to the Divisional Office is to obtain their support in the event the Society is unable to finance the credit requirements of its members out of society funds. The Divisional Offices too, will evaluate the requests made by the Societies in order to prioritise the distribution of available divisional funds among the respective societies. Eventually all the budgets will end up at the District Union, where the district budget will be prepared. The district budget will reflect only funds mobilised by the District Union through Divisional Offices and the Primary Societies. Therefore the planning for society funds is done independently by the Primary Society itself. The Assistant Secretary of the Divisional Offices monitors the performance of the Societies in disbursing and recovering credit on a monthly basis and in enforcing more financial discipline on the Societies.

The information given above shows that the preparation of budgets and work plans are driven by the PTCCS. This bottom up approach emphasises the autonomy of the community in decision making.

Fund Mobilisation, Savings and Recovery

Credit facilities are granted to members of Primary Societies out of funds obtained from the Federation District Union, Society membership and deposits. The Assistant Secretary of the Divisional Office has to evaluate and approve loans being granted to the members. In the districts of Matara and Ratnapura, a Divisional Office overlooks the activities of, on average,

about twenty Societies. Therefore the Assistant Secretary may not have the capacity to evaluate the increasing demand for loans. The members must meet certain standard criteria for credit to be evaluated and approved. However, these evaluation and approval criteria are far below the standard red tape and bureaucratic criteria that needs to be fulfilled when obtaining commercial bank credit. All loans given to members should be guaranteed by two guarantors who are also members. In terms of recovery, the organisation in the past has been able to recover over 95% of loans given to its members.

With the Society being composed of members from the community, the mobilisation and recovery of funds work on trust, cohesion and peer pressure rather than on the enforcement of law.

The Primary Societies accept deposits from members and non members. Cash collected by a Primary Society should be ideally banked with the District Union on a daily basis. Due to the geographical location it is not possible for most of these Societies to bank the daily collections at the Union Office. To overcome this problem, banks have been setup at the Divisional Offices. In Ratnapura and Matara districts there are Divisional Banks at all Divisional Offices. However in the Badulla district there are only three Divisional Banks catering to 153 Societies, which is inadequate to meet the needs of the Societies.

Not all Primary Societies are engaged in professional banking activities or employ a full time Officer. In Ratnapura out of the 249 Societies about 50 have obtained banking status whilst in Badulla 20 out of the 153 Societies and in Matara 64 out of the 281 Societies have obtained banking status. The distinction between a Society with banking status and the one without is that the former employs a salaried Officer and operates from a permanent premises whilst the latter has a part-time or voluntary worker operating out of a room in a member's house. Additionally the Society should have an annual revolving fund of at least Rs.50,000/= . However this figure may differ from one district to another, because in Matara the minimum amount is about Rs.300,00/=.

Value of Funds Mobilised and Savings

The amount of loans granted, deposits collected and the total assets of the District Union and the Primary Societies are detailed below under the respective District.

The data submitted by the Ratnapura District Union on the same subject (detailed below) differ significantly from the figures stated above. The accuracy of these statistics is therefore unknown.

A study was done at the Ratnapura and Matara District Unions to determine the average amount of Union funds generally handled by the Primary Societies. The results are summarized in Table 21.

It is also important to determine the asset and liability position of the entire SANASA organisation. The figures from the Statistical Report of 1990 published by the Federation are as follows:

Loans Granted- Rs. 485 Million
Savings - Rs. 506 Million

Table 21 :

Control and Audit

The Books of Account of Primary Societies are audited by the Department of Cooperatives annually, and at more frequent intervals by the audit committee of the Society. The Internal Auditors of the District Union does a continuous audit of the Books of the Divisional Offices whilst the Department of Cooperatives does the annual audit. The Act No.5 of the Cooperative Act of 1972, under which the organisation is registered, stipulates that the audit should be done by the Cooperative Department or a person appointed by the Commissioner. However these auditors are not professional auditors. At present only the Federation records are audited by a Chartered Accountant.

Amount Rs.	% of Primary Societies
<i>Ratnapura</i>	
0 - 25,000	47
25,001 - 50,000	30
50,001 - 100,000	14
100,001 - 250,000	7
> 250,000	2
<i>Matara</i>	
0 - 25,000	82
25,001 - 50,000	10
50,001 - 100,000	6
100,001 - 250,000	2

NGOs Water Supply and Sanitation Decade Service

The Water Decade Service is a consortium of about 25 national level NGOs which was set up in 1983 to act as a coordinating body. They were set up to be neither a funding agency nor an implementation agency, but primarily to do training for NGOs. They started with funding from UNDP, and after 2½ years PACT took over their funding. At the present time, they have no continuous source of funding.

The organisation is run by a board made up of 6 NGO representatives, 5 non-voting representatives of government agencies (MoH, Local Govt., NWSDB, MPPI) and 3 other members who have some involvement with the organisation (often past staff members, or consultants). This Board elects office bearers from among its NGO members.

The organisation acts as an intermediary for Wateraid of the UK. They receive and assess proposals for projects from NGOs. They have a project officer who visits NGOs and projects to assess them. Any technical assistance is given to them by the NWSDB. Wateraid channels £10,000 per year (about Rs 700,000) through them, which amounts to about 8 projects per year. The Decade Service also puts out a newsletter.

The service has organised training seminars, mostly for middle management project officers. They have also trained older women volunteers. In response to the needs expressed by their member organisations, they make up proposals for NGO training, and then apply to aid organisations for funding. They have been funded by NORAD in the past, and also received funds from PACT for a two year series of training seminars.

They have a roster of trainers with whom they are well familiar, and from which they can choose the most suitable people for a particular type of training. They have also published a manual for use by health volunteers, covering water, health and community development. This was originally published in Sinhala, and after approval by the government, UNICEF purchased 1000 copies. The manual was translated into Tamil, but this version has not sold, and this is causing problems for the service. An English translation of the manual has been prepared, but not published. They have also developed flash cards on environmental sanitation, food hygiene and personal hygiene, which have been well received by their member NGOs.

The service carried out the health education component of a sewerage project in Matara for ODA. They hired a man and wife team of trainers who they were very pleased with. They do not find that they have trouble in finding good trainers. Some of their trainers come from SLIDA, and also from World View Foundation.

The organisation started a pilot project which was intended to be a model for NGOs in a small dry zone village called Punciwilatchawa. This project was funded by UNDP and involved the building of 4 new wells and the rehabilitation of 2 existing ones. Health volunteers were also trained, and 60 latrines provided with SAP funding. At the end of this project, assistance was requested from 12 additional villages in the immediate area, and the project continued as the Lower Deduru Rural Development Project, with SLCDF funding of Rs 7 million. This

project has been problematic for the organisation, and it appears that the Decade Service was not well suited to this kind of project implementation.

The Decade Service plans to continue even though the Decade is over. They will probably expand beyond water into areas of environment, nutrition, women and others. They could do training for other projects, if the funding was available, however they have a very small administrative staff. Although they have trained the field workers on their own project, their experience is largely in training middle level management.



Lanka Mahila Samithi (LMS)

Lanka Mahila Samithi (LMS) is a federation of rural women's associations established in 1930. It is a non-governmental, non-sectarian, voluntary organisation which has its objective the improvement of the social, economic and moral standards of rural women and their families. The movement has a network of 2951 registered 'Samithis' (associations) out of which only around 1000 are said to be active.

For the execution of its programmes, LMS has a president, a vice-president, a general secretary and a central board of 9 members who are annually elected by the general membership. The association has a cadre of volunteer workers called 'Swecha Sevikas' who are stationed in villages to carry out development programmes. LMS receives local and foreign donations and grants for its activities. The government, through the Ministry of Rural Development, gives an annual grant of Rs. 100,000 and a health grant of Rs. 15,000 mainly for sanitation. External donor agencies that assist LMS include USAID (which mainly funds income generating projects), UNDP, GTZ, UNICEF and Water Aid.

The programmes include small enterprises projects, agriculture and animal husbandry, health, handicrafts, pre-schools and creches, home gardening and sanitation. LMS has limited experience in water supply and sanitation. It has not been involved in any water supply projects. In sanitation, LMS implemented a project funded by Water Aid and Sanitation (London) in the districts of Matale and Moneragala. In the years 1987/88, 150 latrines were constructed in Matale while 80 were built in Moneragala. The project appears to be still continuing, however with limited success as it has not been able to meet the targets.

In conclusion, LMS involvement could best be at community level, where there are active Samithis in the process of community mobilization and hygiene education. Many of the Samithis are however defunct or inactive, and even the active associations are unlikely to initiate new projects without support. The national infrastructure does not seem to have the potential for active involvement on a district wide basis.

Sri Lanka Saukyadana Movement

The Sri Lanka Saukyadana Movement which was started in 1960 as a medical aid campaign at religious festivals, is today one of the most active volunteer health organizations in the country. Its main activities are;

- provision of medical aid to thousands of pilgrims and devotees who flock to sacred religious places such as Sri Pada, Anuradhapura, Mahiyangana and Kotte during festive seasons.
- provision of medical and sanitary facilities during disasters such as floods, earthslips and cyclones and coordination of distribution of relief supplies.
- medical care of refugees fleeing violence in Northern and Eastern Provinces.
- hospital volunteer service to assist medical staff of main government hospitals.
- provision of medical and first aid at national events such as the Independence day celebrations, Gam Udawa and National Youth Festivals.
- training of high school students, teachers (recently) Buddhist monks in Primary Health Care, Leadership and Community Development.
- special projects - Primary Health Care project in Mahaweli System C with CIDA assistance and sanitation projects.

The movement has its head-quarters in Colombo. Headed by its founder Dr. Lakshman De Silva, who is the Director General, the movement implements its activities through a network of 40 District and 600 School Units, manned by a cadre of 40,000 volunteers. The volunteers are trained in first aid, medical aid, primary health care, home nursing, community health and family health. The trainers include senior medical professionals. A 'junior examination' and a 'senior examination' is conducted annually after which certificates are given to successful candidates. The Department of Education provides an annual grant of Rs. 60,000 for training and UNICEF also extends support. The Ministry of Health provides medicines worth Rs. 30,000 annually. Other administration expenses are covered through funds received from the movement's annual 'flag day.'

The Saukyadana Movement has taken carried out one small sanitation project in Colombo. It has demonstrated the potential for mobilising a large number of volunteers in health care activities. In particular, its network of school units would be a very important resource in school based hygiene education programmes, in any proposed school based water supply or sanitation scheme or demonstration projects. The district and school units could be provided with hygiene education audio visual material for dissemination of information.

Satyodaya

Satyodaya (the full name of which is the Satyodaya Centre for Social Research and encounter) is an NGO mainly working among the resident estate population areas of Central Province. It is a Christian Organisation which was stated in 1972 with the vision of promoting inter-ethnic harmony and peace with justice. In the early year of satyodaya, it was mainly involved in religious, research and relief activities for the estate workers during the early 1970s. During the ethnic violence in 1977, satyodaya did extensive relief and reconciliation work for the victims. By 1986 the organization had grown out of it's original religious character and become a social movement. It is most active in plantation areas and its programmes include pre-school, nutrition, maternal and child health, home gardening, youth activities, leadership training, water supply and sanitation and income generating projects. It implements programs in the towns of Wattedgama, Nawalapitiya, Deltota, Kandy, Kegalle, and Matale, all in Central Province.

Dharmavijaya Foundation (DVF)

The Dharmavijaya Foundation was established in 1977 and incorporated in 1979 by an Act of Parliament. The Foundation's objective is to encourage the formation of temple-based DVF societies at village Buddhist temples. The activities of the societies are in four major areas; education, economics, health and spirituality/ethics, and are based on a Buddhist concept of development.

Leadership for the DVF societies comes from the priest or monk at the local temple, who is always the President of the Society. There are 231 DVF societies in 21 districts, including Badulla (11), Ratnapura (5) and Matara (21). The societies act independently with the Foundation providing financial and technical help for projects. Though the major activity has a religious orientation there are a few programmes which have social mobilisational aspects.

Trained health volunteers conduct clinics on preventive health care and for early detection of correctable defects. DVF has also funded and implemented six (1 tube well and 5 dug wells) small drinking water projects.

These temple based local organisations could become one of the focal points for mobilisation in certain villages where there is no CBO. This should be decided by NGOs and other mobilisers on a case by case basis.

Uvagram Foundation

Uvagram Foundation is non-governmental organization based in Bandarewela. The area of operation has been defined as the Uva Province. Uvagram Foundation is registered under the companies ordinance as a non-profit distributing body and started functioning in 1985. Much of Uvagram Foundation inspiration came from the world conference of Agrarian Reform and Rural Development held in 1979.

Uvagram Foundation strategy was based on working with target groups in a given AGA division and the GS divisions within these. Activities of Uvagram Foundation include teaching English to school children, publication of a fortnightly newspaper called Uva Handa and training of youth in selected GS divisions on data gathering and project identification. The direct marketing programme which was one of the major activities of Uvagram Foundation attempted to market produce, mainly vegetables, from their target area directly in Colombo. Uvagram Foundation itself admits that progress is 'very slow.'

In addition Uvagram Foundation has implemented two small water supply schemes (one common well and one standpipe) and has constructed 102 water seal toilets with labour contributed by beneficiaries. Uvagram Foundation had also undertaken health education/care programmes in 4 villages.

Funding for Uvagram Foundation has come for NORAD, SLCDF, OXFAM, UNICEF and local donations.

Centre for Human Development

The Centre for Human Development started in 1986 by 11 people, most of whom came from the Change Agents Programme. The Centre for Human Development adopted two major strategies. First to confine their social mobilisation activities to the Kegalle district undertaken by 15 full-time animators and secondly to undertake the training mobilisers/animators from other organisations on request, which is handled by 4 full-time trainers two of whom were in the original core trainers of the Change Agents Programme.

Funding for operations came from the Development Fund (a Norwegian NGO) and project funding from NORAD.

Field activities of Centre for Human Development which is also treated as a laboratory, are undertaken by 15 full-time staff all educated youth most of whom are university graduates. Each work in a cluster of 10-15 villages, using the methodology of mobilising resources of the people before external assistance is sought. The essential feature being organising small village groups, especially of the poor including children group. Amongst their projects are two housing projects for victims of earth-slips where 52 houses were constructed using participatory methodology.

Training is conducted at the training centre situated about 10 miles outside Kegalle Town which has residential facilities for about 40 people. Four full-time trainers handle the training programmes usually specifically designed to suit individual organisational objectives and emphasis. Centre for Human Development has trained both national and international NGO field workers eg; Forat, Plan International, Canada Plenty, Devesarana, Sathyodaya etc. the usual training programmes are of 3 months duration with about 30 residential days and the rest on the field. Special programmes are also designed as for Plan International village mobilisers where a five day training module was prepared and used.

The Centre for Human Development charges a fee for their training courses. A usual training course with 30 residential days for 20 participants costs around Rs.125,000, i.e. Rs. 6,000/= per participant (all inclusive) for one month. At present the Centre for Human Development is increasing their training capacity to accommodate Janasaviya trainees. It has access to several experienced trainers who can undertake special short term programmes.

Participatory Institute for Development Alternatives (PIDA)

The Participatory Institute for Development Alternatives (PIDA) is a non-governmental organisation established by a group of persons who participated in the Change Agents Programme in the late 1970's. PIDA was incorporated in 1980 under the companies' ordinance of Sri Lanka as a limited liability, non-profit distributing organisation.

Amongst the objectives of PIDA, two are given prominence. First is the mobilisation of people in PIDA locations, which is done by the full time staff of PIDA which numbers around 14. The role of the field staff in different locations is to act as catalysts and facilitate people to identify their own problems and assist them to bring about solutions using their own resources. No financial assistance is provided by PIDA to these locations. They are in effect treated as field laboratories in the study of social and economic aspects of the participatory developmental process and the exploration of alternative approaches.

The second major function of PIDA has been its training programmes. PIDA has been approached by both international and local NGOs to train field staff on rural mobilisation. Four experienced trainers, together with the PIDA field staff, have trained field workers of Red Barna, Freedom from Hunger Campaign field workers working on village tank rehabilitation projects and other smaller NGOs. PIDA has also been involved in some training activities under the Janasaviya Programme.

Training usually takes place over a period of 3 to 4 months including periods of residential training (20 days) with field experience and investigation in between. Fifteen to twenty people can be trained at a time. Usually 3 trainers are involved in the training programme, which consists of five modules; Orientation, Investigation, Analysis, Participatory Action and Reflection. A major emphasis in PIDA training is on identifying village stratification and organising the poorest sector.

Another aspect of the PIDA training is to facilitate access to the governmental delivery system by such topics. This includes field training of the target group by qualified professionals in such topics as health, agriculture and irrigation and is arranged by the field workers.

PIDA has been building up a trust fund based on an original endowment, which is in fixed deposit. All full time workers are paid out of the interest earned and from consultancy and training fees. PIDA does not depend on external funding. Members decided to invest on a building in Colombo at the inception of the organization which is the office and training centre with residential facilities for about 25 people. There are plans to expand the facility with some assistance from outside.

Even though PIDA does not have direct water supply and sanitation training experience their community mobilisation methodology could be supplemented by the necessary technical component. PIDA field workers do have experience in implementing sanitation and irrigation projects. In the FFHC small tank rehabilitation projects, PIDA trainees have organised communities to undertake repairs and maintain small tanks for irrigation purposes.



Forum on Development

The Forum on Development was started in 1984 by a few people active in development in Kegalle. It has among its objectives the promotion of people's organisations, the facilitation of mass participation in development processes, and the education and training of development leaders. It owns a Development Education Centre located just outside the town of Kegalle (80km from Colombo), which has residential facilities for 35 trainees. Approximately 125 training seminars are held a year, usually of one day in length, and covering such topics as rural development planning, credit management, entrepreneurship, development leadership and soil conservation for village level trainees or middle management level trainees from other NGOs, and identification, formulation and evaluation of small scale projects, the economic development of low income populations, and adult education methods for senior and middle management trainees. The organization has carried out training for other NGOs such as the Thrift and Credit Co-operative Societies (TCCS), Janapada Societies (new settler colony groups) and very small village community based organisations (CBOs). FOD has two trainers and two assistants to undertake all training activities.

The Forum on Development also carries out development research and studies. It was responsible for the formulation, monitoring and evaluation of projects funded by Community Aid Abroad between 1984 and 1989, amounted to around Rs. 8-10 million per year. Operational costs of FOD continue to be financed by CAA.

FOD also carries out fieldwork, and in particular has worked with villages which are part of resettlement schemes. They have helped them set up Janapatha Committees which run savings schemes, and some of these have become full-fledged Sanasa societies. They have thus acted as a "go-between", facilitating the transition from an un-organised village to a group of credit-worthy Sanasa members.

The organisation is run by a 12 member Board of Directors. Four full time staff are involved in carrying out the activities of FOD, of whom two are from the Change Agents Programme. FOD, being situated in Kegalle and having members of Kegalle DTCCS on their Board has a special relationship with TCCS. FOD has been acting as a fore-runner for the TCCS in mobilising the poorest section of the society.

The training centre does not normally carry out technical training, and has no previous experience with training specifically for water projects, but can develop training programmes to suit specific requirements.

IRED - Development Innovations and Network

IRED is an international non-governmental association established in 1980, registered under Swiss Law as a non-profit making international organisation. It has a membership of over 200 individuals committed to 'participatory development.' IRED has an International Development Support Service in Geneva and seven Development Support Services in Africa, Latin America and Asia (one of which is in Sri Lanka). It has a global network of over 900 NGOs consisting of peasants organisations, fishermen's organisations, craftsmen's organisations, women's organisations, NGO networks etc., and funded by a range of funding organisations such as CIDA, GTZ, Novib, Cebemo, Ford Foundation and Swiss Inter-cooperation.

In Sri Lanka IRED operates out of Colombo and is responsible for a few Asian countries including China. Programme categories in Sri Lanka include:

- institution building, NGO management, alternate financemnt
- alternate training for development
- information, communication, networking
- conceptualisation, documentation publication

Some specific activities include exchange visits of peasant leaders, small scale prawn farmers, women farmers and fishermen to Thailand and Kerala, India and vice versa.

Workshops and seminars on alternate financemnt and self financemnt for Sri Lankan NGOs and People's Organisations, the role of NGOs in fisheries development etc., have been one of the major activities. IRED has been concerned with alternative technology (biogas etc.) in rural areas.

Networking regionally and nationally and exchanging information, experiences, technology, skills etc, is another area IRED specialises in, supported by a small full-time staff.



CBOs



Rural Development Societies

Rural Development Societies (RDS) were created soon after independence in 1948 when the state assumed responsibility for the "well being of the poor" and set itself up as the custodian of "common good". As there was only an ineffective colonial structure called the Grama Sanwardana Mandalayas in existence as a link with the centre, and there was little knowledge about the village, the new rulers sought to harness village enthusiasm through the RDS's. The RDS became an important institutional link for the Government with the periphery. It also enjoyed political support from the first Prime Minister of the country. However since 1977 the number of active RDS's has declined.

The principal assumptions underlying the establishment of RDSs were that the village was a viable economic unit, that an important reason for rural poverty was the poor levels of integration between the state administration and rural communities, and that there existed community interest in every village.

When RDS were set up by the state in 1948, despite the fact that the members were elected by popular vote, they effectively attracted the rural elite. For the Government the RDS at the same time became the institutional channel of access to the rural upper class for the then Prime Minister, while a leading political opponent built his base in the middle class dominated village councils. Often the initiative for establishing an RDS came from the Rural Development Officer (RDO) who called the inaugural meeting at which a constitution was adopted and office bearers elected, and the department granted registration on the recommendation of the RDO. Although in 1948 3497 RDSs were formed, largely as a product of a bureaucratic exercise.

In 1973 the RDS underwent a further reorganisation and re-registration which emphasised the over-riding control of officialdom. Included in the conditions for registration were

- membership in the RDS should include 51% of resident families
- the RDS should conform to a constitution drawn up by the department, and
- the RDS should have a satisfactory record of work.

The area of operation was defined as the Grama Sevaka division.

Also during the seventies Women's RDS's (Kantha Samithi) were promoted to address special needs of women. These WRDS's remained as appendages of the RDS's except the occasional society which took initiative in matters of health and education.

However, in reality societies were registered due to political pressure and their establishment was influenced by anticipated political dividends. The RDS could initiate projects for building and maintaining rural infrastructure. Often in rural areas irrigation works vital for agricultural production were undertaken by the RDSs, usually providing labour input. They also undertook work related to public utilities necessary for the social and economic life of the village with external funding. The assumption that popular participation (through RDSs) would yield

equitable returns to all was usually not true. While public utilities could benefit the whole community, projects such as irrigation works invariably provided advantages to the elite groups.

Recently, RDSs have become involved in managing training centres for cottage handicrafts on a temporary basis, where villagers are trained on specialised skills. Usually these skills pertain to accessibility of raw material in a particular area with the intention of either providing a skilled labour force for potential employment in the manufacture of these handicrafts on a commercial scale or encouraging villagers to undertake self employment initiatives. In a few cases these experiments have been successful, but always producing temporary a flurry of activity and employment which is also temporary in nature. However RDSs have been used extensively in providing labour input for the installation of rural infrastructure. Active RDSs have also maintained libraries, provided pre-school facilities and contributed labour for common water supply facilities in village.

RDS's have been used by NGO'S and Government (IRDP) to build water supply projects. The ability of some RDS's to mobilize labour on a voluntary basis was the key element in the decision to use RDS's to implement projects. They were also the rural "labour exchange", whereby paid skilled and unskilled labour could be organized for a particular task. In some instances RDS's have identified the need and mobilized funding for water projects. However they are independent entities which makes their effectiveness entirely dependent on one or two highly motivated individuals.

Agricultural extension programmes have also used RDS's in preparation of new land, introducing new crops, varieties, fertilizer and agrochemicals with some degree of success. IRDP's have used these societies to deliver inputs.

As bodies without any legal status and with only a departmental link, RDS's are constrained in the range of activities they can undertake independently. Even the operation and maintaining a bank account is possible only on an individuals name, usually the President of the Society. However the RDS is one of the more active bodies in a village. With the atomization of the Grama Sevaka division RDSs can be expected to fragment into smaller units, weakening them to a level of being ineffective bodies.

The number of RDS societies in each of the project districts is as follows :

District	No. of Societies
Badulla	368
Matara	390
Ratnapura	285

The village survey revealed that RDSs had carried out water projects in 40% of the villages surveyed. However these are minor projects often limited to a well or two.

The Co-operative Rural Bank (CRB)

The CRBs are the banking arm of the Multi Purpose Co-operative Societies (MPCS). Throughout Sri Lanka there are 276 MPCSs with approximately 8000 retail outlets and 285 CRBs with about 900 sub-branches.

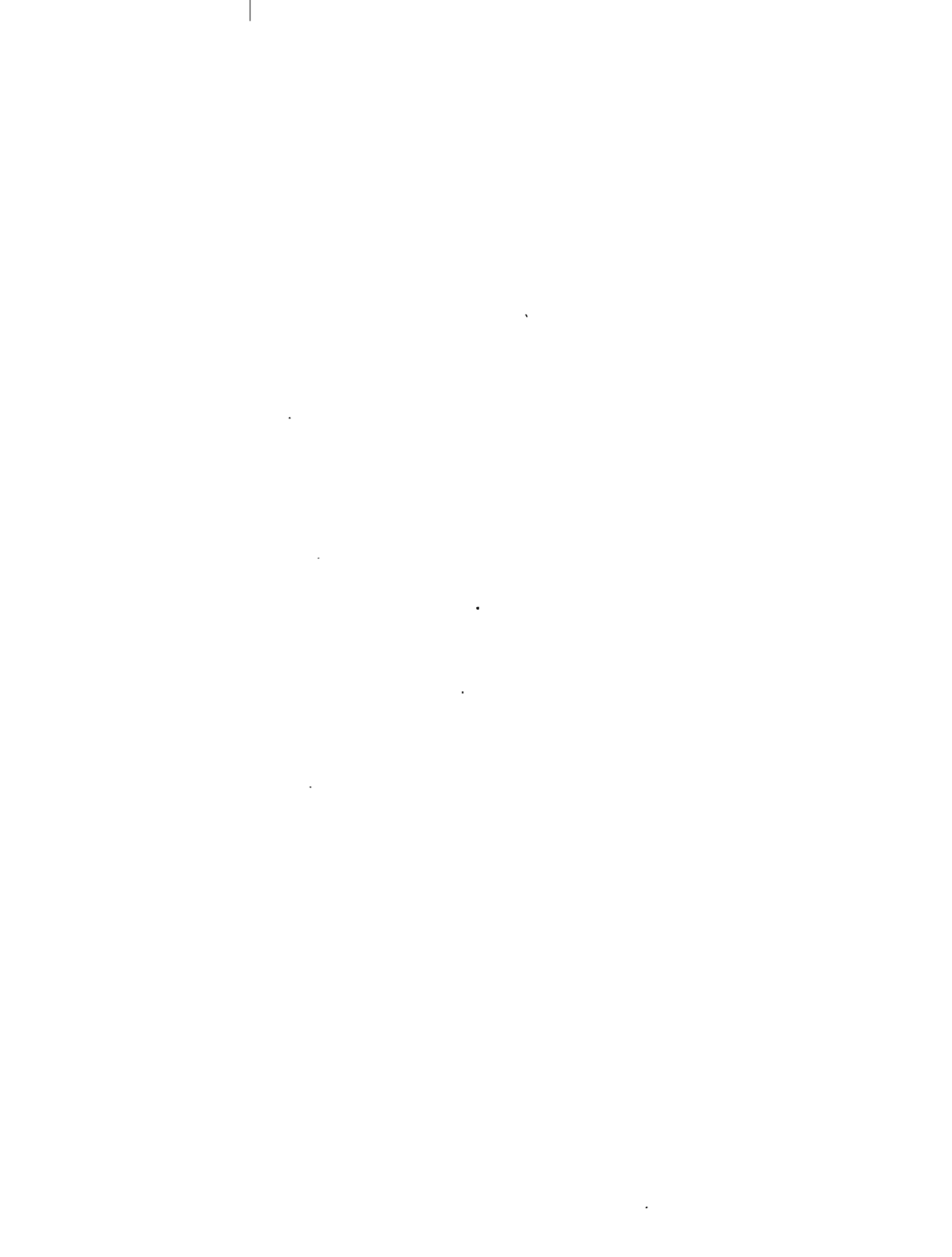
The concept of a rural bank operating in conjunction with MPCSs was inaugurated in 1964 by the Peoples Bank (PB) and as seen as a way to obtain deeper financial penetration of the rural sector. The CRB's became the arm which mobilised rural surplus. At the initial stages there was a close relationship between the PB and the CRBs with the PB staff being posted to the rural bank for periods of time to provide guidance and monitor performance. This direct and close relationship declined since 1971, when the MPCSs were re-organised and the banking activities subordinated to the MPCS's full range of activities of which retailing became the major emphasis. At this time the CRBs' accounting system was terminated and merged with the rest of MPCS accounts. This made it very difficult for the PB to maintain adequate supervision of the CRBs. CRB staff became general MPCS staff leading to the dissipation of banking skills and a lessening of staff morale. Where profitability is concerned most MPCSs make losses on their retail operations and make a profit on their banking activity. There is a heavy risk that this state of affairs will affect the financial integrity of the CRBs. This has implications for the safety of deposits made with the CRBs.

There have been plans recently to restore the close links the PB had with the CRB and restructure them to become more autonomous from its MPCS parent. If this should happen, coupled with other procedural changes, could substantially strengthen the role of the CRBs in rural financial intermediation.

Total deposits of around Rs.175M in 1977 have increased by more than six fold to date. Recipients of CRB lending tend to be from the middle class of rural society and farmers. Marginal farming enterprises are usually excluded because they are unable to provide the collateral necessary to obtain loans.

Only members of the MPCSs are able to borrow from the CRBs and to do this a member must pay for a shareholding which is never paid back and on which no dividends are paid. The share holding cost per member could be as low as Rs.1/- and consequently most CRBs are under capitalised. Without a developmental approach and no specially trained staff the CRB is rural only in so far as it is situated in a rural area but plays a negligible role in development. A typical CRB will have between 3 to 10 employees depending on the volume of operations. Since they are general MPCS staff they could be assigned to the banking or retail arm of the MPCS at any time and it is unlikely that they will develop specialised banking skills with the CRBs. Supervision of the CRBs is mainly the function of the Department of Co-operatives. The PB only has the right to inspect the accounts of the CRB and make recommendations concerning their operations.

The cultivation loans provided under the comprehensive Rural Credit Scheme refinanced by Central Bank was implemented through the CRBs and in many cases default was over 90% and loans were been written off.



Maranadhara (Death Donation Society or Funeral Aid)

Maranadhara Societies are widespread in rural areas usually having a large cross section of the rural population as members. Usually the local school teacher, priest, Grama Seveka or village notable is the organiser and motive force. The objective of the society is, when a death occurs, to help the family by sharing the cost of funeral expenditure. A small sum usually about Rs. 2/- or Rs. 5/-, is collected monthly from each household. While most societies collect the contributions monthly, some time the contributions to coincide with the harvests. The system works like a small insurance scheme at the village level operated by the village. The elite of the village would usually be symbolic members who may not avail themselves of the benefits of the society, but are usually supportive even to the extent of providing additional finance if necessary.

The Maranadhara Society provides a supportive service which complements the usual social support system that operates in villages. A death in a village is a social event in which the entire village participates. Almost everybody in a particular village would know about the society and a small group, usually young people, would be the active members who organize and manage funeral arrangements.

Gramodaya Mandalaya (GM)

Gramodaya Mandalayas were conceived and established under the administrative system of Development Councils which preceded the present Provincial Council system. In 1981, when elected District Councils were proposed and established by an Act of Parliament, essentially as a decentralisation mechanism, they were empowered to carry out similar functions as the local bodies (village, town, urban and municipal councils). When the political need to give prominence to District Council's vis-a-vis local bodies became an imperative, local bodies became non-entities. To fill the gap of village level participation in administrative decision-making, Gramodaya Mandalayas were conceived as local "non-government" bodies which would sufficiently represent village level interest at the district level.

A typical Gramodaya Mandalaya is made up of the chairperson of any organisation at the Grama Sevaka Niladhari Division level (the lowest level of the district administrative system) which "was not of a political nature as may be specified by the District Minister which in his opinion should be represented in any Gramodaya Mandalaya." As such the sole authority for approving membership of a local organisation in the Gramodaya Mandalaya is the District minister, who is a member of the Central Government. Thirty six types of local bodies have been specified as eligible for membership in the Gramodaya Mandalayas, including Rural Development Societies (RDS), Social Development Societies, cultural associations, women's societies, Young Farmers Clubs, religious associations, credit societies, Sarvodaya societies, sports clubs and fisheries societies. Officials of Government Departments and Public Corporations serving in the area are also eligible for membership without voting rights. The chairperson of the Gramodaya Mandalaya is elected by the voting members and the Grama Niladhari acts as the Secretary.

Even though the Gramodaya Mandalaya was envisaged as a body which would formulate village development proposals to be incorporated into the District Plans, the lack of financial resources, the element of centralisation inherent in the system and increased bureaucratization left the Gramodaya Mandalayas simply assuming the role of contractors of civil works in the village. Gramodaya Mandalayas have been active primarily in the area of implementing infrastructure projects. Usually a particular project is estimated and without calling for competitive tenders, as the usual procedure should be, GMs are awarded the contract. That is, GMs are contracted to do work which may or maynot have been suggested by its members. When the GM decides to do it itself the necessary funds are gathered from the community as loans and it implements the project. Usually any profits made by the GM plus 10% of the estimate are deposited into the GM fund which could be used for other projects of its own choice or used as initial capital in its role as contractor. Often these are sub-contracted to others.

As an initiator of projects the GM takes the initiative in identifying and prioritising needs which are submitted to the AGA. In certain cases pending approval the GMs have been awarded the contracts often due to political pressure. However payments from various government budget lines are slow to reach the AGA level for payment to the GM and several GMs just prefer to subcontract civil works to private individuals who are prepared to either risk delayed payments or have enough political influence to get payments through quickly.

This defeated the original objective of using the Gramodaya Mandalaya as an effective instrument in mobilising people's participation at the village level.

However, political pressure to use the Gramodaya Mandalayas in government programmes continued. Gramodaya Mandalayas played a major role in the Million Houses Programme of the Government, administered by the NHDA. Gramodaya Mandalayas had the authority to approve housing loans, but over a few years showed a very poor record of recovery which was one of the principal reasons for the government's decision to write off these loans. IRDPs also used the Gramodaya Mandalayas to implement irrigation, water and sanitation projects, with close supervision of the project office. However, the experience of many IRDPs is that Gramodaya Mandalayas do not function properly unless committed individuals are in charge, and even then it is a few of the member organisations such as RDS and Sanasa which take an active role, rather than the Gramodaya Mandalaya as an entity.

Administratively Gramodaya Mandalayas have virtually been ignored with respect to the implementation of rural development projects. Over the last two years the role of the Gramodaya Mandalaya in rural developmental activity has steadily declined to such an extent that the Development Secretaries, meeting at the Ministry of Policy Planning and Implementation, have decided to use direct private sector contractual arrangements for civil works rather than handing them over to the Gramodaya Mandalayas.

However, Gramodaya Mandalayas are seen as the lowest level of the planning process and as such they are to be constituted at every Grama Niladhari Division. As Grama Niladharis begin to be appointed as planned, (one for every 200 families) the Gramodaya Mandalayas at this level would become such micro units that even in planning they would become too small a component to be incorporated into the divisional plans and consequently into district and provincial planning.

Lack of independent sources of funding to undertake developmental activities and the atomization of village level organisations due to the minuscule administrative unit which is the Grama Niladhari division, will reduce the capacity of the Gramodaya Mandalayas to undertake even the type of contracts which they have in the past. With the decision that Gramodaya Mandalayas need not be used for the execution of civil works it will be difficult to keep them together, as money will not be flowing into them. The overall effect of the emergence of the Pradeshiya Sabha would be to benefit small and medium level entrepreneurs and contractors at the expense of the village level contractor, who at best will be a subcontractor to Pradeshiya Sabha level contractors. Therefore it seems possible that the newly elected Pradeshiya Sabhas and the administrative unit at the divisional level will further devalue the Gramodaya Mandalayas influence as political power and consequently financial benefit would tend to crystallize around the Pradeshiya Sabhas. However Gramodaya Mandalayas are entities which will be around for some time before they altogether fade out.

Financial Reporting and Coordination

The financial records pertaining to the activities of the Gramodaya Mandalaya are maintained by the Treasurer and presented to the members on a monthly basis. Additionally final



accounts are prepared at the end of each financial year. When funds are obtained from the Pradeshiya Sabhas for specific projects, expenditure reports pertaining to such projects are submitted to them periodically.

Financial Planning, Budgeting and Monitoring

Financial planning is informal and basic in the Gramodaya Mandalyas. At committee meetings the members evaluate the numerous proposals put forward by the individual members. The proposals are not supplemented by detailed evaluations and often could be in the form of verbal suggestions. These proposals are twofold namely; proposals that are forwarded by the villagers to the members, and the proposals that the members themselves have formulated based on the needs of the villagers. The individual proposals are prioritised by the committee based on the community needs and funds available. However in the past the Gramodaya Mandalyas have encountered political interference in the prioritising process.

The Gramodaya Mandalyas receive financial assistance from the Pradeshiya Sabhas for selected community development projects. For the purpose of obtaining funds, they have to submit an annual work plan to the respective Pradeshiya Sabha. However the financial assistance received in this form is very marginal.

The Gramodaya Mandalyas do not practice cost recovery on community development work. Even in the future, cost recovery may be difficult as the members canvassing for elections may commit the Gramodaya Mandalyas to terminate cost recovery agreements once they are elected to office. Besides, they often do not have the capacity to implement cost recovery measures.

Control and Audit

Though the Gramodaya Mandalya is a registered Society, the volume of operations and the informal environment of the organisation does not require it to have sophisticated control and auditing systems. The income and expenditure report is presented to the committee on a monthly basis. The Society should obtain prior approval of the committee for all commitments made by it. In the Gramodaya Mandalyas where bank accounts are maintained, cheques should be signed by two signatories. The authorised cheque signatories are the Chairman, Secretary and Treasurer of the Gramodaya Mandalya. There is no outside agency auditing the books of the Gramodaya Mandalyas, but they are subject to scrutiny by the members.

Religious Organisations

There are several religious organisations in the three districts of Badulla, Matara and Ratnapura. Some are affiliated with the national organisations or function as their branches, for instance YMBA, YMCA, YMMA and YWCA, and are involved in secular activities apart from religious matters. As they are mainly centred around youth with offices and employees in the provincial towns activities are usually limited to urban heads. Vocational training, slum development, pre school and nutrition programmes are some of the activities they are involved in, however on occasion because of personal interest and involvement in a rural area these organisation will respond to a rural need such as providing a library, play ground or some other public utility. These organisations are also geared to respond to disaster situations, either natural or man made.

The other religious organisations in the villages belong to two categories. First are the mainstream bodies formed and functioning around the temple, church or mosque with the clergy taking the main organisational role. The second are smaller independent groups belonging to religious sects with the spiritual aspect given more importance in their organisational matters.

Hindu temples have exhibited the least capacity to respond to community needs, while the Buddhist temple, the church and the mosque have shown some capacity to organise the community and mobilise resources in response to a need. However this is entirely dependant on the dynamic nature or political influence of the clergy. These religious centres may initiate and mobilize financial resources, but the actual implementation of a project will be usually undertaken by another secular organisation such as the RDS in the village. Only work related to the religious institutions property is directly organised by these bodies.



Young Farmers' Club

Young Farmers' Clubs are village NGOs which were usually formed by the Agricultural Field Officers of the Department of Agrarian Services. The objective of forming these clubs was to have a mechanism at the village level for officers to interact especially in the introduction of new ideas. The growth of these clubs also coincides with the rise in literacy rate among the rural population and the introduction of hybrid varieties of rice and pesticides. An organised group of 'educated' farmers was a pre-requisite for effective introduction of new practices and the success of the agricultural programmes. Therefore numerous Young Farmers' Clubs were formed. Their effective strength was dependent on the officer interacting with them and the young educated farmers who usually provided the leadership.

Today, these clubs provide the intermediaries between officialdom and farmers in representing farmer interests. In certain cases these clubs are involved in important environmental problems related to the use of pesticides and political issues related to land use.

Youth Club

Youth Clubs are widely found in all districts. These clubs come under the National Youth Services Council (NYSC) under the Ministry of Youth Affairs and Sports. The objective of the NYSC is to have youth participate fully in the National Development Programme of the State. Youth Clubs in the village are the vehicles used to achieve this objective. The original idea of the NYSC, although it began in 1969, started functioning with energy only after 1977. The operations of the NYSC are conducted through Grama Sevaka division based youth clubs which have some degree of autonomy.

The major activities of the NYSC are vocational training conducted in 9 training centres around the country, sports and recreation, youth guidance/community service and counselling and cultural development.

A typical youth club has at least 30 members, including both men and women, and has office bearers elected for a period of one year and supervised by the youth services officer. The control and regulatory powers of the NYSC are limited, allowing some autonomy to the youth clubs. The major functions of the youth club are sport and recreational and cultural activities. However, these clubs have been responsible for initiating some activities related to infrastructure development in villages. Some clubs have built play grounds, libraries and water facilities relying on voluntary labour. Some of these clubs have mobilized funds from donations and cultural activities to finance these projects. The clubs also have opportunities to nominate members for training programs in carpentry, masoning, motor mechanics and typing conducted by the NYSC at their training centres.



GOVERNMENT

Pradeshiya Sabhas

Pradeshiya Sabhas are elected local bodies at the level of the AGA Division designed 'to provide greater opportunities for the people to participate effectively in the decision-making process relating to administrative and development activities at a local level.' Politically Pradeshiya Sabhas were necessary to fill the gap created by the abolishment of the District Development Council System (in 1987) and the lack of any elected local government bodies from early 1981. Therefore Pradeshiya Sabhas were to bridge the gap between the now defunct village and Town Councils and the new Provincial Council system. Pradeshiya Sabhas are not so widely distributed as all the village and Town Councils and 3 or 4 of these in an AGA Division were merged to form one Pradeshiya Sabha. Except for the areas coming under the Municipal and Urban Councils, an AGA Division is the area under a Pradeshiya Sabha.

Elections for Pradeshiya Sabhas were held in May 1991 where members were elected by popular vote for a period of four years. Pradeshiya Sabhas are established by Pradeshiya Sabha Act No.15 of 1987. Each Pradeshiya Sabha is independent and autonomous in all its activities. It consists of elected members of political parties and independent candidates recognized by the Commissioner of Elections. It has powers to acquire, hold and sell property and may sue and be sued. PSs are considered to be the local authority within the defined area (AGA division) charged with the responsibility of regulation, control and administration of all matters relating to public health, public utility services and public thoroughfares and promotion of the comfort, convenience and welfare of the people and all amenities within its jurisdiction. The chairman of the Sabha is selected from the political party that obtains the highest number of seats. The chairman is the chief executive of the Pradeshiya Sabha. He can act within the Pradeshiya Sabha Act or any other written law empowering his authority as chairman of the Pradeshiya Sabha. The Act also provides for a secretary in every Pradeshiya Sabha. This person will be the chief executive of the administrative body and shall always be the AGA of the respective AGA division. An AGA is thus expected to perform the functions of the secretary of the Pradeshiya Sabha, divisional secretary of the Provincial Council and agent as of the Central Government.

All Pradeshiya Sabhas come under the respective Provincial Councils and directly under the minister for local government in the Provincial Council. As local government is one of the subjects devolved to Provincial Councils all matters concerning Pradeshiya Sabhas should in theory be matters for the respective Provincial Councils. A Provincial Commissioner of local government will have administrative responsibility over all Pradeshiya Sabhas in the province. A Pradeshiya Sabha consists of an elected body and an administrative body. The elected body is represented by the chairman and members. The administrative body consists of the secretary and other technical staff such as general clerks, technical assistants and typists.

The authority to recruit personnel to the administrative staff lies within the ministry of local government. However, if the respective Pradeshiya Sabhas have adequate funds of their own, additional staff could be recruited with authorization from the provincial commissioner of local government.

Financial Implications and Funding

The Pradeshiya Sabhas have been given autonomy in financial planning and implementation. Thus financial planning is determined on annual budgets prepared by each Pradeshiya Sabha. The budgeted expenditure for a year is based on the forecast annual revenue of the Pradeshiya Sabhas. The revenue is received from two sources.

The first source is the Pradeshiya Sabha revenue collected from; Acreage taxes, Trade licenses, Bicycle licenses, Gun licenses, Rent and rates (mainly for developed areas), Water tax (metered and fixed rates), Sunday fares, etc,

The second source is grants from Provincial Councils for recurrent expenditure, special projects and the decentralised budget (DCB). Pradeshiya Sabha revenue varies from about Rs. 150,000/- to over Rs. 3 million per year. At least 70% of the Pradeshiya Sabha have an annual revenue of less than Rs. 1 million. Annual capital expenditure for Pradeshiya Sabhas have been a few hundred thousand rupees, with a upper limit of Rs.250,000/- for any one project.

The Chairmen of the Pradeshiya Sabhas are entrusted with the responsibility for preparation and submission (to the Pradeshiya Sabha) of the Pradeshiya Sabha budget for the following year, which is then debated and adopted. The chairmen of the Pradeshiya Sabhas are also given the power to submit budgets even if they are not accepted by the Pradeshiya Sabha, giving the chairman total control over Pradeshiya Sabha budgets. The chairman can also increase or reduce expenditure under any category within the limits of the total budget.

Pradeshiya Sabhas are allowed to borrow from any source on the security of rates and taxes three times their annual income. The approval of the minister is required if loans exceed this amount. However the upper limit of any loan outstanding from a Pradeshiya Sabha is set at 10 times their average annual income. The chairman of a Pradeshiya Sabha is also empowered to raise any loan for carrying out any work which he considers necessary with the approval of the commissioner, even if the Pradeshiya Sabha fails to sanction the raising of such a loan.

The financial statements of each Pradeshiya Sabha are subject to the annual audit of the Auditor General's Department. Additionally the department of local government has investigating officers who visit the Pradeshiya Sabha at least once a month. Further the respective AGA who is the secretary of the Pradeshiya Sabha makes a visit at least once a week to review its operations. The cheques drawn by the Pradeshiya Sabha are required to bear the signature of two signatories with the secretary always being one signatory.

Under the section 12 of the Pradeshiya Sabha Act

Pradeshiya Sabhas are empowered to appoint committees to advise on four specified subjects:

- finance and policy making
- housing and community development
- technical services
- environment and amenities

These committees are supposed to consist of some members of the Pradeshiya Sabha, the chairman of the Gramodaya Mandalaya and other suitable individuals living in the Pradeshiya Sabha area. The last two committees in particular will have some relevance to water and sanitation projects in a given area.

Up until the present, Pradeshiya Sabhas have been administered by special commissioners. Administratively these Pradeshiya Sabhas brought under them employees of the village and Town Councils who were used to a regulatory function. Developmental initiatives came from outside the Pradeshiya Sabha unit which were usually administered by clerical staff. Water supply and sanitation fall within the regulatory powers of the Pradeshiya Sabha. For the purpose of establishing and maintaining public utility services Pradeshiya Sabhas can use their own funds (revenue), and levy a special rate upon the area benefitted by such a service (with sanitation from the minister). This special rate is not expected to exceed 9% of the annual rates for the area. Further, rate payers are entitled to free water supply from public stand pipes for domestic purposes, and no additional rate could be charged by the Pradeshiya Sabha if water rates are already levied.

Most of the water projects existing in the Pradeshiya Sabha areas have been built by the NWSDB, NGOs and donors and handed over to the Pradeshiya Sabha for maintenance. Pradeshiya Sabhas usually have a Grade III Technical Officer and a couple of plumbing assistants. Additional connections from a piped water scheme are handled by this technical officer and plumbers. Most of the water schemes maintained by Pradeshiya Sabhas are subsidised by other sources of revenue because there is enough political pressure at the local level to keep these schemes going without any consideration for their financial viability. For example, in the Kamburupitiya Pradeshiya Sabha in the Matara district a piped water scheme serving 260 households is subsidised at the rate of Rs. 12,000/- per month.

The Pradeshiya Sabha also undertakes construction with technical assistance from the NWSDB and maintains these water schemes. These are most often gravity fed public stand posts from a central distribution point, tubewells, dugwells and shallow wells. The request for improved water supply is made by the community to the Pradeshiya Sabha through their representatives. Thereafter the Pradeshiya Sabha will despatch its technical officers or get technical assistance from NWSDB and carry out a feasibility study and, if the is reported feasible to follow up with a cost estimation. These are called specific projects and the funds come from the Provincial Council or from the decentralised budgets.

As a general rule Pradeshiya Sabhas have not been successful in organising and mobilising the community to maintain water schemes. However through other village organisations certain construction work has been undertaken with the community participating, especially by contributing labour. In certain small towns Pradeshiya Sabhas bill consumers with house connections on a metered or fixed rate. The usual charge for household connections is Rs. 10/- per month.

Pradeshiya Sabhas are subject to political interferences. As the Pradeshiya Sabhas do not generate adequate funds to finance their operations they depend a lot on the decentralised and provincial funds to finance their operations. As the control over these funds is with the

politicians most often the funds are released to the Pradeshiya Sabhas in order to fulfil the requirements of the politicians. This results not only in the inefficient allocation of funds but also in the inability to formulate implementable plans. It is unlikely that the PS's will be able to radically increase their revenue in the near future, thereby having the independence to plan and implement projects of their own. Overcoming this constraint will depend on the powers of direct taxation for PC's and PS's .

In general the financial reporting and controls in Pradeshiya Sabhas have been satisfactory. However financial reporting is very basic and they do not have management information reporting that can help in better utilisation of limited resources.



Provincial Councils (PC)

Provincial Councils were established in 1988 by the 13th amendment to the constitution of the Republic of Sri Lanka and the Provincial Councils Act No. 42 of 1987. The political process that enabled the formation of Provincial Councils (eight in all) would appear that the demand for them came from a minority ethnic group rather than from the majority. As such the process of Provincial Power sharing and administration has been rather slow in taking off as provincial power groups did not exist and are only beginning to take some shape and it will be a few years before all the Provincial Councils actively exercise their power.

With the establishment of the Provincial Councils, the system of District Administration (better known as the Kachcheri System), functioning under the Government Agents (GA), will be phased out, retaining the post of GA without the powers of establishment and functions. While the district administration is being phased out Pradeshiya Sabhas at the Assistant Government Agent Division level will be assigned the responsibility for planning and developmental work with a mini-Kachcheri at that level with a mini elected parliament also at the same level.

Even though devolution of power to the Provincial Units was the catchword when they were established in reality the Provincial Council system is only an improvement on the earlier District Councils and the attempts to decentralize administration.

The ninth schedule of the constitution specifies the devolved functions which Provincial Councils are empowered to carry out. There is also a concurrent list and powers exclusively reserved for the centre. However, most of the powers of the Provincial Councils have not actually been devolved, as most of the enabling legislation has not been worked out. With the creation of a Provincial bureaucracy it would appear that over time they will demand their legitimate share of power vis-a-vis the central bureaucracy. At the political level all existing Provincial Councils are controlled by the party in power at the centre, which is one of the reasons for the slow implementation of the Provincial Councils Act.

Most of the funds are allocated to the Provincial Councils by the Central Government. Although Provincial Councils are empowered to collect revenue independently of the Central Government, in practice only a few areas of revenue collection have been brought under the Provincial Councils, such as business turnover tax, motor car licence fees, lotteries tax, court fines, stamp duty and excise duty. It is expected that there will be a wide variation in the provinces' collection of revenue and consequently their ability to plan and implement a programme themselves. At this stage of the evolution of the Provincial Councils they have not come up with any innovative arrangements for collecting more revenue. The funding sources for the Provincial Councils are the capital grants released by the Ministry of Provincial Councils and other line ministries on devolved subjects. These include:

- Medium Term Investment Programme
- Re-construction and Rehabilitation Programme
- Criteria based grant
- IRDP

Usually activities related to capital and recurrent allocation are planned sectorally and project-wise.

The chief secretary of the Provincial Council is the key post in the councils, and he is in effect the chief executive. The Planning Division, which is one of the strong areas, is headed by a Deputy Secretary of the Sri Lanka Planning Service (a service of the Ministry of Policy and Plan Implementation), and he is responsible for all planning activities for the formulation, monitoring and implementation of the Development Plan and which is to be prepared from the village level up. The planning process in theory envisages building on village, divisional and district plans to culminate in a provincial plan.

The planning structure of the Provincial Councils is as follows:

- The Provincial Planning Commission (PPC)
- The Provincial Planning Unit (PPU)
- The Provincial Progress Review Committee (PPRC)
- The Inter-Sectoral Planning Committee (ISPC)
- The Pradesha Sabha Area Planning Unit (PSAPU)
- The village level committee (often the GM is assigned this task)

The PPU is one of the main divisions of the Provincial Secretariat and comes directly under the control and supervision of the Deputy Secretary in charge of planning, who is under the chief secretary. The Pradeshiya Sabha Area Planning Units do not exist yet, as the Pradeshiya Sabhas have only recently been elected.

Staffing has been a sore point for Provincial Councils as recruitment has been centralised and controlled from Colombo. A special study was conducted into the organisational structures and functions to identify cadre requirements which is still under review. Most of the Provincial Councils have not been able to fill even the vacancies in the cadre of Grama Niladharis, the lowest administrative level, under the AGA. Several other higher grades of officials at the Provincial Council secretariat as well as in the divisional offices have also not been filled. A major constraint in the recruitment of staff is the lack of basic infrastructure in the divisions which makes staff reluctant to live in the outlying areas. An arrangement to provide transport from the provincial towns is being worked out to induce people to join the provincial service.

Most of the non-technical staff have had no training and most Provincial Councils have given priority to staff training.

To co-ordinate activities, Provincial Council sub-offices have also been established. The District Co-ordinating Committee, chaired by the chief minister, is a forum where politicians play an active role and members of the Provincial Councils voice their concerns and priorities. This so called co-ordinating committee has hardly any representation from officials of the Provincial Council except the chief secretary and the Assistant Director Planning. A sufficiently effective co-ordinating mechanism is yet to evolve in Provincial Councils which puts the entire burden of co-ordination on the chief secretary and the Provincial Planning Unit.

The technical capacity of Provincial Councils, specifically that of qualified engineers, is being re-organised. Technical staff from the line ministries are being placed in a new pool called the Provincial Engineering Unit. The Provincial Administration will control all available

engineers in the devolved subjects and the Divisional Administration will control all other technical grade staff in each of the divisions. The Provincial Engineering Unit will consist of 4 to 5 engineers, mostly civil engineers with building construction experience. The units will not contain water supply and sanitation engineers. All technical tasks such as estimates, supervision and quantity surveying which cannot be handled by the divisional technical staff will be automatically handled by the Provincial Engineering Unit at the Provincial Level. However, Provincial Councils are having difficulty recruiting engineers to the Provincial Engineering Services.

Integrated Rural Development Programme (IRDPs)

Planning and implementation of Integrated Rural Development Programmes (IRDPs) has been one of the major government interventions in rural development in the major government interventions in rural development in the past decade. The first IRDP was introduced in Kurunegala District in 1979. Within 10 years IRDP has grown to a lead project with an annual investment of Rs. 500 million covering 14 districts. Agencies which have provided funds for the IRDPs include the World Bank, SIDA, FINIDA, NORAD, West Germany and Japan.

The IRDPs cover a wide variety of rural development activities, including support to farmers, rural finance, implementation of water supply and sanitation projects, promotion of rural industry and training. Annual expenditure in the project districts is in the order of 50 million rupees. Annual expenditure on water supply and sanitation is a small percentage of this.

IRDP Sector Expenditure - Water supply/Sanitation

	Rs. 000's				
	'86	'87	'88	'89	'90
Badulla	4009	3272	998	400	1570
Matara	2700	2620	2084	2646	6724
Ratnapura	5386	5194	4337	3726	4342

Early IRDPs were undertaken as potentially replicable models for IRDPs in other districts. While these were formulated as time-bound blueprints for implementation, in later IRDPs, for example Matara, a quite different concept was tried out with SIDA's technical and financial assistance. Here the idea of a flexible learning-by-doing planning process based on annual action plans was attempted.

The most common structure for the implementation management for the IRDP has the following levels of coordination :

- at National Level among line ministries through quarterly steering committee meetings.
- at District Level among implementing agencies
- Through monthly coordination committees

The divisional coordinating committee mobilizes the participation of the political leaders of the area, officials at the district and divisional level agencies and representatives of the NGOs. Often problems in implementation are identified by beneficiaries in workshops together with the divisional coordinating committee. Monitoring by beneficiaries is encouraged to ensure timely identification of delay and deficiencies by contractors and officials. Here beneficiaries

supervising the process of creating capital assets is encouraged as they have the responsibility of maintaining them.

IRDPs also keep regular contact with CBOs in the project area, supporting and strengthening their organisational capacity. A certain amount of transparency in utilisation of resources is also attempted in some IRDPs. Financial information is shared with beneficiaries in reviews and evaluations.

Social mobilisers are used to make sure the poorer sections in the village community are not left out and to assure their participation in projects. This component draws heavily on the Change Agents Programme methodology, and mobilizers are trained by the Rural Development Training and Research Institute (RDTRI).

Under the IRDPs divisional and sub-divisional officers are also trained in participatory needs assessment, problem analysis, savings and credit. In certain cases training and study tours in other countries are also included in the overall project. After a ten year period of several types of implementation experiences, IRDPs have come to recognise the role of NGOs and CBOs as essential to ensure community participation (beyond the mere contribution of labour) and sustainability. They are also looking at ways of linking up with the private sector and commercial banks to involve them more actively in project areas. This is a departure from the earlier heavy reliance on government line agencies for project implementation. There is also greater contact with local bodies even with their limitations.

In the changing government administrative structure, IRDPs play an important role in maintaining coordination at the district level, especially as line agencies have begun to act through the Provincial Councils and PSs, devaluing the role of the GA. Provincial Councils are very supportive of the IRDPs. They also maintain good links with PSs and line agencies. As long as IRDPs continue to act as a funding channel, planning center and facilitator of projects they will achieve better coordination and be a driving force in development activities. They also have an important input into the Provincial Council and District and Pradeshiya Sabha planning structure as all planning officers come under the MPPI which also controls the IRDPs.

Under the new administrative structure, IRDPs are brought under the Provincial Councils and especially the provincial planning unit, with which IRDPs have an organic link. Sharing of information and discussions on future development plans are on-going activities of both the Provincial Council planning unit and the IRDP. At the level of Pradeshiya Sabhas, which have become the focus of implementing development projects, line agencies are brought together through their differing decentralized structures. At this level, IRDPs have a unique role of being an established co-ordinator and funding mechanism.

Institutional Structure

IRDPs come under the Regional Development Division (RDD) of the MPPI, which also oversees the decentralised budget (DAB) in collaboration with the GA and the Member of Parliament and assists the Provincial Council, GA and Pradeshiya Sabha in planning functions.

IRDPs are staffed by a small team of rural development professionals with specialised knowledge in engineering and agriculture. The main functions of IRDP project offices are finance, co-ordination and programme monitoring. As a devolved subject, annual IRDP plans and estimated budgets are brought under the Provincial Council budgets and voted in parliament. However, once the annual IRDP programme is approved, funds are remitted on a monthly imprest basis and not tied to a project by project system which gives the IRDPs a good degree of flexibility on implementation of projects. Except for large items of expenditure where RDD approval is required, IRDPs have complete autonomy in the use of funds.

Expenditure of IRDP funds through NGOs, where NGOs have relative autonomy in spending, is expected to be specified in the annual budget application by the RDD. All IRDPs come under the Auditor General's purview.

Regional Director of Health Services (MoH Sanitation Programme)

A grant scheme is currently operational through the Ministry of Health whereby an individual earning less than Rs. 1,000/- per month can obtain a grant of Rs. 700/- for the construction of a toilet. This scheme was started in 1959. It is not the intention of this scheme to provide the entire cost of construction of a toilet but to provide an incentive to people with low incomes to construct one of their own.

A person who is interested in constructing or improving a toilet applies to the Public Health Inspector (PHI) of the area expressing his intention. The PHI inspects the house before construction and formal approval is granted depending on available funds of the MOH area. The subsidy is paid on completion of construction after a second inspection by the PHI. In certain areas material (often slabs) are also given for which a certain amount is deducted from the subsidy of Rs. 700/-.

With the devolution of this function to the Provincial Councils, some councils have decided to increase the subsidy to Rs. 1,000/- as Rs. 700/- was considered insufficient at the current rate of inflation.

The system has worked extremely well although not entirely without abuses. However, overall impact has been considerable. With increasing of construction costs the poorer sections of the community, who may not have the surplus to construct a toilet before being given the subsidy, will be left out of this scheme.

In 1989, Rs. 30 million was allocated under this programme. In future Provincial Councils are expected to make this allocation in their area.

National Water Supply and Drainage Board (NWSDB)

Legislation

The National Water Supply and Drainage Board was brought into being through the enactment of the National Water Supply and Drainage Board Law, No.2 of 1974. According to this law, the Board has the duty to develop, provide, operate and control an efficient, coordinated water supply and to distribute water for public, domestic or industrial purposes, and to establish, develop, operate and control an efficient sewerage system. The Board has this responsibility only in its areas of authority, which are declared as such through an Order of the Minister.

The Board is under the Ministry of Housing and Construction.

The Board consists of four members appointed by the Minister from among persons who have wide experience, in engineering, finance, public health, administration or law, the Commissioner of Local Government, an officer of the General Treasury, an officer of the Ministry of Planning and an officer of the Ministry of Health. The Chairman and the Vice-President are appointed by the Minister from among these members.

The Board has the power to enter into joint schemes with any government department or body approved by the Minister for the provision, development and maintenance of water supply and sewerage services. It has the duty and power to supervise and control the operation of all waterworks and sewerage works installed for the purpose of any joint scheme, provided that the Board had due regard to the needs of such department or body.

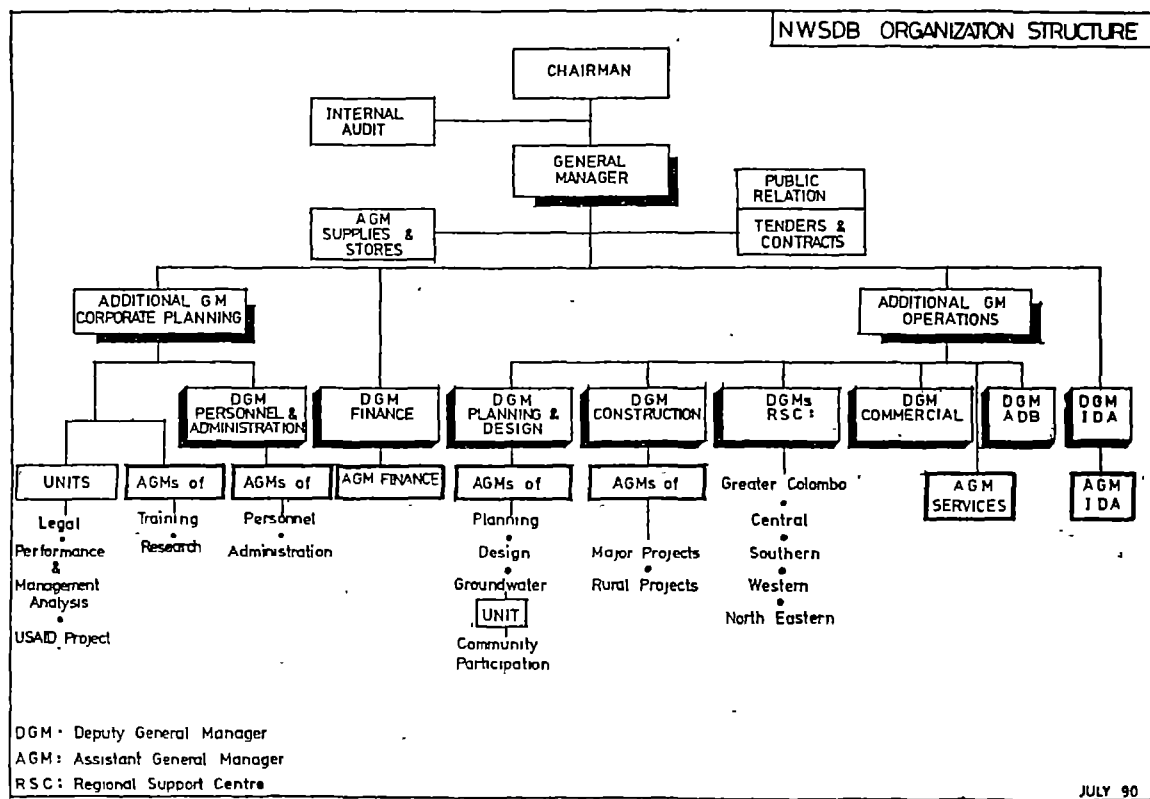
The Board has the right to fix and levy charges for water supply and sewerage services in any area of its authority. The board may enter into agreements with local authorities to pay water rates.

Policy

The NWSDB recently released its 1991 Corporate Plan, which includes a recommended new national strategy for the water supply and sanitation sector. The corporate plan points out that overall in Sri Lanka, satisfactory service levels are in the order of 22% for the urban population, 29% for the rural population, and 28% overall (satisfactory services levels are defined as 24 hour per day service for piped water, a functioning handpump providing water of acceptable quality, or an open well with an apron, bucket and windlass). While NWSDB has the responsibility for distributing approximately 90% of the total national sector capital expenditure, by virtue of the fact that it concentrates on piped supply schemes (primarily in the urban sector) and to a lesser extent on handpumps, it serves only about 20% of the Sri Lankan population in terms of water supply, and a negligible proportion in terms of sanitation facilities. The rural sector and sanitation have not been the Board's priority areas.

The broad objectives of the NWSDB are providing drinking water of suitable quality and achieving optimum sector coverage. To achieve these objectives tasks are departmentalised and organised into a closely knit institutional framework to enable the systematic planning, implementation and monitoring of the deployment of organisational resources. The organisation chart of the NWSDB is found in Figure 1.

Figure 1 NWSDB Organisational Chart



Organisational Structure

The organisational structure is composed of four layers, the Head Office, (RSCs) Regional Support Centres, Regional Offices and Site Offices. The Head Office is broadly responsible for the formulation of policy, corporate planning, financial reporting, monitoring and evaluation of regional performance. A RSC consisting of many Regional Offices is responsible for the planning and designing of operation and maintenance work, financial management, billing and revenue collections and monitoring the activities of the respective Regional Offices. The Regional Offices function as the implementing bodies in the construction of new projects and the rehabilitation and maintenance of existing schemes. In addition the Regional Offices does monthly billing and collection, issue of new connections, monitoring of Site activities and such day to day functions. Thus the Regional Offices work in close coordination with the Site Offices.

The Regional Support Centres and the respective Regional Offices are as follows;

Regional Support Centres	Regional Offices
Central	Bandarawela Kandy Anuradhapura Ampara
Western	Ratnapura Kalutara Kurunegala
Southern	Matara
Greater Colombo	Colombo MC and Suburbs

Funds Mobilization and Cost Recovery

The value of funds invested by the NWSDB in the water supply sector in the three districts during the recent past is given below.

District	1988	1989	1990
Ratnapura	11,056	2,100	2,524
Badulla	56,921	65,320	74,022
Matara	8,570	4,299	2,524
	76,547	77,719	79,070

The investment in Badulla district is comparatively higher due to the augmentation work carried out on the water supply system in Badulla town under French and ODA loans. The major part of the project is complete, and the project is in its final stages. However the investment in water supply in the other districts is also concentrated mostly in the urban and semi-urban areas with marginal investment in rural areas.

The corporate policy of the NWSDB is to be financially viable. Therefore the NWSDB undertakes to produce and distribute water only if a scheme is financially viable. However, the financial viability of a scheme is not independently determined, but decided on a national scale. This is because most schemes do not have an adequate number of consumers to recover its operational and maintenance cost. As a result, schemes and regions with a higher density of population subsidises those schemes and regions which have a scattered population. Given below is an example of how a densely populated area such as Greater Colombo subsidises other direct schemes.

	1991	
	Greater Colombo (Rs. 000's)	Other Direct (Rs. 000's)
O&M Cost	303,189	213,912
Revenue Billed	620,822	199,813
Revenue Collected	465,617	149,860
Excess Revenue Collections over Cost	106,006	(105,978)

When formulating the tariff structure, the NWSDB takes in to consideration the income levels of different categories of consumers such as domestic, industrial, government, commercial and schools allowing a cross subsidy to the lower income categories of consumers from the higher income groups. Given below are the statistics for Greater Colombo which explains the cross subsidy for 1990.

Revenue, Greater Colombo (1990)

<i>Domestic</i>			
No of Connections		105,314 41	
<i>Block Units</i>	<i>Units Consumed</i>	<i>Revenue Billed (Rs)</i>	<i>Rate Per Unit (Rs)</i>
	12,938,541	-	-
0 - 10	10,379,269	10,379,269	1 00
10 - 20	7,251,270	21,753,810	3 00
20 - 30	4,123,271	22,677,990	5 50
30 - 50	853,091	9,384,001	11 00
> 50			
<i>Commercial</i>			
No. of Connections		10,280	
Units Consumed		11,707,997	
Revenue Billed (Rs)		128,787,967	
Rate Per Unit (Rs)		11 00	
<i>Industrial</i>			
No of Connections		372	
Units Consumed		1,965,163	
Revenue Billed (Rs)		32,425,189	
Rate Per Unit (Rs)		16 50	

The percentage composition of the elements of cost that constitutes the total cost is as follows:

Direct Operation and Maintenance Costs

	%
Personnel	39
Utilities	40
Materials	8
Repairs & Maintenance	7
Rates & Taxes	2
Establishment	4

Direct and Indirect Costs

	%
Direct O&M Cost less Overheads	71
Total Overheads (including apportioned Overheads)	6
Debt Service	23
Total Cost	100

Direct cost is the cost that is attributable to a particular scheme or operational unit, and overhead cost consists of overheads incurred by the operational unit/scheme and the regional office and head office overheads apportioned to the scheme on the basis of direct cost. Debt service cost consists of the principal and interest payment of loans during a particular year. If a loan is obtained for a particular project/scheme, the debt service arising from the loan is identified and attributed to the respective project/scheme. The debt service computed for loans given in general is apportioned among individual schemes based on the attributable cost of each scheme (Direct cost and total overhead cost).

Therefore, to arrive at the total debt service for the year, the repayment cycle of individual loans have to be determined. However, when recovering debt service cost from the consumer, only 15% of the loan and interest is recovered from loans given for the rural sector and 50% from loans given for the urban sector. Therefore, effectively only 15% and 50% of total debt service cost of loans given per year to rural and urban sector respectively are borne by the consumers. The balance is borne by the government.

A predominant feature in the NWSDB cost recovery strategy is that capital cost of schemes are recovered through debt service and not through depreciation. Loans are used instead of depreciation because of better recording and book keeping is followed in respect of loans and capital assets and existing loans will be replaced with new loans when the loans have been repaid.

In collecting its revenue, the NWSDB targets to collect on a national scale approximately 70% of the revenue billed on direct schemes and 100% of revenue billed on bulk schemes.

In developing the tariff rates for water consumption, is the quantity of water that could be billed is taken into account and not the quantity of water that could be provided.

The national tariff structure for year 1991 has been already developed and approved. The operational and maintenance cost of the NWSDB was identified from the annual operation and maintenance budgets. However, an increase in the volume of water supplied was not allowed for as it is expected that the reduction in the wastage in water distribution could absorb the additional demand for water.

In their current role the NWSDB concentrates on piped supply schemes primarily in the urban sector, and on the provision of handpump-wells in the rural sector. The institution also acts as an implementing agency for other government agencies in the construction, design, operation and maintenance of schemes. Of the 5.091 million people served by piped supply system and handpump-wells 3.869 million people or 76% of the total are served by the NWSDB. However, since piped supply and handpump services serve only 29% of the national population, the population receiving NWSDB facilities is only 22% of the population, despite the fact that this institution incurs about 90% of the total national expenditure in the water supply and sanitation sector.

The objective of the Government of Sri Lanka on water supply is complete sector coverage by the year 2000. The role of the NWSDB as the key sector agency will be specifically demarcated into implementation, advisory and monitoring. The NWSDB will take an implementation role in the urban areas, integrated schemes and full treatment schemes. It will play an advisory role in providing technical assistance for rural water supply services on a cost reimbursable basis. Such service will be provided to local authorities, CBOs and other institutions requesting for such services. As a monitoring role it will be responsible for monitoring the quality of water supplied. However the cost of monitoring non-NWSDB schemes shall be reimbursed by the relevant institutions managing the scheme. As a part of its monitoring role it will maintain a national water and sanitation data base and coordinate national sector inputs through regular liaison with other sector implementing organisations and external support agencies.

The NWSDB has developed the following action plan to contribute to total sector coverage by the year 2000.

- a) New piped supply facilities that would provide a 24 hr/d service to 1.275 million people in the urban and rural areas.
- b) Rehabilitated piped supply facilities to provide a 12 hr/d service to 1.075 million people.
- c) New handpump installations (6500) to serve .78 million people.
- d) Rehabilitate 6400 handpumps serving .768 million people.

The estimated capital financing requirements to implement the action plan amounts to about Rs. 429 million per year of sector. This estimate excludes the large investments necessary to rehabilitate and extend the Greater Colombo water supply system. The projected NWSDB capital budget provisions per annum over the period from 1991 to 1995 average Rs. 2449 million. Of this 44% (Rs. 1075 million) is allocated to the Greater Colombo and the balance Rs. 309 million and Rs. 992 million to rural and urban sectors respectively.

This action plan envisages increasing NWSDB coverage to about 32% of the population by providing new supplies to around 2 million people. This still leaves around 70% of the rural population unserved. Even though the new national sector strategy places emphasis on the rural



sector in terms of the planned expenditure only Rs. 66 million / year is allocated to this sector over the next 5 years.

Community Participation

The Community Participation Unit (CPU) was established under the DGM, Planning and Design to act as the community mobilisation unit. Though most of the mobilisation work is concentrated in urban areas, the NWSDB has recently experimented with a community based approach to rural water supply in order to establish community management.

The NWSDB implemented 3 community participation demonstration projects in Haldumulla and Seelathenne in the Uva province and in Wijebalukanda in the Central Province. Four more rural water schemes were planned, however implementation has been postponed.

In the demonstration projects two sociologists lived with beneficiary communities playing the role of animator / facilitator. The method employed involved the following mobilisation endeavours.

- A survey was carried out with full support and involvement of community leaders such as teachers and GSs to assess the water availability and usage patterns.
- Action committees were formed for each sub-area of the community, using one of the identified leaders for each one.
- "Seminars" were held with NWSDB designers/planners and the community. These were held in schools, with the involvement of school staff (teachers) and also the local priest. They focused on problem identification and analysis.
- Sources and locations of water points (standpipes or wells) are identified with community participation. (This process was not immune to political manipulation, as evidenced by an example from Seelathenne. A certain man wanted a standpipe in front of his house, but this was opposed by others. He obtained the assistance of a Minister with whom he had connections and got the standpipe. However, ultimately he was persuaded by the community to take a private connection, and the standpipe was relocated elsewhere).
- Concurrently, a health education programme was started. The primary carriers of the mess were volunteer schoolchildren from 8 - 16 years. The inputs were provided by the Health Education Bureau, and considerable support was also obtained from teachers. The main messages promoted were on the need to use water wisely, both in terms of improved hygiene and also reducing wastage.
- Plans and designs were drawn up by the NWSDB personnel.
- Construction was carried out, using shramadana labour for trenching and pipelaying. This turned out to be difficult, as many of those involved were labourers rather than independent farmers, and therefore lost money as they could not make up the time later

as is the case for farmers. This meant that the NWSDB agreed to pay some of them, and eventually the shramadana idea was abandoned altogether.

- As construction drew to a close, the action committees were reformulated into maintenance groups. Training and tools were given. The projects were completed in 1986, and can be regarded as fairly successful in as much as the systems have been relatively well maintained and vandalism has been low.

About 5000 water seal latrines were built within the three projects. Of these, about 1000 were preschool latrines (small size pan to avoid fear of falling in, thus encouraging latrine use from an early age) built at houses.

The initial approach to householders was through the health volunteers, with applications for assistance being assessed by the resident sociologist. The subsidy given was Rs. 1000, compared to the then prevailing MoH rate of Rs. 700 (current rates are Rs.1500 and Rs.1000 respectively). Technical assistance came in the form of leaflets on latrine construction, and direct orientation by the (PHIs) Public Health Inspectors.

Initially, the subsidy was given in the form of materials distributed through the MPCS. As this was not very successful, the system was changed to cash subsidies. The first tranche was paid when the unit was half completed, and the final amount on completion. Squatting pans were made available at a nominal price, and were locally cast in ferrocement using steel moulds brought in for the project.

These projects were heavily staffed, and cannot be considered replicable as an implementation model. Each of the three projects lasted about two years, all being run under the supervision of the project director. Each community had two full time sociologists living with them, acting as catalysts and a channel of communication with the NWSDB. A number of volunteers was drawn from each community, in addition to the community education volunteers, to assist with the different phases of the projects. They were trained in 5 one-day sessions carried out at the project locations.

Financial Planning, Budgeting and Monitoring

The operational and maintenance budget prepared by the NWSDB is an activity driven budget. This is an annual exercise in which the operation and maintenance engineers, site officers, regional managers, accountants and other line managers participate in identifying the activities necessary to be carried out to achieve organisational objectives within the available resources. Activity based budgeting questions the need for an activity and thereby eliminates unnecessary activities and duplication, resulting in rationalisation of cost, better utilisation of resources and greater efficiency targets. Further, the participatory style of budget preparation keeps the managers aware of the NWSDB objectives and resources and involves them in the planning process, thus enhancing their morale.

The process of budget preparation involves allocating operational and maintenance expenditure and setting revenue targets for each operational and maintenance site. As actual expenditure



is incurred and revenue collected they are charged to the respective site accounts. The regional managers review the actual performance of the sites on a monthly basis and call for explanations from the respective site officers for reported variances between actual and budgeted results. The Regional Managers in turn call for explanations from the respective RSCs and the Head Office when actual performance has significantly deviated from budgeted performance. This process makes the Regional Managers and the respective Site Officers accountable for the expenditure they incur. The responsibility of achieving the billing and collection of revenue targets is with the Commercial Department of the respective Regional Offices. In certain Regions the Finance and Revenue collection are both under the Accountant whilst in some there are two separate departments for these two activities.

As the Income and Expenditure Statement is sometimes delayed, the effectiveness of the monitoring mechanism is rather dubious. However this problem may be overcome with the ongoing decentralisation program.

The basis for preparing the capital budget is the district master plan. The projects in the master plan will be prioritised based on predetermined criteria such as the critical year, economic cost benefit analysis and sometimes on political pressure. However the ongoing projects are given priority over the new and rehabilitation projects in project selection and the allocation of funds. After selecting the projects the required funds will be sought from donor agencies and the Treasury.

The Finance Department at the Head Office prepares capital expenditure statements on a monthly basis for all capital expenditure projects. It indicates the total amount allocated, amount spent to date and the amount under or over spent to date. Thus the Finance Department exercise control over the disbursement of funds for capital projects. However the responsibility of monitoring project activity to ensure that project implementation is in line with the plans is with the respective construction managers.

Financial Reporting and Coordination

The NWSDB operates a computerised accounting system operated by a bureau service which is centrally coordinated by the finance department of the Head Office. The responsibility of the Head Office is to collect the necessary source documents from the respective Regional Offices, compile them into an orderly manner and submit the documents to the bureau for data entry, processing and the generation of output records. In this respect the Head office ensures that source documents are obtained from the regions and submitted to the bureau in a timely manner so as to enable the respective regions to obtain reasonably accurate and reliable information within the shortest period of time.

The main piece of document obtained from the computerised accounting system is the Income and Expenditure (I&E) statement, obtained on a monthly basis. It contains the actual and budgeted operational and maintenance expenditure for each site (scheme) in the NWSDB, highlighting significant variances between actual and budgeted expenditure. This serves as feedback information to the Site Officers to evaluate their performance and monitor activities that do not conform to plans. To ensure that income and expenditure are properly identified

the accounting system is logically designed into rational and useful main activities. Information in this statement is reasonably accurate for decision making but there is a time lag of about forty five days between the period to which the information relates and the date on which it is received at the respective Regional Offices. This might make the information invalid for decision making. To overcome this problem the NWSDB has embarked on a decentralisation program with USAID assistance to upgrade the Regional Offices so as to make them responsible for their financial reporting. This program will be discussed in more detail later in this report. In addition to the I&E statements mentioned above, the accounting system also periodically generates trial balances, general ledgers and balance sheets for the respective Regional and Site Offices. These records are kept at the regions under the respective accountants and are used for day to day accounting work such as the maintenance of control accounts and reconciliations.

The capital expenditure on rehabilitation and construction of existing and new projects respectively is maintained on a vote accounting system. For this purpose a votes ledger is maintained at the Head Office and the Regional offices which is updated on the basis of actual expenditure incurred by the respective vote.

The preparation of final accounts for the financial year is the responsibility of the Head Office. Normally the accounts are finalised within a period of four months from the year end.

In terms of capacity the system is capable of handling more than ten thousand general ledger accounts codes, which is the normal volume of data handled at any point of time. In spite of slowness in financial reporting the accounting system by and large ensures that all financial transactions are accounted reasonably accurately as to the correct account, amount and period.

Financial Control and Audit

The strengths and weaknesses of financial control in the organisation depends on how effectively the following attributes of control are in practised.

- a) The mechanism developed should ensure that all income and expenditure are accounted for as to the correct account, amount and period.
- b) All financial transactions committing the Board should be properly authorised and executed.
- c) The actual performance should be closely monitored so as to ensure that they do not deviate significantly from plans and budgets.
- d) A system of independent verification to ensure that the accounting system reflect a true and ensures the maintenance of a fair view of the financial activities at a given moment of time.

As the NWSDB is an organisation with geographically dispersed activities overlooked by the Head Office and consisting of Regional Support Centres and Regions, an essential prerequisite

for the efficient and effective functioning of the organisation is the establishment of a structure that consists of sufficient levels of financial autonomy commensurate with the responsibility and job position, a clearly defined system of responsibility and accountability and uniformity in the discharge of day to day responsibilities by the executives. In such a decentralised environment the existence of clearly defined rules and regulations is essential in ensuring that all financial related transactions committing the NWSDB are properly authorised and is in the best interest of the organisation. In order to achieve these attributes of control the organisation has developed a formal proceeding known as the "Delegation Of Financial Authority". This process is implementing a document when it defines very clearly the financial authority limits, methods of procurement and the composition of the respective tender boards and supplies committees required at each level in the management hierarchy to engage in for the purpose financially committing the NWSDB. There are about eight levels in the management hierarchy ranging from Site Officers to Cabinet Ministers. The Delegation Of Financial Authority is approved by the Board of Directors and is therefore the official document guiding the approval of any financial commitment in the NWSDB. It is a very comprehensive document incorporating almost every type of commitment that the NWSDB might get involved in. All financial commitments must be strictly in accordance with the Delegation Of Financial Authority and any unlawful deviation from laid down rules and regulations may result in strict disciplinary procedures. This document is been largely adhered to by the NWSDB staff and has enforced strong financial discipline in the organization.

Therefore it appears that the organisation has developed a comprehensive set of rules and regulations that would ensure financial accountability and control providing adequate scope for the application of personal initiative and perseverance.

The books of account and related records of the NWSDB are subject to statutory and internal auditing. The statutory audit is done by a firm of chartered accountants appointed by the Auditor General and the internal audit is done by an Internal Audit Department which is headed by a Chief Internal Auditor who is directly responsible to the General Manager. The statutory audit which is carried out once a year is aimed at determining whether proper books of account have been maintained by the NWSDB and that in the opinion of the auditors whether such records show a true and fair view of the financial position of the NWSDB. The objective behind the internal audit is to determine whether the Board has complied with the accounting and non accounting internal controls in general and with the Delegation Of Financial Authority in particular in the discharge of their day to day responsibilities. The internal audit should also focus on verifying and improving systems that would enable the maintenance of economy, efficiency and effectiveness through out the NWSDB. As it is this function is not carried out effectively by the NWSDB. The internal auditors are based in the Head Office and in all Regional Offices.

The opinion expressed by the Auditor General on the accounts of the NWSDB for the financial year 1989 contain adverse opinions over significant balances. These are mostly due to unreconciled balances in recurrent expenditure that is being carried forward. However the Auditor General's opinion on capital expenditure recording has been satisfactory.

Decentralisation Program

The NWSDB embarked on a major decentralisation program in 1985, with the objective of making its widely dispersed regional network financially autonomous. Under this program the financial autonomy limits of the regions were significantly enhanced, financial reporting was made a more regional responsibility by introducing a computerised general ledger system that is independent from the Head Office and the billing and collection of revenue was delegated to the Regional Offices. The computerised accounting system has been installed already in four regions enabling them to obtain more management information on a timely manner to suite their requirements as against a centralised system operated by the Head Office. With complete decentralisation the Head Office will be responsible only for the consolidation of final accounts. To support the ongoing decentralisation program the necessary institutional strengthening is being carried out. Under this program the Regional Office staff is strengthened by giving the required training and increasing the number of personnel, the provision of computers and supporting accessories, enhance financial autonomy and the development of the accounting and support systems to meet new challenges. The program is being funded by the USAID and is carried out by Engineering Science Inc of the USA and Ernst & Young of Sri Lanka. In addition to the strengthening of the accounting, computer and the billing and collection functions the project is also aimed at developing methods of improving public relations, establishment of a corporate planning division for in-house policy formulation and performance monitoring unit and finding methods of improving manpower development.

Water Resources Board (WRB)

The water Resources Board (WRB) is a Central Government Agency which comes under the Ministry of Lands and Lands Development. It is mainly involved in research, hydrogeological studies and drilling. There is no formal link between the WRB and the NWSDB, however, the ground water section of NWSDB works closely with the WRB in sharing information and mapping. The WRB has equipment for drilling and these facilities generally cater to the private sector on a contract basis and to agricultural development projects.

The staff of the WRB consists of a Chairman, a general manager, 3 deputy general managers, and assistant managers for each sub-section, namely; Engineering, Operation, Drilling Machinery and Equipment, Hydrogeology, Administration, Nursery and Landscaping, and Finance. The WRB has total of 318 permanent and 97 casual employees.



Central Environmental Authority (CEA)

The Central Environment Authority was created in 1980 under the National Environment Act, as the executing agency for protection and management of the environment. The functions of the Central Environment Authority initially were mainly advisory and recommendatory, including the formulation of policies and schemes for land use management, conservation of natural resources, wildlife protection, fisheries and forestry. After it had functioned for 6 years, the government realized that the Central Environment Authority's regulatory authority should be strengthened in order to enable it to play a more powerful and effective role in protection and management of the environment. For this purpose the National Environmental Act was amended through the National Environment (amendment) Act No. 56 in 1988. Under this amendment the Central Environment Authority has the legal power to enforce pollution control measures upon industries by means of the National Environmental (Protection and Quality) Regulation No.1, enacted in 1990. These regulations state that nobody is permitted to discharge, deposit or emit wastes into the environment without a license issued by the Central Environment Authority.

The branches of the Central Environment Authority relevant to water supply and sanitation are the Inter-Agency Committee for Environmental Health and the Environment Protection Division.

The functions of the Inter Agency Committee for Environmental Health are:

- coordination of on-going programmes, on water quality monitoring, food hygiene, control of vector and nuisance mosquitoes, domestic pest control, solid waste disposal, sanitation, etc.
- formulation of appropriate policies and strategies.
- formulation of guidelines for effective implementation of environmental health programmes and projects.

The major activities undertaken by the committee so far, include:

- surveillance of water quality of public water supply schemes;
The results of tests being carried out by agencies concerned of water quality in public water supply schemes are reviewed at monthly meetings. The agencies responsible for the supply of sub-standard water are directed to improve the quality within a reasonable period of time.
- improvement of environmental health activities in the province;
Provincial seminars on environmental health was held in all provinces in order to improve co-ordination in environmental health related activities among the local and health authorities. Integrated action plans were prepared for each district to implement activities on water quality, solid waste management, food safety and vector control.
- training programmes for technical personnel from local authorities and the plantation sector handling production and distribution of public water supplies with a view to

improving their efficiency in providing safe drinking water. These programmes in providing safe drinking water. These programmes are carried out in collaboration with the NWSDB.

- enhancement of environmental awareness;
A public awareness programme on awareness is planned to be implemented with financial assistance from the WHO.

The Environment Protection Division headed by a Director is responsible for monitoring environment pollution and enforcement of standards.

In reference to water quality, the division itself does not conduct any tests. It relies on reports from the National Building Research Organization. (under the Ministry of Policy Planning & Implementation) which publishes monthly Water Quality Surveillance Report. In addition all provincial Ministries of Health are required to send monthly reports of Residual Free Chlorine Levels by MOH divisions. The Environment Protection Division does mainly industrial effluent monitoring for which the Central Environment Authority has necessary laboratory facilities and equipment. In effluent control, the main tests are BOD, COD and PH. It has facilities to conduct air pollution tests. However, standards have not been formulated for control. However, facilities are not available to detect pesticide pollution and by 1992 the Central Environment Authority expects to have complete laboratory facilities to carry out tests related to pesticide pollution. Those industries that are found to be violating the standards are forced to take remedial actions under powers vested in the Central Environment Authority through the earlier mentioned enactment of 1990.

The Central Environment Authority is not actively involved in any formal training, however resource personnel are available who regularly attend seminars, workshops on environmental issues.

In conclusion, although the Central Environment Authority has minimal involvement in rural water supply and sanitation sector, it is an important institution due to the role it plays in water quality control and discharge of effluents into inland surface waters, and because it is the sole government authority with all legal powers for environmental regulation. Central Environment Authority an important agency.

Sri Lanka State Plantations Corporation (SLSPC)

The Sri Lanka State Plantations Corporation was established in 1957 by the Ceylon State Plantations Corporations Act, with the objective of planting new plantations. The Corporation was nationalised in 1974 under the Plantations Industries Act (at the same time that the other state plantation corporation, the JEDB, was created) and expanded from 25 plantations to 250.

In order to administer the vast number of estates (about 500) distributed mostly on the central hills and the western and southern parts of the country, an organisation structure consisting of a Central Office and a number of Regional Offices was created. The estates coming under each of the two corporations are organised separately. For the purpose of imposing state control and accountability to Parliament, the Ministry of Plantation Industry was created with cabinet status. The organisation structure has undergone many structural changes since nationalisation in 1972. The Central Office is responsible for strategic policy planning, marketing, financial reporting, fund disbursement, coordinating and monitoring regional performance. The Regional Offices which overlook about 35 to 50 estates are responsible for the administration, financial reporting, coordination and monitoring the activities of the estates under their control. However the organisational structure has resulted in a high degree of centralisation of power and decision making at the Central Office which has limited knowledge of the situation on the ground. The estate Superintendents are virtually eliminated from the decision making process. This has resulted in the inefficient mobilisation of resources and the confusion over the strategic objectives of the organisation. There is inefficiency in financial planning, management of working capital and cash flow planning at the Central Office.

The profitability of the industry depends on world market demand and supply and the resultant prices, fluctuations in the exchange rates, internal climatic conditions, labour union pressure for increased wages and civil disturbances in the country. These have all had adverse effects on the industry as a whole over the past decade, resulting in both plantation corporations incurring massive financial losses.

Structural weaknesses, inefficient management and the adverse climatic and market conditions have caused serious liquidity problems. The current and long term liabilities of the SLSPC as of 1988 amounted to Rs. 2867 million. These staggering liquidity problems forced the government to give immediate and serious consideration to alternative methods of administration of the plantation industry. The situation receiving most serious consideration is that of privatisation and this is likely to be implemented at the beginning of next year.

As of 1990, the SLSPC manages 238 estates in 6 regional boards, covering 134,835 hectares. Tea and rubber are the main crops. The total resident population on all SLSPC estates in Sri Lanka numbers 366,319. Of this, 342,452 are workers and their families, and 23,867 are staff and their families. In addition, there are non resident workers which number 47,224. The ethnic breakdown of the residents is 88% Indian Tamil, 11% Sinhala and 1% Muslims.

The population in the three districts is as follows:

	No. of Estates	No. of Divisions	No. of Families	Resident Population	Household Size
Badulla	16	43	5766	25854	4.5
Matara	17	117	3111	12915	4.2
Ratnapura	59	232	18741	79466	4.2
Total Three Districts 1988	92	392	27618	118235	4.3

Source: 1988 SLSPC Needs Assessment

The corporation has been investing, with donor collaboration, in improvements to the health and welfare of workers since 1978. A Social Development Division was established in 1978 with UNICEF assistance, and now has three medical officers, two engineers, a health educator and a computer analyst. Each region now has a Social Development Unit and staff, and at the estate level there is a Plantation Family Welfare Supervisor, Estate Medical assistants, midwives, and pharmacists. The programme to date has concentrated on maternal and child health care, housing, construction of creches clinics and dispensaries, nutrition, health education, water supply and sanitation, immunization, and training.

Water Supply and Sanitation Projects

Although diarrhoeal disease morbidity has declined substantially, it is still several times higher than in Sri Lanka as a whole. Water supply and sanitation is still not particularly high. Of the 976 estate divisions with a resident population, only 161 divisions (16%) have what is categorized as a good supply of water. Construction is in progress on 75 divisions, 286 need upgrading, and 454 have no supply, or a very poor supply. With respect to latrines, of the 82,609 resident families, 21,840 (26%) have a satisfactory latrine, 11,551 have a latrine which needs upgrading, and 5,941 have latrines identified for demolition.

The coverage of water supply and sanitation facilities in terms of families served on the three districts is as follows:

	No. of Families	Families With Latrines	Families With Water
Badulla	5766	2873 49.8%	4574 79.3%
Matara	3111	2464 79.2%	2343 75.3%
Ratnapura	18741	6530 34.8%	6460 34.5%
Total Three Districts 1988	27618	11867 43.0%	13377 48.4%

Source: 1988 SLSPC Needs Assessment

Compared to overall SPC estates overall, SPC estates in the three districts seem to have fairly high coverage, especially in Matara. In all SPC estate areas except Ratnapura coverage is higher than the rural sector as a whole. This is particularly true in Badulla, where overall coverage (low service level) is 36%, yet 79.3% of families on SLSPC estates have water.

Under the Medium Term Investment Programme/Social Welfare Programme, funded by the World Bank, ADB and the Dutch and Norwegian governments, over one billion rupees have been spent on water supply and sanitation on SLSPC estates between September 1985 and mid 1990. This amounts to approximately 15 million per year for water and 5 million for sanitation.

MTIP/SWP Sept. 1985 to mid 1990				
	Units Completed	Rs ('000s)	Units Completed per year	Rs ('000s) per year (average)
Water Schemes	243	73,240	51	15,419
Latrines - new	10,604	26,825	2,232	5,647
Latrines - upgraded	316	458	67	96
Total		100,524		21,163

Source: SLSPC Review and Future Needs, Dec 1990

The expenditure on water supply and sanitation over the last 6 years in the three project districts is presented in the following table.

SLSPC Expenditures, Water Supply and Sanitation, 1986 - 91 (millions of rupees)

	1986	1987	1988	1989	1990	1991	Total	Percent
Badulla	8.8	6.6	6.6	0	0	3.974	25.974	41%
Matara	3.569	1.7	2.664	0.795	0.815	7.2	16.743	26%
Ratnapura	2.236	2.007	2.1	2.921	0	12.042	21.306	33%
Total	14.605	10.307	11.364	3.716	0.815	23.216	64.023	66%
All Estate Sector	18.855	14.557	15.614	7.966	8.872	31.154	97.018	

The budgeted expenditure for the Ratnapura district is comparatively higher due to the UNICEF's planned investment of Rs. 4 million in the Peenkande estate. However this represents the total project cost and not the expenditure to be incurred in the year 1991 alone.

The expenditure on water supply and sanitation during 1989 and 1990 was much lower than the previous years as the civil unrest in Sri Lanka was at its height at that time, and the state-owned estates were the target of much of the disturbances. During these two years the

management structure of the plantations corporations was also in the process of being reorganised.

The Social Development Division has had in-house technical staff since 1986 (before that it depended on UNICEF staff). There are now posts for twelve engineering assistants, two per region (at present only 10 are filled). The corporation is planning to increase this number to 19 so there will be one assistant per Range Director (each Regional Board has 2 to 4 range directors who are responsible for 10 to 15 plantations). The engineering assistants are graduates of the two year diploma level course at the University of Moratuwa. There are two engineers in the office in Colombo (one water supply and sanitation engineer and one building construction engineer) who are responsible for policy development, planning, organising training, monitoring and supervision of the engineering assistants. There are no staff members on the estates with water supply engineering expertise.

In 1986 the SLSPC, with the assistance of Technical Assistance Team (TAT), a team of expatriates funded by the Dutch and Norwegian governments, produced two documents which aim to lay down appropriate guidelines and to bring about "simplicity and uniformity" for water supply and sanitation schemes on the plantations. The documents consist of design guidelines for water supply and sanitation and design formats. The design guidelines set out the specifications for number of standposts, water quantities, pressure limits etc., and include technical drawings for spring intakes, standposts, cistern tanks, reservoirs, and single and double pit latrines. Bills of quantities for these are also included. The design formats are a series of forms to be filled out by the estate superintendent in order to design a simple system. The superintendent is asked to briefly describe the existing situation, draw a lay-out of the proposed system including length, diameter and material of each pipe, indicating the location of valves, and to supply information on the source selected. There is a form to calculate the water requirement and reservoir capacity, and another to calculate pipe diameters from the pipe flows, using a pipe diameter selection graph which is provided as an annex. The superintendent is also asked to calculate the cost of the pipes, including fittings and labour. This estimate, combined with the estimate from the bills of quantities in the design guidelines, provide the total cost of the system. A work programme is also to be completed. Annexes to the document include instructions on how to sample water for both chemical and microbiological analysis, and the information required in quotations from pump suppliers.

The superintendent, who has no training in water supply and sanitation systems but who is familiar with technical matters, carries out the design procedure with some assistance from the engineering assistant, who is responsible for checking the final design. Although SLSPC is aware that this procedure leads to a lack of technical accuracy, about 150 schemes have been installed using this method, with no apparent problems. A disadvantage of the method is that it leads to overdesign, as the design formats err on the side of conservative design. They are now considering using the private sector for design work, and recently carried out a trial project with a variety of contracting agencies (a large firm, a small firm and an NGO) which indicated that small firms will best suit their needs. In cases where surveying is required, private sector surveyors are engaged. The actual construction work is largely carried out by the estate "baas" who are masons or carpenters. They are often part of the estate resident population and regularly carry out small construction work, although with the changes in the



estates this practice is dying out. Quotes are also invited from local contractors. The work is supervised by the estate supervisor or the baas, but the latter have trouble reading technical drawings and are not well versed in standard construction practices.

The head office in Colombo arranges for training programmes. The engineering assistants (EA) undergo three days of training in Colombo soon after their recruitment, which introduces them to the design guidelines, type plans etc. The corporation has arranged for them to take 12 training modules (one per month) offered through the Centre for Housing, Planning and Building. The EAs come to Colombo every month for two days for this training. These modules cover a wide range of subjects including contracting, architecture, electrical wiring, and water supply and sanitation. The corporation has also arranged training for the baas to introduce them to technical drawings. There is a need to train construction supervisors, as there are few people on the estate capable of reading drawings and with the time to control a construction site.

SLSPC has only carried out one project with non-resident estate workers. The project was situated near the Craig estate at Bandarawela. It was supported by UNICEF, and consisted of a gravity scheme with 500 beneficiaries. The corporation supplied the standard materials, and the community supplied labour. This is significant as the resident estate workers are not usually asked to provide labour, as they perceive the provision of water supply and sanitation to be the responsibility of the estate. In the context of the estate tradition, where workers live in houses which belong to the estate, on land belonging to the estate, it is hard to imagine that the resident workers could be expected to view this any other way. This obviously is a consideration when it comes to operation and maintenance. On the estates, operation and maintenance are clearly seen as the responsibility of the estate management. In the case of the single off-estate project, the question of O&M (or indeed ownership of the scheme) has not been formally addressed, and there seems to be a perception that the estate will carry out repairs in an informal manner.

There is recognition among the personnel of the SLPC Social Development Division that water supply and sanitation improvements for non-resident workers will be a greater priority in the years to come. At the present, one quarter of the estate workforce lives in off-estate villages. The SDD donors have expressed interest in serving these people, and in working with the rural sector as a whole, both estate and non-estate.

It appears that the potential for the estate corporation carrying out more water supply and sanitation projects is limited by their lack of trained staff, and the lack of capacity of the estate superintendent to supervise additional projects. The corporation is very reluctant to take on more permanent staff, and were slow to increase the engineering staff to the present numbers. They prefer to take on staff on a contract basis. The potential for contracting out work to the private sector has been examined, and it has been found that small consulting firms (less than five professionals) are best suited to the type of project to be carried out. However, the corporation has little experience working with this type of consultant.

The SLSPC has used a community participation approach in health programmes, and has trained health volunteers recruited from among the resident population. There is a small

programme to introduce self-help housing projects, whereby resident workers are given a loan for building materials, a plot of land on a 30 year lease, and technical assistance to build a house. However, such an approach in water supply provision is not familiar to the corporation, due to its nature and history, and given this context, may be difficult to introduce.

There are indications that SLSPC, along with JEDB, the other state owned plantations corporation, will soon be privatised. It is unclear whether the Social Development Division will continue to exist once estates are in private hands. It is doubtful that donor funding will be available for improvements in living conditions on privately owned estates unless there is some sort of government structure for them to flow through. The Medical Wants Ordinance of 1912 (passed when all estates were privately owned) places the responsibility for safeguarding workers' health on the estate superintendent, but up until now this has not been enforced. It was revised in 1976 and renamed the Estate Health Law, but the revisions have not been passed by parliament. Enforcement is the responsibility of the Ministry of Health.

Private estate owners will likely be interested in continuing the programme of improvements for a variety of reasons. Firstly, the estates are unionised, and the unions are strong and vocal. Accustomed to programmes of health care, housing improvements and other social services under state ownership, these unions are unlikely to accept that they be suspended under private ownership. Labour unrest could seriously undermine the profitability of the estates. Secondly, there is a tendency for the new generation of resident workers to leave the estates, as they are not as accepting of the poor living conditions and atmosphere of control as their parents are. Faced with a dwindling workforce, estate superintendents may wish to improve conditions to retain workers.

Financial Management

Financial Reporting and Coordination

Financial records are maintained at each estate. Expenditure relating to social development work is accounted for separately. On a monthly basis a summary of expenditure incurred on social development is prepared by each estate and submitted to the Regional Office. At the Regional Offices a control account is maintained to record and monitor the expenditure incurred by the respective estates. All Regional Offices submit a statement of monthly expenditure details to the Central Office where they are monitored and controlled on a national scale. At the Central Office the information is entered into a central data base and monthly feedback on the performance of each Regional office is sent to the Central Office. This keeps the Central Office and the Regional Offices informed of the total investment and the physical progress of social development activities at a given moment in time.

The estates maintain their own books of account and prepare periodic trial balances, profit and loss accounts and extract balance sheets. At the end of each year annual accounts are prepared, normally within a period of about three months from the year end. Annual accounts are not consolidated at the regional level but they are consolidated at the Central Office for the purpose of presenting the performance of the corporation as a whole.

The annual expenditure budgets are thereafter submitted to the Central Office where they are evaluated for reasonableness before being forwarded for Ministerial approval. The budget is submitted to the Treasury to be incorporated in the fiscal budget presented to parliament by the Finance Minister. The budget allocations can be utilised only after they are voted in parliament. Unutilized expenditure balances in a vote account are carried forward to the ensuing periods provided that work relating to the vote has already commenced.

After the budgets have been approved by the respective authorities the estate Superintendents are informed. Actual expenditure is monitored on a periodic basis by the Social Development Unit of the Regional Offices. As far as possible the Superintendents are advised to keep actual expenditure within estimates but where excess expenditure is required due to contingency needs supplementary estimates can be sought.

Fund Disbursement Methods and Recovery

Control over the disbursement of funds is with the Central Office and the Regional Offices do not get involved in this process. Funds are channelled directly from the Central Office to the respective estates. The Regional Offices are however kept formally informed of the funds channelled to the estates. Periodic cash flow statements are prepared by the Regional Offices and submitted to the Central Office for approval after which funds are lodged to the bank of the respective estate.

Financial Control and Audit

The adequacy of financial control has been evaluated on the following basis.

- a) Financial transactions should be accounted for as to the correct account, amount and period.
- b) Financial transactions should be properly authorised and executed.
- c) Actual performance should be monitored closely with plans so as to ensure they do not deviate significantly from plans.
- d) A system of independent verification should exist to ensure that the books of account and supporting systems ensure that financial transactions are properly recorded.

Books of account are maintained and trial balances, profit and loss accounts and balance sheets are prepared on the estate recording all financial transactions. A separate accounts department is established on each estate to perform this function. The information produced by the system reflects a reasonably true and fair picture of the financial position of the estate at a given moment of time.

The SLSPC does not practice an approved and standard delegation procedure when making financial commitments. It has a procedure whereby each estate calls for quotations for local material such as cement, brick and labour from registered local suppliers. Quotations for the

supply of materials such as PVC pipes are called only from recognised manufacturers such as S-ion and National. The quotations are thereafter sent to the Regional Office where they will be evaluated by the engineering assistants of the Social Development Unit who make the necessary recommendation which are approved by the respective regional director. The Superintendents of the estates make payments for labour and materials as the project progresses.

The financial activities of each estate are annually audited separately by a firm of chartered accountants appointed by the Auditor General. The Auditors' report is submitted to the Auditor General who subsequently gives the opinion for the corporation as a whole. The scope of the statutory Auditors is to express an independent opinion as to whether the financial records on the whole reflect a true and fair view of the financial position of the individual estate and the corporation as a whole. In the recent past the Auditor General has been critical of the financial controls and the existence of unreconciled balances. Generally the accounting system has not been subject to criticism. The financial transactions of the Regional Offices and the Central Office are also audited separately by a firm of Chartered Accountants appointed by the Auditor General. Apart from the external audit the corporations have Internal auditing staff at each Regional Office and the Central Office. The Internal Audit division of the Regional Office does the internal audit of the respective estates. The scope of the Internal Auditors differs from that of the external Auditors in that the former checks not only accounting controls but also compliance with the rules and regulations of the corporation, the efficient use of resources and adherence to other non accounting controls.

Janatha Estate Development Board

The Janatha Estate Development Board (JEDB) was brought into being by the State Agriculture Corporation Act of 1972. It was entrusted with nearly 50% of all state owned estates upon nationalization of the plantations in 1974. In order to administer the vast number of estates distributed mostly on the central hills and the western and southern parts of the country, an organisation structure consisting of a Central Office and a number of Regional Offices was created. The estates coming under each of the two state owned plantation corporations were organised separately. For the purpose of imposing state control and accountability to Parliament, the Ministry of Plantation Industry was created with cabinet status. The organisation structure has undergone many structural changes since nationalisation. The Central Office is responsible for strategic policy planning, marketing, financial reporting, fund disbursement, coordinating and monitoring regional performance. The Regional Offices which overlook about 35 to 50 estates are responsible for the administration, financial reporting, coordination and monitoring the activities of the estates under their control. However the organisational structure has resulted in a high degree of centralisation of power and decision making at the Central Office which has limited knowledge of the situation on the ground. The estate Superintendents are virtually eliminated from the decision making process. This has resulted in the inefficient mobilisation of resources and confusion over the strategic objectives of the organisation. There is inefficiency in financial planning, management of working capital and cash flow planning at the Central Office.

The profitability of the industry depends on world market demand and supply and the resultant prices, fluctuations in the exchange rates, internal climatic conditions, labour union pressure for increased wages and civil disturbances in the country. These have all had adverse effects on the industry as a whole over the past decade, resulting in both plantation corporations incurring massive financial losses.

Structural weaknesses, inefficient management and the adverse climatic and market conditions have caused serious liquidity problems. The JEDB's current and long term liabilities amounted to Rs. 3858 million as of 1988. These staggering liquidity problems forced the government to give immediate and serious consideration to alternative methods of administration of the plantation industry. The situation receiving most serious consideration is that of privatisation and this is likely to be implemented at the beginning of next year.

As of 1990, the JEDB manages a total of 246 estates in 38 clusters administered under 9 zones, in a land area covering 127,771 hectares. Tea, rubber and coconut are the main crops. The total resident population of JEDB managed estates is 409,730. The total number of workers is 211,162 of which 173,891 (82.3%) are resident.

The population in the three project districts is as follows :

	No. of Estates	No. of Districts	No. of Families	Population	Household area
Badulla	39	131	14,449	74,703	5.2
Matara	0	-	-	-	-
Ratnapura	3	-	722	3,790	5.3
Total	42		15,171	78,493	5.2

Source - JEDB Assessment Survey, 1990

The Social Development Division was formed in 1978 with the aim of streamlining health, social, and welfare services for the plantation population. It has a staff composed of medical officers, engineers, health educators and a computer analysts. Each region now has a Social Development Unit and staff, and at the estate level there is a Plantation Family Welfare Supervisor, Estate Medical assistants, midwives, and pharmacists. The programme to date has concentrated on maternal and child health care, housing, construction of creches clinics and dispensaries, nutrition, health education, water supply and sanitation, immunization, and training.

Accurate data are not available for JEDB estates to assess health status. However it is well established that the general health status of the estates population has been constantly inferior to that of Sri Lanka as a whole. The diarrhoeal disease morality in particular has been high in the estates due to poor sanitary and housing conditions and lack of safe water supplies.

Water Supply and Sanitation Projects

Among JEDB estates a total of 298 estate divisions (34.8%) have been provided with water supply and sanitation upto date. This covers 46,027 households which is 51.6% of the total. In sanitation, to date 12,108 units (24% of the total required) have been constructed. Considerable investments have been made through the medium term investment programme/social welfare programme funded by a number of foreign donors.

Physical Progress and Allocation for Water Supply and Sanitation 1986-90 MTIP/SWP JEDB

Year	No. of Divisions	Allocation in Rs'000
1986	58	19,530
1987	81	32,257
1988	97	35,357
1989	26	14,011
Total	262	101,155

The expenditure on water supply and sanitation in the three project districts over the last 6 years is presented in the following table.

JEDB Expenditures, Water Supply and Sanitation, 1986 - 91 (millions of rupees)

	1986	1987	1988	1989	1990	1991	Total	%
Badulla*	4.25	4.25	4.25	4.25	8.057	7.938	32.995	100
Matara	na	na	na	na	na	na	0	0
Ratnapura	na	na	na	na	na	na	0	0
Total	4.25	4.25	4.25	4.25	8.057	7.938	32.995	34
All Estate Sector	18.855	14.557	15.614	7.966	8.872	31.154	97.018	

* figures for 1986 to 89 are a total of 17M average over four years

na = not applicable (few or no estates)

The expenditure on water supply and sanitation during 1989 and 1990 was much lower than the previous years as the civil unrest in Sri Lanka was at its height at that time and the state-owned estates were the target of much of the disturbances. During these two years the management structure of the plantations was also in the process of being reorganised.

The coverage of water supply and sanitation facilities in terms of families served in the three districts is as follows :

	No. of Families	Families with Latrines	Families with water supply
Badulla	14,449	1036 7.2	3197 22.1%
Matara	-	-	-
Ratnapura	722	106 (14.7%)	220 (30.5%)
Total 3 districts	15171	1142 (7.5%)	3417 (22.5%)

The technical staff of the Social Development Division of JEDB is composed of an engineer at the head office and one Technical Assistant (TA) per region (a total of 9 TAs). Plans have been made to increase the number of TAs to 20 as to provide one TA per Regional Director. Once this recruitment has been carried out Badulla will have 4 TAs, one for each Regional Director. The engineer in the head office is responsible for planning, organizing, training, monitoring and the supervising of the Technical Assistants.

JEDB began working with Technical Assistants Team (TAT), a team of expatriates funded by the Dutch and Norwegian Governments, in 1986. Approximately 80% of JEDB's technical expertise is provided by TAT. The rest is obtained through small Colombo-based private consultancy firms. TAT has produced documents laying down standard design guideline for water supply and sanitation schemes for the plantations. The design guidelines set out the specifications for number of standposts, water quantities, pressure limits etc., and include technical drawings for spring intakes, standposts, cistern tanks, reservoirs, and single and double pit latrines. Bills of quantities for these are also included. The design formats are a series of forms to be filled out by the estate superintendent in order to design a simple system. The superintendent is asked to briefly describe the existing situation, draw a lay-out of the proposed system including length, diameter and material of each pipe, indicating the location of valves, and to supply information on the source selected. There is a form to calculate the water requirement and reservoir capacity, and another to calculate pipe diameters from the pipe flows, using a pipe diameter selection graph which is provided as an annex. The superintendent is also asked to calculate the cost of the pipes, including fittings and labour. This estimate, combined with the estimate from the bills of quantities in the design guidelines, provide the total cost of the system. A work programme is also to be completed. Annexes to the document include instructions on how to sample water for both chemical and microbiological analysis, and the information required in quotations from pump suppliers.

The superintendent, who has no training in water supply and sanitation systems but who is familiar with technical matters, carries out the design procedure with some assistance from the engineering assistant, who is responsible for checking the final design. The actual construction work is carried out by estate "baas", who are generally masons or carpenters. It has been the experience of the JEDB engineers that the "baas" are competent in carrying out 80% of the work of a given project, the rest of the input requiring contractors or consultants.

Initially the Social Development Division of the JEDB only had the capacity to handle 4 schemes per region annually. Now it has the capacity to implement about 12 schemes per region per year. There is no mechanism for O&M at present. There is a growing demand from the estate population where water supply schemes are already in place to improve service levels in terms of quantity, as existing schemes mainly provide drinking water only rather than providing a supply for bathing and washing clothes as well.

No full scale "off-estate" projects for non-resident workers have been implemented so far by the JEDB. However, a pilot project is underway in Avissawella and two "special projects" were implemented a few years ago in Badulla, Kegalle and Nuwara Eliya districts, in villages surrounding the estates. The Avissawella project is a pilot project, as JEDB plans to expand its services to more non-resident workers over the coming years.

Under the Avissawella project, 18 water supply schemes and 1094 toilets were provided to 1092 families of non-resident workers, at a total cost of Rs.15M. Pressure to embark on this type of project was received from both the labour unions and the estate superintendents. The methodology adopted was to approach, in the first instance, the relevant GA and AGA's. This was followed up with meetings at the regional JEDB office to work out procedures. Estate welfare supervisors visited the non-resident families and assessed their water supply and

sanitation status, reporting to the estate superintendents, who, in conjunction with regional JEDB staff, identified two categories of assistance.

- 1) Where a cluster of non-resident worker families exists in proximity to an existing estate gravity scheme, standpipes are to be provided at a rate of one per five families
- 2) Where non-resident workers are scattered, common wells will be built or upgraded, as necessary.

The data collection is to be carried out by the welfare supervisors, and petty contractors identified by village Rural Development Societies, who will register them. They will also be put onto the JEDB register of contractors. Monitoring in the scattered project locations is to be performed by welfare superintendents, PHIs and Grama Niladharis, under the coordination of the local MOH. The pilot projects are expected to be completed by the end of 1991.

Experiences already gained by the JEDB are that the time lag from initial contact with non-resident workers to implementation is about 6 months. Another interesting factor is the desire of villagers to have open wells rather than handpumps or piped gravity systems, because of anticipated maintenance problems.

There are indications that JEDB, along with SLSPC, the other state owned plantations corporation, will soon be privatised. It is unclear whether the Social Development Division will continue to exist once estates are in private hands. It is doubtful that donor funding will be available for improvements in living conditions on privately owned estates unless there is some sort of government structure for them to flow through. The Medical Wants Ordinance of 1912 (passed when all estates were privately owned) places the responsibility for safeguarding workers' health on the estate superintendent, but up until now this has not been enforced. It was revised in 1976 and renamed the Estate Health Law, but the revisions have not been passed by parliament. Enforcements is the responsibility of the Ministry of Health.

Private estate will likely be interested in continuing the programme of improvements for a variety of reasons. Firstly, the estates are unionised, and the unions are strong and vocal. Accustomed to programmes of health care, housing improvements and other social services under state ownership, these unions are unlikely to accept that they be suspended under private ownership. Labour unrest could seriously undermine the profitability of the estates. Secondly there is a tendency for the new generation of resident workers to leave the estates, as they are not as accepting of the poor living conditions and atmosphere of control as their parents are. Faced with a dwindling workforce, estate superintendents may wish to improve conditions to retain workers.

Financial Management

Financial Reporting and Coordination

Financial records are maintained at each estate. Expenditure relating to social development work is accounted for separately. On a monthly basis a summary of expenditure incurred on

social development is prepared by each estate and submitted to the Regional Office. At the Regional Offices a control account is maintained to record and monitor the expenditure incurred by the respective estates. All Regional Offices submit a statement of monthly expenditure details to the Central Office where they are monitored and controlled on a national scale. At the Central Office the information is entered into a central data base and monthly feedback on the performance of each Regional office is sent to the Central Office. This keeps the Central Office and the Regional Offices informed of the total investment and the physical progress of social development activities at a given moment in time.

The estates maintain their own books of account and prepare periodic trial balances, profit and loss accounts and extract balance sheets. At the end of each year annual accounts are prepared, normally within a period of about three months from the year end. Annual accounts are not consolidated at the regional level but they are consolidated at the Central Office for the purpose of presenting the performance of the corporation as a whole.

Financial Planning, Budgeting and Monitoring

The JEDB carries out its social development operations based on a five year master plan. The master plan is developed based on a needs assessment survey carried out once in every five years with a view to identifying the social development needs of the estate workers in all estates in the region. The annual capital expenditure allocations are made according to the master plan. However the master plan is not rigidly followed in the preparation of annual budgets in which contains amendments made to meet new and preferential needs. The master plan is prepared by the Social Development Unit (SDU) of the Regional Office in collaboration with the respective estate Superintendents. The needs assessment survey is carried out by the same Unit in participation with the target beneficiary groups.

The annual expenditure budgets are thereafter submitted to the Central Office where they are evaluated for reasonableness before being forwarded for Ministerial approval. The budget is submitted to the Treasury to be incorporated in the fiscal budget presented to parliament by the Finance Minister. The budget allocations can be utilised only after they are voted in parliament. Unutilized expenditure balances in a vote account are carried forward to the ensuing periods provided that work relating to the vote has already commenced.

After the budgets have been approved by the respective authorities the estate Superintendents are informed. Actual expenditure is monitored on a periodic basis by the SDU of the Regional Offices. As far as possible the Superintendents are advised to keep actual expenditure within estimates but where excess expenditure is required due to contingency needs supplementary estimates can be sought.

Fund Disbursement Methods and Recovery

Control over the disbursement of funds is with the Central Office and the Regional Offices do not get involved in this process. Funds are channelled directly from the Central Office to the respective estates. The Regional Offices are however kept formally informed of the funds channelled to the estates. Expenditure of the SDU is financed on an imprest system. For this

purpose periodic expenditure statements are submitted by the respective estates to the Central Office via the Regional Offices. The funds are disbursed and controlled at the Central Office by the Foreign Loan Claim Unit.

Financial Control and Audit

The adequacy of financial control has been evaluated on the following basis.

- a) Financial transactions should be accounted for as to the correct account, amount and period.
- b) Financial transactions should be properly authorised and executed.
- c) Actual performance should be monitored closely with plans so as to ensure they do not deviate significantly from plans.
- d) A system of independent verification should exist to ensure that the books of account and supporting systems ensure that financial transactions are properly recorded.

Books of account are maintained and trial balances, profit and loss accounts and balance sheets are prepared on the estate recording all financial transactions. A separate accounts department is established on each estate to perform this function. The information produced by the system reflects a reasonably true and fair picture of the financial position of the estate at a given moment of time.

Financial commitments are required to follow an approved financial delegation procedure. According to this procedure all transactions above Rs 2500/= in the SDU that commit the JEDB financially are approved at the Regional Offices. The calling and evaluation of tenders and the selection of contractors are done at the Regional Offices. Thereafter the Superintendents of the estates make payments to the suppliers and contractors as the project progresses. The delegation procedure lays down clearly the approval limit at each level of management within the JEDB, the tender and procurement procedure to be followed and the tender board composition required. Strict adherence to this procedure is required in the discharge of management responsibilities.

The financial activities of each estate are annually audited separately by a firm of chartered accountants appointed by the Auditor General. The Auditors' report is submitted to the Auditor General who subsequently gives the opinion for the corporation as a whole. The scope of the statutory Auditors is to express an independent opinion as to whether the financial records on the whole reflect a true and fair view of the financial position of the individual estate and the corporation as a whole. In the recent past the Auditor General has been critical of the financial controls and the existence of unreconciled balances. Generally the accounting system has not been subject to criticism. The financial transactions of the Regional Offices and the Central Office are also audited separately by a firm of Chartered Accountants appointed by the Auditor General. Apart from the external audit the corporations have Internal auditing staff at each Regional Office and the Central Office. The Internal Audit division of

the Regional Office does the internal audit of the respective estates. The scope of the Internal Auditors differs from that of the external Auditors in that the former checks not only accounting controls but also compliance with the rules and regulations of the corporation, the efficient use of resources and adherence to other non accounting controls.

Janasaviya Trust Fund

Background

The Janasaviya Trust Fund (JSTF) is an autonomous and independent organisation established by the government of Sri Lanka, with the assistance of the World Bank, to implement a poverty alleviation and employment creation project. The main objectives of the project are to increase employment and income earning opportunities among the poor, and to improve the nutrition status of children under three years of age and pregnant and lactating mothers. The Trust was chartered in January 1991 and the program will be implemented over a period of five years. Total project cost is estimated at US\$85 million which is equivalent to 3.4 billion Sri Lankan rupees. The Trust is still in the process of being established, and to date has only worked with one AGA division.

Organisational Structure

The Trust is comprised of three elements, namely the Board of Trustees, an NGO Advisory Board and an executive arm. As the patron of the Trust the President of Sri Lanka nominated a sixteen member Board of Trustees, 50% of whom were drawn from the public sector. The NGO Advisory Board is responsible for advising the Trust and the executive arm on problems and needs of the poor, as well as on the suitability and effectiveness of the projects implemented and other day to day functions. This Board is comprised of recognised personalities with experience in NGO activities and are not on the Board to act as representatives of specific NGOs. The appointments to the NGO Board are made by the Board of Trustees. The Executive body which is formed of divisional directors of the Trust is responsible for coordination and interaction between each division of the Trust on policy and operational matters on all Trust activities. The five divisions of the Trust are Credit, Human Resources, Promotion and Field Support, Community Projects and Nutrition.

The Trust will be operating from a central office in Colombo and through selected island wide NGOs and government agencies, called Partner Organisations (PO's). The project strategy emphasises the reorientation and expansion of existing institutional capacity to serve the poor. The Trust will not have a district or divisional organisation for monitoring or evaluating individual project proposals. The Trust intends to set up a "people forum" in each AGA division made up of local organisations with the intention of identifying community needs and liaising with the Trust.

The poverty alleviation program of the Trust will manage four project components:

- a credit fund to lend to Partner Organisations which will on-lend the money to the poor in a manner prescribed by the Trust at interest rates that are self supporting;
- a Human Resources Development Fund to promote the productive use of funds and to develop the implementation capacity of the POs;
- a Community Projects Fund for building economically viable infrastructure and creating wage employment; and

- a Nutrition Fund for reducing wasting and stunting in children and for reducing incidence of low birth rate and the prevalence of maternal malnutrition.

In addition the project will finance technical assistance for an Employment and Poverty Policy Unit of the MPPI.

There is a relationship between the JSTF and the Janasaviya Program (JSP). The JSP was defined in 1989 as a program for the alleviation of poverty. The strategy of the program was to assist all households enrolled in the food stamps program by giving them a monthly grant of Rs. 2500. The grant, which is in two parts, has an element for the purchase of specified food items and a savings element that adds up to Rs.25,000 at the end of two years and at which point is to be used to invest in income generating projects. Originally conceived as a crash program, the JSP is unaffordable. In addition to being unaffordable the program is a disincentive to work as the monthly consumption grant of Rs.1458 is above the unskilled wage of Rs.1000.

The JSP has been scheduled over several rounds. The JSTF will get involved in the second round, which will use more rigorous criteria for beneficiary selection. In contrast to Round One, Round Two is being made production oriented. To be eligible for the monthly consumption grant of Rs.1458 the beneficiaries will be required to be enrolled in production-oriented work or a training program, which may include civil works, land development, skills and entrepreneurship training for self employment or micro-enterprise development. The JSTF is designed to provide the transition from the type of assistance given in the JSP round one, and the production oriented assistance of round two, by providing opportunities for productive activities. The JSTF is designed to make the JSP redundant.

The JSTF will operate through Partner Organisations who work on behalf of the target groups in order to obtain assistance for the planning, implementation and monitoring of these activities. The JSTF will not get involved directly in mobilising the communities and it is the POs who will identify, appraise, design and implement projects.

The JSTF will evaluate the POs who wish to engage in projects with JSTF assistance. The criteria are basic; POs should be registered and have been actively involved in community development projects for at least two years, with experience in financial accounting and the ability to develop the capacity for implementing projects. In the case where a branch of an international NGO is operating in a project area the Trust shall deal with the local branch by registering it with the Trust.

The eligible POs will enter into an agreement with the Trust. The type of organisations likely to be selected are Sarvodaya, TCCS, Regional Rural Development Bank, commercial banks, National Youth Services Council (NYSCO) and RDSs. Recently the government has been giving increased publicity to the involvement of Pradeshiya Sabhas as a Partner Organisation. The JSTF has not ruled out the possibility of working with small grassroots organisations that do not fit in to the eligibility criteria of the Trust for the selection of POs. These organisations will be evaluated by the Trust in order to find out their ability for capacity development and

willingness to work with the JSTF objectives and will be provided with institutional strengthening.

The POs will be registered with the Trust by signing an agreement containing rules, regulations, laws, policies and guidelines to be followed in project implementation.

Community Projects

The JSTF has established a Community Projects division to assist the financing of employment generating rural infrastructure projects through strategies of:

- employment creation through rural community works
- local community involvement in asset creation, utilisation and maintenance
- strengthening the capacity of local level organisations to undertake and manage rural construction activities.

The objective of community project funding is to mobilise and remunerate surplus labour, and to bring about a shift in the construction and maintenance technology for rural infrastructure in favour of locally available labour and materials. The Trust will consider economically viable infrastructure projects that are compatible with the objectives of the Trust. The projects will be identified and selected based on the following criteria:

- they should be income generating/service oriented/conservation oriented
- the projects should be directed at the generation of sustainable employment and long-term social and economic benefits to the poor
- the projects should contribute towards economic development and the production process

The type of projects that will come under this criteria is as follows;

- construction and rehabilitation of minor irrigation schemes
- repair of village tanks
- construction and rehabilitation of roads
- land reclamation
- forestry/soil/environmental conservation
- watershed management
- water supply and sanitation
- community utilities
- rural marketing facilities.

The projects may be rehabilitation, reconstruction, maintenance or extension to existing infrastructure.

The Trust will select the projects based on its orientation towards poverty alleviation, productivity and income generation and creation of employment. As a condition for participation the Partner Organisations are required to select participants from the locality. There will be participants from the JSP, as at least one member from each JSP family must contribute twenty days of labour per month to a project in order to remain within the JSP program. (There may be JSP beneficiaries who will be exempted from contributing to the project if they are within certain criteria for exemption.) All other participants will be paid prevailing daily wages for the task as estimated. Tools and equipment used for the project are to be manufactured locally to the maximum extent possible, in order to further harness local skills.

As one of its main objectives the Trust emphasises that projects should generate substantial employment and use local labour to the extent possible. The labour component is to be at least 50% of the total contract cost. The POs can recruit employees outside the target group for services such as accounting, technical aspects and procurement. The PO can obtain the services of consultants to assist in project activity. The consultants should fit in to prequalification criteria designed by the Trust to be eligible for consultancy services. An agreement which is legally binding will be signed between the Trust and the consultants where the rules and regulations, rights and obligations, and terms of reference to be followed by either party are specified.

The project financing procedure stipulates that payments to participants and suppliers will be made by the Trust through the POs for project related work. The payments to contractors will be made directly from the Trust and no commercial contractors can be involved in project work unless approved by the Trust. As the POs will be funded on an imprest system they will prepare claims on work carried out and submit them to the Trust. The claims must be approved by the consultant appointed by the PO as to the correctness in the quantities and values and whether the work has been carried out according to plans and specifications. On receipt of the claim the Trust will authorise a bank closest to the PO to release the funds. In order to ensure that POs are utilizing project funds properly, monitoring will be conducted by the Trust through the examination of reports obtained from POs and site visits made by Trust officials. The Trust will retain the right to monitor project progress and expenditure in order to reduce the possibility of default. In case of default the Trust will peruse legal measures to recover the money.

The POs requesting Trust funds are required to submit separate applications for each proposal. The POs must prepare project proposals according to a form prescribed by the Trust. All Trust funded projects should contain a detailed maintenance plan and a budget which contains methods of implementation, labour requirements, labour mobilisation, financial and technical aspects. As the Trust will fund only one project at any one time the priority order must be indicated.

Financial Reporting and Accountability

Financial reporting and accountability must be looked at from both the point of view of the Trust and the POs. The Trust maintains its accounts in accordance with accepted commercial



practice. According to the agreement reached between the GOSL and IDA independent external auditors are to be appointed to the satisfaction of IDA and these auditors have already been appointed. The auditors will report on the method in which finances of the Trust are managed and an audit report together with financial statements will be submitted to the IDA within four months of the year end. The Trust will prepare management information reports, budgets and three year projections on the four funds it operates and submit them to the IDA as requested.

Constant monitoring and evaluation of project activity and financial progress to alert the management on possible deviations from plans and budgets and to recourse to corrective action will be conducted by reviewing standard and other records of the POs by the Trust.

The POs are required to maintain an adequate system of accounting and grant access to the Trust to verify all documents and records

PRIVATE SECTOR

Private Sector

The private sector in Sri Lanka does not lack innovation and ingenuity. With proper government policy and a good business environment it could thrive and contribute significantly to development of the water supply and sanitation sector.

The private sector includes:

- artisans
- contractors
- small and large engineering consulting firms
- contractors
- manufacturers
- retailers

Artisans

According to the village survey, artisans are found in most villages. When asked which skills could be found in their village, the responses were as follows:

Percentage of Villages in which Artisans were found

District	Carpenter	Mason	Plumber	Well Digger	Mechanic	Book-keeper	Clerk	Not Known
Badulla	93	95	55	92	63	87	90	4
Matara	76	82	12	34	42	39	57	7
Ratnapura	95	95	63	97	66	73	80	3
Overall	88	90	42	73	56	67	76	5

Latrine construction was quite likely to be contracted out to masons. Overall 59% of respondents in the household survey said their latrine had been built for them by a mason, and this figure was as high as 74% in Badulla. Masonry training is carried out by a variety of institutions, including Sarvodaya (which has trained over 1700 masons, many specifically in water supply and sanitation related skills, in the last five years under two of its programmes) and the Institute for Construction Training and Development (ICTAD). There is training in other construction trades available in all districts. Data from the Badulla and Matara AGA resource profiles show several hundred trainees in a variety of institutions.

Small Private Contractors

ICTAD maintains a register of construction contractors, which is organised by field of speciality. Contractors are graded with a point system according to business turnover in financial terms, technical ability (professional and supervisory staff and equipment), work experience and organisational structure. Legal qualifications such as registration of business name and articles of incorporation are required for registration, which excludes small informal contractors.

Table 39 Artisan Training

	<i>Badulla</i>		<i>Matara</i>	
	Trainees	Institutions	Trainees	Institutions
Carpentry	348	20	783	7
Welding & Blacksmithy	59	4	201	2
Masonry	52	-	426	1
Motor mechanics	nr	nr	641	-

Source AGA Resource Profiles, 1991

NB : Not all AGAs recorded number of training institutions

nr = not recorded

The ICTAD register contains the 61 firms in the "water supply and drainage construction" field. Of these only 5 are in the three districts. There are no firms which have a turnover of over 5 million, and most of the firms are grade 6, which have a turnover of below Rs. 250,000 and require only business registration and no points in order to qualify.

Water Supply and Drainage Construction Contractors

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
Badulla	none	none	none	none	none	1	1
Matara	none	none	none	1	none	1	2
Ratnapura	none	none	none	none	1	1	2
Colombo (Metropolitan)	3	2	3	3	5	2	18
Colombo District	-	-	4	1	17	5	27
Elsewhere	-	-	1	3	7	none	11
Total	3	2	8	8	30	10	61

Source ICTAD, 1991

Statistics from the village surveys show that the use of private contractors to build water sources and wells is rare. Only 7% of the respondents overall said their water source had been built by a private sector contractor, and only 2% of wells. However 34% of water sources and 54% of wells were built "privately" which may mean that an informal sector mason was engaged.

In Badulla, the IRDP has hired private contractors to work on projects, mainly for straightforward work such as pipe laying and pipe fitting. They were satisfied with the contractors' performance on this. They have had no experience with contractors for highly-skilled jobs. PLAN International contracts out construction work such as road and school building (not water supply for their projects is handled by the community). This NGO maintains a roster of contractors, to be called upon when necessary. PLAN has expressed satisfaction with the contractors; there has been no problems in these contracts.



Consultants

There are 3 large private engineering consulting firms and one large state firm working in the water supply and sanitation sector in Sri Lanka. There are also about 6 small private firms (less than 5 professionals) but these firms are highly responsive and can increase their capacity if demand exists.

It is of interest that SLSPC recently ran a trial water supply system design exercise with three types of consultants; a large private firm, a small private firm and an NGO. They found that the small firm was able to complete the task and provide better service where the other two types of consultants failed.

Engineering Workshops

The Colombo Commercial Company, which is based in Colombo but has a branch in Matara town, is a well-equipped engineering workshop with highly-skilled workforce. It has full capacity for handpump manufacturing if there is demand. Two other Colombo-based engineering firms have workshops in the major town in each district, namely Walker Sons & Co Ltd, and Brown & Co Ltd.

Small Industries

There are numerous small manufacturing and repair industries in the three districts.

Fibreglass Manufacturers

FibreTec Ltd. in Matara produces a variety of fibreglass products such as ornamental lamp shades (mainly for export), vehicle licence plates, name plates, chairs/tables, simulated ivory tusks, simulated marble and water tanks (which are made to order). The factory equipment is simple, and the manufacturing the process is labour-intensive.

Industry	Number of Enterprises Badulla	Number of Enterprises Matara
Brick Making	98	264
Concrete Blocks	10	8
Blacksmithy	115	43
Fibreglass Manufacture	-	1
Vehicle Repair	70	9
Masonry	79	10
Bicycle Repair	-	32

Source AGA Resources Profiles, 1991

The factory has produced a specimen pour-flush bowl, which would cost approximately Rs 300. With mass-production the cost could be lowered to Rs 200-240. In comparison, a high-quality ceramic bowl produced by the state-owned Sri Lanka Ceramic Corporation costs Rs 340, and bowls of lesser quality made by a ceramic factory in Matale cost Rs 285 (all retailer prices at Matara town market). The consumer preference in Sri Lanka seems to be for

ceramic pans, because of both appearance and long life. The household surveys found that 50% of people surveyed had latrines with ceramic pans, while only 2% had fibreglass pans.

FibreTec fabricates water tanks to order which have a volume 500 gallons and cost Rs 6,500. Sarvodaya has ordered these fibreglass water tanks for its projects, however community members objected on the grounds that fibreglass tanks were made with outside resources, whereas communities can construct tanks themselves using stones, gravel and cement. No detailed cost comparison is available, but it seems that fibreglass tanks made to order are costlier than stone/cement ones built by the community. As another point for consideration, fibreglass products depend on some imported materials whereas stone/cement structures can be built entirely with locally available materials. There may be a market for fibreglass water tanks for household systems in communities where conventional construction materials are not available, or in situations where transport and handling of heavy cement tanks and moulds is difficult.

Ceramic Manufacturers

Good quality ceramic latrine pans are available in stores throughout Sri Lanka at reasonable cost. Lanka Ceramic has factories producing sanitary ware in Piliyandala and Negombo.

The New Ceramic Industries Ltd. in Puhulwella in Matara District was the first ceramic factory in Sri Lanka, built in 1970. Its main products are a variety of ornamental tiles and small objects such as ashtrays and souvenirs. According to the owner, the type of products produced is flexible and depends on demand. The kiln of the factory currently has operating problems, which result in cracks and holes on the surface of the final products. Plans have been prepared to improve the design of the kiln, which is batch fired, and heavy on fuel. The factory has been running at a loss in recent years. It has to transport raw materials from Colombo and, due to its remote location, cannot establish technical collaboration with any foreign investors to improve its product quality. The small scale nature of the production leads to higher costs. Another factor contributing to the losses may be government support to state-owned factories such as the Sri Lanka Ceramic Corporation.

The factory has produced a pour-flush latrine bowl as marketing specimen, however, it cannot find a market for these bowls. The factory has a capacity for 2,000 latrine bowls a month. The owner could not specify the cost of mass-produced bowls.

Prefabricated Concrete Product Manufacturers

A number of prefabricated concrete products are manufactured in the three districts, including floor tiles, cement sewage pipes, latrine slabs, sewage tanks and water storage tanks. However, demand for these products has declined, as earthenware pipes, ceramic latrine pans and tanks constructed in situ become more popular.

Nandana Concrete Works in Matara makes toilet slabs, and has filled large orders for NGOs in the area.

Handpump Manufacturers

There are numerous small manufacturers of shallow well pumps in Sri Lanka. One mechanic in Badulla town has been producing handpumps using the parts of buses discarded by the Colombo Transportation Board. He has sold some 30 such pumps at a cost of 900 Rupees each to households in Badulla. The pump can withdraw water from a depth of 30 feet. The pump works quite well, although it has maintenance problems as the leather cup needs to be replaced every 3-6 months depending on the degree of use and water quality, and the metal components corrode. If there is sufficient demand, the mechanic could collect parts sufficient to produce some 1,000 pumps. The manufacture of the pump would be improved if he had access to a lathe. He could help install, maintain and repair his pumps whenever necessary. This case shows that the private sector does have innovations and skills to fulfil demands for sector equipment installation.

Deep well handpumps are manufactured by Jinasena, Diason, Samuel & Sons and Sarvodaya. Diason manufacture the AID suction (shallow well suction pump) and a deep well derivative of the same pump. Diason also manufactures the down-hole components of the India Mark II for UNICEF, who import the above ground components from India. Sarvodaya Engineering Division, which is part of Sarvodaya Economic Enterprises Development Services, is the largest handpump manufacturer in Sri Lanka. The division manufactures the SLO7 Deep Well Handpump in 4 locations in the country and presently has a production capacity of 450 pumps a month. Over 2500 pumps were manufactured between 1988 and 1991, the majority for a Japanese NHDA project and the NWSDB. The pump, which has below ground components of PVC, stainless steel and brass, has a maximum operating depth of 60 m and is marketed as a VLOM pump. It sells for Rs. 26,000/- and is at present not available on the retail market. Sarvodaya has also been running the Women in Handpump Technology programme, which was financially supported by IDRC at the outset, since 1987. Under this programme women are trained at the Sarvodaya Women's Handpump Training Centre to manufacture, install and maintain a simple pump. These women are supposed to return to their communities and work as rural handpump mechanics and metal workers. One of the on-going problems with the programme is that graduating trainees tend to quit their jobs when they get married, due to a rural perception that the work is not suitable for women and even less so for married women.

Motorized pumps

Jinasena makes electrical, petrol, diesel and kerosene fuelled pumps. They are centrifugal. The capacity varies from domestic to industrial (1000 gph to 50,000 gph). There are two or three other locally made pumps on the market.

Hydraulic Ram Pump Manufacturers

A hydraulic ram pump is manufactured in the town of Matara and has been used in one plantation.

Retailers and Suppliers

Suppliers of Imported Pumps

Chinese-made shallow well handpumps are available in hardware shops in the districts, and range in price from Rs 1250 to Rs 1750.

Suppliers of PVC Pipe

There are half a dozen manufacturers of PVC pipes in Sri Lanka, all based in Colombo District with distributors throughout the country. Pipe is manufactured in a variety of wall thicknesses, and a wide

range of fittings are also produced. Sri Lanka has its own standard for PVC pipe which is similar to the British standard. In general, the pipe manufactured in Sri Lanka is of good quality, in particular the S-Lon pipe produced by S-Lon Lanka Ltd., in collaboration with a Dutch company and that manufactured by St. Anthony's Industries under the name Anton PVC. Whereas the pipes are of good quality, some of the fittings produced are poor.

Supplier	Number of Enterprises Badulla	Number of Enterprises Matara
Sand Suppliers	-	11
Rubble Suppliers	18	-
Granite Suppliers	-	10

PVC pipe is also imported mostly from Singapore and Hong Kong. At a rough estimate, about 20% of the pipes sold in Sri Lanka is imported. Imported pipe of small diameter is generally more expensive than locally produced pipe, by a factor of, 10 - 20%. Fifty-three percent duty is levied on imported pipe.

Suppliers of Cement and Other Building Materials

There are three cement factories in Sri Lanka, in Puttalam, Galle and Kamkesanthurai, but the last is not operating due to the war in the north. Cement is also imported. Although there are no shortages of cement at present, as there were in the past, the price is high, having risen by 50% in the last two years.

Statistics for Matara show that there are 19 hardware shops and 34 building material shops in the district. Hardware shops are in 8 GS Divisions, and building materials retailers in 17.

Water Vendors

Water vendors exist in several villages and towns in Matara where the supplies produce brackish water or quality unsuitable for drinking. In Weligama town, many public standposts were damaged by vandalism, others have erratic flow and when water does come out of the standpipes it is muddy and brackish. This water is taken from a river some 8 miles from the estuary apparently without any treatment. Due to unreliable and low quality supply, many householders and shop owners in the town do not bother to get house connections. Nearly all

residents in Weligama Town have to buy water from vendors. One vendor uses a 130-gallon tank put on a cow-driven cart to collect water from an unprotected well, for which he charges Rs 1 for every 10 litres. He says his business is good, and intends to upgrade it to a pumping/truck system if capital is available. Once he approached a bank for a loan, but was refused due to lack of collateral.

Strategies to Mobilize the Private Sector

The private sector in Sri Lanka is strong, dynamic and innovative. Sri Lanka has been liberalising its previously state controlled economy since 1977 and privatising the existing state owned industries. Recent government policy is geared towards further strengthening the private sector. Privatisation has already occurred in more than 130 corporations (State Distilleries, United Motors, Ceylon Oxygen being among the largest) and is planned for many more, including the two plantation corporations.

Entrepreneurs in manufacturing and contracting need assistance to tide them over the initial stages of their undertakings. They need support to create new markets and successfully manage their companies. Simple technologies (such as handpumps) which are appropriate to the sector need to be commercialised, and technical and managerial experience is necessary to achieve this. Support should be focussed on those private sector initiatives which support sector objectives, and could take the form of:

- demand development through health education and social marketing
- technical and managerial training
- testing and standardisation of technologies
- dissemination of technical information
- creation of linkages with investors, inventors, designers etc.
- fiscal incentives
- access to credit

Demand Creation

The creation of demand for water supply and sanitation improvements at the household level through social marketing and health education is an important factor in providing a fertile environment for the private sector to operate in. If the improvements achieved through the services of the private sector are seen as products, marketing using techniques borrowed from commercial marketing can stimulate demand and provide opportunities for the private sector to fill this demand. This involves identifying the "consumer" of the product, developing the product with the consumer's interest in mind, and offering this product in a form based on the users perception of efficacy. In the case of water supply and sanitation improvements, this may mean putting stress on the increased convenience, prestige, and privacy offered by the improved service, rather than on the public health impacts. Health education through schools and mother's groups may stimulate demand among children and women, who in turn may influence family decision-making with regard to installation of improved facilities.

Dissemination of Technical Information and Training

There are few institutions in Sri Lanka which are currently providing extension services to the private sector. Sarvodaya Economic Enterprises Development Services (SEEDS) gives small loans to allow entrepreneurs to build up their businesses, and the SEEDS Rural Enterprises Development Services also provides training and advisory services, but these are geared towards very small undertakings. There are extension officers at the Industrial Development Board, National Engineering Research and Development Centre of Sri Lanka (NERD) and Ceylon Institute of Scientific and Industrial Research (CISIR), but they have meagre financial and technical resources. There is an absence of an interdisciplinary approach and little research. There appears to be little current activity in development of the private sector for water supply and sanitation activities. Information on technologies are not diffused, in particular to handpump manufacturers.

Fiscal Incentives

Government taxation does not favour state-owned corporations over privately owned enterprises; corporate income tax is 62.5% for state-owned corporations and between 40 and 50% for private enterprises. Turnover tax (a value-added tax) is between 1 and 10% depending on the nature of the product, and is levied on the products from both private and state owned industries. Handpumps are taxed at 5%, and latrine pans at 10%. Duty on assembled handpump components is between 10 and 15%, but raw materials for handpumps have duty levied at 25% to 40%.

Tax holidays are to be an affective method of stimulating private sector initiatives. They should be encouraged and directed to those industries most important to the sector. The government evaluates the granting of tax concessions to an industry based on the national priority of the industry, the contribution made by the industry towards employment, import substitution and regional development and the advent of new technology.

Tax holidays may be given to an industry if provided it is a pioneering industry. There does not exist a general clause under which all institutions in an industry will qualify for a tax holiday, and enterprises must be evaluated on a case by basis by the Ministry of Industries. Under the Inland Revenue Act the profits of a company that qualifies for a tax holiday will be exempted from tax for a period of five years. If an existing company in a pioneering industry is expanding its production capacity it will also qualify for a tax holiday of five years. A company is in a non-traditional industry may be given a tax holiday if it is approved by the Ministry Of Industry.

As the manufacture of components for the water and sanitation sector might result in import substitution, generate employment in the rural areas and improve local skills this industry may be eligible for tax concessions by the Minister. Also as this industry is not widely spread and currently attracting much investment it might be considered as pioneering industry. However tax implications may have little influence in the development of the private sector in the manufacture of components for the water and sanitation sector unless there is adequate demand to cover production costs. A tax holiday will only be an encouragement to attract investors

provided the industry generates a satisfactory return even after the tax holiday is expired. There is a need to examine the impact of tax and duty rates on product costs. An economic analysis would indicate what a realistic price for goods and services is, and whether tax or duty rates are making product costs too high and thus eliminating business opportunities.

Access to Credit

Access to credit is important because it allows permits entrepreneurs to start new undertakings or expand existing ones, and allows manufacturers to develop new products and artisans to undergo training to acquire new skills. Credit for small enterprises may be best provided by the Rural Banks and the TCCS who operate in the rural areas.

Annex 2

**Report on the Workshop on
Institutional Aspects**

Rural Water Supply District Development Plans Matara, Ratnapura and Badulla Districts

Workshop on Institutional Aspects

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Introduction

A workshop was held by Cowater International on April 2nd and 3rd 1991 for the Matara, Badulla and Ratnapura Districts Rural Water Supply and Sanitation Planning Project. The workshop was held at the Koggala Beach Hotel in Galle District.

This was the third workshop held by the project. The first was held in November 1990 at the inception of the project. The second was held in January 1991 to orient the survey staff for the village and household surveys. The objectives of this third workshop were as follows:

- to report on preliminary findings from the surveys
- to identify and discuss the institutions involved in the water supply and sanitation sector
- to identify and discuss the functions which are or could be carried out by each of these institutions
- to discuss institutional models for the future

The agenda for the workshop is presented as an annex, as is the list of participants.

Opening Address

The opening address was given by the Project Director, Michael McGarry of Cowater International. He outlined the objectives and stressed the participatory nature of the workshop. He explained that there are two crucial questions facing the project at this time:

- what institutions are available to implement water schemes (and what is their capacity, experience, interest and plans)?
- through what framework and system of coordination could these institutions work?

Dr. McGarry explained that the project staff had certain ideas, which were set out as institutional models. These needed comment, criticism and improvement, which would be gained from the participants during the workshop; for this reason participation by all present was essential. He stressed that the product of the workshop would be very important to the future of the institutions the participants represented - and in fact, the participants themselves would have to live within what was to be decided within the next two days. Any plans made during the workshop would form the basis of an action plan, and the setting up of arrangements proposed would be a condition attached to donor funding.

Sector Survey - Preliminary Results

Mr. Tam Diep of Cowater International presented some of the results of the survey. Results are preliminary as not all the data has been entered. A total of 1490 households have been surveyed in 104 GN Divisions randomly selected from the three districts. Information was collected on house ownership, size and materials, household income and size, occupations and material lifestyle. Types of existing water supplies were investigated, and it was found that these were mostly wells and springs. Of the wells, 92% were open (allowing sunlight to enter). Eighty three percent of respondents reported a requirement for improved water supply. Eighty percent of households surveyed had a latrine, and of these 55% were the water seal type.

In terms of aspirations for improved water supply, house connections were the most popular, except in Ratnapura where apparently standpipes were preferred. Handpumps were less popular than open wells; in fact less than 10% of respondents indicated a desire for a handpump.

Forty percent of households did not know who to approach for improvements to their water supply. When questioned about institutions, one-third of households mentioned Sarvodaya, and one-quarter Rural Development Societies. People were willing to pay for improvements; over 60% were willing to pay Rs. 10/- or more per month. Three quarters of households said they were also willing to contribute in labour or in kind.

There was a brief discussion of the implications of the data for the project.

Identification of Institutions and Roles

Peter Hawkins, the Project Manager, led this session. He explained the need to identify the institutions presently active in the water supply and sanitation sector, and to identify what they were doing, how well, what they could do in the future, and what plans they had.

The group then participated in the listing of the institutions and identified the following:

- Ministry of Policy, Planning and Plan Implementation (MPPI)
- Ministry of Health (MoH)
- Ministry of Housing and Construction (MHC)
- National Water Supply and Drainage Board (NWSDB)
- State Plantation Corporation
- Janatha Estates Development Board (JEDB)
- Central Environmental Authority (CEA)
- Water Resources Board
- National Housing Development Authority (NHDA)
- Integrated Rural Development Projects
- Department of Local Government

Department of Education
Department of Cooperatives
Gramodaya Mandalaya (GM)
Provincial Councils
Pradeshiya Sabhas
Thrift and Credit Cooperative Society (TCCS)
Rural Banks
Non-Government Organisations (NGOs)
Community Based (village level) Organisations (CBOs)
Private Sector

Following the creation of this list, the group came up with a list of the functions, or roles, which the various institutions would have to carry out in order to provide water and sanitation services. These are as follows:

macro planning

-project selection

coordination

-national

-district

-local

institutional development

-training

-administration improvement

-management upgrading

organization and political support

-local politicians

-religious organizations

community support

-mobilization

-information

-organization for participation

-enhancement of women's roles

financing

-channelling funds

-credit schemes

-subsidies

cost recovery

-tariff charges

-community financing

technical design

-surveys

-detailed design

-costing

- water resources assessment
- demand assessment

construction

- procurement
- construction
- supervision
- community participation

operation and maintenance

hygiene education

sanitation

monitoring and evaluation

- water quality
- project efficiency

Peter Hawkins then presented some institutional models which had been prepared as a starting point for discussion by the group leaders the night before. These models showed the flow of funds for water supply and sanitation projects, as it is usually the case that the organisations controlling funding also control project programming as a whole.

There was some general discussion of these models before the group broke up into smaller working groups which were each to discuss one of the models. The objective of these working groups was to analyze the model, to identify any additional institutions which should be included or other changes which should be made to the way the institutions interacted, to determine which institutions should carry out which functions, and to point out weaknesses in the models which could be addressed through institutional strengthening or other project interventions. The groups were to prepare matrices showing which functions were to be carried out by which institutions.

The working groups worked on these models and matrices in the afternoon, and presented their work on the morning of the following day.

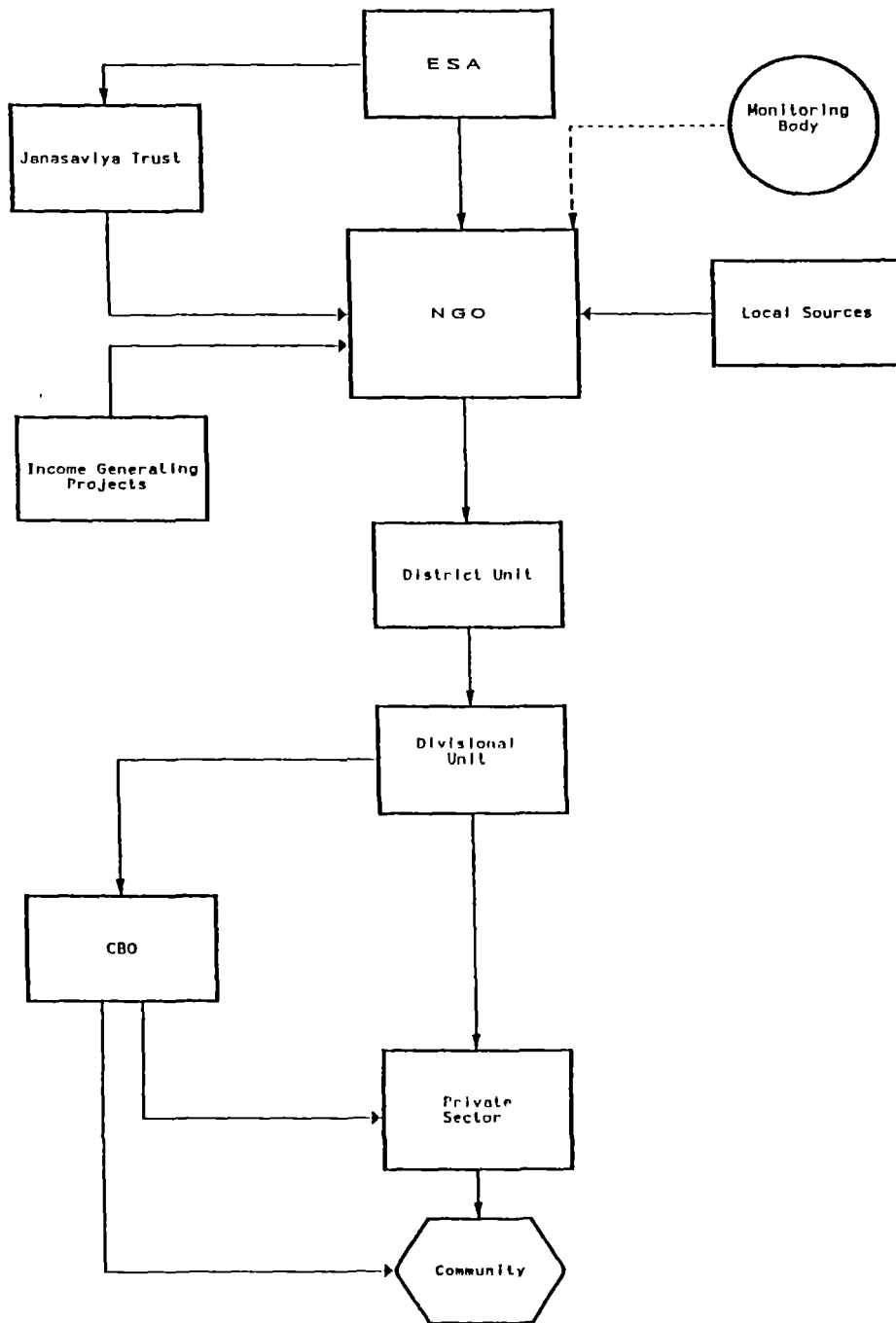
Working Group 1: NGO Model

This model was presented by Dr. V.S. Ariyaratne (Rural Health Consultant). The group had modified the model by identifying several specific NGOs and the roles they could play, and by adding district and divisional units. The group also suggested monitoring bodies be set up to oversee the work of the NGOs.

Points raised during discussion:

- ESAs are not the only sources of funds to NGOs, often they have their own income generating projects
- if money goes through Treasury, this will cause problems as this system is very rigid,
- the advantage of this system is that the NGOs are closer to the grassroots level
- the infrastructure for this model exists - it just needs strengthening
- the disadvantage of this model lies in the need for accountability
- there is a need for monitoring, which could be provided by the Central Council of Social services
- it must be decided whether funds disbursed through this model should go directly to the CBOs, and whether they should be in the form of a loan
- the model shows only national NGOs, but there are sub-national NGOs which work in one area or region
- there was a programme called the Micro Enterprise Loan Scheme which gave group loans through NGOs for rehabilitation in the north - this was done by the Ministry of Rehabilitation - the willingness of the government to work through NGOs was there
- the new Janasaviya programme will work through NGOs as there are too many projects for Janasaviya to administer directly - this represents a lot of activity (up to \$30 million to be disbursed)
- IRDPs were mentioned as possibly being better able to handle projects than NGOs, as they are very well organized
- the NGO capacity was identified as a problem - there will be a need for many NGOs, rather than one
- Sanasa could double its capacity without increasing its infrastructure, but needs assessment and strengthening
- Sarvodaya has other projects ending which will free up capacity for new projects
- government control of NGOs has to be undertaken carefully, as too much government red tape will make NGOs less effective
- cost recovery by Sarvodaya takes the form of community contribution to the project in labour and materials - the organization cannot impose on the community - if they don't want to pay they can't make them
- it was suggested that cost recovery should be carried out by those organizations already doing it - for instance Sanasa
- Sanasa cannot recover money if they cannot organize the community - they are good at training

NGO Model



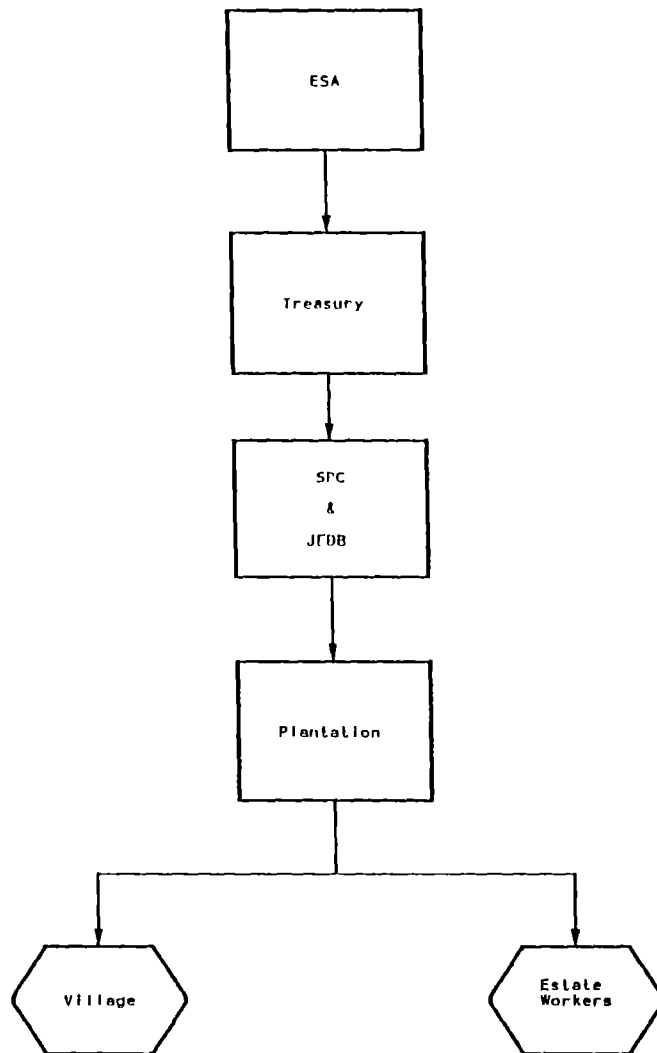
Working Group 2: Plantation Model

This model was presented by Mr. S. Amarasekara, director of the Matara IRDP. He pointed out that a well organized network of institutions already exists in the plantation sector. The model should deal differently with the villages in close proximity to the estates (where all or most residents work on the estates) and the resident estate workers. This latter group does not own the land they live on, and may thus feel differently about paying for latrines and water supply. The non resident workers are scattered, and this will present problems for water supply schemes. Cost recovery for the estate workers can be achieved through the payroll.

Points raised during discussion:

- how should the unions be dealt with? they are not always against management, and often work with management - there is no reason for the unions to object to water supply and sanitation projects
- small estates owned by individuals cannot be covered by this model - they should be covered under another institutional arrangement - they have been neglected
- NWSDB would have to charge for any technical services such as water resource monitoring - there are other institutions in Colombo such as the CEA which could do this also

Plantation Model



Working Group 3: Credit Model

This model was presented by Mr. Duminda Hulangamuwa of Ernst and Young. The group had created two new models in addition to the one provided to them.

The first model discussed had been rejected by the group because it relied on the formal banking sector (banks and rural banks) which was not felt to be appropriate, as these institutions have no expertise whatsoever in water supply and sanitation. Instead, it was recommended by the group that NGOs such as Sanasa (TCCS) be used, as they work at the village level and are thus better placed to achieve cost recovery. Sanasa is also multidisciplinary, and has financial, technical and community participation expertise. However, Sanasa does not have adequate technical knowledge, nor does it have machinery or equipment. This means that Sanasa would require inputs from the Water Board or the private sector. This model thus becomes the same as the household model presented later in this document.

The second model presented by the group proposed the use of the existing NHDA programme in order to install individual wells. The NHDA funds could be routed through Sanasa, as has been done in the past. NHDA only works to district level, not further, so it was suggested that funds go through the AGA. Alternately, for community schemes, ESA funds could be directed through Treasury to NGOs, but the question was raised whether NGOs could disburse money this way. This model is thus similar to the NGO model presented earlier.

The third model presented by the group was the existing system, utilizing government. This would be used in the case that the NGO did not have the capacity to carry out schemes. Funds would flow from ESAs through Treasury to the Provincial councils and the Pradeshiya Sabhas, and then to the community. The Pradeshiya Sabhas have technical officers who can assess schemes, and MHC and NWSDB can also offer technical assistance. Funds may also flow to the Pradeshiya Sabhas from the GA and from MPs. The problem with this mechanism is that the PS are political bodies, and are exposed to political pressures, so the distribution of funds may not be fair. It was suggested that this model would be most appropriate in the case of pumped schemes in small townships, with metering. This model is similar to the government model which was presented later.



Points raised during discussion:

- there is a problem of a lack of technical expertise among credit organisations, and lack of credit expertise among technical organisations
- the question is how to maintain a credit based mechanism and bring in technical expertise and community support
- why did the group feel it was necessary to develop other models? because of the problems of Treasury dealing with NGOs, because of the new interest in Pradeshia Sabhas, and because banks do not have rural capacity
- Sanasa is recognized as a bank and can receive funds from Treasury
- NGOs do not have to go through Treasury, but can receive funds directly from ESAs
- this is a demand driven process

Institutional flow chart diagrams have not been prepared for these models, as they are presented with other models.

Working Group 4: Water Board Model

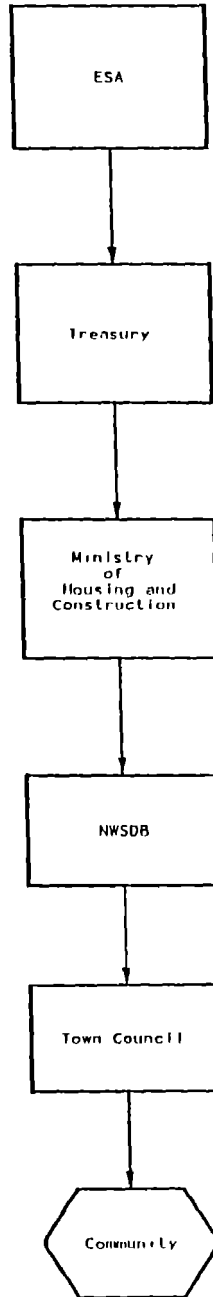
This model was presented by Mr. Pathiraja of NWSDB. According to the model, funds flow from ESAs, through Treasury, to the Ministry of Housing and Construction and then to the Water Board. From there the original model showed the funds going either to Town Councils, or to Community Based Organisations, or to NGOs. The group had decided, however, to reject the route through NGOs for schemes where full treatment was required or in the case that many villages were served from one large scheme (anywhere from 3000 to 4000 people and up).

The group presented an alternate model for rural schemes, whereby funds would flow from ESAs, through Treasury to Provincial Councils (using the Engineering Unit, with training and monitoring to be provided by the NWSDB). Funds would then flow to the Pradeshiya Sabhas, Divisional Secretaries or the Ministry of Health to the private sector, NGOs and CBOs.

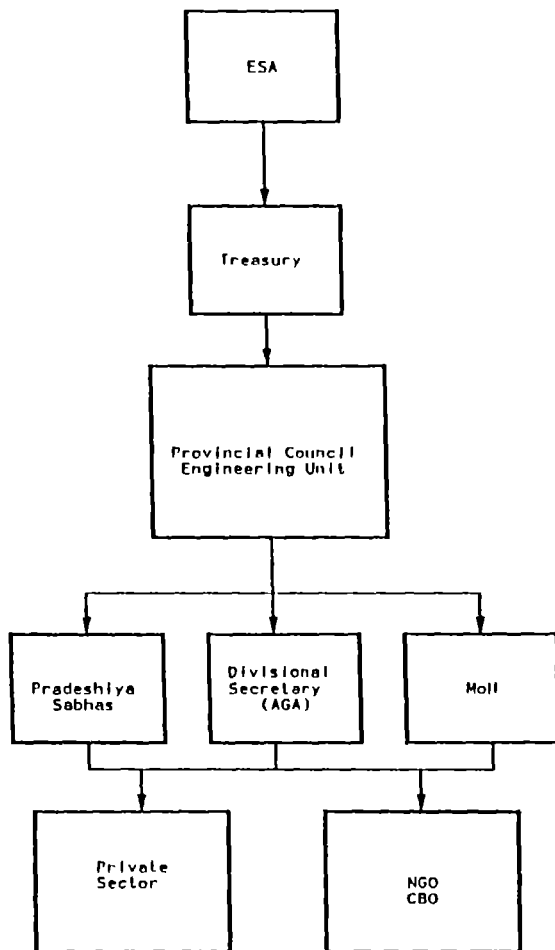
Points raised during discussion:

- is it feasible for Pradeshiya Sabhas to deal with NGOs? it may be necessary to improve this procedure
- the release of funds from Treasury to NGOs is to be decided upon by the MPPI
- there may be a problem as Provincial Council money is usually in the form of grants, yet there will be a need for some sort of cost recovery
- the Ministry of Health presently gives free assistance for latrines, so people may not accept loans from other sources
- the quality of work by contractors is often very low, and the question is how to improve it
- it is not yet known whether the government will clamp down on NGOs
- NGOs can handle community wells and gravity schemes, but can they handle schemes with complicated treatment?
- it is possible for NGOs to handle certain schemes, but not all
- it was proposed that the Water Board take responsibility for certain types of schemes only

Water Board Model



Alternate Water Board Model



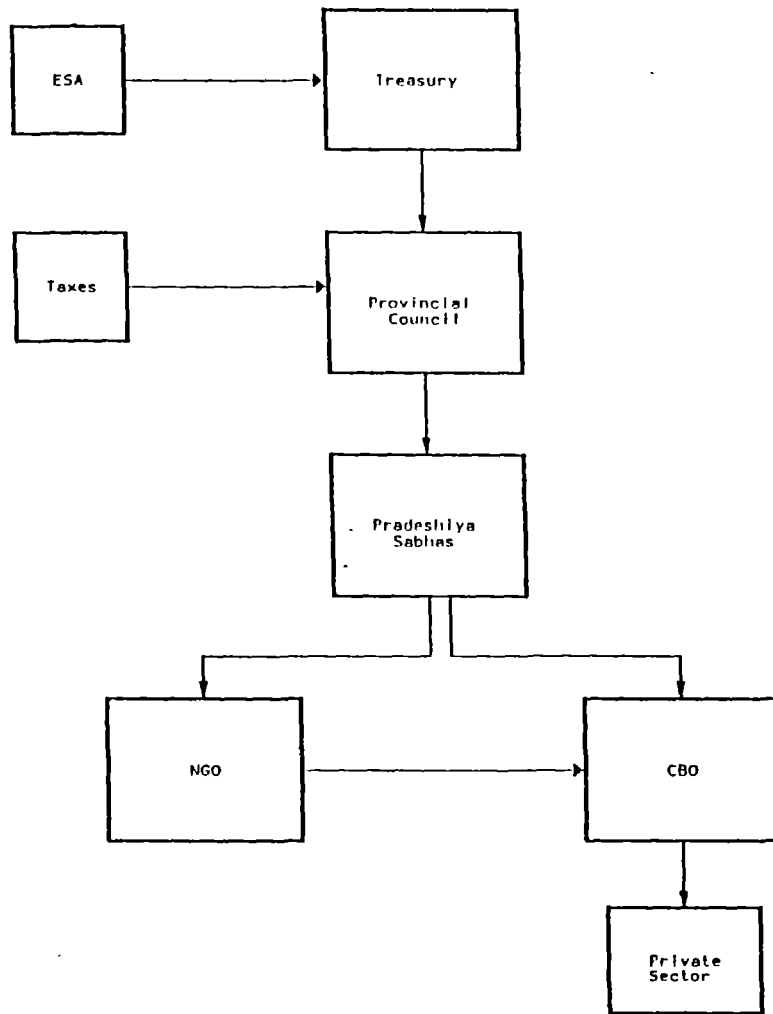
Working Group 5: Government Model

This model was presented by Mr. Mano Rajasingham (Institutional Consultant). In this model, funds flow from Treasury to the Provincial Councils (where they may be supplemented by local taxes), and from there to Pradeshiya Sabhas, who distribute funds to NGOs and CBOs. The Pradeshiya Sabhas have an as yet undefined role, as they will take on new importance after the upcoming elections, and may eventually be able to bypass the Provincial Councils altogether.

The participants discussed the case in which a community identifies a project, and the route by which they approach the Pradeshiya Sabhas for funds. An agreement would be spelled out with the Pradeshiya Sabhas containing specific clauses outlining the way the funds are to be used, and if they are to be channelled through an NGO. The question of how to ensure community participation was discussed. Ideally an NGO should prepare the community for the project, which could take six months of interaction and organization, but which will facilitate cost recovery. The Pradeshiya Sabhas need mechanisms for dealing with community groups also, but it was pointed out that this could lead to duplication and wastage if both the Pradeshiya Sabhas and the NGOs carry out the same community support tasks. It may be better to work only with NGOs, but the Pradeshiya Sabhas have monetary restrictions and will be reluctant to give out large amounts of money to NGOs.

There are limits on both the technical complexity of projects carried out this way, and on the managerial role which the community can be expected to take on.

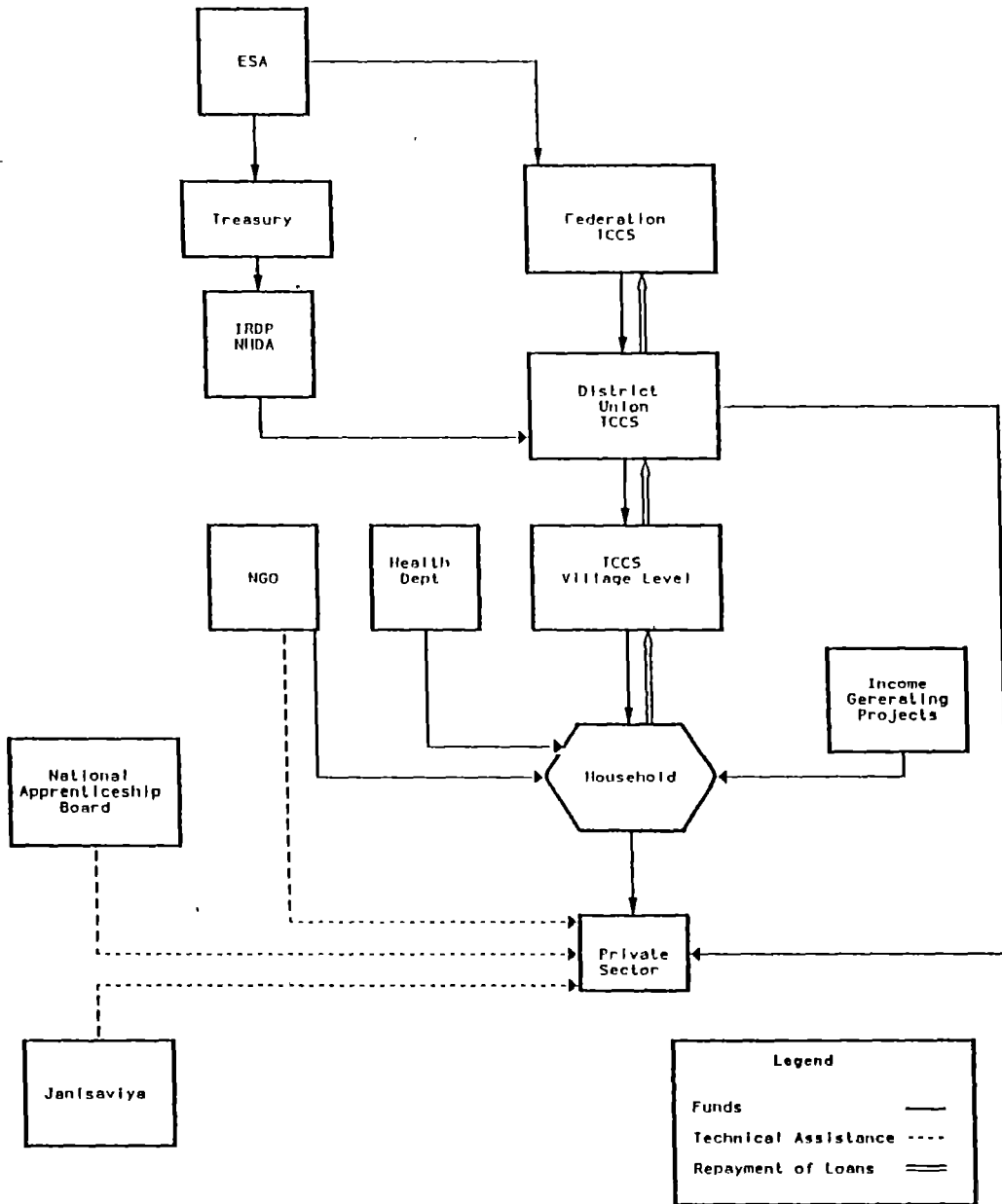
Government Model



Working Group 6: Household Model

This model was presented by Mr. W.H. Ratnapala of the TCCS. The model deals with the dispersed households which cannot participate in community schemes, but can carry out their own improvements through the private sector, if provided with a source of credit. The model initially proposed that the formal banking sector be used, but this was rejected by the group as these banks are felt not to work well with rural people. Instead, it was felt that the TCCS could provide access to credit. This organization has legal standing and a good record, with a lower than 10% default rate. However, there are limitations, as in some areas no TCCS societies exist, and in addition there are always some people who are too poor to join. TCCS also does not have technical expertise in the area of water supply and sanitation. The organisation does have field workers (full time) and change agents (part time) who work at the community level.

Household Model



Discussion of Models

Michael McGarry of Cowater International summarized the work of the working groups as the identification of five main models:

1. NWSDB Model - suitable for large schemes where there is technical complexity, for larger settlements
2. Plantation Model - suitable providing improved water supply and sanitation to resident and non-resident estate workers, in collaboration with JEDB and SPC
3. Household Model - suitable for dispersed households who wish to improve their own water supply and sanitation facilities, using credit facilities and the private sector
4. Community/Government Model - funds flow through Provincial Councils and Pradeshiya Sabhas to community-based organisations
5. Community/NGO Model - funds flow through NGOs (such as Sarvodaya, Sanasa, Mahila Samithi, Red Cross etc.) to community based organizations

After discussion, it was roughly estimated that 10% of disbursement might take place through the NWSDB, 10% through plantations, 20% through households, and the remaining 60% would take place through either the Community/Government route or the Community/NGO route. The participants developed an integrated model, which showed the flow of funds from External Support Agencies (ESAs), through Treasury (or directly to NGOs) and from there to TCCS, NGOs, Provincial Councils and Pradeshiya Sabhas. Funds would then reach individual communities through Community Based Organisations, who would engage the private sector to carry out some of the work.

During the presentation of the models, several main weaknesses had been pointed out, which can be summarized as:

- uncertainty over the way the newly elected Pradeshiya Sabhas will operate, and the way they will interact with the Provincial Councils
- the danger of politicization of projects carried out through government agencies
- the existence of conflicting programmes; some offer grants which will make people reluctant to accept loans
- the limited capacity of institutions to carry out an increased number of projects



- the lack of ability on the part of any single organisation to handle both provision of credit and implementation of schemes
- the need for accountability and monitoring if NGOs are to be used, and the question of how NGOs will access funds channelled through government

The participants then broke into three groups to discuss the problems of coordination, monitoring, maintenance of technical standards, comprehensive audit and research and development. Each group presented their proposal. In general, each recommended a central, national level body to oversee all activities in the rural water supply and sanitation sector, in the form of a steering committee or other authority. Each group also recognized the need for capacity at the AGA Division level to coordinate the day-to-day implementation of projects. The groups differed in their suggestions for what should exist between these two levels, and the functions that should be carried out at each level.

Each group suggested a national level steering committee which would consist of representatives from each ministry and implementing agency. One group suggested that the GA from each district be involved. This committee would discuss needs and allocate resources and facilitate the exchange of information between institutions. One of the groups recommended that the committee be chaired by either the secretary of MPPI, MHC or the Development Secretariat.

Another steering or coordination committee was suggested by all groups at the district level. One group suggested that this committee would consist of all elected representatives plus representatives of all agencies and would meet to discuss problems without decision-making authority, however it was pointed out that this district level body would be a huge committee of almost 100 people. Another group suggested district level steering committees made up of representatives of Provincial Councils and other institutions which would assess projects and request funds from the Provincial Councils, based on an annual budget prepared by each institution. It was pointed out that this would result in a slow and cumbersome process for project approval. Another group suggested that the district committee would have a small budget with which to hire consultants and carry out monitoring, research etc.

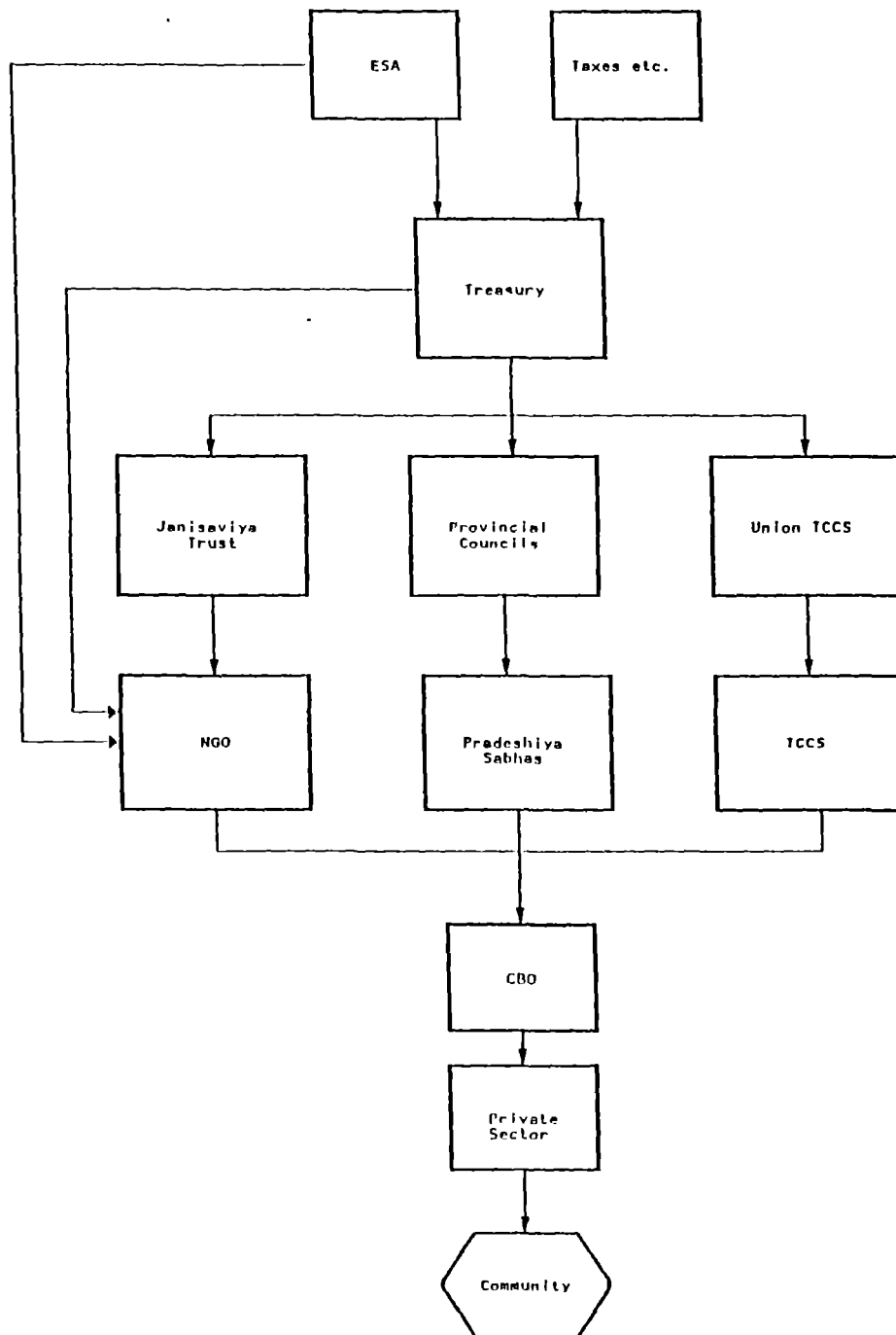
The third tier of this system would be a steering committee at the AGA division level. One group suggested that the existing structure at the AGA Division level should be used, as all line ministries were already represented (although NGOs are not).

The need for a simple system which would not be bureaucratic or politicised was stressed, and the need to avoid a long approval process. It was felt that comprehensive audits were best done by private sector firms.



Integrated Model

(excluding NWSDB and SPC/JEDB)





Annex 1 : List of Participants

No.	Name	Position/Organization
1	P.M.R. Pathiraja	DGM, NWSDB
2	H.L. Premasiri	Manager (P&C), NWSDB
3	S. Weeraratne	DGM, RSC (Southern)
4	B.M. Wijesinghe	AD (Planning), Kachcheri, Badulla
5	P. Kodituwakku	AD (Planning), Kachcheri, Ratnapura
6	Dr. S.W. Pathinayake	RDHS, Matara
7	Dr. W. Karandagoda	RDHS, Badulla
8	Dr. N.U.K.M. Jayatilake	RDHS, Ratnapura
9	S. Amarasekera	Project Director, IRDP Matara
10	E. Perera	Director, SLSPC, Fort, Galle
11	P. Wimala Gunasekera	Director, Sanasa district union, Matara
12	D.H. Gamage	President, Sanasa district union, Matara
13	W.H. Ratnapala	V. Chairman, Sanasa district union, Ratnapura
14	A. Samarasinghe	Coordinator, Change Agents Programme (Southern Zone)
15	J. Bjerre	RWSG-SA, Planner (World Bank/UNDP)
16	W.G. Ganegama	Coordinator, SRTS, Sarvodaya
17	H. Karunatilake	Deputy Project Manager, UNDP Project
18	H.L. Wijeratne	Engineer, NWSDB
19	D. Hulangamuwa	Financial Analyst, Ernst & Young/Cowater
20	G.E.M. Gomez	Hydrologist, ECL/Cowater
21	H.A. Weeraratne	WS Engineer, ECL/Cowater
22	I.L. Ameenul bary	Engineer, ECL/Cowater
23	U. Mansur	Engineer, ECL/Cowater
24	W.D.L. Chandrasiri	Engineer, ECL/Cowater



No.	Name	Position/Organization
25	M. McGarry	Project Director, Cowater International
26	P. Hawkins	Project Manager, Cowater International
27	T. Diep	Project Engineer, Cowater International
28	C. Brocklehurst	Deputy Project Manager, Cowater International
29	S. Perera	WID Consultant, Cowater International
30	M. Rajasingham	Institutional Consultant, Cowater International
31	V.S. Ariyaratne	Rural Health Consultant, Cowater International
32	C. A. Gunawardene	Private Sector Consultant, Cowater International
33	N. Fernando	Sociologist, Cowater International



WORKSHOP ON INSTITUTIONAL ASPECTS OF RURAL WATER SUPPLY AND SANITATION PLANNING

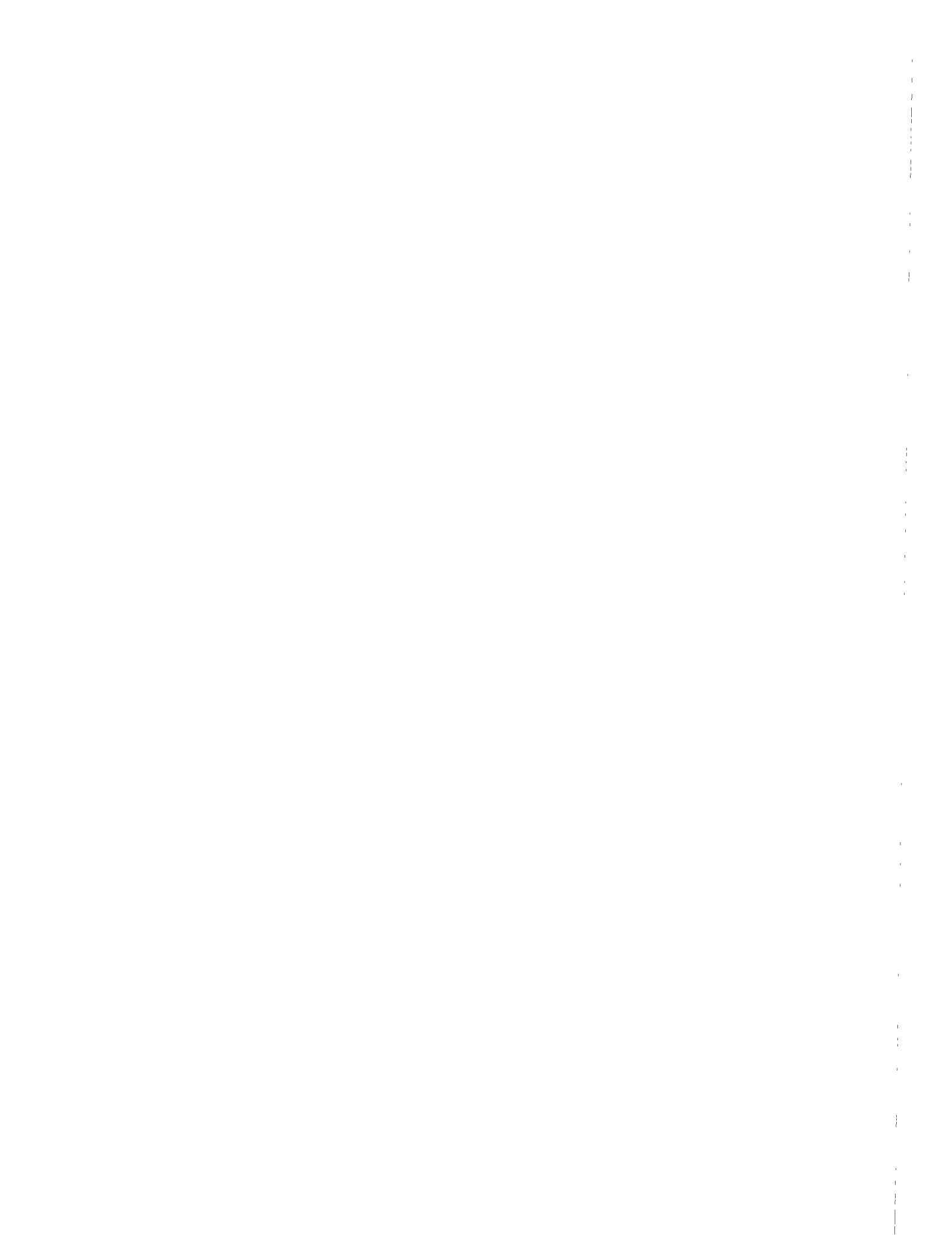
Tuesday 2nd April			Wednesday 3rd April		
9:00	Opening address	M. McGarry	9:00	Presentation of models	
9:30	Selected information from sector survey	T. Diep			
10:00	TEA		10:00	TEA	
10:30	Plenary: Identification of institutions Identification of roles	P. Hawkins	10:30	Presentation of models	
11:30	Plenary: Introduction to institutional models and planning matrix	P. Hawkins	11:30	Discussion of models	
12:30	LUNCH		12:30	LUNCH	
2:00	Working groups: Institutional models		2:00	Relative significance of Institutional models	
			2:30	Working Groups: Coordination	
4:00	TEA		4:00	TEA	
4:30	Working groups: Institutional models		4:30	Conclusions Thanks	
5:00	End of session		5:00	End of session	

9:00 Video: Community participation



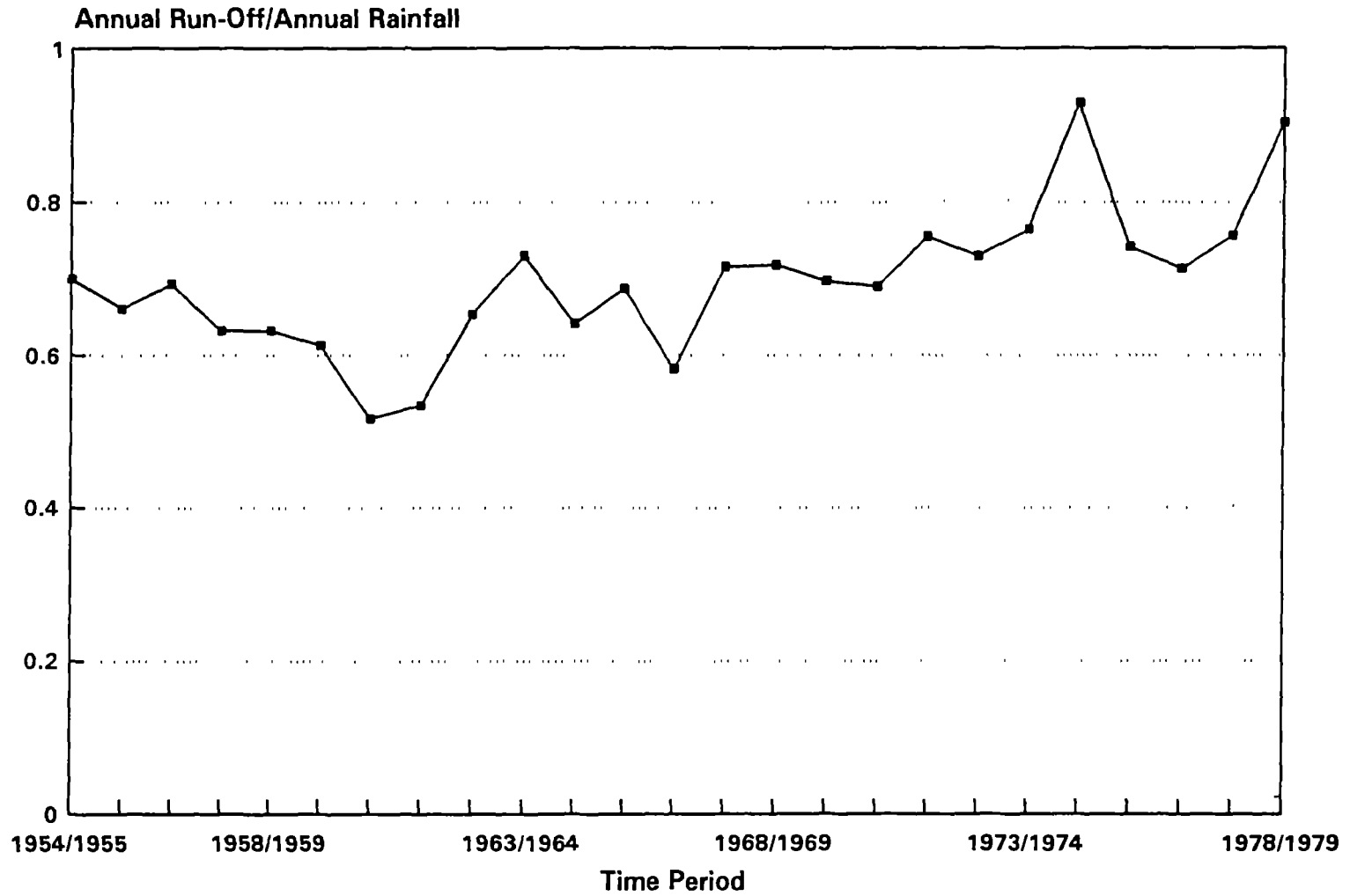
Annex 3

Rainfall/Runoff Analysis



RUN-OFF - RAINFALL ANALYSIS

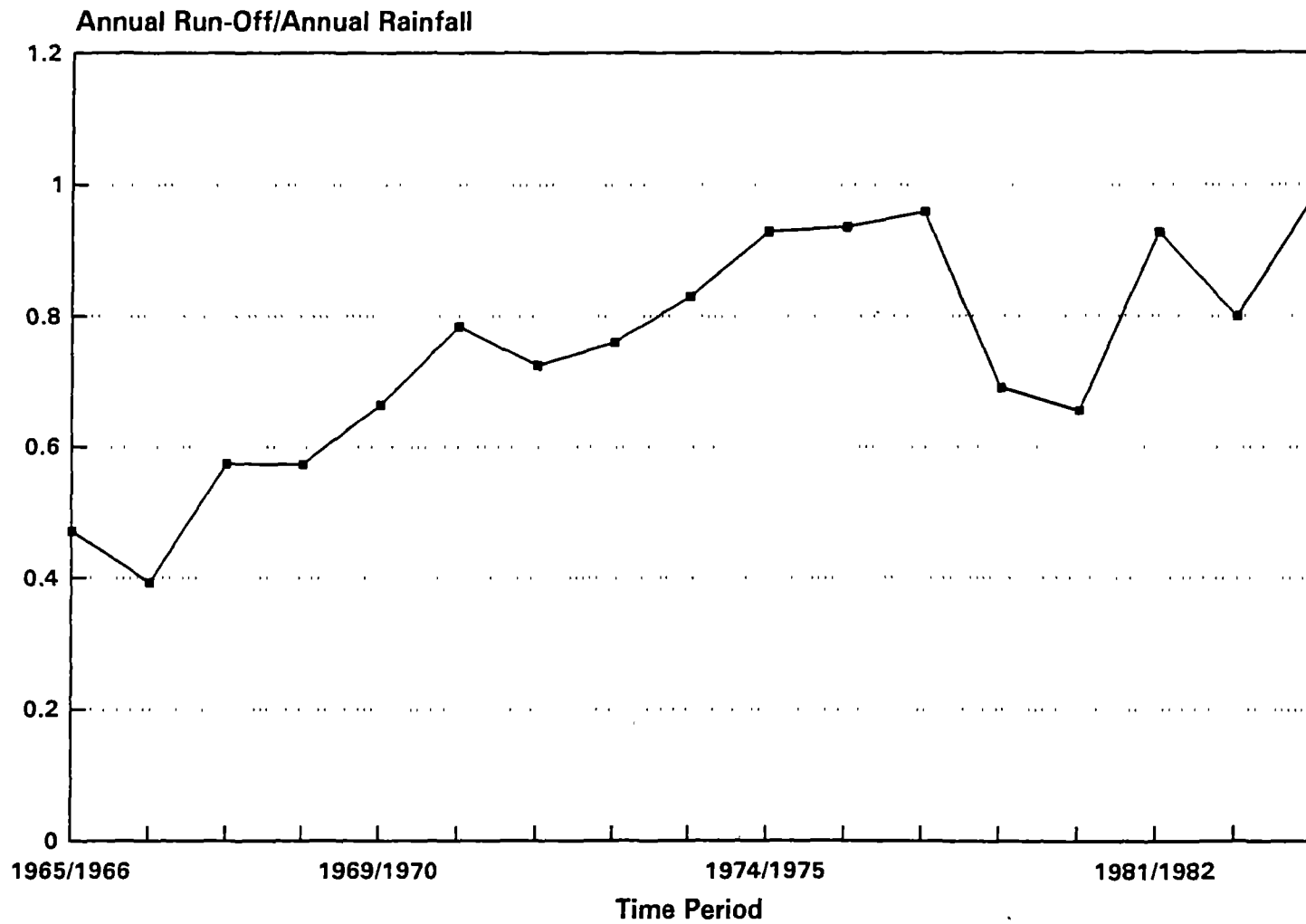
KALU GANGA AT MALWALA





RUN-OFF - RAINFALL ANALYSIS

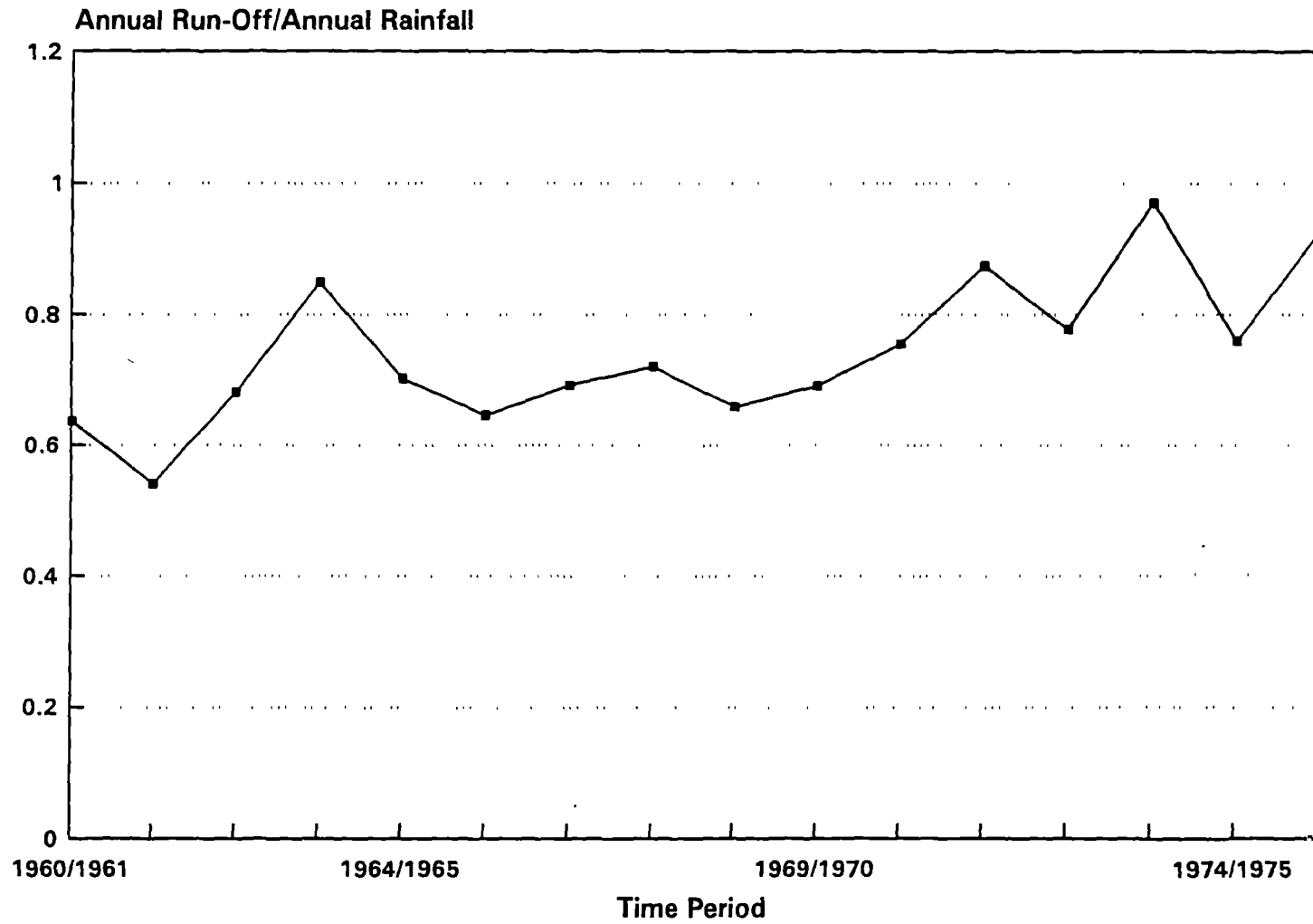
WEY GANGA AT DELA





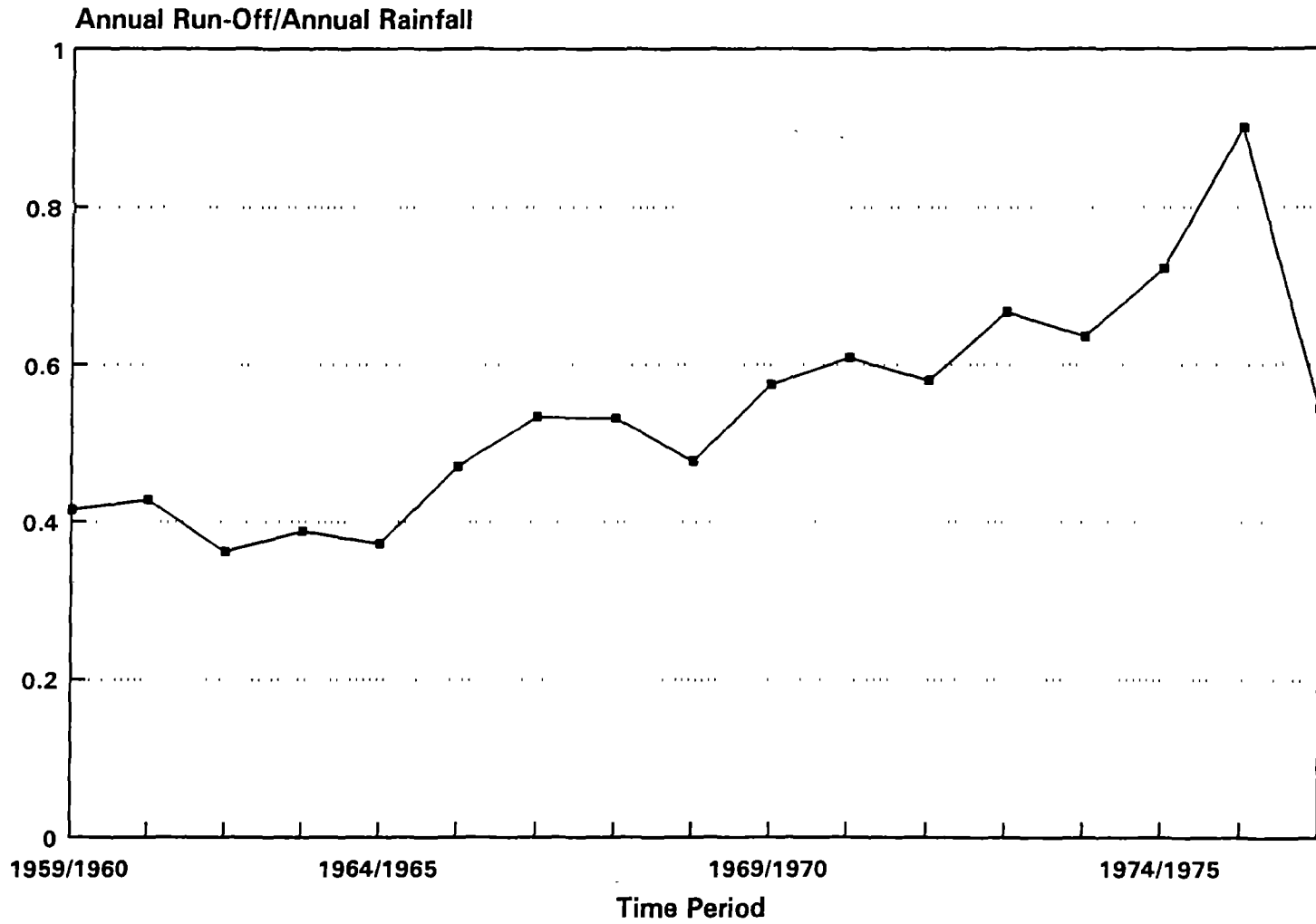
RUN-OFF - RAINFALL ANALYSIS

KUDA GANGA AT MILLEKANDA



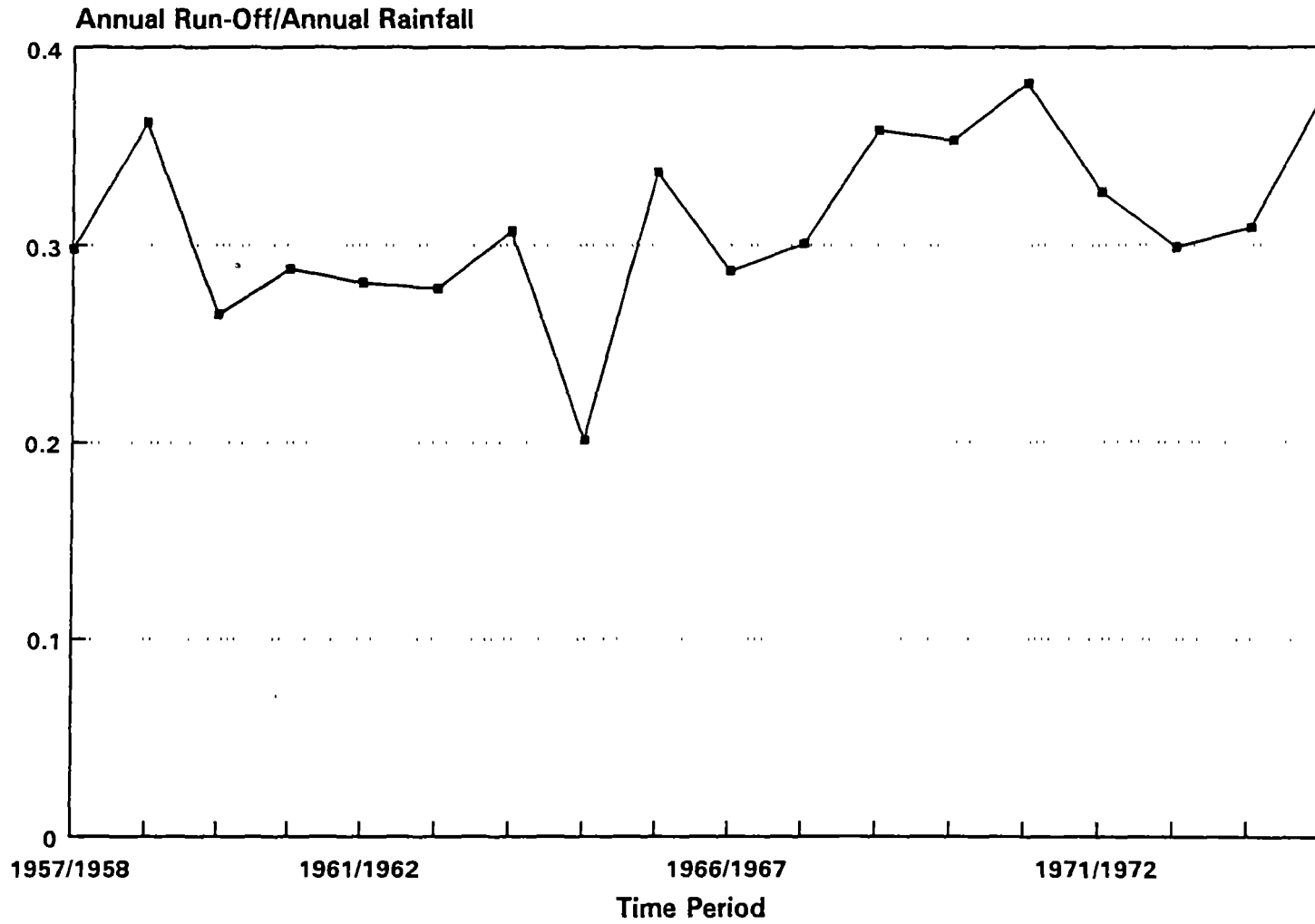
RUN-OFF - RAINFALL ANALYSIS

UMA OYA AT WELIMADA



RUN-OFF - RAINFALL ANALYSIS

MAHAWELI GANGA AT WATAWALA



Annex 4

References



Annual Health Bulletin Sri Lanka, 1989, Ministry of Health.

Bradley, R.M. & H.I. Karunadasa (1989). "Community participation in the water supply sector in Sri Lanka", *J.R.S.H.*, 131-136.

Caldwell J., Gajanayake, Caldwell P., Peiris I., *Sensitization to illness and the risk of death: An explanation for Sri Lanka's approach for good health for all. Social Science and Medicine*, Vol. 28, 1989.

Esrey S.A., Habicht, J.P.; *Epidemiologic evidence for health benefits from improved water and sanitation in developing countries. Epidemiologic Reviews*, 8: 117 - 128, 1986.

Esrey S.A., Feachem R.G., Hughes J.M., *Interventions for control of diarrhoeal diseases among young children; Improving water supplies and excreta disposal facilities, WHO Bulletin* 6 (4), pp757 - 772, 1985.

Esrey, S.A.; J.B. Potash; L. Roberts; C. Shiff (1990). *Health benefits from improvements in water supply and sanitation. WASH Technical Report n. 66.*

Good Health at Low Cost, Conference Report, Rockefeller Foundation, 1985.

Kariyawasam C., *Disposal of excreta and sullage*. Paper presented to the 14th WEDC conference: Water and urban services in Asia and the Pacific, Kuala Lumpur, Malaysia, 1988.

Karunadasa H.I., *Domestic use of water and sanitation, a behavioral study in two selected areas of Sri Lanka*. WHO/NWSDB, Colombo, Sri Lanka, 1984.

Laing R.O., Perera R.S., *Health and health services in plantation in Sri Lanka, Health Policy and Planning* 1(4): 314 - 325. 1986.

Morrison, Nancy E., *Plural medicine in Sri Lanka: Do Ayurvedic and Western medicine differ?*, *Social Science and Medicine*, Vol. 27, 1988.

Nichter M., *Cultural dimensions of hot, cold and sema in Sinhalese health culture, Social Science and Medicine*, Vol, 1987.

Nichter M., *Drink Boiled Water; A cultural analysis of a health education message, Social Science and Medicine*, Vol 21, 1985.

Nichter, M. (1985). "Drink boiled water : A cultural analysis of a health education message", *Soc. Sci. Med.*, 21(6): 667-669.

Mertens, T.E. (1989) *Health impact evaluation; of existing water supplies in the district of Kurunegela.*

Kandy district water supply & sanitation project (1990). *Evaluation mission.*

Gajanayake, J; S. Gajanayake; M. Mathupala (1990). *The UNICEF assisted water supply and sanitation project - Anuradhapura district.*

Central Bank of Sri Lanka (1990). *Socio-economic achievements of Sri Lanka.*

(1989). *Annual report - Central Bank of Sri Lanka.*

Cousens, S.N.; T.E. Mertens & M.A. Fernando (1990). "*The anthropometric status of children in Kurunegala District in Sri Lanka: its relation to water supply, sanitation and hygiene practices*", Tropical medicine and parasitology, **41**: 105-114.

Mertens, T.E.; S.N. Cousens; M.A. Fernando; B.R. Kirkood; F. Merkle; R. Korte & R.G. Feachem (1990). "*Health impact evaluation of improved water supplies and hygiene practices in Sri Lanka: background and methodology*", Tropical medicine and parasitology, **41**: 79-88.

Mertens, T.E.; R. Wijenayake; M.R.M. Pinto; J.S.M. Peiris; M. de S. Wijesundera; N.B. Eriyagama; K.G. Karunarathne & L.R. Ranaweera (1990). "*Childhood diarrhoea in Sri Lanka: a case-control study of the impact of improved water resources*", Tropical medicine and parasitology, **41**: 98-104.

Mertens, T.E.; M.A. Fernando; T.F. de C. Marshall; B.R. Kirkwood; S. Cairncross & R.G. Feachem (1990). "*Determinants of water quality, availability and use in Kurunegala, Sri Lanka*", Tropical medicine and parasitology, **41**: 89-97.

Caldwell, J; I. Gajanayake; P. Caldwell; I. Peiris (1989). *Sensitization to illness and the risk of death : an explanation for Sri Lanka's approach to good health for all*, Social Science and Medicine, vol. 28.

Gajanayake, S.; J. Gajanayake; M.C. Mathupala & N. Kodagoda (1990). *Matara District Integrated Rural Development Project.*

Abeywardene, P. (1990). *Women's participation in development.* Integrated Rural Development Project - Ratnapura. CENWOR.

UNICEF & National Water Supply and Drainage Board (1990). *Community-based handpump maintenance systems - A guide for implementation at local level.*

Heijnen H.A. (1989). *Annual Report 1988 - Sarvodaya Rural Technical Services*

Sarvodaya (1990). *Sarvodaya Strategic Plan (1991 - 1994).*

Ariyaratne, A.T., Perera D.A., (1989). *Sarvodaya as a movement - an occasional paper.*

Ariyaratne, A.T; Perera D.A., (1991). *Sarvodaya as an organisation.*

Sarvodaya Annual Reports 1983/84 to 1989/90

Haskoning & ECL (1991) *District Development Plans, Kalutara and Meneragala.*

Haskoning & ECL (1991) *Rural Water Supply and Sanitation , Sector Development Planning Project, Vol. 1 , main report.*

CENWOR (1989). *UN decade for women progress & achievements of women in Sri Lanka.*

Department of Census and Statistics (1985). *Badulla District report.*

Department of Census and Statistics (1985). *Ratnapura District report.*

Department of Census and Statistics (1981) *Matara District report.*

National Water Supply and Drainage Board (1989). *Corporate plan.*

National Water Supply and Drainage Board (1991). *Corporate Plan, including the new national strategy.*

IRDP Project Office (1990) AGA Division Resource Profiles:

- Matara AGA division - Matara district.*
- Mulatiya AGA division - Matara district.*
- Pasgoda AGA division - Matara district.*
- Dikwela AGA division - Matara district.*
- Pitabeddara AGA division - Matara district.*
- Devinuwara AGA division - Matara district.*
- Kamburupitiya AGA division - Matara district.*
- Akuressa AGA division - Matara district.*
- Weligama AGA division - Matara district.*
- Thihagoda AGA division - Matara district*
- Mahiyangana AGA division - Badulla district.*
- Bandarawela AGA division - Badulla district.*
- Welimada AGA division - Badulla district.*
- Soranathota AGA division - Badulla district.*
- Haliela AGA division - Badulla district.*
- Passara AGA division - Badulla district.*
- Kanthaketiya AGA division - Badulla district.*
- Badulla AGA division - Badulla district.*
- Haputale AGA division - Badulla district.*
- Haldamulla AGA division - Badulla district.*
- Ridimaliadhha AGA division - Badulla district.*
- Malimboda AGA division - Matara district.*

(1991). "Vital statistics for 1990-SLSPC(SDD)." *The Island*, 29 March.

JEDB (1990). *Needs assessment survey 1990*.

SLSPC (1990) *Review of Social Development From 1979 to 1990 and Future Needs*.

World Bank/UNDP (1990). *Global Consultation on Safe Water and Sanitation for the 1990s - Background paper*. (3 copies)

World Bank (no date). *Cost-benefit analysis in Sindh*.

Laing, R. (1986). *Health and health services for plantation workers*. London School of Hygiene and Tropical Medicine.

Dufaut, A. (1988). *Women carrying water - how it affects their health*.

Yacoob, M. & P. W. Robert (1988). *Social marketing and water supply and sanitation: An integrated approach*; WASH Field Report no. 221. Water & Sanitation for Health Project, Arlington, Virginia, USA.

Van Wijk-Sijbesma, C. (1985). *Participation of women in water supply and sanitation*; Technical Paper Series no. 22. International Reference Centre for Community Water Supply and Sanitation, The Hague, The Netherlands.

Srinivasan Lyra,(1990),*Tools for Community Participation*, Manual for Training Trainers on participation, UNDP-PROWESS.

Perera, K.P.G.M.,(1989),*Effectiveness of the change agents programme for the rural poor*, NGO Liaison Unit, Ministry of Plan Implementation, Colombo.

Fernando, V., de Mel H.J.,(1985)*Development Conosortia in Sri Lanka. A Critical Examination of NGOs and NGO umbrella organisations*.

Janasaviya Trust Fund(1991), *Guidelines for Community Project Implementation*.

The World Bank (1991), *Sri Lanka Poverty Alleviation Project*, Staff Appraisal Report

Legislative Enactments of the Democratic Socialist Republic of Sri Lanka. Vol. VII.

