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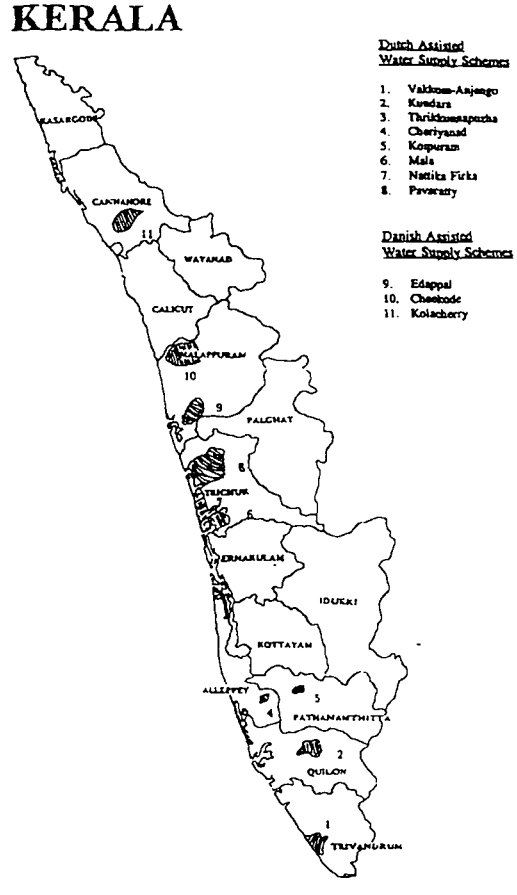

Introduction of a Consumer Oriented Approach to Rural Water Supply and Sanitation in Kerala, India

S. Karthikeyan Achary

M.Sc. Thesis E.E. 223

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IHE DELFT

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Master of Science Thesis

by

S. Karthikeyan Achary

Mentors
Ir. M. W. Blokland
Dr. Okke Braadbaart

Supervisor
Prof dr ir. G. J. F. R. Alaerts

Examiners
Dr. Frank de Zwart
Dr. Okke Braadbaart
Prof dr ir. G. J. F. R. Alaerts

International Institute for Infrastructural, Hydraulic and Environmental Engineering, The Netherlands

IHE DELFT

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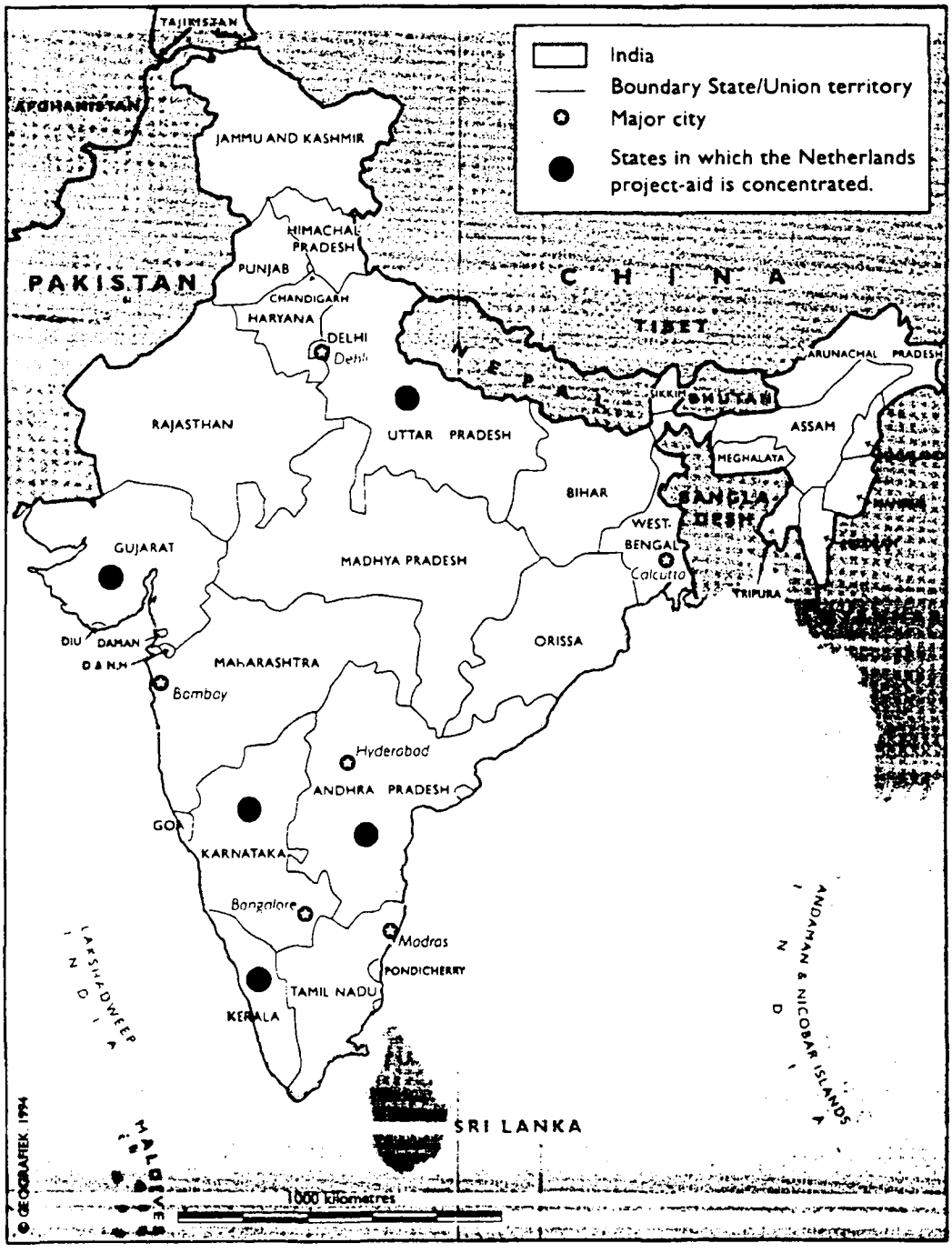
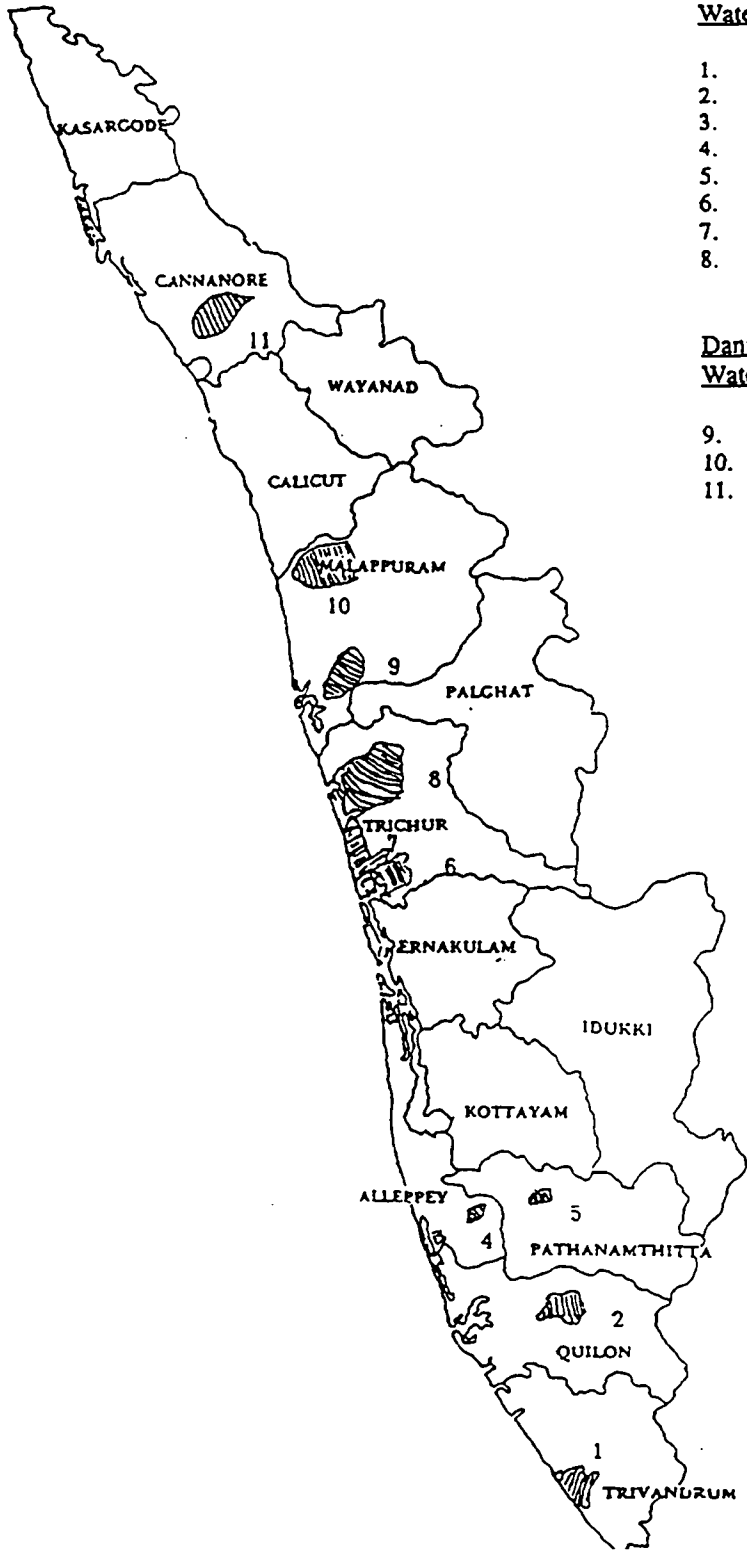
MAP OF INDIA



•Based upon Survey of India Outline Map printed in 1987.
•The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate baseline.
•The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act 1971, but has yet to be verified.
•Responsibility for correctness of internal details shown on the map rests with the publisher.

KERALA



Dutch Assisted
Water Supply Schemes

1. Vakkom-Anjengo
2. Kundara
3. Thrikkunnapuzha
4. Cheriyanad
5. Koipuram
6. Mala
7. Nattika Firka
8. Pavaratty

Danish Assisted
Water Supply Schemes

9. Edappal
10. Cheekode
11. Kolacherry

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S. Karthikeyan Achary
Delft
May 1996

Abstract

A Dutch and Danish assisted Rural Water Supply and Sanitation Project serving around two million people was started in Kerala State in 1987. One objective of the project was demonstration of the viability and efficiency of an integrated approach to Rural Water Supply and Sanitation comprising both hardware and active involvement of users in project planning and health and hygiene education. To this end Socio-Economic Units (SEUs) were set up. They experimented and implemented a number of innovative programmes on community participation, health education and sanitation.

The SEUs project attempted to stimulate a transfer of an integrated approach to Rural Water Supply and Sanitation to Kerala field organisations, in particular the Kerala Water Authority (KWA), the implementing agency for piped water supply and waste water disposal in the State.

This study analyzes the disappointing results achieved so far in transferring an integrated approach to KWA. Based on interviews with 48 KWA officials, 7 SEUs staff, 3 donors staff, 2 Kerala State politicians, 23 users and perusal of official documentation, it attempts to answer the question why neither the SEUs nor its integrated approach have been integrated into the KWA so far.

The study identifies the following main sources of failure:

a) Dutch-Danish project planners failed to actively involve KWA in the demonstration project; rather they focused exclusively on user communities.
b) The demonstration component of the project was subservient to the primary project goal, that is, supplying two million rural people with water and sanitation. This left insufficient time to build support in KWA for an integrated approach.
c) KWA staff was antagonistic to an integrated approach, which was alien to KWA project procedures.
d) SEUs were perceived by KWA staff to be troublemakers, intruders, and units operating in isolation.
e) KWA staff viewed SEUs integration as a threat: integration of SEUs into KWA might harm their career prospects.
f) KWA staff viewed higher pay and secondary benefits of SEUs staff with misgivings.
g) KWA staff tended to attribute higher success rate of Dutch-Danish pilot project to larger budgets rather than to the integrated approach followed.

The study traces most of the above causes of failure to the fact that the demonstration component was grafted onto a large-scale Rural Water Supply and Sanitation Project. The main recommendation of this study is that future attempts to transfer an integrated Water Supply and Sanitation approach to Kerala field organisations will be made in the form of a stand-alone project.

Contents

Abbreviations

Advisor	-SEUs-Advisor
AE	-Assistant Engineer
ALS	-Annual leave salary
AEE	-Assistant Executive Engineer
ARWSP	-Accelerated Rural Water Supply Programme
Authority	-Kerala Water Authority
BWSS	-Bore well water supply scheme
CE	-Chief Engineer
CDS	-Centre for Development Studies
Co-ordinator	-SEUs' Executive Co-ordinator
CPHEEO	-Central Public Health and Environmental Engineering Organisation
Crore	-10 millions
DA	-Dearness allowance
DANIDA	-Danish International Development Agency
Dfl	-Dutch Guilder 1 = US$ 0.58
DGIS	-Directorate General for International Cooperation
Dkk	-Danish Kroner 1 = US$ 0.17
EE	-Executive Engineer
ETC	-Consultants for Development Programmes Foundation
FO	-Field Organiser
FYP	-Five Year Plan
GDP	-Gross Domestic Product
GNP	-Gross National Product
GOI	-Government of India
GOK	-Government of Kerala
GWD	-Ground Water department
HRA	-House rent allowance
HUDCO	-Housing and Urban Development Corporation
ICDS	-Integrated Child Development Scheme
ISI	-Indian Standard Institute
IPD	-Investigation Planning and Design
IR	-Interim relief
JRM	-Joint Review Mission (Dutch-Danish)
KPSC	-Kerala State Public Service Commission
KSEB	-Kerala State Electricity Board
KSR	-Kerala Service Rules
KWA	-Kerala Water Authority
KWSS Act	-Kerala Water Supply and Sewerage Act 1986
Lakh	-0.1 million
LIC	-Life Insurance Corporation of India
MD	-Managing Director of the Kerala Water Authority

MNP	-Minimum Needs Programme
MA	-Medical allowance
NAP	-Netherlands Assisted Programme
NAPSU	-Netherlands Assisted Project Support Units
NGO	-Non-Governmental Organisation
PF	-Provident Fund
PHED	-Public Health Engineering Department
PS & GI	-Planning Services and General
PWC	-Panchayat Water Committee
PWD	-Public Works Department
RGNDWM	-Rajiv Gandhi National Drinking Water Mission
RM	-Review Mission
Rs	-Indian Rupees 1 = US$ 0.03
RW/S	-Rural Drinking Water Supply and Sanitation
RWSS	-Rural water supply scheme
SCs	-Scheduled Castes
SE	-Superintending Engineer
SEUs	-Socio-Economic Units
SPA	-Standpost Attendants
STs	-Scheduled Tribes
STA	-Danish Senior Technical Advisor
TLO	-Dutch Technical Liaison Officer
TWSS	-Tube well water supply scheme
UNICEF	-United Nations Children's Fund
UNDP	-United Nations Development Programme
UNICEF	-United Nations Children's Fund
WWC	-Ward Water Committee

Chapter 1

Introduction

One of the important lessons learnt in development projects during the 1960s and 1970s has been the benefit of involving the intended users of water and sanitation services in the planning, provision and, under certain circumstances, maintenance of those services. Provision of sustainable and effectively used water and sanitation services is not simply a matter of pumps, pipes and latrine. Sensitivity to and involvement of targeted users is crucial. First of all, users should be aware of the benefits of the service supplied. Achieving optimum health benefits from investments in water and sanitation depends on behavioral changes among the users. Therefore public awareness campaigns and health education programmes are important (UNDP, 1990).

Secondly, users should be able to participate in the planning and construction phases of projects targeted to meet their needs. Thirdly, management of infrastructure by user groups is, under certain circumstances, a viable and cost-friendly option. Obviously, all these facts indicate the need for an integrated approach (viz. social, economic and technical) to bring reliable and sustainable service to the poor especially in rural areas.

Over the past two decades, dissemination of user-oriented approaches to rural water supply and sanitation --known variously as community participation, community management, etc.-- has been an important priority of aid donors. However, their attempts to promote a transfer of user-oriented project planning and execution to developing country settings have met with varying success.

In India, formal recognition of the importance of user-oriented approaches only came in 1989 when it adopted the formation of water committees as a national policy guideline. Its recent Guidelines for Implementation of Rural Water Supply Schemes emphasize the need for Health Education and Community Participation & Women's involvement in planning, decision making, construction and operation & maintenance of drinking water supply schemes (Rajiv Gandhi National Drinking Water Mission, 1994).

These national guidelines are now beginning to have an impact at the regional (state) and local levels. For example, implementation of the Panchayat Raj Act took place in Kerala in Sept 1995 (73rd Constitutional Amendment Act 1992). As per this act the responsibility for water and sanitation are vested with the Panchayats (Local Self Governments in rural area). The idea is to give more power and responsibility to user communities with regard to the construction and maintenance of rural water supply schemes. Therefore the institutionalisation of integrated approach into implementing agencies (KWA, Panchayat Raj Institutions etc.) assumes greater significance in the ensuing Panchayat Raj scenario.

1.1 Rural Water Supply and Sanitation in Kerala state: problems

In Kerala state, the mandate for rural water supply and sanitation rests with the Kerala Water Authority (KWA), a semi-autonomous government organisation. The KWA came into existence on 1st April 1984 as per an Ordinance which was subsequently ratified by a State Act in 1986 (Kerala Water Supply and Sewerage Act 1986). With this act the erstwhile Public Health Engineering Department was converted into the present KWA. Its staff strength is around 8,000.

So far, according to KWA's estimates 44% of the rural population and 65% of the urban population have been provided with water supply (Economic review 1994). However the quantity and quality of the water supply is inadequate. According to a recent assessment, 39% of KWA's projects are problem schemes (Price Waterhouse 1994). In Kerala the coverage in rural sanitation is around 50%. Urban sanitation coverage is 82% (Price Waterhouse 1994). Awareness of the linkage between water, sanitation, hygiene and health is lacking, especially in poor communities. Outbreaks of water borne diseases are quite common especially during rain and summer. Gastro-intestinal diseases contribute to 10% of mortality in Medical College Hospital admissions (Price Waterhouse 1994).

1.2 Dutch and Danish involvement in Kerala water supply and sanitation

In Kerala, the Dutch (since 1988) and the Danish (since 1987) governments have provided assistance to implement an integrated rural water supply and environmental sanitation programme. One component of their assistance program have been the so-called Socio-Economic Units (SEUs). The SEUs have been intended as demonstration projects: they were meant to demonstrate the viability and effectiveness of a user-oriented project approach to the Kerala's local governments and the water utility, the KWA, in particular. The Kerala SEUs were established with the mandate to experiment and demonstrate the possibilities of garnering community initiatives (community participatory activities) for the implementation and management of rural drinking water and sanitation facilities. Three of such units were set up, each SEU consisting of around ten staff like community organiser, health educator, supporting staff etc., and were intended to work in liaison with KWA to further community participation and promote health education and sanitation in bilaterally assisted project areas.

1.3 SEUs as donor's showcase for user-oriented water supply and sanitation projects

The establishment of Socio Economic Units (SEUs) in the KWA was proposed by 1982 and 1984 Dutch-Danish Appraisal Missions. The SEUs were conceived as an essential software component to ensure an integrated approach to drinking water supply and sanitation. The purpose of the SEUs was to assist the KWA in reaching the objectives of the water supply

projects. The plan of operation for SEUs was prepared by a Dutch-Danish Mission in 1984 (Dutch-Danish Mission, 1984). According to the Mission SEUs would be jointly financed by The Netherlands and Denmark and would be integrated into the KWA within a three year period for the institutional sustainability of its activities. SEUs' this integration proposal was made a stated objective of the project.

The long-term objective of SEU's Socio-Economic (community participatory initiative) Programme was to improve health and living standards of the people. The immediate objectives of the project were, in partnership with the KWA, to:

a. integrate relevant socio-economic activities and methods into KWA's current programs for water supply (activities are improving population coverage, location of public stand posts with the help of the community, monitoring/ maintenance/ drainage around stand posts, fault reporting);

b. develop sustainable strategies which will, within the community and household
-contribute to improved hygiene/ health practices related to safe handling and use of water
-enhance sanitation practices and essential sanitary facilities (includes household and institutional latrines-with-education, environmental activities of local relevance);

c. strengthen/ establish mechanisms which enable people and their local institutions to plan and participate in activities related to water supply, sanitation and hygiene promotion and education. Particular emphasis will be paid to women's involvement (includes water committees, Standpost attendants, networking with other agencies/ NGOs, improving open wells and springs, monitoring activities, school health clubs, women's programmes) (SEUs 1991).

From 1987, SEUs launched innovative community participatory experiments and implemented a number of programmes in Dutch-Danish assisted project areas. Many of these were successful and contributed towards the promotion of health education, sanitation and community participation. Examples include the formation of ward water committees, selection & empowerment of public standpost attendants, site selection for public stand posts, obtaining free land for public stand posts, health education and sanitation campaigns, school health clubs, experimental cost recovery for public standposts, fault reporting by users etc. Household toilets were constructed with people's participation. They trained a number of women masons. Some of these activities were seen by local agencies as worthwhile and replicable, and were thought to provide solutions to some of the intractable problems facing the supplier of rural water and sanitation services, KWA.

1.4 Failed dissemination of SEUs activities to KWA

If the SEUs were successful in terms of village-level impact, they failed in another respect. Even though meanwhile eight years have passed since SEUs' inception, the KWA has not

shown any indication to integrate either the SEUs or SEUs' community participatory activities in its projects. In other words, although SEUs may be considered successful as a project implementing unit, it has not been able to fulfill its showcase function. This raises the important question of SEUs' long-run and structural impact on Kerala's rural water and sanitation situation.

1.5 Study objective and research question

Why have part of SEUs user-oriented activities, in spite of their apparently successful application in the Kerala's rural setting, not been incorporated in KWA procedures? The SEU experiment as a case of failed technology transfer is the subject of investigation of this study. Contrary to what was envisaged by the experts who conceptualised the SEUs project, so far there is no indication of integration of or a dissemination of any kind of SEU's community participatory activities into KWA's other projects. This failure in achieving a main project objective is a source of concern. As well it may offer an important learning experience. This study investigates the various obstacles which stood in the way of replication of SEU initiated community participatory activities in KWA's projects.

Stated differently the objective of the study is as follows:

> *To investigate the reasons why integration of SEUs as a working organisation or parts of its participatory approach to rural water supply and sanitation has not started taking place so far in the KWA.*

1.6 Hypotheses: possible sources of failure

At the outset of the study a number of possible causes of the unsuccessful transfer of SEUs activities are identified. These are as follows:

a) Communication problems
Communication between KWA and SEUs may have been deficient in nature, frequency or intensity affecting the integration objective.

In order to investigate this issue the study looked into how well SEUs' activities were documented and communicated to the KWA. It identified the various channels of communication, their nature, frequency etc. If not communicated, the study looked into the reasons thereof if any. If documented, how far KWA documented its reactions and fed them back to the SEUs for follow up.

b) Jurisdictional trespassing
In carrying out its field experiments, SEUs ventured onto the administrative territory of a number of agencies. These agencies may not agree with this trespassing and object to any action as well as to alternative procedures promoted by the trespassing organisation. The

SEUs operated on the territory of the KWA, health services, and the rural development department. Such dual control and duplicity of activities could have caused confusion and prolonged the decision on integration. This aspect was investigated only with regard to KWA: the subject of trespassing by SEUs was broached in interviews with KWA's staff.

c) Professional jealousy and conflict
There was possibility for conflict between different professionals of the KWA and the SEUs. More over there could be KWA staff's fears about career queue-jumping by SEUs' staff and these could block the integration process. The prevalence of such mentality was likewise assessed through interviews with KWA's staff.

d) Lack of co-operation of the KWA
The integration process could also have been affected by non co-operation on the part of the KWA officers due to lack of statutory mandate, resource constraints, institutional inertia etc. The study also examines whether the KWA was adequately involved in the beginning and planning stages of SEUs' activities and whether continued participation was given to the KWA. The persistence of such bottlenecks were assessed through interviews and perusal of official documents.

e) Attitude of the KWA staff
Also the personal attitude of KWA engineers versus SEUs personnel could have hampered the integration objective. The present research also assesses this aspect in interviews with KWA and SEUs officials exploring the rapport between the two agencies.

1.7 Relevance

The present study investigates the failed transfer of SEUs and/ or its activities into the body of KWA in Kerala state. As such it sheds light on the institutional obstacles to the adoption of participatory and similar user-oriented approaches to rural water supply and sanitation in India.

The Kerala experience can provide important lessons for those directly concerned as well as for other areas experiencing similar transitions in their rural water supply programs.

1.8 Research Methodology

The following data sources were used as basis for the study. First, interviews were conducted over a three months period with various stakeholders. Second, official documentation regarding SEUs and KWA on the relevant aspects were collected and analysed. Third, the author as KWA official drew on 24 years of experience in the KWA environment.

a) Interviews
A total number of 83 interviews were conducted between October 1995 and January 1996. 48 KWA officials, 7 SEUs staff, 3 aid donor staff, 2 Kerala state politicians, and 23 rural users in Kerala were interviewed on various aspects of the integration issue.

b) Secondary data
A literature search for secondary data was conducted. This covered the background of SEUs' inception, objectives, activities, achievements, its documentation, communication and interaction channels with the KWA, assessments, evaluations, feedbacks, improvements etc.

Records were collected at IHE, in KWA's Head Office at Thiruvananthapuram, three KWA Regional offices at Thiruvanathapuram, Kochi and Kozhikode, Circle Offices at Thiruvananthapuram, Kollam, Thrissur, Kozhikode and Kannur, Division Offices at Thiruvananthapuram, Thrissur, Edapal, and Kannur. Furthermore, an investigation was carried out in SEU's Co-ordinating Office at Thiruvananthapuram and in SEU's three regional offices in Kollam, Thrissur and Kozhikode.

Documents collected included correspondences, letters, files, reviews/ evaluation reports, papers, journals, minutes, speeches, pamphlets, publications etc.

Data collected on SEUs in particular included SEU's various activities from the beginning, its evaluation, review, feed back etc. Details of it's organisational structure, staff strength, qualifications etc. Tasks, duties and responsibilities of staff, methods of communication within and outside the agency. Salary structure, motivation and incentives and system of staff postings, logistics and budgets. Details collected from the KWA were similar to those of the SEUs mentioned above, and collection has been by record searching.

c) Personal experience
The Author has 24 years service in the KWA. He entered the KWA's service in 1972 as Assistant Engineer and passed through the positions of Assistant Executive Engineer and Executive Engineer in 1977 and 1989 respectively and continues at the position of the Executive Engineer on the present date. He has experience on both construction and operation & maintenance of KWA's water supply schemes. The Author has also worked in SEUs related project for one and a half years at the position of Executive Engineer. The Author's genuine experience in the KWA organisation as well as with the SEUs has guided the present study.

Chapter 2

Kerala State: Administration & Socio-Economic structure

This chapter presents a brief description of the system of Government in India and India's socio-economic features; then an outline of the organisation of administrative and development departments under the Kerala State Government. It also highlights the water supply and sanitation sector organisations. Finally it gives a view of the socio-economic features of Kerala State.

2.1 The Indian administrative structure: national level

India has a geographical area of 3.3 million sq km and a population of 920 million, 2nd largest in the world. The Republic of India has a federal structure with parliamentary form of Government. The Indian Union consists of 25 States and seven Union Territories. The President of India is elected through the system of representative votes by the members of Union Parliament and State Legislative Assemblies. The leader of the major political party of the Lower House (Lok Sabha[1]) of the Union Parliament is appointed as the Prime Minister of India by the President.

The various states of the Indian Union are ruled by the respective Governors who are appointed by the President. In their administration, the Governors are advised by their respective Chief Ministers. The leader of the political party, having majority in the State Legislative Assembly[2] is appointed as the Chief Minister[3] by the Governor. Head Quarters of the State Government is called the State Government Secretariat

As per the Indian Constitution, Functions of the Governments are divided between the Centre and State as (1) Central List, (2) State List and (3) Concurrent List (handled by both the Centre and the States). Important functions of national interest such as, Defence, Foreign Affairs, Atomic Energy etc. are reserved in the Central List. Functions like, Health, Public Works, Rural Development, Water Supply & Sanitation, Police etc. come in the State List. In the case of concurrent list, both centre and states have simultaneous jurisdiction.

[1]Lok Sabha has 543 democratically elected members.

[2]Kerala Legislative Assembly has 140 democratically elected members.

[3]Other Ministers are appointed by the Governor on the advice of the Chief Minister. In the recent past Kerala's Cabinet had 19 Ministers.

2.2 India's Socio-Economic features

Most Indians subscribe to the Hindu religion (around 83%), but there are Muslim (10%), Christian (3%), Sikh (2%), and Buddhist (1%) minorities, in addition to other significant groupings such as the Parsees and Jains (Operations Review Unit 1994).

India is considered "a low income economy" with a GDP/ capita of US$ 350 in 1990. About 40% live below poverty line. Life expectancy 59 years, average schooling 2.4 years, adult literacy rate 48% together classify India as a low human development country (Operations Review Unit 1994).

Net domestic product at current prices in 1993-94 was estimated at Rs[4] 607,603 crores[5] (Economic review 1994). India's debt liability is expected to cross the Rs 5 lakhs[6] crore mark by March 1995. Interest payment alone would constitute 32% of government's total receipts. This causes concern, despite the fact that a good part of the liability is long term credit (Economic Review 1994).

Although India is a very poor country, it is a major industrial power ranking among the top 20 in the world. The shares of the three major economic sectors are roughly: agriculture 30%, industry 30%, and services 40%. Economic growth has brought prosperity to roughly 150 million middle class. It is painfully obvious that many millions more live in abysmal poverty. Due to population pressure and inequitable distribution of assets, the gap between the haves and the havenots continues to grow (Operations Review Unit 1994).

2.3 Kerala State

a) Population, settlement pattern, topography

Kerala is one of the 25 States of the Indian Union, situated at the south-west coastal belt of the Indian sub-continent. It falls in the humid-tropic region of the Western ghats of the Indian sub-continent. This is an industrially and economically backward area. There are 29.1 million people living in an area of 38,863 sq km. Population density is 749 people per sq km. People mainly belong to Hinduism, Christianity and Islam. Within the religions there exist several classes, casts and sub casts. Settlement pattern gives an even distribution in towns and villages over the entire state. There is little variation between urban and rural areas in key parameters such as density of population, economic disparities, attitudes and values. The nature of urbanisation is an urban rural continuum. Between communities and within the communities considerable disparity can be seen in household income levels.

[4]Rs 1 = US$ 0.03

[5]Crores 1 = 10 millions

[6]Lakh 1 = 0.1 million

The land slopes from east to west towards the Arabian Sea. Top soil consists predominantly of gravel and laterite at varying shallow depths. Below that is hard Granite. The average annual rainfall is 3,047 mm. Most of the rainfall occurs during 4 to 5 Monsoon months between June and November. Summer months are almost dry.

b) Water scarcity

There are 41 small and medium westward flowing monsoon-fed rivers. Because of the steep slope and poor soil transmissivity, most of the rain water runs off to the sea within a few days after the rain. Every year, during Monsoon, these rivers cause severe floods and destruction. Most of them dry out during the summer which extends for about six months. Floods and drought occur alternatively in every year. In this humid tropic region the average temperature is between 25 and 32 degree Centigrade.

Ground water potential is very bleak. There is severe shortage of water for drinking, agriculture, industry and other uses. The plight for drinking water during summer is quite distressing.

c) Income, prices, poverty

Per capita state income during 1993-94 was Rs. 6,000. The per capita national income was Rs 6840. State, income in 1993-94 at current prices was Rs 18,133 crores. The contribution by agriculture sector is 40%, industrial sector 23% and service sector 37%. Main agricultural products are rubber, coconut, cashew, pepper, ginger, spices, paddy etc. The consumer price index (cost of living index) a broad indicator of inflationary trend rose by 12% in 1994 compared to 8.3% in 1993 (Economic Review 1994).

d) Unemployment

Unemployment and under employment rates are very high. There are about four million (14%) job seekers in the registers of employment exchanges. Job opportunities are very limited in agriculture, industries, business etc. Many people are forced to seek employment outside the state and outside the country (especially in the gulf region). A considerable percentage of the population (32%) fall below the poverty line (Economic Review 1994).

e) Communication

Kerala has a total road length of 139,000 kms and 1,198 kms railway line, but the quality of roads and train service is far from satisfactory. Injuries in road accidents were 44,876 nos in 1993. Number of deaths in road accidents were 2264 during the same year. There are three airports in the state. Kerala has a major sea port and a few minor ports (Economic Review 1994).

f) Literacy, health water and sanitation

General literacy rate is 90%. The population growth during the last decade was 14%. Life expectancy at birth is 69 and 72 for men and women respectively. The birth rate is 17 and death rate is 6 per 1000. Infant mortality rate in Kerala is 13 per 1,000 while the all India average is 79 per 1,000 (Economic review 1994)

People's awareness about the linkage between health and hygiene and safe water and

sanitation is quite lacking, especially in poor communities. So far 44% of rural population (total rural population is 214.18 lakhs) and 65% of the urban population (total urban population is 76.76 lakhs) are provided with drinking water. Overall coverage is 48%. Regarding sanitation, 52% of the 55 lakh houses (i e. 29 lakh houses) are without any latrinal facilities (Economic Review 1994).

Outbreak of waterborne diseases are common during summer and rainy seasons. Gastro-intestinal diseases contribute to 10% mortality in medical college hospital admissions.(Price Waterhouse 1994). The attack and death rates of waterborne diseases are given in the following Table no 1

Table no 1: Statement of attacks and deaths due to Principal water borne diseases during 19933 & 1994

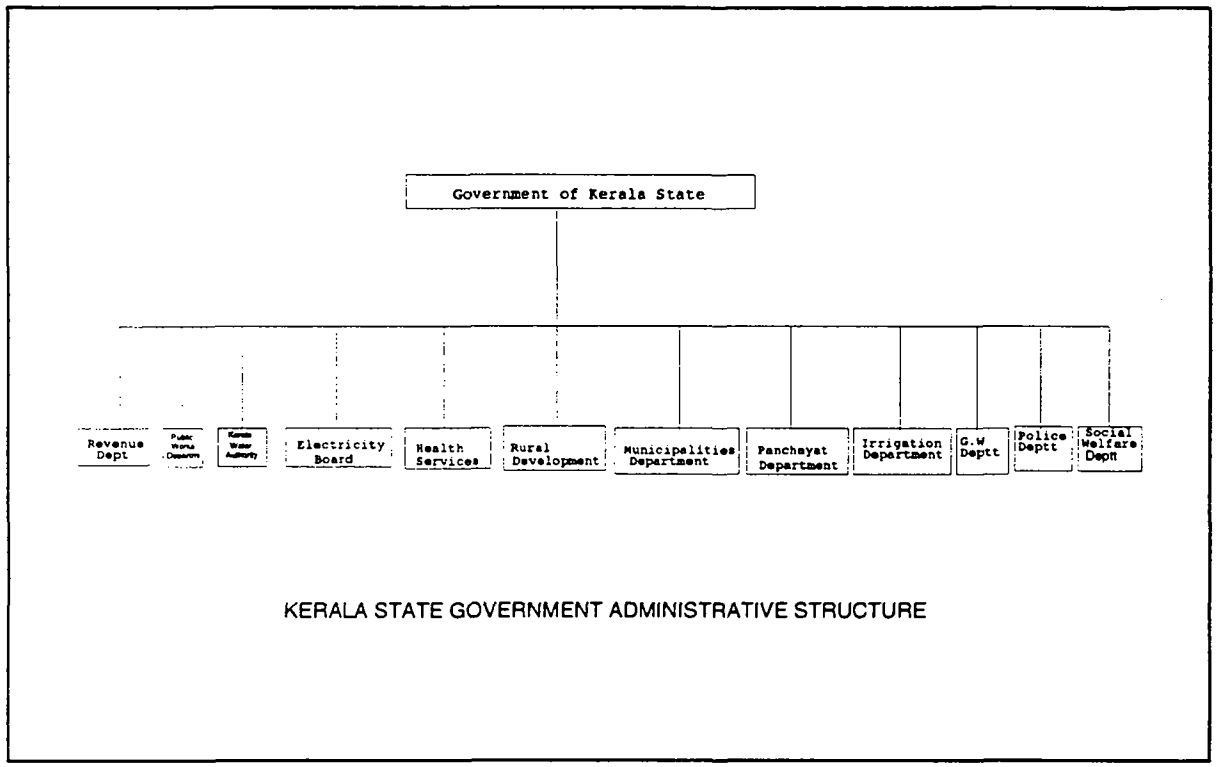
Sl. No	Diseases	1993		1994	
		Attacks	Deaths	Attacks	Deaths
1.	Diphtheria	52	7	35	2
2.	Dysentery	744794	51	801646	58
3.	Polio myelitis	91	2	48	1
4.	Enteric fever	11224	3	10285	5
5.	Infective hepatitis	9099	10	9979	9
6.	Acute respiratory infection	2647301	134	2447666	80

Source: Economic Review 1994. State Planning Board, Government of Kerala

2.4 The Government of Kerala State

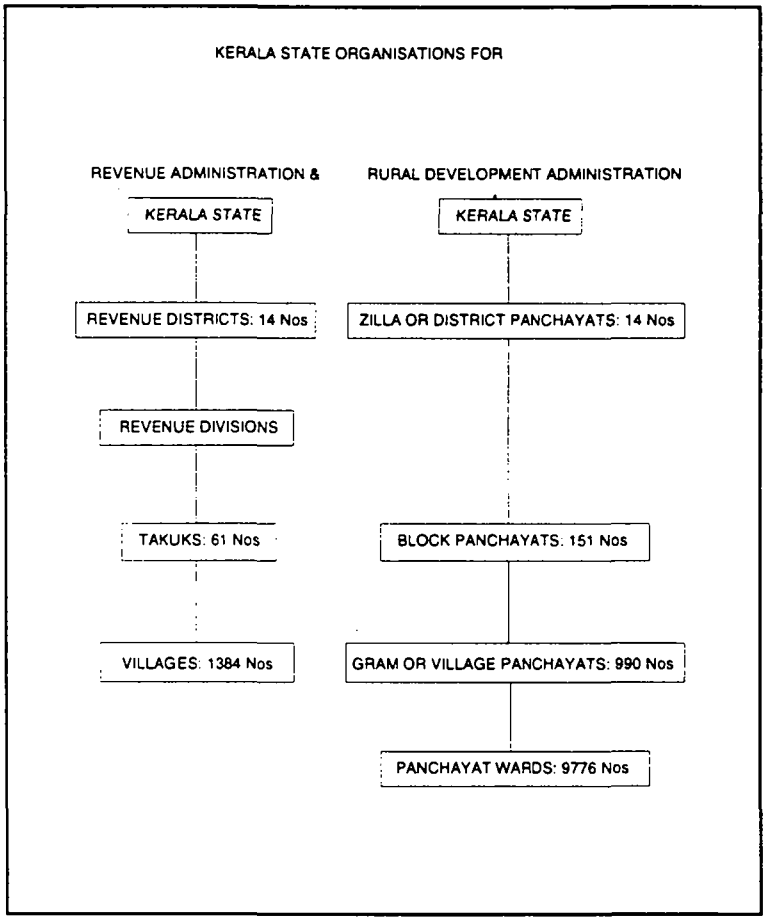
Kerala is one of the 25 States in India. For administrative purpose State Government's functions are further divided among various Departments and Agencies such as, Revenue, Health Services, Public Works (PWD), Irrigation, Agriculture Rural Development, Kerala Water Authority (KWA), Kerala State Electricity Board (KSEB), Panchayats, Municipalities, Police etc. The set-up of Departments under the Kerala State Government is shown in Figure no 1.

Figure no 1: shows Kerala State administrative structure.



Each major Department of the State Secretariat is headed by a Secretary (usually an officer of the Indian Administrative Service, popularly known as the IAS) and a Minister. Within the Departments and Agencies, the functional levels are identified as; (1) State level, (2) District level (3) Taluk or Block level and (4) Village or Panchayat level. The broad state wide set-up of two typical departments viz. (1) the Revenue Department and (2) the Rural Development is illustrated in Figure no 2.

Figure no 2



2.5 Water supply and sanitation sector related organisations

a) Revenue Department

For the administration of revenue and law & order the State is territorially divided into 14 Revenue Districts (each District covers approximately two million population). These Revenue Districts are divided into number of Revenue Divisions, then again into 61 Taluks, and finally into 1384 Villages. The District Administration is headed by the District Collector (senior government officer), the Revenue Division by the Revenue Divisional Officer (government officer), the Taluk by the Thasildar (government officer) and the Village by the Village Officer (government officer).

The District Collector coordinates the activities of all Departments and Agencies, especially development departments, within the territorial jurisdiction of the District.

b) Rural Development Department
For the purpose of administering Rural & Community Development activities, the whole state is divided into 14 District level territorial units called Districts or Zilla Panchayats. Below that there are 151 Subdistrict units known as the Block Panchayats. These Block Pachayats are sub-divided into 990 Village or Gram Panchayats. This three tier system of Rural Development Administration is popularly known as the "Panchayat Raj System". At each level, functions of these units are managed and administered by democratically elected bodies. Their major activities include development of agriculture, improvement of communication and irrigation facilities, development of traditional drinking water sources like open dug wells, rural water supply, sanitation, literacy campaign, income generating activities etc. The sources of income for village panchayats are taxes like property tax, house tax, professional tax, registration tax, entertainment tax, and some government grants.

c) Health services
The State Health Services Department is responsible for the Public Health Administration, Primary Health Care Services, Family Welfare Services, Integrated Child Development Scheme (ICDS), Control of Communicable Diseases, Health Education etc. At the state level it is headed by the Director of Health Services, at the District level by the District Medical Officer of Health and at the local (Panchayat level) by the Primary Health Centre.

d) Agency for piped water supply and waste water disposal service
The Kerala Water Authority (KWA) is the exclusive semi-autonomous government agency responsible for the drinking water supply and waste water disposal activities in the entire Kerala State. Activities like development of traditional water sources, local sanitation, community participation, health education etc. do not come under KWA's purview. Solid waste disposal, environmental sanitation, low cost sanitation etc. are handled by local bodies organisations like Municipalities and Panchayats.

2.6 Conclusions

To sum up, the Republic of India has a federal structure with a parliamentary form of government. It consists of 25 States and 7 Union Territories. India's population is 920 million spread over 3.3 million sq km. Functions of the governments are divided between the Centre and the States. Subjects of national interests like defence, foreign affairs, posts & telegraphs, atomic energy etc. are held by the national government. State governments have responsibility for agriculture, industry, irrigation, communication, rural development, police, health, drinking water, sanitation etc.

India is a "low income country" encumbered by heavy debt burden. 40% of the people live below the poverty line with a very low human development index. Within India, Kerala is one of the industrially and economically backward states. In Kerala, population density is 749 per

sq km. The percentage of people living below the poverty line is 32. The per capita state income is less than the national average despite its high literacy rate. Registered unemployed is 14%. Many people find employment outside the state and outside the country.

In spite of its high rainfall, Kerala faces acute water scarcity during summer season because of the uneven distribution of the rains and adverse nature of its topography. Water scarcity is severe during summer especially for drinking water. Rural people mainly depend on open dug wells for their domestic water needs. However, rural piped water supply coverage is officially claimed as 44%. There is high incidence of water borne diseases.

Piped sewerage in urban area is very negligible and systematic sewage disposal facilities are still limited. In Kerala, 52% (50% rural and 18% urban) of the households (2.9 million) are without latrinal facilities. This percentage is likely to increase since the annual additional coverage is less than the population growth.

Chapter 3

The Kerala Water Authority: Functions and Performance

Introduction

This chapter starts with a short description of the history of the Kerala Water Authority (KWA), the constitution of its Board of Directors, its functions, finances and the internal organisational set up. Then it presents the physical and financial (both quantitative) aspects of water supply schemes under operation and maintenance as well as ongoing capital projects including Externally Supported Projects. Finally it discusses the KWA's performance on operation & maintenance as well as on capital projects both qualitative and financial on the basis of the findings of a recent organisational review study.

3.1 Constitution and mandate of the Kerala Water Authority

3.1.1 History of the KWA

In Kerala, till the mid-1950s, the State Public Works Department (PWD) was looking after the water supply and sewage disposal services. In 1956, for administrative convenience, the State Public Health Engineering Department (PHED) was formed after bifurcating the PWD, to attend exclusively to the construction and maintenance of water supply and waste water disposal facilities. Later, in the beginning of the 1980s, it was considered necessary to establish an autonomous organisation for the efficient development and regulation of water supply and waste water collection and disposal systems.

Accordingly, the present Kerala Water Authority (KWA), a semi-autonomous government organisation exclusively responsible for water supply and sanitation in the whole state of Kerala, came into existence on 1st April 1984, as per an Ordinance which was subsequently ratified by a state act in 1986, viz. the Kerala Water Supply and Sewerage Act 1986 (KWSS Act). With this Act the erstwhile Public Health Engineering Department was converted into the present KWA.

The KWA was established by vesting the properties and assets of the erstwhile PHED under section 16 of the act and the assets, rights and liabilities of the local bodies and the Kerala State Rural Development Board in so far as they pertained to the execution of water supply and sewerage schemes, under section 18 of the act.

3.1.2 Constitution of the KWA as per the KWSS Act 1986

The Authority's (KWA's) Director Board[1] has eleven members, listed below, who serve three year terms.

* A Chairman appointed by the government
* A Managing Director, experienced in management and administration or a qualified Chief Engineer
* Secretary, water supply, ex-officio
* Finance secretary; ex-officio
* Secretary, local administration; ex-officio
* Secretary, development; ex-officio
* Two members representing the local bodies, appointed by the government
* A member belonging to the scheduled caste or scheduled tribe; appointed by the government
* A technical member, who shall not be below the rank of a Chief Engineer; appointed by government
* A finance member

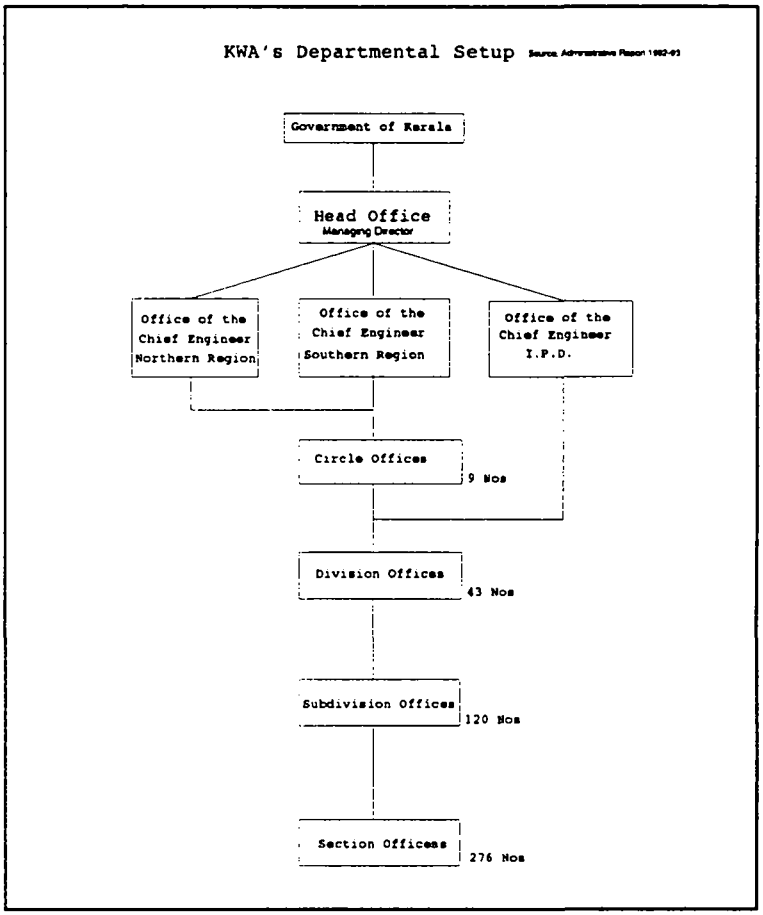
In the Board of Directors, the four government secretaries represent the interest of the government, while the local body's members represent the interest of the local bodies such as municipalities and panchayats and the scheduled caste member represents the interest of their communities.

Under the Managing Director (MD), there is a large hierarchical system of engineers such as Chief Engineers (CE), Superintending Engineers[2] (SE), Executive Engineers (EE), Assistant Executive Engineers (AEE), Assistant Engineers (AE) and several categories of lower subordinate staff such as overseers, pump operators, drivers and finance & account staff. During 1994-95, KWA had 8156 employees on its payroll (Annual Budget 1994-95). The broad hierarchical set up of engineers in the KWA is shown in figure no 1. The hierarchical set up of staff at MD's Office is shown in figure no 2.

[1]KWA's Director Board meets monthly to take important decisions

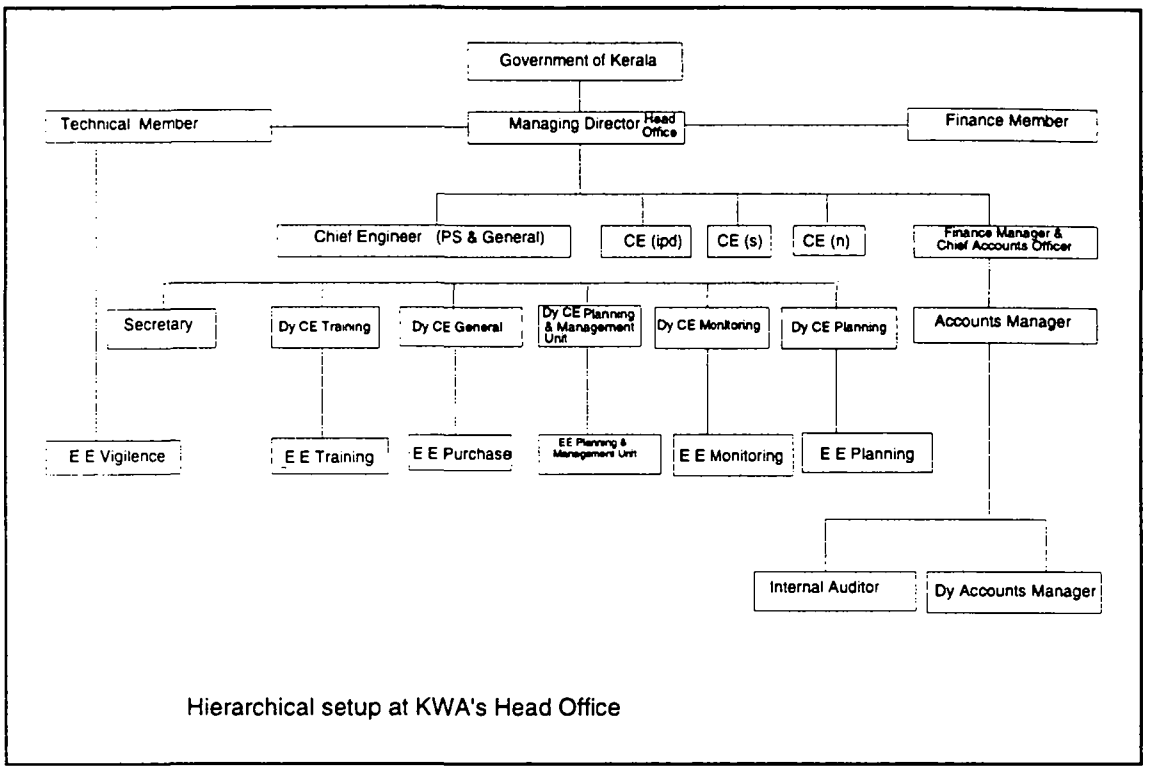
[2]Superintending Engineers (SEs) are also called Deputy Chief Engineers (Dy CE)

Figure no 1



Source:: Administrative Report 1992-93

Figure no 2



Hierarchical setup at KWA's Head Office

Source: Administrative report 1992-93

3.1.3 Functions, powers, and finances of the KWA as per the KWSS Act 1986.

Following are the functions of the KWA, as per the Kerala Water Supply and Sewerage Act 1986.

* preparation, execution, promotion maintenance and financing of schemes for the supply of water and for the disposal of waste water

* preparation of state plan for water supply and collection and disposal of waste water on the direction of government

* rendering all necessary services with regard to water supply and collection and disposal of waste water to the government and on request to institutions and individuals

* fixation and revision of tariffs, taxes and charges of water supply and maintenance

services in the areas covered by the water supply and waste water systems of the Authority

* establishment of state standards for water supply and sewerage services

* carry out applied research for the efficient discharge of the functions of the authority

* assessment of the requirements for man power and training in relation to water supply and sewerage services in the state

* making provisions for the supply of wholesome water and efficient sewerage services to the people in the state

Powers of the Authority are mainly the following:

* to lay down schedule of fees for all services rendered by the Authority to the government, local bodies, institutions or individuals, to fix or amend tariffs and charges for water supply and sewerage services and collect all such fees and charges for these services as may be prescribed.

Provided that any revision of tariffs and charges of water supply and sewerage services shall be made only with the previous approval of government.

* to enter into contract or agreement with any person, firm or institution as the Authority may deem necessary for performing its functions under this Act

  provided that any contract or agreement involving more than Rupees one crore shall be entered into by the Authority only with the previous approval of the government

* to adopt its own budget annually subject to the previous approval of the government

* to abstract water for drinking purpose from any natural source and with the permission of government for other purpose and disposal of waste water

* to borrow money, issue debentures, obtain subventions, capital contributions, loans and grants, to incur expenditures and manage its own funds.

* grant loans and advances to such persons or authorities as the Authority may deem necessary for performing its functions

* to acquire, possess and hold lands and other property and carry any water or sewerage work through, across, over, or under any highway, road street or place and, after reasonable notice in writing to the owner or occupier, into, through, over or under any building or land

* to accept gifts in kind and in cash with the previous approval of the government.

General principles of Authority's finance

"Authority shall not as far as practicable and after taking credit for any grants or subventions or capital contributions, carry on its operations under this act at a loss and shall so fix and adjust its rates of taxes and charges under this act as to enable it to meet as soon as feasible the cost of its operation maintenance and debt service and where practical to achieve an economic return on its fixed assets"

Grants, subventions, capital contributions and loans to the authority

The govt may, after due appropriation by law of the state legislature, from time to time make grants, subventions, capital contributions and advance loans to the Authority for the purposes of this Act on such terms and conditions as the government may determine.

Power of the Authority to borrow

Not withstanding anything contained in any law for the time being in force under which any local body is constituted, the Authority shall with effect from the date of its establishment be the only local Authority authorised to borrow any some of money for water supply and sewerage works.

Depreciation Reserve

The Authority shall create a depreciation reserve and make annual provisions thereof in accordance with such principles as may be prescribed.

Guarantee for loans

government may guarantee the repayment of any loan and payment of interest on all loans made or transferred to the Authority for the purpose of this Act.

Estimates of income and expenditure

The Authority shall before the commencement of, and may at any time during, a financial year prepare a statement or supplementary statement, as the case may be, of the programme of its activities during the year as well as a financial estimate in respect thereof and the same shall be submitted in such manner, in such form and by such dates as the government may, by general or special order, direct, for the previous approval of government.

Accounts and audit

The Authority shall cause to be maintained such books of accounts and other books in relation to its accounts and prepare an annual statement of accounts and balance sheets in such form in such manner as the regulation may require.

The accounts of the Authority shall be audited by such auditor, in such manner and at such time as the government may by general or special order, direct and the auditor so appointed shall have such powers of requiring the production of documents and the furnishing of information respecting such matters, and shall have powers in respect of disallowance and surcharge as may be prescribed.

Taxes, fees and charges

Cost of water

The Authority shall by notification in the Gazette, fix the cost of water to be supplied by it according to volume and also the minimum cost to be charged in respect of each connection.

Cost of collection and disposal of waste water

The Authority shall by notification in the Gazette, fix the cost of collection and disposal of waste water according to its volume, which shall be such percentage of the volume of total water supplied to the consumer as may be prescribed and also the minimum cost to be charged in respect of such collection and disposal

Recovery of taxes, fees and other sums due

Any sum due to the Authority on account of any tax, fee, cost of water, cost of collection and disposal of waste water, meter rent, penalty, damage or surcharge under this act shall be recovered as arrears of land revenue.

Nothing in the above sub-section shall affect the power of the Authority to cut off in accordance with the regulations the connection of water supply in the event of non payment by the consumer of any dues referred to in that sub-section. (KWSS Act 1986)

3.2 Internal Organisational set up and Engineering activities

3.2.1 KWA's Engineering Hierarchy

a) The managing Director

Kerala Water Authority has its Head Office situated at Jal Bhavan, in Thiruvananthapuram (capital city of Kerala State), headed by the Managing Director. The Managing Director (MD) is responsible to and reports directly to the State Government. The MD has powers to accord administrative sanctions up to Rs 15 lakhs and to accept tenders for works up to 50% above estimate rates. MD has unlimited monetary powers for accepting tenders provided those costing more than Rs one crore get government approval. MD can transfer all categories of staff.

b) The Chief Engineers in regions

Immediately under the managing director there are two regional Chief Engineers. The Chief Engineer southern region (CEs) is responsible for the construction and operation & maintenance of water supply schemes and sewerage schemes in the seven southern districts and has his Head Quarters at Thiruvananthapuram. Similarly the Chief Engineer northern region (CEn) is responsible for such activities in seven northern districts and has the Head Quarters at Kozhikode (in northern Kerala). The third Chief Engineer (CE, IPD), is responsible for investigation, planning and engineering design & reports of projects in all the 14 districts and is located at Kochi (in central Kerala). A fourth Chief Engineer for planning services and general (CE, PS & GL) is at KWA' Head Office, for immediate assistance to the MD. The regional Chief Engineers and the CE, IPD are responsible to and report directly to the MD. The CEs can accord administrative sanctions up to Rs 10 lakhs and accept tenders for works up to 35% above estimate rates. CEs have unlimited monetary powers for accepting tenders provided those costing more than Rs one crore must get government approval. CEs can transfer staff up to the level of AEEs.

c) The Superintending Engineers in Circle Offices

The administrative unit of the KWA is the Circle in charge of the Superintending Engineer (SE). The Territorial jurisdiction of the Circle ranges between one to three districts depending up on the volume of work load. The SEs are responsible for the quality of works within his jurisdiction. The SE can accord administrative sanction for works up to Rs 4 lakhs and accept tenders for works up to 25% above estimate rates and up to Rs 20 lakhs. There are five Circles under the southern region and four Circles under the northern region. Head Quarters of the Circles are located within its jurisdiction. The SEs are responsible and report to the CEs. SEs can transfer staff up to the level of AEEs within his jurisdiction.

d) The Executive Engineers in Division Offices

The executive unit of the KWA is the Division in charge of the Executive Engineer (EE). The

Jurisdictions of EEs are determined on the basis of territorial extent or on the volume of project works. Thus, EEs have jurisdiction over full or part of a District or over particular project. The EEs are responsible for construction and maintenance of water supply schemes as well as sewerage schemes. There are 19 EEs under southern region and 15 EEs under northern region. EEs have powers for administrative sanction unto Rs 2 lakhs and tender acceptance up to 15% above estimate rates and up to Rs 5 lakhs. Payments for works and supplies are made within the Division level and accounts are compiled and submitted to the Head Office. Head Quarters of the Divisions are always located within its jurisdiction. The EEs are responsible to and report to the SEs. EEs can transfer staff unto the level of AEs within his jurisdiction. EEs and above are at the level of Senior Managers.

The activities of the KWA is centred around the divisions. There are five types of divisions apart from stock verification unit and vigilance unit. Their functions are narrated below.

1. Territorial division	Construction and operation and maintenance of urban and rural water supply schemes.
2. Drainage division	Sewerage schemes execution and maintenance
3. I.P.D. division	Investigation, planning, design and preparation of project reports for various urban and rural water supply schemes
4. Mechanical division	In charge of mechanical workshops drilling operations and central stores
5. Quality monitoring division	Monitoring of the water quality of schemes in the whole state
6. Stock verification	There are two stock verification subdivisions . They are in charge of verification of stores in the southern and northern regions
7.Vigilance wing	There is a vigilance wing consisting of one Executive Engineer and two Assistant Executive Engineers functioning under the technical member (Administrative Report 1992-93).

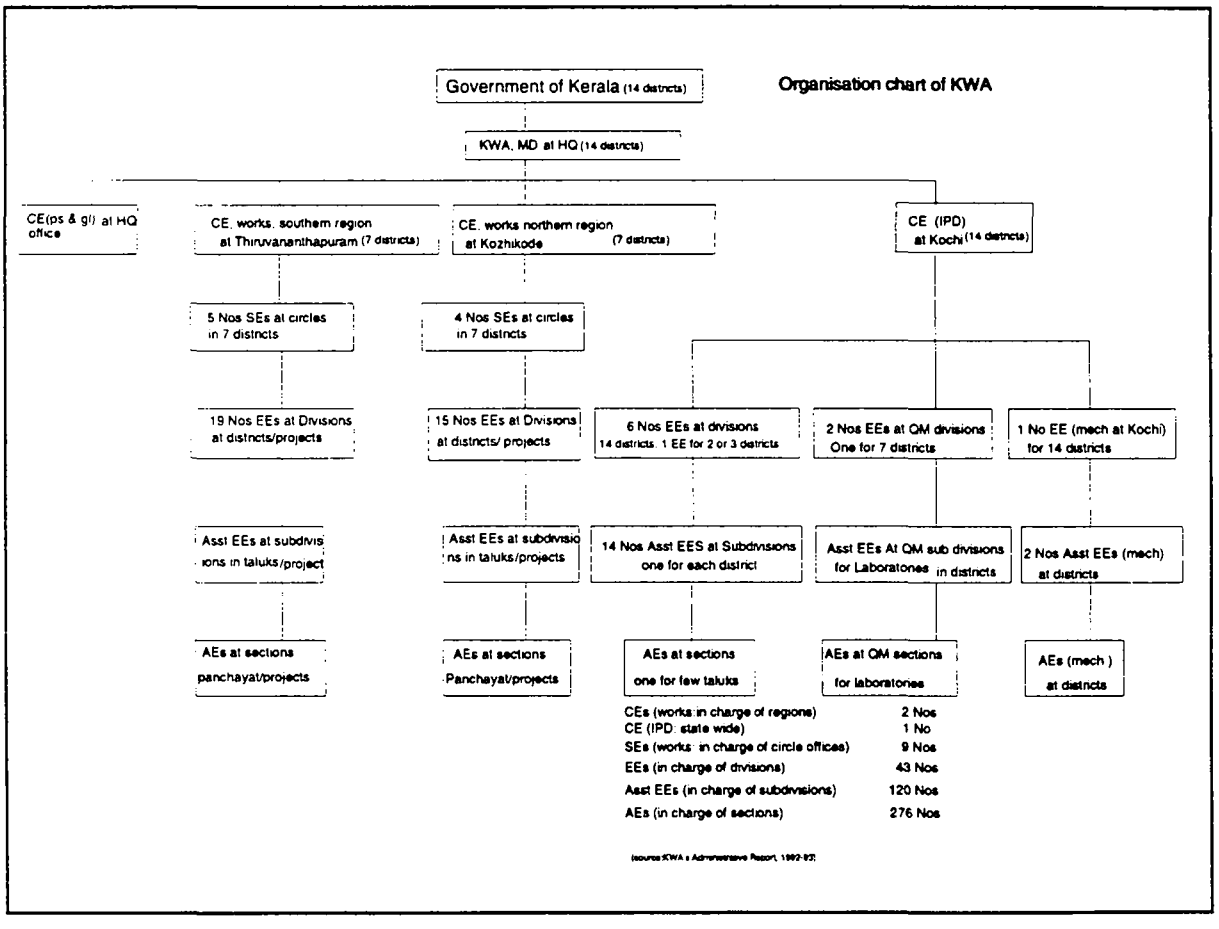
e) The Assistant Executive Engineers in Subdivision offices

The EE is assisted in his areas of responsibilities by one or more Assistant Executive Engineerss (AEEs), who are in charge of subdivisions. The territorial jurisdiction of the Subdivisions depend on the extent of area or the volume of projects. Thus subdivisions have jurisdiction over part or more of a Taluk or part or more of a project. AEE has powers to accord administrative sanction up to Rs 20,000 and to accept tenders up to 10% above estimate rates and up to Rs 50,000. AEEs are responsible to and report to the respective EE. They are at the level of middle level managers.

f) The Assistant Engineers and Section offices

The AEE is assisted in his areas of responsibilities by one or more Assistant Engineers (AEs) in charge of sections. The AEs have jurisdiction over part or more of a Taluk or part or more of a project. They are at the lower-most level in the hierarchical set-up. Basic accounts of works and stores are originated in the section office. AEs hold immediate charges and responsibilities of work and maintenance. In that they are assisted by subordinates like oversears, pump operators, plumbers, drivers, peons and similar lower subordinate staff. Graduate Engineers are first appointed to this category. They are at the level of junior managers. A more detailed organogram of the KWA is shown in figure no 3.

Figure no 3 shows a detailed organogram of the KWA.



Source: Price Waterhouse 1994

3.2.2 KWA's Civil Engineering Preponderance

KWA has been carrying out all its engineering works by itself through its large contingent of engineers. Consultants are never engaged in the construction and maintenance field. Construction works of projects are tendered and awarded to private registered local contractors (often on the basis of lowest quoted rates) by the CEs and their subordinates following the Detailed Engineering Reports made by the IPD wing. Most of such local contractors executing important water supply schemes do not possess the required technical competence or technically skilled manpower even though the rules insist on such qualifications. Technicl supervision and quality monitoring of such construction works are often the responsibility of KWA's engineering staff. Consequently they have to shoulder a heavy work load. In many cases, the responsibility for supply of hardware materials such as pipes and fittings rests with the KWA and for that separate supply contracts are arranged.

KWA's engineering hierarchy consists mainly of civil engineers and a few mechanical engineers and very few electrical and chemical engineers. KWA does not have specialists of other disciplines like public relations, Health and Hygiene, Social Science Information Technology etc., but for one Principal Information officer was recently deputed to the MD's office from another government department. However, several specialist Finance Officers (Chartered Accountants) are recently employed in the account branch.

A part of the KWA's engineering hierarchy constitute an Investigation Planning and Design (IPD) branch (wing). It identifies and prepares engineering project reports for water supply and sewerage schemes throughout Kerala State. Consultants are rarely employed for such works except in a few recent instances

3.2.3 Activities of the Investigation planning and design wing

KWA's investigation planning and design (IPD) wing is responsible for identification, formulation, planning and preparation of technically detailed engineering reports for water supply and sewerage schemes. The CE (IPD), together with his 6 EEs, 14 AEEs and their AEs prepare Detailed Engineering Project Reports. Such a separate wing under the responsibility of a Chief Engineer (CE, IPD) with state wide jurisdiction was formed in 1988. There are six IPD divisions working throughout the state. Under the CE (IPD) there are no Circle Offices or SEs.

Engineering reports are prepared in two stages. In the first stage, preliminary engineering report with an investigation estimate is prepared. After its approval, engineering survey and preparation of the detailed engineering reports are carried out. On the basis of such Detailed Engineering Reports, the regional CEs start their execution works after obtaining necessary funds and Administrative Sanctions.

Table no 1, below gives the number of engineering project reports prepared by IPD wing during the year 1992-93

Table no 1: Achievements of the I.P.D. wing during the year 1992-93

Sl No	Name of divisions	Preliminary engineering report		Detailed engineering report	
		Target	Achievements	Target	Achievements
1.	Thiruvananthapuram	5	1	10	2
2.	Changanassery	3	-	18	2
3.	Kochi	3	1	14	3
4.	Shornur	10	9	16	6
5.	Malappuram	8	1	5	1
6.	Thalassery	-	2	-	8
7.	(Outside plan)	3	1	15	4
	Total	32	15	78	26

Source: Administrative Report 1992-93

3.2.4 Quality monitoring activities:

There are two quality monitoring divisions attached to the IPD wing. Under which there are three regional laboratories at (1) Thiruvananthapuram, (2) Aluva, and (3) Kozhikode.They are performing the surveillance monitoring of the drinking water supplied by the KWA. Recently, with Dutch assistance, one district level laboratory and two subdistrict level laboratories are being set up in Thrissur district for regular water quality testing and monitoring as a pilot project. The IPD wing prepares half yearly and annual reports on monitoring and submits with recommendations to KWA's MD and Chairman. IPD wing also monitors the dosages and quality of chemicals used for water treatment.

3.2.5 Section level committees

With a view to resolve people's complaints and problems connected with water supply, three years ago, there started a system of section level committees in the KWA. In which, section level committees are constituted in each water supply section with the concerned AE as the convener and the President/ Chairman/ Mayor of the local bodies as well as the members representing the units of Panchayat Raj organisations in its jurisdiction, to discuss and resolve the problems related to water supply. The committees meet at least once in every month in the section office or in the office of any one of the Local Bodies within the area. The venue of the meeting is decided by the convener in consultation with other members. The committee elects one among themselves to preside over the meeting. Officers of the Kerala State

Electricity Board (KSEB), Panchayat Raj organisations etc. are also invited to the meetings whenever necessary. Decisions of the committee are followed up by the conveners (government order 1993).

The committees try to solve the problems at the lowest level. The efforts of KWA to maintain satisfactory water supply and the connected problems are explained to the people's representatives. Participation of other Department Officers helps KWA to sort out its own problems connected with implementation and operation & maintenance of water supply schemes. The EEs of Divisions and SEs of Circles review the results of the meetings at periodic intervals and try to solve issues at their levels (KWA 1993). Similar meetings are held at division levels also.

3.2.6 Staffing and services in the KWA

According to KWA's annual budget for the financial year 1994-95, there are 8,156 staff in its rolls. This comprises of around 660 Engineers (about 90 senior, 200 middle and 370 junior managers), 2500 lower technical staff, 3000 operating staff, and 2000 account/ ministerial staff.

Staff recruitment is by the Kerala State Government Public Service Cmmission (KPSC), involving lengthy procedures of written tests, interviews, police varification and observing caste and communal job reservations. Cadre promotion is mainly on the basis of rank lists prepared by the KPSC and following the length of service rendered. The retirement age is 55 years and the service is pensionable. Service conditions are mostly guided by the Kerala State Service Rules (KSR) designed for the State Government employees.

3.2.7 KWA's compliance with PWD's construction oriented code rules

KWA's day-to-day activities are guided by the PWD codes and manuals and State Government's financial code rules. They were designed for activities like construction of roads, bridges, buildings, dams and canals. These rules have its origin in the British Colonial Raj and are still followed strictly, with very little amendments.

3.3 KWA's projects and performance

3.3.1 Coverage of rural water supply and sanitation

a) Dependence on traditionl drinking water supply systems

In urban areas, 18% have house connections, 52% depend on public standposts and 30% are not covered (Price Waterhouse 1994).

According to the National Sample Survey (NSS), in rural areas, 82% of the households depend on wells as major source of drinking water, which is almost the same in 1981. In urban Kerala, 45 % of the houeholds depends on wells as a major source compared to 56.3% in 1981 (Price Waterhouse 1994).

The dependence on standpost, hand pumps and tube wells in urban Kerala has shown a significant increase from 39.7% in 1981 to 54.7% in 1987 (Price Waterhouse 1994).

Similarly dependence on organised water supply sources - taps, hand pumps/ tube wells - have doubled in rural Kerala during the last decade from 6.26% in 1981 to 13% in 1987.

Overall, 68 percent of houses in Kerala have drinking water facilities within their premises as against the all India average of 32%. More than 97% of the households have a water facility either within their premises or less than 0.5 km from their premises. This situation greatly influences the nature of demand for piped water supply in Kerala (Price Waterhouse 1994).

b) Details of piped water supply schemes under operation & maintenance

Until March 1984, the PHED was responsible for the operation and maintenance of all water supply and sewerage schemes with the exception of the distribution system in the municipalities. As an exception, from the very beginning the distribution system of Thiruvananthapuram city was managed by the PHED. However, The Kerala Water Supply and Sewerage Act (KWSS Act) envisaged a state wide role for KWA. Guided by this mandate KWA effected transfer of all water supply and sanitation responsibilities which were vested with the city corporations and town municipalities with effect from 1st April 1991. However after some time the distribution system of Thrissur municipal town was returned to them as a special case because of persistent political pressure. KWA absorbed all the employees of the erstwhile PHED and subsequently some of the employees of the local bodies from which it took over water supply responsibilities.

KWA had per 31-3-1993, 40 nos schemes in operation in urban areas and 1,336 nos schemes in operation in rural areas. The number of schemes under operation in each district is shown below in Table no 2 (Administrative Report 1992-93).

Table no 2: shows the district wise number of schemes under operation and maintenance

Names of district	Number of schemes	
	Urban	Rural
1. Thiruvananthapuram	5	96
2. Kollam	2	60
3. Pathanamthitta	2	54
4. Alappuzha	4	74
5. Kottayam	5	101
6. Iduki	5	123
7. Ernakulam	8	86
8. Thrissur	3	178
9. Palakad	1	123
10.Malappuram	1	119
11.Kozhikode	1	127
12.Wayanad	1	43
13.Kannur	1	102
14.Kasargod	1	50
Total	40	1,336

Source: Administrative Report 1992-93

A large majority (70%) of KWA's schemes serve a population of less than 5000 each. A capacity wise classification is shown in the following Table 3.

Table no 3: Category of piped water supply schemes in operation

Scheme Category (Population served)	Total number of schemes	Population served (millions)
> 100,000	11	3.02
50,000 - 100,000	12	0.91
20,000 - 50,000	66	1.85
5,000 - 20,000	382	3.96
< 5,000	966	2.06
	1437	11.80

Source; Operation & Maintenance Improvement Programme 1993

c) Piped water supply coverage

There are 197 towns including 3 city corporations and 60 municipal towns in the State with an urban population of 76.76 lakhs as per 1991 census. The Rural population has been 214.18 lakhs. Protected water is being supplied to 44% of the rural population and 65% of the urban population. 4,64,000 houses are connected with piped water supply as on 31-10- 1994, which constituted 5.75%. Number of standposts installed comes to 106300. Each standpost is expected to serve 250 people. Also, available estimates indicate that there rare more than 5 lakhs private drinking water wells in the state (Economic Review 1994).

As on 1-4-1994, there has been 1,400 rural water supply schemes in operation, covering 88.35 lakhs rural people, which is about 43.75% (Economic Review 1994).

During the years from 1985-86 to 1991-92, 485 nos rural and 3 nos urban water supply schemes were commissioned. Out of these, 281 Nos of schemes were for the exclusive benefit of SCs and STs. In the years 1992-93 and 1993-94, 178 Nos and 159 Nos of schemes were commissioned. These included 177 Nos of schemes for SCs and 24 Nos of schemes for STs. The extent of coverage within villages and habitations can be assessed as follows. According to 1991 census, the state has 1384 'problem villages[3]' (Problem villages are those without an adequate dependable safe water source within 1.6 km distance or 15 m elevation), of which 1341 have been covered with water supply providing at least one single spot source. The remaining 43 were not covered. The total number of habitations[4] in the state as per 1991 census is 9976 and the number of habitations so covered up to 31-3-1994 is 7495, which is about 76.66% (Economic Review 1994). Following Table no 4 gives the extents of coverage in habitations.

Table no 4: Habitation-wise distribution and percentage of population provided with drinking water as on 31-10-1994

Population covered		Number of Habitations
Up to	25%	2074
Between	25% and 50%	2091
Between	50% and 75%	1706
Between	75% and 100%	1624
	Total	7495

Source: Economic Review 1994

[3]Villages are the lower most revenue administrative unit covering around 20, 000 people.

[4]Villages and Panchayats are divided into habitations having around 2500 people.

The number of people additionally covered with water supply every year starting from 1985-86 is shown in Table no 5.

Table no 5: Additional population covered every year since 1985-86 (in lakhs)

Year	SC	ST	Total
1985-86	0.480	0.060	5.100
1986-87	0.255	0.048	2.416
1987-88	0.797	0.104	5.150
1988-89	0.668	0.321	5.240
1989-90	0.950	0.100	4.800
1990-91	0.930	0.074	4.360
1991-92	0.870	0.090	5.940
1992-93	1.010	0.118	4.990
1993-94	0.705	0.064	3.780
Total	6.665	0.979	41.776

Source: Economic Review 1994

d) Water tariff

The present tariff structure imposes the consumers to pay according to metered consumption for individual connected consumers (household, institutions and industries). The progressive tarrif rate for domestic use is Rs 2 to 4 per kilo litre; non-domestic use Rs 4 to 6; and industrial use Rs 6.

Flat rate of Rs 875 per stand post has to be paid by local Panchayat and Rs 1314 per public standpost to be paid by municipalities to the KWA towards water charges. Thus stand post water supply is free to the consumers.

e) Sanitation coverage

On the sanitation front, progress has been very slow. Only 30% in Thiruvanathapuram city and minor percentage in Kochi city are covered by sewerage facilities i.e. water borne sewerage. Treatment facilities do not exist to desirable levels. However in recent years low cost (LCS) sanitation programme is implemented through Directorate of Municipalities and Pachayats and through the Socio-Economic Units (Price Waterhouse 1994).

More than 50% of the rural and 18% of the urban households have no latrine. Even though the situation is quite bad from an overall sanitation point of view, Kerala's position compares favourably with other Indian States. Over the past five years, only an average of 37,000 latrines were constructed per year. At this rate it would take another 50 - 60 years to cover the existing estimated 21.5 lakhs rural and 1.6 lakhs urban 'no latrine usage households'. Since the construction rate is less than the population growth rate (1.4%), the actual coverage would be decreasing (Price Waterhouse 1994).

3.3.2 Details of schemes under capital construction

a) Piped water supply schemes

KWA implements schemes under the State Plan of the Government of Kerala relating to water supply and sewerage. They include (1) LIC aided urban and rural water supply schemes, (2) World Bank assisted water supply schemes, (3) Dutch and Danish assisted bilateral water supply schemes, (4) Special component plan schemes benefitting scheduled castes and scheduled tribes, (5) LIC aided urban sewerage schemes, (6) Centrally sponsored Accelerated Rural Water Supply Programme for water supply in 'problem villages' (Administrative Report 1992-93).

KWA also takes up schemes outside the state plan, availing loans from LIC (Life Insurance Corporation of India) and HUDCO (Housing and Urban Development Corporation). These loans repayable by the KWA are guaranteed by the Government of Kerala. There were 8 such urban and 90 rural schemes under execution during the year 1992-93. An amount of Rs 100 million was received from LIC and Rs 145.5 million from HUDCO as loan during the year 1992-93 (Administrative Report 1992-93).

The ongoing rural and urban water supply schemes during 1992-93, at various stages of construction included, (1) 7 Nos World Bank assisted schemes, (2) 8 Nos Dutch assisted schemes, (3) 3 Nos Danish assisted schemes, and (4) 5 Nos sewerage schemes (5) several ARWSP schemes, (6) LIC/ HUDCO urban and rural water supply schemes, (7) number of schemes benefiting SCs & STs and (8) and schemes under drought relief programme (Administrative Report 1992-93).

There were 545 nos ongoing water supply schemes as on 1-4-1994, of which 32 were urban water supply schemes (Economic Review 1994).

Since 1981, Dutch assistance has been received for eight rural water supply schemes. These schemes are spread over 42 panchayats in southern and central Kerala and are expected to benefit 1.465741 million people (year 2011). The revised estimated cost is Rs 9421.17 lakhs, expenditure up to 30-9-1995 being Rs 7350.32 lakhs and Dutch contribution (85% grant and 15 % State Government's share) up to 30-9-1995 Rs 5861.71 lakhs. Some of the schemes are commissioned and the remaining are now under going test and trial run (KWA 1995).

More over in March 1995 the Dutch Embassy expressed its desire to consider cooperation in new water supply schemes.

Denmark also has been providing assistance since 1987 for three rural water supply schemes spread over 16 panchayats in northern Kerala, expected to benefit 0.531408 million people by 2011. The revised estimate cost of the schemes is Rs 3800.75 lakhs. The expenditure up to 30-9-1995 was Rs 4353.63 lakhs. The Danish contribution (85% grant and 15% State Government's share) will be Rs 3164.72 lakhs. These schemes are now under going test and trial run (KWA 1995).

Since 1987 World Bank assistance was received for seven water supply schemes and two Low Cost Sanitation (LCS) programmes for (a): rural areas and (b); urban areas. Out of these seven water supply schemes, a few have been commissioned and the remaining are now being commissioned. They benefit 1.36 million people (in 37 panchayats). The revised estimated cost is Rs 12,788 lakhs and expenditure till 30-6-1995 is Rs 12,110 lakhs (KWA 1995).

The extent of external assistance is presented in the following Table no 6.

Table no 6: Extent of external aid for Water Supply & Sanitation in Kerala (Source: KWA)

FUNDING AGENCY	NO. OF PANCHAYATS BENEFITED	AREA	PEOPLE BENEFITED MILLION	EST. COST RS MILL	REIMBURSEMENT RS MILL
DUTCH	42, (8 SCHEMES)	714 SQ KM	1.46	942	586
DANISH	16, (3 SCHEMES)	418 SQ KM	0.53	380	320
WORLD BANK	37, (9 SCHEMES)	-	1.36	1,279	-

Source: KWA 1995

Schemes under execution during the financial year 1992-93 and their expenditures are shown in the following Table no 7.

Table no 7: Expenditure on capital works in 1992-93

Sl No.	Names of scheme	Outlay incurred during 1992-93 (Rs in lakhs)
1.	Urban w. s. scheme (LIC)	994.28
2.	Urban w. s. scheme (HUDCO, LIC)	1,209.39
3.	Urban w. s. scheme (Others)	44.62
4.	Centrally sponsored rural w. s. scheme (ARWSP)	1,191.00
5.	Rural w. s. scheme (LIC)	693.87
6.	Rural w. s. scheme (World Bank)	1,623.82
7.	Rural w. s. scheme (Danida)	734.80
8.	Rural w. s. scheme (Dutch)	725.45
9.	Rural w. s. scheme (SC)	877.59
10.	Rural w. s. scheme (ST)	149.34
11.	Rural w. s. scheme (Others)	127.99
12.	Urban sewerage scheme	61.00
13	Western ghats development programme	24.91
14.	Flood relief works	1.91
15.	Drought relief works	672.68
16.	Bore wells	0.00
17.	Others	236.27
18.	UNDP sanitation (LCS)-urban	30.00
19.	UNDP sanitation (LCS)-rural	60.00
	Total	9,458.92

Source: Administrative Report 1992-92

b) Low cost sanitation works (LCS)

While the engineering works of all water supply schemes were carried out by the KWA's Engineers themselves, that of LCS works were left to other departments. Implementation of LCS in urban areas was carried out through the Directorate of the Municipal Administration (DMA) and that in rural areas through the Directorate of Panchayats. The role of KWA was only to transfer funds under the project. Until 31-3-1994, 11,730 latrines in urban areas (in 13 municipalities) and 12,740 latrines in rural areas (32 panchayats) have been constructed

against a target of 11,000 urban and 16,000 rural toilets.

In addition to the above, the Socio-Economic Units have constructed 36,532 nos toilets with certain contributions from beneficiaries and local bodies.

3.3.3 Performance of Capital Projects

a) Sources of finance

The main sources of finance for KWA are: (1) grants and loans received from Government of Kerala, (2) loans taken from financial institutions like HUDCO, LIC, etc. The assistance towards projects financed by Netherlands, Denmark and World bank are received through the plan[5] budget of Government of Kerala. Such assistance towards projects received from Government of Kerala are in the form of loans and grants in equal proportion. The assistance towards centrally sponsored Accelerated Rural Water Supply Scheme (ARWSP) is also received as loan from Government of Kerala.

The extent of financial assistance received from various Agencies for capital works during the year 1992-93 and 1993-94 are shown in the following Table no 8.

Table no 8: Flow of Funds from LIC, HUDCO, Government of India and External Agencies

Years	Flow of funds from (Rs in lakhs)						
	HUDCO	LIC	World Bank	The Netherlands	Denmark	GoI	Total
1992-93	1,455.00	100.00	273.73	380.62	120.00	1,217.00	3,546.35
1993-94	100.16	157.60	516.78	735.67	739.00	2,127.00	4,376.21

Source: Economic Review 1994

b) Performance

An extensive Organisational Review Study on the KWA was carried out by Price Waterhouse, a consultantant, in 1994. They revealed the following realities about capital works in progress in the KWA.

[5]Projects under State Government plan is entitled to Central Government assistance.

* Inordinate delay in project completion and consequent escalation of costs are major areas of concern. At present there are about 250 small and large capital projects across the state.

* All on-going projects are delayed with very high cost overruns. Pre-financing of projects do not make any deference with regard to overruns (Price Waterhouse 1994).

* Time and cost escalations in the projects are due to-
  - GOK's delay in disbursements of funds.
  - Inadequate project management systems.
  - Other internal systems in material procurement, tender processing etc.
  - Existing organisational arrangement
  - Works ethics & Culture

* Thin distribution of available financial resources in large number of ongoing projects

* Increase in abandoned or unproductive capital investments. e.g., KWA has invested about Rs 18 crores on sewerage capital works in four locations, though there are no connections given in these areas (Price Waterhouse 1994).

* Difficult financial position of the Kerala government has hampered the flow of funds for KWA's capital and revenue expenditure. For example in 1991-92 only Rs 50 crores were released to KWA for capital expenditure against an approved budget of Rs 63 crores. In 1992-93 on completion of six months only 28% of capital and 31% of the revenue budget were released. As a consequence of this, a significant amount is diverted from capital to revenue expenditure (Price Waterhouse 1994).

3.3.4 Financial and qualitative performance of Operation & Maintenance

a) Financial performance

KWA's Administrative Report for the year 1992-93 highlights the following difficult financial position of the organisation on the operation & maintenance side.

* The KWA suffered a loss of Rs 3,075.68 lakhs during the year 1992-93. After adjusting prior period expenses to the tune of Rs 32.09 lakhs, the net excess expenditure over income was Rs 3,043.59 lakhs. The primary reasons for the loss are: (1) the increase in operation & maintenance charges (especially power charges), (2) increased salary and (3) interest burden together with relatively low water charges.

The Table no 9, below gives the details of annual operating losses as well as the accumulated losses suffered by the KWA during the accounting years 1991-92 and 1992-93.

Table no 9: details of operating loss during accounting years 1991-92 & 1992-93

	Expenditure (Lakhs of Rs)	1991-92	1992-93
1.	Operation & maintenance	1,758. 98	2,334. 75
2.	Establishment & other charges	3,282. 67	3,651. 54
3	Interest	2,619. 90	3,234. 56
4.	Depreciation	1,173. 44	1,158. 74
	Total	8,834. 99	10,379. 59
	Less establishment expense allotted to capital work	836. 50	1,219. 39
		7,998. 49	9,160. 20
	Income (Lakhs of Rs)		
1.	Revenue	2,265. 91	3,092. 39
2.	Other income	112. 35	134. 00
3.	Grant in aid from Government of Kerala	2,799. 44	2,858. 13
	Total	5,177. 70	6,084. 52
	Net loss (-)	2,820.79	3,075. 68
	Add prior period adjustments	165. 60	32. 09
	Excess expenditure over income	2,986. 39	3,107. 77
	Accumulated excess of expenditure over income	**8,736. 97**	**11,780. 56**

Source: Annual accounts 1992-93

* The operating income went up from Rs 2,221.44 lakhs to Rs 3,066.08 lakhs in 1992-93. Revenue collection for the year was Rs 1,870.12 lakhs, the outstanding amount being Rs 8,147.87 lakhs due from local bodies and Rs 1,075.43 lakhs from other consumers.

* The operation & maintenance expenditure of KWA went up to Rs 2,334.75 lakhs in 1992-93 from Rs 1,758.98 lakhs in the previous year registering an increase of 32.73%. The interest burden of the KWA for the year 1992-93 run to Rs 3,254.56 lakhs including Rs 2,105.55 lakh payable to Government of Kerala (GOK), Rs 810.16 lakhs paid to LIC and Rs 830.13 lakhs paid to HUDCO (Administrative Report 1992-93)

Organisational Review Study by Price Waterhouse revealed more financial facts as follows.

* The operating deficit before charging depreciation has gone up from Rs 467 lakhs in 1988 to Rs 1,649 lakhs in 1991. This deficit is the actual cash loss of the period, and the gap is compensated by utilising money received on capital account (Price Waterhous 1994).

* The operating revenue constitute only 50% of total receipst. Income from local bodies on an average constitutes 67% of the operating income. This heavy dependence on local bodies whose financial position is very weak unduly affects the flow of funds to the KWA.

* The interest payment on loan received has shown a growth rate of 76% per annum, including 32% due to charging of prior period interest.

* Capital investment/ receipts have not been fully converted into productive assets due to diversion of funds to revenue accounts and delays in execution of projects.

* While the operating income is growing at 7.3% per annum, the operating expenditure has shown an average increase of 18.5% per annum(Price Waterhouse 1994).

* Between 1989 and 1991 there has been an increase in operating cost of about 50%, constituting about 62% of the total revenue from water supply and sewerage charges.

* O & M costs have however remained stagnant, with a marginal decrease in the last two years.

* Power charges constitute 47% of the total O& M expenditure.

* The cost per kilo litre of water distributed is higher for Major RWSS (Rural Water Supply Schemes; Rs 2.33) in comparison to major UWSS (Urban Water Supply Schemes; Rs 1.87) and TWSS & BWSS (Tube Well Water Supply Schemes & Bore Well Water Supply Schemes; Rs 1.78) (Price Waterhoue 1994).

* Despite a revenue grant of 34.4 crores from government of Kerala, the revenue deficit in 1993-94 has been Rs 8.01 crores and in 1994-95 Rs 4.8 crores(Budget 1994-95 and 1995-96).

Study by the Price Waterhouse also indicates the following facts.

b) Quality of service and scheme failure rate

* KWA is at present looking after the operation and maintenance of about 1550 fully/ partially commissioned water supply schemes of which 1513 are in rural areas and 37

in urban areas. The work load is significant enough to consider independent functional arrangement.

* After formation of KWA, in about 10 years, 579 schemes have been commissioned, covering a population of 29.43 lakhs.

* At state level, the overall coverage works out to only 50% of population. Only about 14% of the houses are provided with household water connection.

* While the official claim of rural water supply coverage being 44%, a recent study by the Centre for Development Studies, Thiruvananthapuram, undertaken on behalf of the Government of India (Rajiv Gandhi National Drinking Water mission) found the actual rural coverage is only 33% and more than half of them receive only less than "a bucket per day" (Murugan et al 1995).

* This being the supply side only 19% of the inhabitants actually use the facilities because of travel distance and uncertainty in supply (Murugan et al 1995)

* Among the schemes that have been commissioned after the formation of KWA, the failure rate ("unsatisfactory schemes") is around 25% every year.

* For schemes that have been commissioned before formation of KWA, the failure rate ranges from 30 to 60%.

* Leakage/ distribution loss is estimated to be around 25%.

* Only 15% of the schemes provide water for more than 22 hours.

* About 29% of schemes provide water for less than 7 hours.

* In summer, number of schemes supplying water for less than 7 hours increases from 29% to 59%.

* In northern districts service levels are lower than in the southern districts.

* About 31 schemes go dry during summer.

* Water source failure is the major reason for shortage and service failure.

* Voltage problem was also cited important reason for low hours of operation.

* The percentage of problem schemes after 1984 at state level is around 39% considered to be too high.

* Scheme failure is high in various government sponsored rural water supply schemes.

* On the other hand failure rate is nil in the case of bilateral and World Bank sponsored schemes. While their number is small, efficiency is high due to closer scrutiny.

* The Senior Management's- CEs, SEs & EEs- focus is mainly on capital projects.

c) Quality monitoring

* Less than 7% of the existing schemes have on-site monitoring facility.

* The regional laboratories randomly check chlorine rates and carry out water quality analysis of the schemes in the respective areas. The laboratories are able to check only a small portion of schemes as they are geographically dispersed.

* In 459 schemes constituting 30% of total schemes no water quality analysis is under taken.

* Monthly or more frequent analysis is under taken only in around 7% of schemes. One sample for 5000 people per month is the stipulated norms by the Central Public Health & Environmental Engineering Research Organisdation (CPHEEO) for bacteriological analysis.

* For 50 large schemes, the central monitoring cell at IPD collects data from regional laboratories and conducts comprehensive programme checks. To comply with CPHEEO/ ISI (Indian Standard Istitute) requirements, the laboratory facilities needs to be enhanced many times (Price Waterhoue 1994).

d) Staffing and service

* KWA is expected to follow the Kerala Service Rules (KSR) prescribed for the State Government employees. It came into existence in 1959, and since amended at periodic intervals to serve as an unified set of rules to regulate the service conditions of the GOK employees. These rules do not provide sufficient frame work for healthy human resource development. Professionalisation of this function with appointment of qualified trained senior personal in this area is essential for effective management and administration(Price Waterhoue 1994).

* Even at higher grades no specialists are available, especially in areas of public health, computers and human resources management.

Regarding organisation culture & climate issues that require attention are

- work ethics, time and quality consciousness and attitude towards work per se.
- commitment for end results.
- office timings.

Ineffective leadership at field levels is inter alia reflected in the following.

* Public/ consumer complaints reaching top management,

* Employee related matters also directly dealt at Head Office

* Low level of public involvement in projects.

* Poor operational performance(Price Waterhoue 1994).

e) Private sector and NGO participation

* The involvement of community or NGOs in project implementation/ maintenance is very minimal. The general apprehension at the field level is that the involvement of the NGO or community would restrict official authority and encourage "local politics". However there are notable exceptions to these general views. The experience of various development programmes, including the efforts of SEUs indicate that NGOs and community participation complement the efforts of official authority (Price Waterhouse 1994).

* NGO and community participation is very minimal. Even the minimal involvement is mainly due to efforts of the SEUs in Bilateral Projects.

* Private sector participation is extensive and covers various activities of KWA. It is not comprehensive in many areas in the sense that private sector is not responsible for efficiency and end results. For example even though all capital projects are executed by private contractors, material purchase and supplies are the responsibility of KWA. Thus private sector is not responsible for cost overruns and time delays (Price Waterhouse 1994).

3.3.5 Lack of autonomy and decentralisation

* KWA is a highly centralised organisation as most of the key decision making powers - including operational matters- are with the Government of Kerala (GOK). Similarly within KWA managerial decision making powers are concentrated at Head Office. Based on the above facts the ratings of performance categories of KWA has been arrived at and included in the subsequent pages (Price Waterhouse 1994).

The recent organisational review study by the Price Waterhouse reveals that by mandate, the KWA has to be financially autonomous. But in actual practice KWA is not given the powers to implement this mandate as is clear from the following Table no 10. In all the important financial and staff service issues, the KWA has to obtain prior approval from the government.

Table no 10: Shows KWA's powers and constraints

Function/ activity	Constraints
1. To prepare and carry out schemes	Approval of government for schemes costing more than Rs one crore is required.
2. Fixation of fees or amendment of Tariff	Prior approval of government is required.
3. To enter into contract or agreements	Prior approval of the government for contract above Rs. one crore
4. To extract water except for drinking purpose	Only with government permission.
5. To borrow money, issue debentures, to obtain subventions, capital contributions, loans and grants to incur expenditure and manage its own funds	Government sanction is required.
6. Appointment of officers and staff and other service conditions	Prior approval of the government for creation of post above the level of Executive engineer. Even though the act provides the power to appoint other staff, a government order restricts this authority and requires prior approval of government for all posts. Conditions of service of the officers and employees of the Authority is governed by the rules made by the government from time to time.
7. Power to make rules, regulations and by-laws on employee service conditions, operation of funds, powers and duties of employees etc.	To be notified in government gazette.

Source: Price Waterhouse 1994

The dependence of a public sector institution like the KWA on the government for financial resources is a major factor constraining its autonomy in practice (Price Waterhouse 1994).

3.3.6 Internal analysis of KWA: capability and responsiveness

Performance evaluation of KWA in its area of responsibility was also carried out by the Price Waterhouse in 1994 to identify the strengths and weaknesses of the organisation. The Table no 11 shows a summary of the evaluation of the performance of the KWA. Price Waterhouse found that all the performance criteria for the KWA fell between poor and average.

Table no 11: Organisational performance assessment of the KWA (Source: Price Waterhouse 1994)

RATINGS OF PERFORMANCE CATEGORIES OF KWA (Source: Price Waterhouse, 1994)					
Category / Ratings	Poor	Below average	Average	Above Average	Excellent
1. Quality of service			+		
2.Financial performance & commercial orientation		+			
3. Management and administration			+		
4. Consumer orientation	+				
5. Technical & organisational capability			+		
6. Organisational culture & climate		+			
7. Leadership		+			
8. Autonomy and delegation of power		+			

3.4 Conclusions

To sum up, the Kerala Water Authority is a semi-autonomous government Authority exclusively responsible for the regulation and development of water supply and waste water disposal services in the State of Kerala. It was formed in 1984 after converting the former Public Health Engineering Department as per the KWSS Act 1986. As per the Act, financial self-reliance was made mandatory for the KWA. At the same time important personnel and financial powers are retained with the government. Moreover the KWA still continues to follow the out-dated construction-oriented codes and practices of its parent PWD and PHED.

Contrary to the mandate of financial self reliance, every year KWA sustains considerable financial loss on its operation and maintenance activities. Capital funds is diverted to meet

the shortfalls in revenue income (10 -15%) resulting in huge accumulated loss. Capital funds is diverted to meet this shortfall. The organisation continues to depend heavily (30-40%) on government grants for operation & maintenance.

Assessment of KWA by the Price Waterhouse found that persistent time and cost overruns of capital constructions as well as the inability to convert capital investment into productive assets are significant characteristics brought to light by the evaluation study.

Price Waterhouse also pointed out that KWA's adherence to Kerala State Service Rules with regard to staffing and services does not provide a healthy frame work for human resources development.

Recent study by the CDS claims a glaring mismatch between official claim and reality with respect to rural water supply coverage and level of service.

KWA's quality of service is not satisfactory as indicated by the recent study. As an organisation functioning in the utility service sector, KWA's performance with regard to financial and institutional management as well as capability and responsiveness are not satisfactory as revealed by Price Waterhouse (Price Waterhouse 1994).

Chapter 4

Indian Water Supply & Sanitation Policies and Dutch involvement

Introduction

In this chapter we discuss the Indian scenario of rural water supply and sanitation. First we present the investment in the sector and the sector related agencies at the national and state levels. After that, comes the national policies and the problems related to its implementation. Then follows the Dutch involvement in the sector and the bottlenecks as identified by them including the related social realities in India. Finally there is a brief conclusion

4.1 Rural Water Supply & Sanitation: Policy and organisation in India

a) Investment in rural water supply & sanitation

In line with the targets set for the United Nations Drinking Water Supply and Sanitation Decade (1981-1990), involving a 100% coverage in rural drinking water and a 25% coverage in low cost sanitation by the year 1990, the Government of India gave high priority to both elements during the 1980s. This priority was made manifest in policy documents and was also realised by major public investments in piped systems and hand pumps. Overall expenditure for Rural Drinking Water Supply and Sanitation (RW/S) increased from Rs 25,000 million during the 6th FYP (Five Year Plan 1980- 1985) to Rs 35,000 million (against current prices) during the 7th FYP (1985-1990): the recommended budget for RW/S in the 8th FYP (1992-1997) amounts t o Rs 73,000 million (about 2% of the total public sector budget) (Operations Review Unit 1994).

b) Shares of national, provincial and external agencies

In accordance with the Indian Constitution, RW/S is a state responsibility. About 37% of total public investments in RW/S in the period 1980-1990 came from central government, largely through the Accelerated Rural Water Supply Programme (ARWSP) which was launched under the 5th FYP (1973-1978), while 57% was financed by individual states under their Minimum Needs Programmes (MNP). The remaining six percent was supplied by foreign donors (Operations Review Unit 1994).

In comparison, rural sanitation received much less attention, leaving the access rate at about two percent of the rural population at national level. At the end of 1986, however the Government of India Introduced the Central Sanitation Programme to operationalise its

support for a more integrated RW/S and sanitation approach. Sanitation components included the provision of low-cost latrines, supply of drainage, and education in health and hygiene. Like rural water supply, sanitation was added to the MNPs from the 1987/88 onwards.

c) Role of private agencies and the price of water

The government of India has gradually come to the conclusion that public funding alone is not sufficient to attain adequate service levels in RW/S and that private contributions will also be required, both in terms of investments, through financing institutions and through cost recovery from beneficiaries. Indeed, sensible pricing policies will not only provide necessary revenue with which to install and maintain facilities, but would help to curtail excessive use of water, especially for irrigation purposes. Clean water has become a scarce commodity[1]. Although almost 90% of villages had been supplied with at least one safe drinking water facility by 1990, about 50% of the population still depend on polluted water sources as facilities are frequently located too far from the house. In rural areas, between 1.5 and 3.0 hours per day are involved in the collection of water (indicating that improved access may also yield direct economic benefits). The volume of water which is mostly collected by women, also depends on regional conditions. In Uttar Pradesh, for example, it averages 250 litre per household per day, whereas in Gurajat it is no more than 120 litre per household per day (Operations Review Unit 1994).

d) National agencies

Before 1985, the central ministry of Urban Development was responsible for development of RW/S sector, with regard to policy formulation, fixing design criteria, and funding and monitoring of implementation. In August 1985, this responsibility was shifted to the Department of Rural Development in the Ministry of Agriculture which, it was felt, would be better able to speed up implementation of the programmes. More importantly, this department was expected to take nontechnical aspects of RW/S into account to ensure integration with other rural development programmes. At the central government level, joint responsibility for the provision of sanitary facilities rests with the Ministries of Health, Agriculture and Local Government.

e) State level agencies

Within states, responsibility for planning, construction and supervision was allotted to the Public Health Engineering Department or to a State Water Authority. In the mid-1970s, a

[1]The planning and management of ground and surface water use and its equal distribution was given ample importance in the national water policy plan adopted in 1987. The plan indicated that water rates should convey the scarcity of water to the users and should be adequate to cover the overall operation and maintenance costs of drinking water supplies, as well as part of capital costs. Such consideration are also reflected in the 8th plan which gives attentions to several complementary aspects, including primary health care, literacy campaigns, and community involvement in planning RW/S schemes.

number of these agencies, often involving large technical engineering organisations with several thousand employees, were converted into semi-autonomous Water Boards. Works construction is usually tendered by them, and subsequently executed by private contractors.[2]

Until the late 1970s, local authorities were responsible for the maintenance of all facilities. Since they did not perform adequately, mainly due to lack of funds, only the operation and maintenance of hand pumps remained with them; responsibility for the operation and maintenance of other facilities was transferred back to the state authorities.

f) Agencies for sanitation

The Rural Development and Panchayat Raj Department is responsible for planning and implementation of rural low-cost sanitation programmes at the state level, whereas field staff of the Department of Health is involved in implementing the complementary health and hygiene education programmes. In some states NGOs are involved in the construction of sanitary facilities and health education programmes. At the district level the District Collector is the focal point for planning and implementation of development programmes, including RW/S. The construction of simple drainage systems that are linked to RW/S facilities is mostly left to the village panchayats.

4.2 National policy with regard to rural drinking water supply and sanitation

The existing policy is not specifically directed towards the poor sections of the population, but to 'problem villages' defined as villages which lack a safe water source within a 1.6 km radius[3]. Disadvantaged groups in community, including scheduled castes (SC) and scheduled tribes (ST) are given particular attention in RW/S schemes, as reflected in specific government guidelines. It is estimated that 170 million of the rural poor belong to SCs/STs. In accordance with the current 8th FYP, central government has reserved a minimum of 25% of Accelerated Rural Water Supply Project (ARWSP) funds for SCs and 10% for STs.

Thrust for the integrated approach

Government of India's (GoI) guide lines for Accelerated Rural Water Supply Programmes (ARWSP) give considerable importance to the integrated approach involving community participation, health education, etc. It insists on formulation of a decentralised operation &

[2]Non-technical aspects of rural water supply were not covered by these Water Boards but, if not entirely negated, were covered through local NGOs or, in Netherlands-aided programmes, through NGOs and specifically created units like socio-economic units and programme support units.

[3]Other criteria are: a minimum daily per capita consumption of 40 litres and a service level of 250 persons per water point. Also, RW/S schemes should be based on hand pumps or on a piped system with public taps.

maintenance system appropriate to each state. Emphasis is given to formation of habitat or ward level water committees with elected member as its president for community involvement and monitoring the RW/S programmes (RGNDWM 1994).

Water Committee is to consist of: (1) Panchayat member, (2) lady member, (3) School teacher, (4) village extension worker, (5) hand pump mechanic, (6) Anganwadi (nursery school) worker, (7) Adult Educator, (8) village health worker, (9) four women nominated by the Panchayat.

The Water Committees should meet once in every month together with the engineer of the implementing agency.

The guidelines also provides for district level committees presided by the Chairman of the District Panchayat/ or the District Collector to meet at least once in two months to approve and review programmes. It also proposes state level committees with the minister in charge of water supply as its chairman. The committee has to meet once in three months to advise the government on policy and to review the activities and achievements (RGNDWM 1994).

It suggests that the states should train community volunteers as hand pump mechanics. One of them should be a woman. At least one caretaker should be identified in each village/ habitation/ ward for taking care of the hand pumps for ensuring repairs through hand pump mistries/ or mechanics. Thrust is given for the involvement of communities, particularly women in site selection, execution of schemes, decision making process, planning and formulation of schemes as well as operation & maintenance of the water supply schemes.

For health education and awareness creation the active involvement of village health worker and Anganwadi (nursery school) workers are suggested. More over it also proposes fault reporting through the post card system (Rajiv Gandhi National Drinking Water Mission 1994).

However, in reality, such a thrust for integrated approach remained only in the guide lines of the national government and were not adequately followed by most of the state governments, who were holding the direct powers and responsibilities for implementing such projects.

4.3 Problems in implementing national policies

a) People's expectation for free water supply

By and large, rural people in India consider water supply as a basic amenity to be provided free of cost by the government. As long as they think so cost recovery is difficult to achieve resulting in a severe lack of revenue for operation & maintenance. For electoral reasons politicians often support this view. While capital investment in rural water supply are subsidised almost 100%, very little money is collected from people who benefit from public taps and hand pumps. Under funding for operation and maintenance of piped schemes and hand pumps is therefore common (Operations Review Unit 1994).

In RW/S schemes in Uttar Pradesh, for example, government provided only 50% of the amount necessary for proper operation and maintenance, while the depreciation of assets was not even taken into account. For similar reasons the water bills are not always collected by local authorities from people with house connection and, if collected , not always transferred to the state government (Operations Revied Unit 1994).

b) Sanitation: low budget and high demand

People's priority for latrines seems very much related to residential density. In areas where privacy becomes a problem due to increasing density (as in Uttar Pradesh and Gujarat), the need is obvious, particularly among women. Beneficiaries are required to contribute to the investment cost, in cash or in kind, while the reminder is subsidised. However, as the own contribution is rather limited, government subsidies are high. The amount varies from state to state also depends on the socio-economic status of the recipient. In Uttar Pradesh for example, SCs/ STs and people below poverty line receive a subsidy of 90% (others 75%); in Gujarat house holds below poverty line receives 86% subsidy (others 75%), and in Kerala subsidy amounts to 50-70%. Because of the tight state budget, it is doubtful whether the poor will really be able to benefit from sanitary facilities on a large scale in the near future (Operations Review Unit 1994).

4.4 Dutch involvement in rural drinking water and sanitation programmes

a) History and extent

Netherlands support for RW/S dates back to 1977, when the first disbursements were made in Himachal Pradesh. Afterwards, Netherlands support for the sector was concentrated in Uttar Pradesh, Gujarat, Andhra Pradesh and Kerala. Identification of new RW/S schemes in Karnataka started towards the end of the 1980s. The accumulated level of Netherlands investments in the period 1980-1992 approximated Dfl 334 million, or almost 3% of overall RW/S investments in India (as such, the Netherlands contribution involved about 40% of overall foreign support for RW/S). While about 5% of overall RW/S disbursements by the Netherlands were spent on design, 15% on supervision and 1% on research and training, 79% went into equipment (which involves 100% local cost financing).

b) The technical orientation

Initially, projects for Netherlands funding were identified and formulated by the State Water Boards, implying that projects were predominantly technically oriented. Project aid, which involved donor interventions, was not very much appreciated by the Government of India. Therefore a rather pragmatic approach and a gradual introduction of Netherlands views in the area of rural drinking water supply was adopted (Operations Review Unit 1994).

c) Changes towards integrated approach

In the mid-1980s India became more inclined to endorse the Netherlands' view that an integrated approach to RW/S, including non-technical aspects, was necessary to ensure a sustainable rural drinking water supply. The main features of this approach were: (a) a greater involvement of the people, particularly women, in the planning and use of water supply schemes, including site selection; (b) ensuring access to safe water for weaker sections of the population; (c) design improvements and construction of sanitation facilities; and (d) improvements in operation and maintenance, including recovery of costs; (e) health education, e.g. improvements in hygienic practices regarding storage and use of water; and (f) improving cooperation with State Water Boards (e.g. Kerala Water Authority, Jal Nigam in Uttar Pradesh, The Gujarat Water and Sanitation Board, Panchayat Raj Engineering Department in Andhra Pradesh), in addition to strengthening the implementation capacity of local organisations such as village, Panchayat and/ or ward water committees (Operations Review unit 1994).

d) Special project support units

In some states support units were involved in implementing the RW/S schemes which received Netherlands support, in order to secure an integrated approach. In 1987/88 three such socio-economic units (SEUs) were established at the main project sites in Kerala (and one coordinating unit at the states capital in Thiruvananthapuram), while one programme support unit (PSU) was set up in Uttar Pradesh in 1988. For the same purpose, NGOs were involved in Gujarat and Andhra Pradesh. The SEUs in Kerala are financed through Netherlands and Danish funds, while the PSU in Uttar Pradesh is solely financed by the Netherlands. The NGOs also receive financial support from the Netherlands. All these supporting units employ Indian experts. In addition, a Netherlands-Assisted Project Support Unit (NAPSU) was established in Andhra Pradesh which functions as a small coordinating and monitoring office for the embassy, and is financed by the Netherlands (Operations review unit 1994).

e) Accomplishments: hardware and software

By the end of 1991 more than 140 piped schemes had been implemented with Netherlands support in Andhra Pradesh, Gujarat Kerala and Uttar Pradesh. Together with more than 19,000 hand pumps, these systems served about eight million people in roughly 4,000 villages. In 1992, Netherlands also started to support RW/S in Karnataka.

The complementary sanitation and community-related activities, which started in the course of 1987, covered approximately 10% of the villages. About 8,000 household latrines had been constructed by the end of 1991.

Community-related activities include the establishment of local water committees, their subsequent involvement in planning schemes, and interventions in the field of health

education. Results achieved so far have been particularly significant in Kerala and Gujarat.

4.5 Dutch Policy

The objective of Netherlands aid is structural relief of poverty. Aid funds therefore is to focus on direct poverty alleviation programmes. This could be realised through (i) assistance to efforts of Government of India to reduce the social cost of major economic reforms that have been introduced since 1991; (ii) budget support; and (iii) support to sector programmes directed towards the poor.

The RW/S sector was selected for Netherlands support as an opportunity through which to increase disbursements for more direct poverty alleviation. In the period 1980-1992 disbursements totalled Dfl 334 million, or more than 35% of total Netherlands project aid to India. The investments mainly involved local costs and covered about eight million people. Compared to investments in drinking water, those in sanitation have so far been limited (Operations Review Unit 1994).

4.6 Experiences and Problems

a) Efforts by the Indian Government

The Government of India has made significant investments in RW/S and the current FYP shows that it intends to continue to do so, thereby seeking to combine inputs in rural water supply with inputs in sanitation. However, the operationalisation of central government policy at state level has not always been very effective.

In general, the technology applied with regard to type of piped systems, hand pumps and sanitation facilities fits well in India's technological climate. Systems and facilities are produced in India.

The mandate of the State Water Boards sometimes limits the choice of technology. In Kerala, for example, The Kerala Water Authority is involved in the construction of piped systems only and has no mandate to improve the quality of shallow dug wells, although in some areas this would have been socially and financially more appropriate.

b) Poor performance of facilities

A common feature is that piped water supply schemes do not operate properly owing to low pressure, leakage and irregular supply. Earlier evaluations have indicated that roughly 50% of public standpost-taps in Uttar Pradesh are missing or damaged. Apart from leakages, water supply has been affected by power failures during at lest two days per month. Furthermore, the system operates during a few hours per day only, so that people continue to use traditional

water sources. In Gurajat, about 30% of piped water is lost due to leakage, resulting in low pressure. In comparison, about 80-90% of pumps installed throughout India are reported to function adequately (Operations Review Unit 1994).

c) Inadequate planning

Since water supply projects are mostly implemented in problem villages identified by the State Water Boards, it was assumed that the implementation of additional schemes in these villages would produce an immediate improvement in the living condition of the poor. Being integrated into existing State Programmes, however, rural water supply projects were subjected to State Water Board's top-down method of planning and implementation. As a result, the drinking water systems were sometimes constructed even though the need for a new system was not clear. In certain districts of Kerala, for example, there was only seasonal demand for piped water system installed by the Kerala Water Authority, since most people have a traditional well near the house. They usually preferred to use this well water because of distance, taste and temperature, though its quality is not secure. Given the seasonal demand and lack of reliability of piped water, people are not inclined to pay for the operation and maintenance of the new system and its sustainability is endangered[4] (Operations Review Unit 1994).

d) Low utilisation due to travel distance

In other states where RW/S systems have been implemented with Netherlands support, the coverage reached by piped systems has also often been below expectation, since people are not always prepared to fetch water from sources beyond 150 meters from the house and therefore continue to relay on traditional (often polluted) sources nearer to hand.

e) Poor construction

At many locations in Uttar Pradesh, sanitary facilities put up by Panchayat Raj Department do not function due to very poor construction. The community consequently use them as storage facilities. Latrines that were constructed in Uttar Pradesh with Netherlands technical assistance were much better used and maintained by the people, although the applied technology does not seem very appropriate from a financial point of view (the quality of materials used exceeds that of adjacent housing units).

[4]UNICEF evaluations have also confirmed that people may not turn to improved systems because of considerations of distance and taste.

f) Poor operation & maintenance cost, recovery and sustainability

State water organisations are responsible for the planning and implementations of rural water supplies in the states. They are large technically-oriented organisations quite capable with regard to area surveys, designing, tendering, construction and supervision, but rather weak in operating and maintaining completed schemes. Design of projects and supervision of construction are considered more attractive than maintenance. In Kerala and Uttar Pradesh for example the organisations are supposed to be financially self-sufficient. Design of projects and supervision of construction yields earnings for them and these activities are therefore considered more attractive than maintenance. Jal Nigam in Uttar Pradesh, for example, is allowed to charge 4% of the investment cost for project preparation and 15% for supervision of construction. Thus they are inclined to give little attention to maintenance (Operations Review Unit 1994).

A further impediment to proper management of RW/S is the interference of politicians and bureaucrats in the day-to-day operations of state water organisations, particularly in personal management and financial management (fixing of proper tariffs and preparation of budget for operation and management). More over, villagers are usually not consulted in the planning or implementation, they are not inclined to operate and maintain the facilities appropriately, or to pay for operation and maintenance services (Operations Review Unit 1994).

g) Integrated approach: starting of special projet support units

Aid donors with the assistance of the Indian authorities initiated the establishment of support units as well as the involvement of NGOs whenever Netherlands funding was involved in RW/S schemes. These support units were expected to provide motivation with regard to activities such as:

- organisation of community involvement (especially women) in site selection of public taps and hand pumps;
- establishment of village ward water committees for planning/ locating, operating and maintaining RW/S facilities, and for the construction of latrines;
- development of income-generating activities in villages (e.g. development of dairy cooperatives in Gujarat);
- health education

h) Project support units and ths sustainability issue

These support units are not integrated into State Water Boards or any other state department and depend mainly on Netherlands funding (in Kerala, one-third of support unit cost is

financed by Denmark). Moreover, support units cover only parts of the States in question[5]. This also applies to involvement of NGOs in RW/S programmes in Gujarat.

The basic question remains whether it will be possible for support units to get the integrated approach adopted at the level of state water organisation or through the involvement of other departments (e.g. Health, Rural Development, or Panchayat Raj), or whether a core foundation should be created in which governmental and non-governmental organisations will play a role as equal partners.

i) Efforts towards sustainability: staff training, operation & maintenance support etc

Several more steps have been taken by the donors to promote the organisational sustainability of RW/S activities, including the training of staff of State Water Boards in all states which received RW/S, were sent to technical training courses in the Netherlands. Employees from Utter Pradesh, Andhra Pradesh, Kerala and Gujarat participated in regional workshop to discuss the role of women in RW/S, while employees from Uttar Pradesh and Kerala attended workshop in the field of community participation. Water Boards, Support Units and NGOs also worked together in preparing training material in the field of hygiene.

Kerala water Authority is now receiving Dutch/ Danish assistance to the tune of Rs 16 million (Dfl 0.91 million) under a certain Operation & Maintenance Improvement Programme. Under this plan operation maintenance guidelines and procedures will be developed and implemented together with associated staff training in eight typical water supply schemes together with donor's technical assistance. The aim is to establish efficient and sustainable operation maintenance system in Dutch and Danish assisted rural water supply schemes.

In Kerala Dutch Government is also providing financial and technical assistance to the tune of Rs 32.15 lakhs for setting up one district level water quality testing laboratory and two sub-district level laboratories in Thrissur district (as a pilot project). It is expected that these laboratories will strengthen the water quality testing and monitoring support to these bilateral assisted water supply schemes.

j) Depletion of water resources and deterioration of water quality

Over time, the use of ground water and surface water has increased tremendously in rural areas. Inadequate supplies, however are not due to RW/S, since the water consumption involved is marginal in comparison to water used for irrigation. In some areas, irrigation has even caused a significant lowering of the ground water table. As a result, in the Netherlands-assisted Santhalpur scheme in Banashkantha district of Gujarat, ground water levels are falling at about three metres per year, implying that after 10 -15 years the present ground water

[5] In Kerala, for example, 11 RW/S schemes covering 1.75 million people are involved, compared to a total of 29 million people dealt with by the Kerala Water Authority. In Uttar Pradesh and Andhra Pradesh the coverage is much lower.

sources in that region will have dried up. Similarly, in the Danish assisted Cheekode Rural Water Supply Scheme in Malappuram district, the Kerala Water Authority has to reduce the hours of pumping from bore wells owing to the lowering of water table, with the consequence of reduced service level during summer season when water is most needed. This is a serious problem because in Kerala's undulating topography, water starved people living at elevated locations are first and most affected. In Gujarat fluoride levels in ground water show an upward trend to sometimes twice the permitted level. In other words, ground water is not only being depleted in arid districts of Gujarat but it is also being degraded (Operations Review Unit 1994).

k) Insufficient basic data

In most areas data are not available about the current capacity of water resources. As a result, adequate water management, necessary to monitor the consequences of water use for competing purposes, such as drinking water and irrigation, is frustrated (Operations Review Unit 1994).

4.7 Social reality in India

Social reality in India can be perceived in terms of hierarchy, social division and above all group identification: kin group, religious or even regional group. In rural areas in particular, local communities are structural along a hierarchical division of castes or jati (i.e. birth). These endogamous groups form the nucleus of group formation and socio-cultural identity in India. Endogamy serves to preserve these divisions (even in urban areas the number of inter-caste marriages do not exceed 15%). In everyday reality, individual interests are realised through membership of a group. For individuals the way to pursue goals and to get things done is "to oblige and to be obliged"! (Operation Review Unit 1994).

These factors also dominate relations between the private and public spheres. While initiating, managing and controlling development projects, therefore the Government of India has been characterised as "a grace and favour state" (Wade 1985). Patronage and factionalism are the main structural features of such a state. Public servants see themselves as dispensers of favours to which their clients try to make themselves entitled. This politicisation of bureaucracy, and the concurrent political patronage is of crucial importance, especially given the prominent role of government in steering the Indian economy, since it contributes to the "primacy of power over performance" (Operations Review Unit 1994).

The fact that group-and patronage-oriented perceptive in India coincide with non-particularistic bureaucratic guidelines for development projects, however, may well hinder successful implementation of project aid. In fact the prime obligation of government officials is to meet their targets in addition due to the practice of frequent transfers, such targets must

be easily and timely attainable[6]. In supplying facilities such as rural drinking water, they will therefore be inclined to think in terms of number of public taps/ wells installed within a certain time period, rather than in more qualitative terms, involving people's participation, operation and maintenance and sustainability[7]. The beneficiaries on their part will largely perceive such development projects as favours which they accept as an act through which they are obliged to the officials. This explains why leaking water pipes, irregular practices in getting rural credit or irrigation water etc., are not objects of fervent criticism or protest. In the end beneficiaries are more committed to their (local) patrons than to the project concerned. Indeed, patronage means submitting to the patrons, not irritating them! (Operations Review Unit 1994).

4.8 Conclusions

The essence of Dutch bilateral assistance has been poverty alleviation. RW/S was adopted for Dutch assistance in order to benefit the poorer sections. Government of India's guide lines gives emphasise to adopt an integrated approach in RW/S projects. Bilateral projects established special support units for achieving integrated approach.

State government agencies are the direct implementing agencies of RW/S sector projects. Government of India's guide lines in this respect are not adequately observed by the state agencies. As a result, the institutional sustainability of the integrated approach is not met.

A recent study by the Operations Review Units disclosed that several other factors also stood in the way of successful implementation of Dutch project aid. The top down-approach of the executing state agencies and their excessive bias for engineering approach were identified among these. People's belief to get free water supply as a basic amenity and the agency staff's focus on construction rather than operation & maintenance added to this.

According to this study, social factors like several group identifications and nonparticularistic bureaucratic guidelines also hampered project objectives. Politicisation of bureaucracy and political patronage and consequent frequent transfers of project officers also added fuel to flame, as revealed by the above mentioned study.

[6]In a study in 21 Indian States during 1977-86 more than half of the officers of the civil service worked in the same place for less than 1 year. The majority had been transferred 5-7 times. The same data hold good for teachers, health care workers, police officials, and even administrative staff, depending on the political and strategic importance of the posting concerned. In the Indian context, this transfer of civil servants is used as a means to build and break power positions. The high degree of politicisation of Indian bureaucracy is thus caused by the fact that, in the last instance, politicians are expected to influence top bureaucrats to grand good transfers to their clients, i. e. to those who pay the politicians, either in money or in political loyalty (De Zwart, 1992)

[7]The involvement of beneficiaries in development projects is further constrained by emotional and physical distance between them and the administration. High officials, in particular, shield themselves behind official rule and regulations, though the same rules are easily lifted if clients are involved from whom some kind of payment may be expected.

Chapter 5

Socio-Economic Units: history and achievements

Introduction

In the first part of this chapter, we discuss a chronology of the Socio-Economic Units (SEUs), beginning from their inception and up to the year 1995. It highlights the important recommendations of various project Appraisal Missions and Review Missions starting from the year 1982. In the second part, we present SEUs' functional structure. In the third and last part there is a summary of SEUs' accomplishments starting from its establishment till the present date.

5.1 Chronology

5.1.1 Prelude

The beginning of the UN Drinking Water Supply and Sanitation Decade in 1980, led to a spurt of activities on the water supply and sanitation front in developing countries. In train with international developments, the Indian Government was also committed itself to the targets set for the UN Drinking Water Supply and Sanitation Decade: 100% coverage in rural drinking water and a 25% coverage in low-cost sanitation to be reached by the year 1990. In its efforts India received support from various donor organisations. In Kerala, The Netherlands and the Denmark were among the donors who joined forces to provide support in the water supply and sanitation sector. Eight water supply schemes in the southern and central part of Kerala were considered for Dutch assistance. Three water supply schemes in the northern part of Kerala were considered for Danish assistance.The objectives of the projects receiving Dutch and Danish supports were similar in two respecfts: first emphasis was given to close involvement of the beneficiaries and second, complementary hygiene education and sanitation.

Dutch financial assistance was provided for eight water supply and sanitation projects spread over 42 Panchayats covering 1.46 million people (about 5% of Kerala's population) in southern and central Kerala. Danish assistance was provided for three water supply and sanitation projects spread over 16 Panchayats covering 0.53 million people (about 1.8% of Kerala's population) in northern Kerala.

5.1.2 Netherlands Pre-appraisal mission of September 1982

Engineering Project Reports prepared by the State Water Supply Agencies were subjected to

extensive assessments through external Appraisal Missions, before such water supply projects were taken up for bilateral financial assistance. For this purpose several appraisal missions visited Kerala State and they made important recommendations. The Netherlands's pre-appraisal mission visited the State in September 1982.

Some of the important objectives of this mission were to visit the project areas, study and identify the requirements and constraints for optimal project implementation including the potential for health education, community participation programmes and training. Also to make recommendations for the Terms of Reference of the ensuing Comprehensive Appraisal Mission and on matters connected with health education and community participation. The duration of the mission was between 4th and 23rd September 1982. The mission composed of the following members (Pre-appraisal Mission 1982).

* Water supply Co-ordinator, Royal Netherlands Embassy (RNE), Delhi, and leader of the mission
* Regional Planner, DHV Consulting Engineers, The Netherlands, and Secretary to the mission
* Professor of Agro-economics, Indian Institute for Regional Development Studies, Kottayam, India

The mission made their remarks focused on two broad problems and proposed solutions.

a) Problems with regard to present siting of Public standposts

* The standard for provision of public taps was one tap per 200-250 people, with a maximum walking distance of 200 m.

* The practice was to decide location by the state Public Health Engineering Department (PHED) in consultation with the Panchayat Committees.

* The mission felt that this procedure did not guarantee an optimal distribution of standposts.

* The PHED had no areal maps at useful scale (say 1:20,000) and reliable maps were not available in the panchayats or village level on which tap location could be planned in relation to habitation pattern, especially of poor. Many planning documents were consequently not to scale.

* Main pipes were invariably laid along main roads, to avoid problems of land rights, demand for compensation etc. This meant the rich were likely to benefit more. Land price along the main roads were usually higher than those further away from roads, so that there tended to be a concentration of the higher income earners near the roads, while the poor often live at greater distance. Further more, it was obviously easier and cheaper to site public taps on these main roads near the main distribution pipes, rather than to construct a more complicated distribution network which may have to

pass through private properties. At least in already existing schemes, it would appear that the 200m walking distance criteria was often not met, to the detriment of especially the poor sections of the community. Besides, the practical result of the then limited form of local consultation was highly dependent on the impartiality of the Panchayat Committee members, who were also subjected to pressure from their voters, class interest etc. Many taps were seen located in small lower lying depressions on the side of the road. Better siting of tap was usually possible. In some places, where drainage was a serious problem, special measures might be required to avoid formation of mud and stagnant pool of water.

b) Problem with regard to health education

During the mission many knowledgable commentators gave as their considered opinion that the high incidence of intestinal parasites would not decrease significantly, unless the people would alter their habit of excreta disposal in the fields. The incidence of hookworm and other intestinal parasite might increase rather than decrease, if mud pools were allowed to form around taps due to insufficient drainage and or improper use of water.

The mission had the opinion that an improved water supply alone would not suffice to realise the full potential health benefits, unless it was accompanied by interventions in related fields.

The mission found that in Kerala, health education was probably the most important practicable complementary activity. Before people could be expected to change their age old habits, they must be made aware of the necessity to do so. They must know the relation between water hygiene and diseases and what must be done to maximise the potential of new water supply e.g. the importance of proper drainage conditions around the tap and the area near the house, why regular cleaning of water storage vessel was necessary and why better sanitation was required.

The mission suggested that health education must precede any further concrete measure aimed at improving the health situation. The mission strongly recommended the inclusion of a health education component in the water supply projects. As a first step, mission proposed to include a health education expert in the ensuing appraisal mission who would, in close liaison with various governmental and non-governmental organisations active in the field, formulate a plan of action. The cost of such component need not exceed about five percent of the total cost of the projects.

According to the mission, women constituted the most important target group of a health education programme as envisaged. Consequently the involvement of the Mahila Samajam (voluntary women's organisation found throughout the state) appeared to be a crucial factor, since they appeared to be the only organisation who could reach the women in the state.

c) Proposed solutions

In the opinion of the mission, a broader consultation of the population was therefore desirable

together with a more objective and verifiable design plan at an appropriate scale. Presumably this also required the preparation of a socio-economic profile of the village in the scheme.

The mission felt that a better and more objective method of siting taps was called for. In terms of an organisational structure this could perhaps take the form of a relatively small group consisting of, say, four or five people which in close liaison with the PHED (and perhaps incorporated in it) would work to try and establish a better planning procedure to ensure the preparation of socio-economic profiles of villages in the project areas and to organise a broader basis for consultation of local people. This group was described as a Socio-Economic Unit (SEU). Further details were left to be worked out by the ensuing Comprehensive Appraisal Mission in November 1982 in liaison with the PHED.

Ultimately, the mission recommended a Socio-Economic Unit for site investigation/ preparation of socio-economic profiles as well as for the organisation of a health education programme as useful and necessary complements to the current technical proposals (Pre-appraisal Mission 1982).

5.1.3 Netherlands' Comprehensive Appraisal mission of November 1982

In continuation to the earlier Pre-appraisal mission, Netherlands' Comprehensive Appraisal Mission visited the State for a more detailed evaluation of the proposed projects. This mission visited the State between 1st November and 2nd December 1982 (Comprehensive Mission 1982).

Objectives of the mission were, among other things, the techno-economic feasibility of proposed rural water supply schemes, the inclusion of health education component in the proposed projects, cooperation of governmental and non-governmental agencies for health education and community participation, and need for Socio-Economic Units for such activities.

The mission had the following composition

* Regional Planner, DHV Consulting Engineers, Amersfoort, mission leader
* Hydro-geologist, Action For Food (AFRO), Delhi
* Sociologist, Centre for Development Studies (CDS), Thiruvananthapuram, India
* Economist (CDS)
* Water Supply Engineer, DHV Consulting Engineers, Amersfoort
* Professor of Nutrition and Health education Expert, Medical College, Tiruvanthapuram
* Sociologist, Bombay
* Historian and Economist, CDS

In line with the recommendations of the earlier mission, this mission confirmed the need for the establishment of Socio-Economic Units to carry out the following tasks.

Firstly, to prepare base maps (socio-economic profile) for each Panchayat, showing

1. habitation pattern, with emphasis on location of poor segments of the community.

2. location of schools, dispensaries, feeding centres, and other institutions where public taps should be installed as a matter of priority.

3. planned distribution networks and access roads etc. for citing taps.

The second need according to the mission, was to improve the degree of local participation in the decision making with respect to the siting of public taps. Small local committees consisting of the ward member of the panchayats and representatives of various local organisations could be practical ways of doing it. This concept of small user committees led to the creation of the present ward water committees (WWCs).

The third task as per the mission was the organisation of health education related to water use and sanitation in the panchayats, in addition to organising campaigns there was also the need to assess the impact of the programme. This could be made by making a standard KAP (knowledge attitude practice) study among people in selected villages before and after the campaign. Data on the prevalence of waterborne diseases could also be collected in these villages.

The mission recommended to establish three Socio-Economic Units (SEUs) to enhance implementation of complementary hygiene education and sanitation activities through community participation. Socio-economic activities in northern Kerala were to be funded by Denmark and that in the central and southern Kerala were to be funded by the Dutch.

According to this mission, the SEUs were proposed to consist of

* One sociologist
* One economist
* One areal interpreter/ cartographer
* One health education organiser

Further, the mission considered that SEUs could also be instrumental in developing initiatives and proposals for projects in the field of sanitation and that, for this purpose the unit should also be given a small budget for experimental purposes in this field (e.g. for the construction of toilets near schools once public taps have been cited there). Similarly the units could be encouraged to formulate proposals for activities in still other fields (e.g. income generation) (Comprehensive Mission 1982).

The above two missions were followed by a Dutch-Danish Joint Mission in August 1984.

5.1.4 Dutch-Danish Joint Mission of August 1984

The detailed Plan of operation for the establishment of three Socio-Economic Units in Kerala was set by this Dutch-Danish Joint Mission of August 1984, in its report known as KE-6. The duration of this mission was between 13th August and 27th September 1984. The objective of the mission comprised of formulation of the operational work plan for a period of three years for the Socio-Economic Units, covering such tasks as detailed plan of action for socioeconomic activities, organisational frame work, job description and selection of staff for the SEUs, involvement of NGOs in the proposed projects, recommendation of a person to lead the SEUs and the like (Joint Mission 1984).

The mission composed of the following experts

* Mission leader, an expert from DGIS
* Technical advisor, DANIDA
* Sociologist CDS, Thiruvanthapuram
* Scientist, Head NEERI, Kochi
* Professor, Applied nutrition, Medical College, Thiruvananthapuram

This mission recommended to establish three Socio-Economic Units (SEUs) and one Co-ordinator's office, all with the a compact group of supporting staff. In order to make the monitoring of socio-economic activities uniform and coherent throughout the state and to achieve a basis for replicability of these activities, the SEUs' Co-ordinating Office was conceived. Such a Co-ordinating Office was to be jointly funded by the Dutch and Danish donors.

5.1.5 Guidelines for staff service and recruitments

The report, (KE-6), written by the 1984 Mission covered important guide lines for staff recruitment, qualification, job description, salaries, service conditions etc. Important recommendations of this mission are described in the following paragraphs.

1. Location of SEUs

The mission recommended to house the three SEUs and the Co-ordinating Office in KWA's premises. The SEU of the southern region was to be established in Kollam (Dutch funded) in order to be closer to the project area. The other two SEUs to be located (1) in Thrissur (Dutch funded) and (2) Kozhikode (Danish funded). The Coordinating office (jointly funded by the Dutch and Danish) was, obviously to be located at the State capital, Thiruvananthapuram.

2. The Executive Co-ordinator and SEU-Advisor

According to the mission, the SEUs' Executive Co-ordinator should be a person with proven

professional skills and experience and necessary administrative and managerial capabilities. Given the salary level for the local person suggested by the KWA, such a person could be further trained on the job. Therefore an expatriate SEU-Advisor with requisite qualifications from the donor government should have to be appointed to advise the Executive Co-ordinator. The expatriate SEU-Advisor would be appointed for a period of two years with an option of a third year.

The Executive Co-ordinator would have overall responsibility and supervision of all activities of SEUs. He would be assisted by the expatriate SEU-Advisor. Both would have their office premises in Thiruvananthapuram and be assisted by (1) a Finance Officer (2) a Secretary/ Typist and (3) a Driver.

The Executive Co-ordinator would function at the level of Superintending Engineer.

The Advisor and the Executive Co-ordinator would report directly to the concerned Chief Engineer in KWA and to the Danish and Dutch Embassies.

Each of the proposed three Socio-Economic Units was to consist of a team of three professionals: (1) a sociologist as head of the unit, (2) a health educator and (3) a community organiser. They would be assisted by (4) a draughtsman, (5) an office superintendent, (6) a typist and (7) a driver. The head of each Socio-Economic Unit would function at the level of Executive Engineer. He would be in charge of all activities of SEUs and would attend meetings with Superintending Engineer dealing with implementation of bilateral schemes.

3. Recruitment of staff

After the appointment of the Executive Co-ordinator, recruitment of administrative and professional staff was to start. A panel of people with experience in grass root mobilisation and community health work would be set up for evaluation of candidates. This panel would include two senior members of KWA, the SEU-Advisor and two independent members chosen by the Executive Co-ordinator and the Advisor. A pre-selection of candidates for the panel interview would be held by the Co-ordinator and the Advisor. The selection of candidate would take place according to written guidelines agreed by panel members. The panel would be chaired by SEU-Advisor. The final appointment would be taken by a majority of votes whereby the vote of the chairman counts double when there was a tie.

4. Man power

The salaries of all local permanent and temporary staff would follow the KWA salary scales including all emoluments (DA, HRA, IR) and other allowances (ALS and PF, Ex-gratia, MA). All permanent and local staff should be equated with the corresponding categories of the KWA staff concerning changes in salary, emoluments or allowances in future. For each job the qualification and salary levels were to be in line with the requirements of the State Public Service Commission and the KWA. Except the expatriate SEU-Advisor, all staff were to be locally hired.

The expatriate SEU-Advisor would assist and advise the Executive Co-ordinator for a period of 2-3 years. The presence of the SEU-Advisor would ensure a correct take-off for the project in the beginning phase. The Executive Co-ordinator should possess all executive powers and who should report to the higher authority of the KWA. The necessity of an experienced, independent and senior professional for the post of the Executive Co-ordinator was obvious.

Job description, qualification, remuneration etc. of SEUs' staff are briefly given in Appendix 1.

5. Consultancies

During the three year period advice would be needed from local experts. This could be short term consultancy for training, research or production of audiovisual aids. For sanitation survey, an independent evaluation survey outside agencies would be contracted.

6. Finance

According to KE-6, The Netherlands would finance the two SEUs working in the Dutch supported project areas and two-thirds of the cost of the Co-ordinating Office. Denmark would finance the SEU working in the Danish supported project areas and one-third cost of the Co-ordinating Office.

A system of direct project funding through Danish and Dutch embassies would be worked out. These funds would be transferred quarterly in advance to the project account. All project expenditures would be made through this project account by cheque. Signatories to this account were the Executive Co-ordinator and the SEU-Advisor together. Payments had to fulfill the administrative requirements and procedures of the KWA. Auditing would be by an independent auditor for Danish and Dutch governments and by the KWA. The monthly financial statements were to be sent to the concerned KWA's Chief Engineer and the Danish and Dutch Embassies in New Delhi.

7. Progress reports

The Executive Co-ordinator and the SEU-Advisor would be jointly responsible for a three-monthly progress report to the concerned Chief Engineer and Danish and Dutch Embassies (Joint Mission 1984).

5.1.6 Starting of the SEUs

The above mission brought out its plan of operation (KE-6) for implementation of three Socio-Economic Units in December 1984. It took more than two years to complete procedural formalities governments and agencies. There after, agreed upon between the concerned governments and the bilateral agencies, the northern unit of the SEUs started functioning in March 1987 at Kozhikode in the KWA buildings.

The Co-ordinator's Office came into existence in May 1988. SEU (south) and SEU (north) were established in August 1988. All these offices were housed in the KWA buildings.

The establishment of the Dutch assisted SEUs and the Executive Co-ordinators Office were delayed by an excessive amount of red tape and less than effective approach. The DGIS did not manage to get the SEUs and Co-ordinators office approved in less than two years nor did it display any initiative in finding alternative (short term solution) (Graaf M. D. 1988).

Activities of the SEU (south) and the SEU (central) were concentrated in the Dutch assisted project areas in southern and central Kerala respectively. Similarly, the activities of SEU (north) was concentrated in the Danish assisted project areas in northern Kerala.

Dutch contribution to SEU's activities till 1st July 1995 was Dfl[1] 7.2 million[2] and for eight water supply schemes was Dfl 52.93 million. At the end of 1994 Danish support to SEUs was Dkk 16.1 million and for three water supply schemes was Dkk 160.8 million (SEUs 1995).

During the years 1986 and 1987, KWA's hardware activities were started. and went on in full swing together with SEUs'software experiments and programmes.

The activities of the SEUs were first assessed by a Joint Review Mission in 1989.

5.1.7 Indo-Dutch-Danish Joint Review Mission (JRM) of September 1989

This mission visited Kerala during 25th September to 13th October 1989. Objective of the mission was to assess the performance of the Co-ordinating Office and the three SEUs and to advise upon their future form and position.

The mission's main recommendation was that the original pilot project for implementation of SEUs should be followed by a three year demonstration phase from January 1990 to end of 1992.

5.1.8 Changes after 1989

A Joint Review Mission in 1992 observed that the progress with regard to institutionalisation of SEU activities in KWA has been localised and unsystematic. It was clear to the mission that institutionalisation process would be complex and would require considerable more inputs from SEUs. The mission concluded that it would take some more years to complete. JRM finally recommended to extend the contract for SEU for three more years or preferably five years from October 1992 (JR Mission 1992) .

[1]Dfl 1 = US$ 0.58; Dkk 1 = US$ 0.17; Rs 1 = US$ 0.03

[2]Crore = 10 Millions; Lakh = 0.1 Million

Over these years KWA's hardware activities were not completed. It was slowly and steadily through several important construction phases. SEUs" hardware activities also went on side-by-side at the same pace.

Two years later a Danish mission recommended to do away with the posting of the Expatriate SEU-Advisor since May 1994, as this position was no longer found essential (Danish Mission 1994).

So far there was no indication of the KWA integrating either SEUs or its activities. At the same time the need for sustaining SEUs' experiments and programmes were largely felt by the donors.

Finally, in 1995, as its logical conclusion, another mission recommended the formation of a SEU Foundation with possible initial funding from RNE and UNICEF. This mission also recommended budget for the years 1996-2000 (RS Mission 1995).

5.1.9 New organisational set up for the SEUs

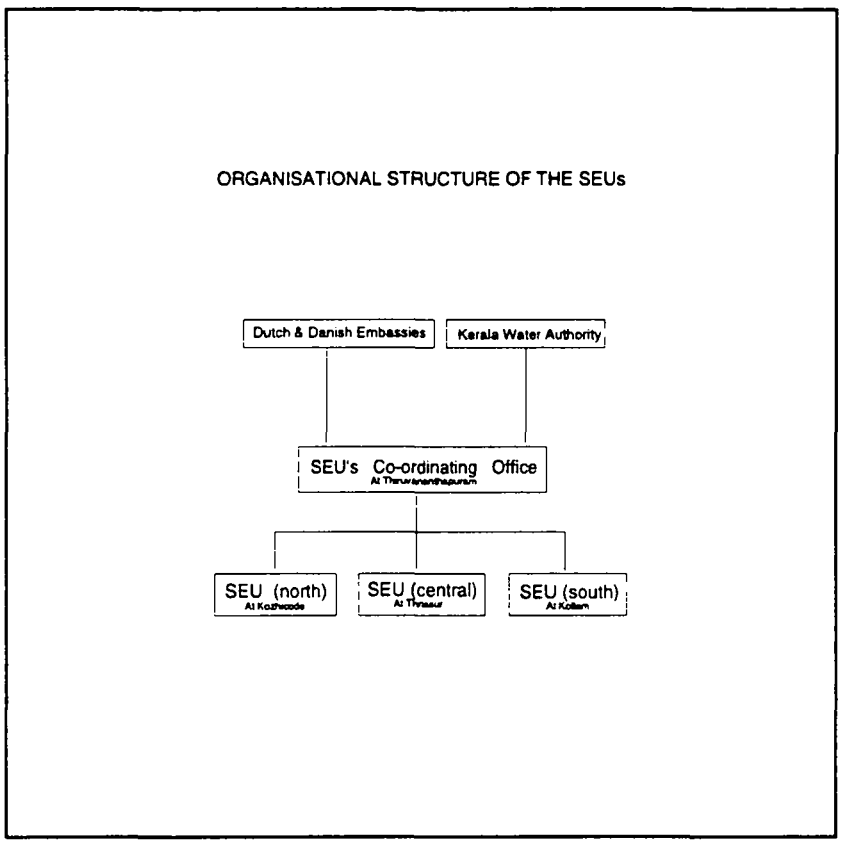
In the mid-1995 the SEUs got registered as a foundation viz., the "Socio-Economic Unit Foundation" under the Travancore-Cochin Literary Scientific and Charitable Societies Registration Act XXII of 1995. It was also decided to start the functioning of the new SEU Foundation from 1st April 1996 (SEUs 1995). More about why this new form evolved will be discussed in chapter 6.

5.2 Functional structure and co-ordination of the SEUs

5.2.1 Actual location of SEUs'offices

In reality, the SEUs comprised of one Co-ordinating Office at Thiruvananthapuram and three regional offices at: 1. Kollam (South), 2. Thrissur (Central), and 3. Kozhikode (North). Office accommodation has been provided in KWA buildings. The SEUs have been working directly under the supervision of Dutch-Danish Embassies and in collaboration with the KWA with total 44 staff. The general arrangement of the SEUs is shown in Figure no 1.

Figure no 1: SEUs' general set-up



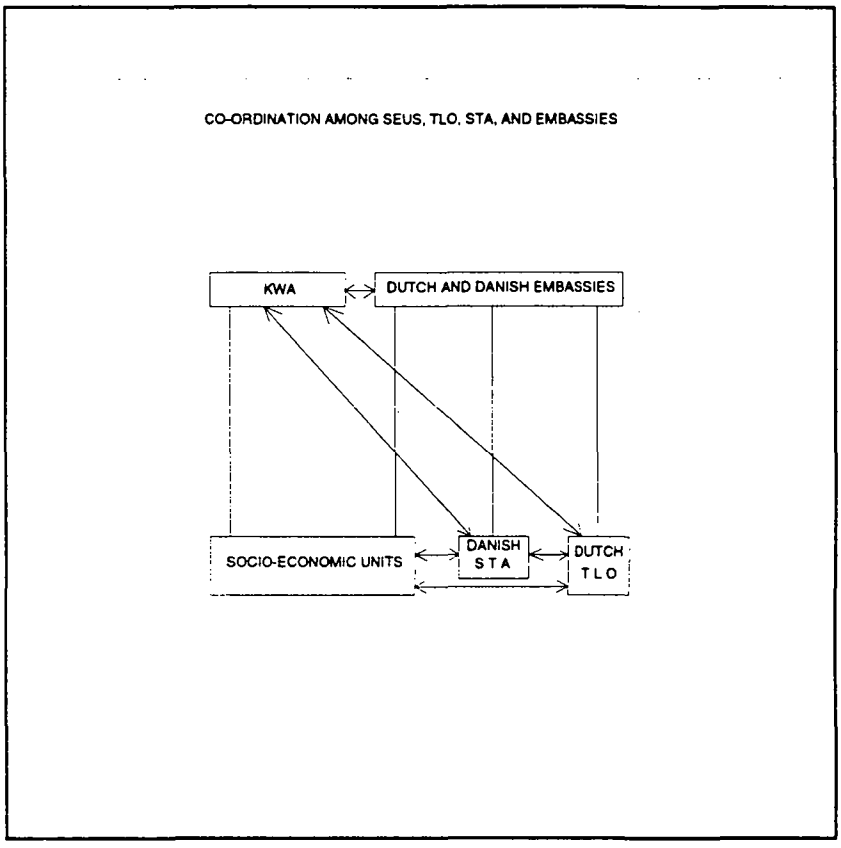
5.2.2 Dutch Technical Liaison Officer (TLO)

A Technical Liaison Officer (TLO) was appointed by the Dutch authorities to liaise between the Royal Netherlands Embassy and the KWA in planning, implementation and monitoring of Dutch assisted rural water supply schemes. His office formerly located at the KWA premises in Thiruvananthapuram has been shifted to KWA premise in Kochi since 1993.

5.2.3 Danish Senior Technical Advisor (STA)

Similarly a Senior Technical Advisor (STA) was appointed by Danish authorities. The STA's office has been accommodated in KWA's premises at Kozhikode. The set up of co-ordination among SEUs, KWA, Embassies, TLO, and STA are shown in Figure no 2.

Figure no 2 shows co-ordination among SEUs, KWA, Embassies, TLO and STA

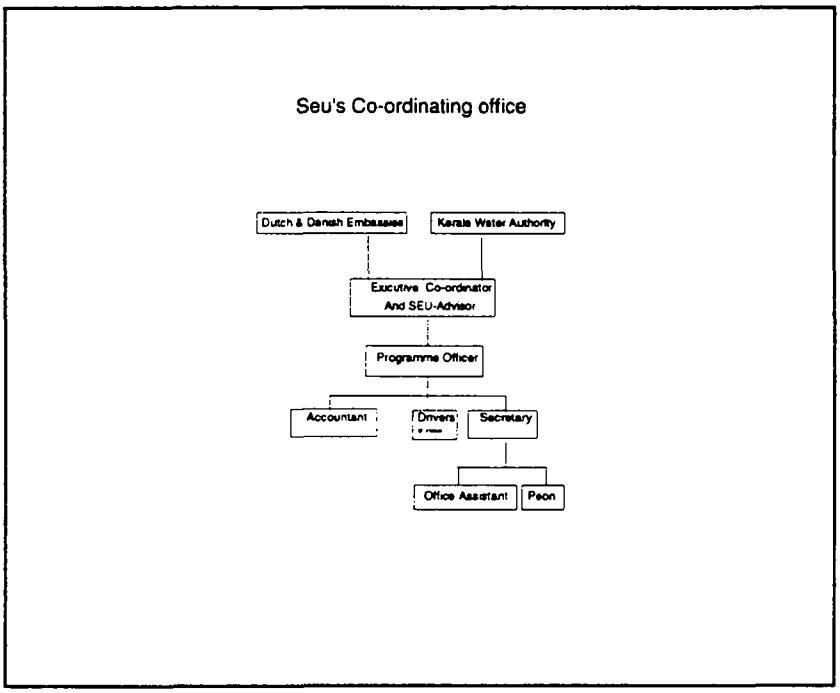


5.2.4 SEUs' Functional levels and staff set up

SEUs have a three level functional structure. At the top- the state level Co-ordinating Office- the task of project planning, co-ordination, support and monitoring were undertaken by a small professional team. In the middle- field level- the main functions were implementation and co-ordination. Co-ordination with other agencies, including the government in matters of sanitation, health education were also equally important components of the programme at the middle level. Each of the three Field Offices of the SEUs covers four to six lakh population. At the third and lower level (i.e. at the Panchayat level) the temporary Field Organiser (FO) was working together with the water committees, stand post caretakers and the community. Usually one Temporary Field Organiser assigned in each Panchayat. Temporary Sanitation Supervisors were also posted at Panchayat level to supervise the construction of latrines.

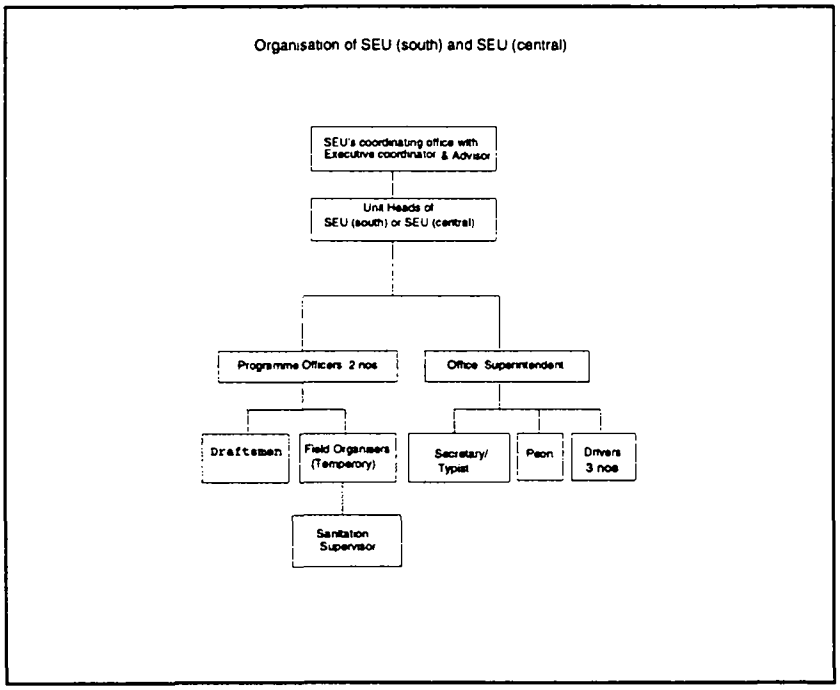
The staff set-up in the Co-ordinating office is shown in Figure no 3.

Figure no 3 shows the staff set-up in the Co-ordinating office



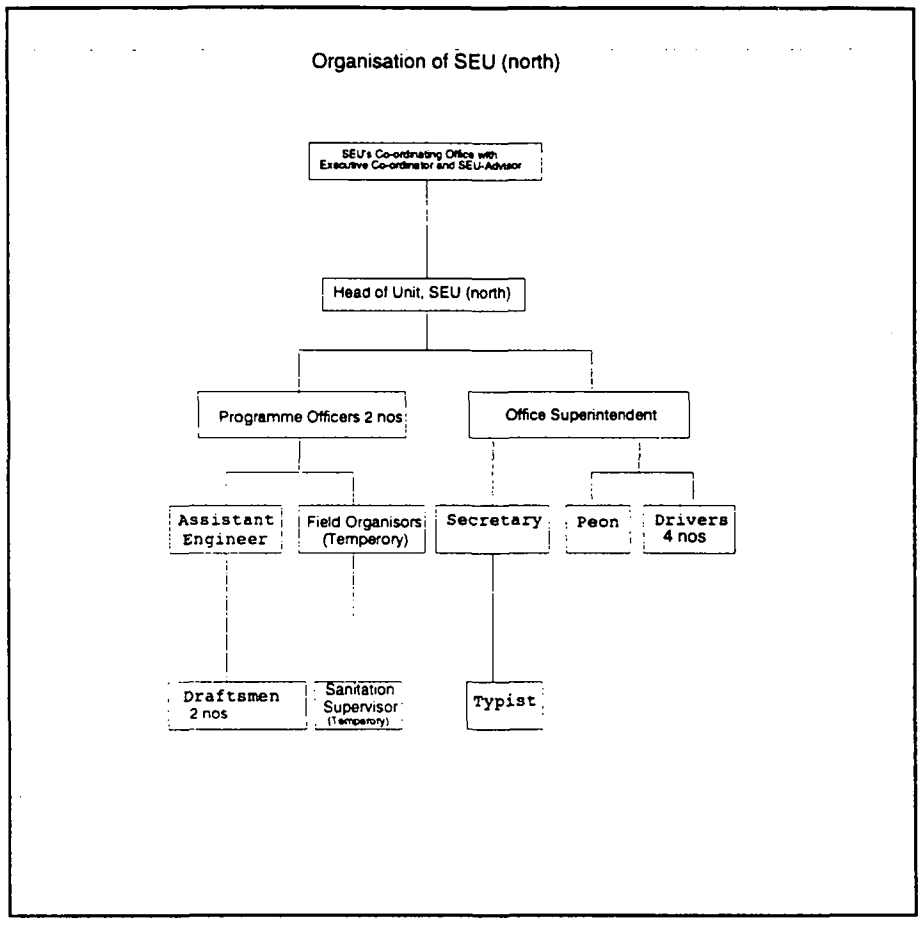
The internal staff set-up of SEU (s) and SEU (c) are similar and shown in figure no 4.

Figure no 4 shows internal set-up of SEU (south) and SEU (central)



The internal arrangement of staff set-up of SEU (north) is shown in Figure no 5.

Figure no 5 shows internal staff set-up of SEU (north)



5.3 Accomplishments by the SEUs during 1987-1995

SEUs have developed a number of innovative approaches during the last 8 years since 1987. Following are the important activities accomplished by the SEUs.

1. forming ward water committees (WWCs)
2. mapping of scheme areas and site selection for public standposts
3. reporting leaks and faults
4. functionality study
5. selection of standpost attendants and upkeep of surroundings
6. preventing misuse and vandalism
7. closing down unjustified taps
8. experiment on use and maintenance by the community
9. experiment on cost recovery for standposts

10. design of user friendly standpost with drainage
11. spring development programme
12. improvement of traditional wells
13. protection of traditional wells through chlorination
14. latrine with education
15. health and hygiene education.
16. training and networking with other agencies
17. core group formation
18. mass media and radio programme

More about these activities is explained below.

5.3.1 Ward water committees (WWCs)

The core element of SEUs' efforts has been to ensure community participation through the involvement and mobilisation of the communities in the preparation of socio-economic mapping for new water supply schemes, location of public stand posts, identifying areas where extensions were required, fault reporting, monitoring, selection of beneficiaries for sanitation programmes, determining sites for latrines, organisation of hygiene education programmes and beneficiary meetings at ward level, etc. To achieve this goal, ward water committees (WWCs) were established as an integral part of the project. As on September 1995, 547 nos of such ward water committees were established. The water committees consist of seven members nominated by the community; (1) elected Panchayat member, (2) two women representatives, (3) Two representatives of youth organisations, (4) an active social worker or school teacher, (5) one representative of the intensive child development scheme (ICDS) or the village health worker of the health services department depending on their involvement in the programme. The elected Panchayat ward member is the president of the committee. One secretary is selected from among the members.

The guide lines for the selection of WWC members and their responsibilities are given in the water committee training manual (Appendix 1). The members of the water committee were selected democratically, from the user community, considering their competence, dedication and motivation. SEUs have developed a training manual with a curriculum for training WWC members. The manual also provides the procedures for the conduct of the WWC meetings. This representative group (WWCs) determines the pattern in which water supply and sanitation programmes are to be implemented in their locality (Kurup 1995).

5.3.2 Mapping of scheme area and site selection for standpost

Under this activity people were involved in identifying & mapping of areas to be included in the water supply schemes and deciding the location of public stand posts. The maps include data on the dwelling places of rich, middle and poor income families, colonies, roads, foot paths, market places, schools, dispensaries/ hospitals, ICDS (Intensive child development

scheme) centres and so on. Maps have been prepared for each ward (scale 1:5,000). In some of the training classes, the water committee members have been asked to prepare their own ward maps indicating current locations and sizes of pipes and taps. So far, the SEUs have prepared detailed maps of 52 panchayats. Based on such exercise detailed pipe line designs were worked out and the area of operation prioritised, based on available resources. The remaining areas were planned to be covered at a later stage with comparatively less investment.

Earlier the siting of the standposts were often based on political considerations and sited mainly on road sides. Community was not asked or involved in the identification of water points. The tendency of many politicians and Kerala Water Authority Staff were to add on new lines and stand posts (based on political criteria, under drought relief and such other ad-hoc programmes) without considering the capacity of schemes and water demand. This was mainly due to lack of established guidelines on stand post location based on scarcity level and socio-economic considerations (Kurup 1995).

Based on the experience of SEUs, Kerala Water Authority (KWA) issued guide lines on site selection criteria: a stand post should serve a minimum of 15-40 households (about 200) people within a minimum walking distance of 250 meters radius. Following this criteria the number of public standposts could be reduced and priority could be given to the colonies and places where poor and more needy people were residing. As indicated above, from the mapping exercise the economic and social status of the households could be stratified into three: (1) rich- for house connection; (2) middle-income- for house connection (3) Poor- for public standposts. Since the local bodies have to pay Rs 875 in the rural areas and Rs 1314 in the urban areas per tap per annum to the KWA towards the operation & maintenance of stand posts, it has been in the interest of panchayats and people themselves to minimise the number and dependence on public standposts (Kurup 1995).

5.3.3 Reporting leaks and faults

This is one of the most important and difficult activities carried out jointly by water committees and stand post caretakers (Standpost Attendants). This activity has been tailored for assisting the KWA in better operation and maintenance and improving the service delivery. In the beginning fault reporting was done by telephone to KWA office in a haphazard manner, if not neglected, by the (1) WWC, (2) Panchayat and (3) field organisers (FOs) of the SEUs. Later, the FOs and WWCs collected the lists from the Standpost Attendants (SPAs) and handed over to the KWA. Finally, In the Present system, KWA maintains complaint register at each Panchayat office and details of faults as well as rectification works are noted in the register itself. However, major pipe line leaks and other serious faults are dealt with immediately by the KWA. In addition to this, self addressed post cards have been distributed to the SPAs and these are posted to KWA office whenever there is a tap leak or pipe line breakage. All such reports coming from the field are consolidated by the respective KWA staff and immediate remedial action is taken. It may be noted that with the active participation and involvement of the WWCs, SPAs and the community, KWA

has been able to improve the service level from 30% to 80% in one of the schemes during the past six months (Kurup 1995).

5.3.4 Functionality study

In addition to the regular reporting of faults, the SPAs, FOs and KWA staff jointly monitor the duration of the presence of water, its colour, taste, odour and overall condition of the standpost, including its accessories and surroundings. Results of such studies led to the quick rectification of malfunctions by the KWA and used as guidance for future programmes .

5.3.5 Empowerment of SPAs and upkeep of standpost and surroundings

The ward water committee empowers a local volunteer- usually an adjacent female beneficiary- as standpost attendant (SPA) to take care of the standpost. The duties of the SPAs have been drawn out (Appendix 1). The SPAs together with the WWCs have taken the task of keeping the Standpost and its surroundings neat and clean. For many standposts drainage have been arranged under the leadership of SPAs and WWCs. SPAs have taken up this voluntary job as a challenge. As part of the training they were asked to vouch and comment on the upkeep of the neighbouring standposts. School Health club members (students) have been used for assessing the condition of standposts coming under their jurisdiction. In certain areas certificates and prices have been distributed to SPAs who maintain clean standposts (Kurup 1995).

5.3.6 Prevention of misuse and vandalism

There is a tendency among many Keralites that public standposts are meant for all kinds of uses, such as washing autos, bicycles, trucks, buses, cloths and even watering the coconut plantation of an influential person. Sometimes the users themselves use sand, stones, iron wires, threads etc. for keeping the mouth of the waste-not taps open to test the presence of water during times of irregular supply and at times of low pressures. Such undesirable practices have been considerably reduced in bilateral assisted schemed as a result of the joint effort of SPAs and WWCs. Miscreants are warned and driven away by the SPAs with the help of genuine tap users (1995).

5.3.7 Closing down of unjustified (or undeserving) standposts (taps)

Earlier it was the impression of Many KWA staff, Panchayat members and presidents that it was not possible to close down any of the existing taps. Because, KWA engineers assumed that the Panchayat would never come up with a resolution for closing down an existing standpost, for fear of loosing popularity. More over these standposts were erected during or before 1987-88, i.e. prior to the establishment of the SEUs in Kerala. However through the

active involvement of WWCs and SEUs, during site selection activities, the need for closing down certain number of standposts (standposts not conforming to site selection criteria) was realised. By closing down a tap, the Panchayat could save Rs 875 per tap per annum. This also was in the best interest of the scheme by conserving water and improving the potential for cost recovery through enhanced number of house service connections. Thus, making a beginning in one Panchayat, 53 standposts were blocked, with KWA, WWC and Panchayat personals working closely together. The Panchayat President and WWC members were present all three days during the closing down exercise. This activity has stimulated six other panchayats and their WWCs that have been entrusted with reporting on the undeserving standposts (Kurup 1995).

5.3.8 Experiments on maintenance by user community

Lack of manpower and funds for operation and maintenance seriously affect the quality of service. In order to develop a community based operational strategy, a small experiment on use and maintenance was undertaken in one of the small bilateral supported schemes. Ten members from the community (5 men and 5 women) have been selected and trained to undertake small repairs at standposts and have been provided with the necessary tool kit. The bad quality waste-not taps (Jaison taps) were replaced with locally available plastic taps by such trained community members. Currently these members are not paid for such works. However, they will be given payment by the community and the local body. The community is meeting the cost of tap while it is replaced. Recently, after being convinced by the success and efficiency of such a system, the Thrikkunnapuzha Panchayat, through its resolution no 21 (e) dated 19-7-1995, has requested the KWA to allow the already trained user community members to continue with the small repair activities (Kurup 1995).

5.3.9 Experiment on cost recovery

In rural areas the Panchayats have to pay Rs 875 per tap per year. Where as in the municipal areas it is Rs 1314 per tap per year. Even though in principle, most local bodies agree to this, in practice most of the money is not paid to the KWA. With its meagre resources, most of the Local Bodies are not able to pay the current as well as arrear water charges to the KWA and it remains only in paper (Price Waterhouse 1994). According to statistics KWA has to get of RS. 90 crores from various local bodies and institutions towards accumulated arrears of water charges. At times, the Government makes partial peace meal payments to the KWA by cutting the grants due to the local bodies.

Under this circumstances, in one of the panchayats under s scheme area, the northern unit of the SEU, the WWCs and the SPAs carried out an experiment on cost recovery towards water supplied through stand posts. The users in the area were consulted and asked to contribute according to their economic status. Majority of them agreed to pay Rs. 5 to Rs.10 every month as water charges. During the last one and a half years Rs 43,729 has been collected and deposited in the joint bank account of the Panchayat president and the SEU, for paying

the dues to the KWA. The intention was to continue this activity in all the Panchayats under the scheme. Providing water for eight hours a day was a necessary prerequisite for cost recovery experiment. However KWA was not able to continue good service due to many reasons. With this amount it was hopped that the Panchayat would be in a better position to settle the dues to the KWA. Although this amount was fairly high among the poor families, the need for a reliable, accessible and good quality water was the main contributing factor for majority of them. Another important aspect was that these poor householders were contributing even during heavy monsoons (when there was no scarcity of water). The area under operation has been one of the most backward, religiously sensitive and difficult areas to work. This experiment would be an eye opener for the politicians, planners and policy makers engaged in the water supply sector (Kurup 1995).

5.3.10 User friendly standpost design

The type design of the stand post currently used in KWA was not a convenient one from user's point of view with regard to the area of the platform and the height of the fountain. The limited platform area caused splashing of water and mud pool formation around the standpost. Because of the insufficient fountain height people had to stand bending to keep the tap open. Hence the SEUs took the initiative to originate a more user friendly standpost design which satisfied the users' requirement through the combined effort with KWA engineers. The new design has been formally accepted by the KWA for adoption in its water supply schemes (Kurup 1995).

5.3.11 Spring development programme

A programme on the development of natural spring for providing drinking water to remote hilly area of one district has been got started through an NGO (viz. Pazhakulam Social Service Society) with financial assistance from The Royal Netherlands Embassy. SEU was responsible for supporting the NGO in training, monitoring and management of the activity with community education and participation. Seventy five springs have been developed in the first phase in four blocks (a block represents a group of 5-6 panchayats) with active participation and involvement of people of these remote areas. For such small projects the per capita cost is below Rs.100, apart from short implementation periods. Where as the percapita cost of rural water supply schemes in Kerala as approved by the Government of India is around Rs 600. The usage pattern is 100% and the people have taken the lead in the operation, maintenance and management of these 75 springs. As a result of good response from the community another Dutch NGO (Simavi Foundation) has given assistance for the development of another 650 springs in the neighbouring three districts, based on the experience gathered from previous project (Kurup 1995).

5.3.12 Improvement of traditional wells

Kerala has the highest density of open dug wells used for drinking water in the world. According to one estimate there are 5 lakh wells (State Planning Board 1994). Many of these were in need of improvements. So recently, the Government of Kerala, through KWA, provided to the SEUs Rs 1.5 million for implementing traditional well improvement programme with community education. During the past 15 months, 450 wells have been rennovated. Community wells as well as those used by more than 15 families were given such assistance. Six NGOs have been trained by SEUs in implementing this programme. Three educational classes have also been arranged. The communities' contribution varied from 15 to 55% depending upon the cost of construction. The design construction and drainage facilities have been developed in consultation with the community (Kurup 1995).

5.3.13 Protection of traditional water sources by chlorination

The bacteriological quality of open dug well water in Kerala was found to be quite unsatisfactory when an extensive survey was carried out for this purpose. So this drinking water quality improvement programme was carried out through the women's group with SEUs' support. The objective of the programme was to promote the safe use of traditional water sources through chlorination and education. Twenty five young women have been selected and trained by the SEUs under the auspices of a Mahila Samajam (women's organisation). The initial supply of bleaching powder and necessary equipments were provided by the SEU. The group has packed the bleaching powder in 30 gms in small attractive packets (One traditional well requires approximately 30 gms bleaching powder for effective chlorination). Each packet costs Rs 0.75, out of which Rs 0.15 is packing charges and Rs 0.25 is allowance to the promoters. The promoters visit the households in the Panchayats and explain the mechanism of chlorination. For demonstrating the chlorination, householders have to pay Rs 0.50 in addition to the cost of bleaching powder. Now this activity is going on in 12 panchayats. More than 30,000 wells have been chlorinated by this group. Now the Panchayat Department and Health Services department have recognised them to operate in all the Panchayats in one district (Kurup 1995).

5.3.14 Latrine with education

In Kerala, out of the total 5.5 million houses, 2.9 million (55%) are without latrinal facilities (State Planning Board 1995). So the SEUs have taken the challenge to construct 50,000 latrines with people's participation in bilateral assisted water supply project areas with 100% coverage of the population below poverty line (monthly family income below Rs 1100). Thus till September 1995, 34,560 nos double pit pour flush toilets have been constructed. Three Panchayats already reached 100% coverage, fourty Panchayats are going to achieve 100% coverage by March 1996. The beneficiary contribution was 25% and SEUs' contribution 75%. Each Panchayat contributed financially (approximately 15 to 20 % of their annual income) on a voluntary basis. This amount ranged from Rs 25,000 to as much as Rs 500,000. In most

cases the Panchayat contribution is used to provide latrines to the very poorest people at the end of the standard construction period. The up-to-date Panchayat and inter agency contribution for the programme amounts to Rs 11,375,826. The present cost of a toilet is Rs 2650.

The implementation committee looks after the day-to-day management of the programme. The implementation committee comprises of (1) Panchayat president, (2) Panchayat Executive Officer, (3) KWA's Assistant Engineer, (4) one SEUs' official, (5) one lady member (elected by all the WWC members or the women WWC members). The ward member of the ward where the programme implementation is going on is a special invitee to the implementation committee. The executive officer is responsible for keeping the accounts of the programme. These accounts are checked periodically by the account officer of the SEUs and occasionally by an external auditor.

Selection of beneficiary is made by the WWCs. The Panchayat and SEUs open a joint bank account. Panchayat contribution is first deposited before SEUs deposits 75 % of construction cost plus 1% overhead charges. Marking on ground is done by a technical person/ Health inspector and trained WWC members. Implementation committee decides on sources of procurement of materials. Vouchers are approved by sanitary supervisor and countersigned by ward member. It is the responsibility of WWC to see that transportation of materials is done by beneficiaries as a group.

Each toilet has a serial number. The quality of construction is periodically inspected by sanitation supervisor. WWC conducts periodic monitoring and follow up of use and upkeep of the latrines. Every six months, the use and maintenance of the latrine is monitored by the representatives of the ward water committee and record kept in a format shown in Appendix 2. The effective use of latrines are more than 97%. In all the panchayats more than 90% of the children are found continue to use. Among the users, 98% are aware of the use of the water seal and know how to maintain the water seal. After this success, SEUs have also constructed another 1972 latrines under inter agency collaboration (Kurup 1995).

5.3.15 Health and hygiene education

As explained in other sections community oriented educational programmes are built into every stage of the programme. A major vehicle for the carriage of this message to the people is the ward water committees.

Effective hygiene education required the combined use of different approaches like interpersonal communication and group discussions. Unlike technical aspects, bringing about changes in attitudinal and behavioral practices has been a very difficult task which could be developed over a period of time. This involves more than simply explaining the importance of hygiene education to the people. So local women groups are selected to form neighbourhood committees and are trained to implement effective hygiene education programme. Before that the perception and knowledge of the community regarding water and

sanitation was assessed. Attempt was made to gain insight into the life style and living pattern of the community. Special effort was made to get a feel of the area and the general ambience through identification of sur names, mode of addressing various individuals, people's style of dressing, their aspirations, political affiliations and so on. By and large the community education component addressed the following issues.

* How could people be successfully motivated to adopt hygienic practices such as hand washing?
* How could hand be washed adequately with minimum water and soap?
* What were the usual local practices and their trend?

More than 300 school health clubs have been formed in selected schools. Their activities have improved children's health awareness and behaviour. A book on water was prepared for the school children with input from members of school health clubs and teachers. Substantial improvement has been seen in the hygienic condition around many schools: such as environmental cleanliness around the class room and school compound, covering the drinking water pots, using ladles for taking water from a pot instead of dipping hand directly into the water, washing hands before taking food, washing both hands after going to toilets, children regularly doing nail cutting and so on (Kurup 1995).

5.3.16 Training, orientation and net working with other departments and NGOs

Training requirements have been identified in consultation with departments such as, health, social welfare, education rural development, Panchayat and NGOs. Orientation and refresher training was given at field level according to the need. Practical training and workshops have been organised for the members of water committees, standpost attendants and community members. Participatory training techniques have been used in all training. They have been involved in Practical field training exercises using observation schedules, home visits and school health clubs. Together with the water committees it was possible to bring side by side the elected members and the officials from various departments catering to the upliftment of the rural people.

Several masons have been trained throughout the project area. Thirty two women masons have been trained and they are undertaking latrine construction programmes in eight panchayats. They are getting equal wages like man masons. The experience is that women masons are very effective in communicating with householders compared to man masons (Kurup 1995).

5.3.17 Core Group formation

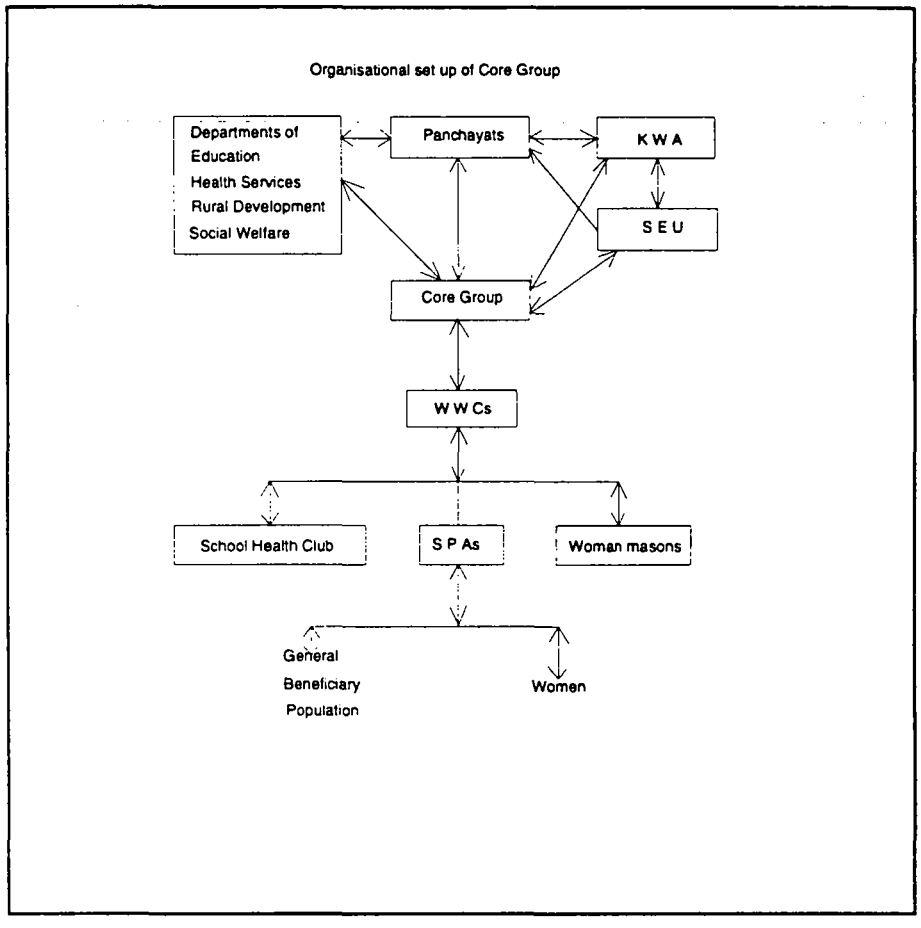
One year before the proposed with drawl of the SEUs from the project related activities, Core Groups are formed in the Panchayat level to take over and continue the Socio-Economic activities. The members of the Core Group consist of (1) the Panchayat President, (2)

Panchayat Members, (3) two members nominated from each WWC. The Panchayat President is the President of the Core Group and one convener is selected from among the members. The list of Core Group members is approved by a Panchayat Resolution. The Core Group members are divided onto three subgroups to look after activities like (1) organisation (2) water supply and (3) sanitation. Core Group members are given three days compulsory residential training held outside the Panchayat area on various activities listed below. One day training within the Panchayat is arranged to help them learn Planning activities. The chief activities of the Core Group comprise of those previously handled by the Field Organisers and are the following (SEU south 1993).

* Beneficiary selection (sanitation)
* Supervision of quality of material and construction (sanitation)
* Handling hygiene classes (water & sanitation)
* House visits (water & sanitation)
* Ongoing cleaning activity (water, standpost and surrounding)
* Supervising small repairs (water, stand posts)
* Overseeing reporting of faults (water)
* Overseeing ward water committee meetings (organisation)
* Selection of trainees for training (organisation)
* Organising contribution (water, sanitation)
* Placing monthly reports in Panchayats (organisation)
* Organising joint activities with related agencies (organisation)

In the above lines Core Groups have been formed in six Panchayats. During the past 3-4 years Core Groups have been either independently planning and carrying out or otherwise helping WWCs in the above mentioned activities which were previously done by Field Organisers of the SEUs. The organisational set up of such a Core Group is illustrated in Figure no 6.

Figure no 6: Organisational set up of Core Group



5.3.18 Mass media and radio programme

An innovative radio broadcast programme on protected water supply and environmental sanitation, viz. Jeevandhara (fountain of life) was developed together with the All India Radio (AIR), Directorate of Health Services, State Committee of Science Technology and Environment, Kerala State Pollution Control Board, Kerala Satra Sahitya Parihsad (KSSP) and Kerala Association For Non-formal Education and Development (CANFED). Thirty two weekly lessons were broadcast on aspects related to water source, waterborne diseases, treatment and distribution of water, garbage and sewage disposal, low cost sanitation, pollution and environmental hazards, role of voluntary & community organisations on protected water supply and sanitation. Features, discussions, quiz programmes, etc formed this series. The synopsis of the different topics of the broadcast was prepared in advance and distributed to the ICDS centres, libraries, youth clubs and voluntary organisations. This radio programme was broadcast during the rural programme hours of AIR, Thiruvananthapuram

on all Friday between 6.50 and 7.50 Pm and was relayed by all the radio stations in Kerala. KWA and Canara Bank provided Rs. 20,000 as prize money to the best listeners. Owing to the high demand from people, this programme has been broadcast twice with changes expressed by listeners. A wide spectrum of experts and media persons reacted very positively about this programme (Kurup 1995).

5.3.19 A comparison of expenses for SEUs activities with KWA's hardware activities

The expenses for SEUs activities till the end of 1995 is around Rs 12.68 crores. The expense excluding latrine construction (35,546 nos latrines) comes to half of the above figure (SEUs 1995). The expenses for KWA's hardware activities up to September 1995 is around Rs 117.03 crores (KWA 1995). As a percentage, software expense comes to about 10% including toilets and 5% excluding toilet.

5.4 Conclusions

The foregoing discussion is summed up as follows. At the Start of the UN Drinking Water Supply and Sanitation Decade, Kerala received 85% grant assistance from Dutch and Danish donors for 11 nos water and sanitation projects benefitting two million people (6.8% population). The respective project reports prepared by the State Public Health Engineering Department underwent detailed assessment by external Appraisal Missions.

The project Appraisal Missions found two problems: (1) with regard to the inappropriate siting of standposts and (2) lack of awareness. It was decided to set up special units funded by Dutch and Danish Governments specially to find solutions to these problems. SEUs, as this small agency was called, was set up in 1987 and carried out a number of demonstration projects between 1987 and 1995. In general, SEUs' utilisation of users involvements in health education, project planning, monitoring, fault reporting, evaluation etc. showed remarkable improvements in project performance in terms of quality and reliability of service delivery as well as in reduction of health hazard. A crucial issue which remained unresolved, however, was a transfer of SEUs' user oriented approach to the implementing state agency.

Chapter 6

Socio-Economic Units and the integration issue

Introduction

This chapter begins with a discussion on the various measures taken since 1982 with the aim of integrating the SEUs and its activities into the Kerala Water Authority. Then it describes the recommendations of various review missions on the integration issue. It also highlights the opinions of the donor's Professional Advisors as well as a team of KWA's Engineers who visited the SEUs' activities in connection with the integration issue.

6.1 Preparation phase

6.1.1 SEUs conceptualisation by the Pre-appraisal mission of September 1982

As early as in 1982, this mission gave birth to the idea of forming SEUs in the KWA. They observed that PHED was primarily a technical department and in the absence of a special Socio-Economic Unit it could not achieve optimal siting of standposts as well as the benefits of integrated approach in water supply schemes.

Therefore this mission recommended the formation of an organisational structure in the form of small groups consisting of, say, four or five people which in close liaison with the PHED (and perhaps integrated in it) would work to try and establish a better planning procedure, to ensure preparation of socio-economic profiles of the villages in the project areas and to organise a broader basis for consultation of the local people. Such a unit was conceived as a socio-economic unit (SEU). Such units could take the initiative to ensure that water supply schemes were completed with a health education component also. Further details on these were worked out by the Comprehensive Appraisal Mission in November 1982 (Pre-appraisal Mission 1982).

6.1.2 SEU's confirmation by the Comprehensive Appraisal Mission of November 1982

This was the second mission and they actually proposed to launch three "pilot SEUs" attached to the KWA and not part of the KWA organisation. This mission observed that community participation and health education activities were outside the normal scope of work of the PHED and were the responsibility of other government departments. Mission also felt that given the experimental nature of these other activities the SEUs should not be established in a hierarchical situation in which the units became locally embedded in the PHED structure.

The mission had the opinion that for a period of, say, three years, the units should be given some degree of freedom to experiment and be attached to rather than part of the PHED. The mission hoped that after three years, the units might have developed some activities outside the normal scope of the PHED activities, so that State Government could decide whether, if such units were found to be useful, they should become part of the PHED or not (Appraisal Mission 1982).

6.1.3 Plan of implementation of SEUs by the Dutch-Danish mission, September 1984

This mission was specially constituted to formulate an operational work plan for three years for the SEUs and on that basis the mission recommended the following.

* There should be close cooperation between the technical staff of the KWA and SEUs working in the districts.
* The work of the SEUs' staff and their subsequent advices have to be seen by all parties concerned as an integral part of and overall and proper implementation of the Dutch and Danish funded water supply schemes.
* There should be commitment by the KWA which puts the KWA authorities under obligation to follow as far as possible the advices of the SEUs within the constraints of technical possibilities.
* Procedures, ways of coordination and line of authority between KWA's staff and SEUs' staff and got agreed upon by the competent authorities of Indian, Dutch and Danish governments
* Eventually the SEUs would become part of the KWA organisation.

Regarding integration of the SEUs activities, the mission recommended that before the end of the first three year period an external evaluation mission would evaluate and assess the working of the SEUs. That mission would recommend how the SEUs could function at the end of the project period by extending its services outside the project area. The report of the mission came out in December 1984 (DGIS 1984).

6.1.4 Actual starting of the SEUs

After the September 1984 Mission, it took more than two years for fulfilling formalities between governments and agencies. The northern unit of the SEUs started in 1987. In 1988 the central and southern units as well as the Co-ordinating office came into existence.

Almost in the same perid (1986-87), KWA' hardware activities were also started. Together with that SEUs' activities went on side-by-side, in full swing for several years till the present date.

6.2 The debates on integration issue

6.2.1 Response of KWA to the integration proposal

First official Indian reaction to the proposal for eventual integration of the SEUs was made in 1987. The integration proposal was cooly received by the KWA. It was formally conveyed to the Dutch Embassy through the Government of India in April 1987. The KWA attached certain conditions to the integration proposals mentioned earlier. The Side Letter viz. DO. No.10/2/EEC (NL)/ 85 dated 16-4-1987 from Joint Secretary, Department of Economic Affairs, Ministry of Finance, Government of India addressed to the Royal Netherlands Embassy New Delhi, in this connection, had the following content. "KWA has the intention to continue the project only if it is satisfied with the proper functioning of the SEUs and after the advice of an independent evaluation mission. After being satisfied and agreeing to continue the SEUs, the KWA would arrange for appropriate budget provisions to absorb the SEUs in their organisation; as well as timely anticipation on any legal implication involved."

1987 onwards the SEUs went on with their socio-economic experiments and programmes. The first evaluation of their software activities was made by a Joint Mission in 1989.

6.2.2 First evaluation by an Indo-Dutch-Danish Joint Mission of September 1989

SEUs first evaluation was made by this Mission. In anticipation of the Mission, the three professional advisors gathered their opinions and presented it to the mission, with the idea to guide the mission in its discussions about the integration issue with the KWA and the governments. These views are summarised below.

a) The Danish Senior Technical Advisor (STA)

The views of the Danish STA are quoted below

* "The weakness of the present set-up is a lack of beneficiary influence on the design, even though some beneficiary contact is included in KWA's procedure, the organisation is not geared towards these activities" (Mogens Mechta 1989).

* "In the present government procedure, all government appointments have to be approved by the Kerala State Public Service Commission. Such approval can take up to two years after the KWA has got the posts sanctioned. This practice will severely hamper the creation of new and independent wings within KWA, but also all other additional employments".

* "Considering the above points, it is therefore suggested, that already at the time of negotiating projects, the Government of Kerala (GOK) should give assurances which should be tied up with the implementation that the agreed required staff has to be approved following agreed phasing, so it will be a pre-requisite for hardware

implementation" (Mogens Mechta 1989).

* "SEUs' existing set up cannot continue under KWA if donor support is withdrawn.

* KWA does not have necessary qualified man power to integrate the Socio-economic aspects based on the experiences gained with present SEUs without employing professionally trained sociologists.

* Socio-economic manpower should be added to IPD or executive divisions or circles.

* Donor supported procedures shall be established.

* Donor financed phasing of integration

* Sanitation shall not necessarily be responsibility of the KWA" (Mogens Mechta 1989).

b) The Dutch SEU-Advisor presented the following arguments

* The SEU projects, so far has established reasonably clear-cut approaches only with regard to the four activities: (1) site selection and coverage studies (2) facilitation of user involvements in various stages (3) hygiene education and (4) rural sanitation in selected Panchayats (Graaf M. D. 1989).

* The term integration of structure or personnel not to be used and instead the term consolidation of activities was to be adopted

According to the Advisor, two steps were to be demanded from the KWA. They were:

1. The proposed man power and their activity did become part and parcel of the KWA set up, though on a contract that was contingent on donor financing and tied to specific activities and time frame.

2. The KWA was committed to fully collaborate in a formal evaluation of the effectiveness of the selected approaches after two years and, in case of a positive outcome, to permanently integrate such staff in its establishment after this period. The Advisor believed that most likely the KWA would attempt to avoid such demands under the semi-valid excuse that prevailing rules and regulations and tight budgetary situations prohibit such changes and expansion. The Advisor hoped that budgetary objection could be removed by donor commitment for the next couple of years. The other objections of administrative restrictions could not and should not be accepted. As illustrated by comparable institutions elsewhere, it was possible to change, adapt and develop, provided there was a genuine wish to do so. If such a commitment existed, the proposed gradual integration was possible. If that commitment did not exist, continuation of Dutch and Danish support was wasteful and inappropriate (Graff M. D. 1989).

3. The SEU-Advisor also felt that "An entirely different but very much related issue is our moral and professional obligation to give some indication to the present SEUs' staff about the (in) security of their jobs. We have good people, who suffer from the present uncertainty. We might loose them to more permanent jobs if we keep their future so vague" (Graaf M. D. 1989).

c) The Dutch Technical Liaison Officer (TLO) offered the following views

The TLO stated that "Although I have been long time in Kerala with the KWA, I was (asked) not to intervene in the Socio Economic Actions, but to collaborate with the SEUs as much as possible; which impleies that I am not fully informed" (Pesman H. S. 1989)

The TLO expressed that "In the case of SEUs, it is my opinion that there is only one major government structure: the Public Health Service Department, that has in principle the assignment to take-up the lion share of the SEU- action; they have also been conceived to play that part, the only important feature is however that they are a rather "big & heavy" department, not very efficient in their functioning and out-put. This is however not a reason to create infrastructural an other structure with duplicating tasks, that will only make things worse. Support for this governmental bodies is more recommendable. It provides the "user" at the same time an extensive network of infrastructural facilities and an important expertise on health and awareness related subjects."

"In the project document of the creation of the pilot project of the SEU-action, it was foreseen that the SEU organisation after two or three years be integrated in the KWA-organisation if considered a positive action. The action in general has been considered positive although there were some hiccups, but financial, administrative, organisational and personal problems of transition almost block the possibility of a complete take-over. A partial take over can ofcourse still be considered but have to be studied in extenso, before further decisions can be made."

"The official inclusion of personnel within the KWA organisation has normally to pass via the Public Service Commission (PSC), where applicants have to pass a selection procedure. Also the sanctioning of new posts is a difficult and tedious procedure and has to pass the board of the KWA, and often the channels (of permission) of the government of Kerala itself. To my knowledge there is at the moment some kind of a ban on the creation of new posts."

The TLO compared the functions of SEUs with the functions of government agencies entrusted these or similar functions. Highlights of similarities and differences were as followed.

"Public health and water supply related (awareness) programmes for the beneficiaries: The public health facet could possibly be taken up by the government department of the public health services, either on a continuously integrated part of its normal work (what in principle at the moment is the case, but due to lack of funds on a not so efficient way), or with the input of some water supply project related funds particular actions for the projects could be

solicited where by the stress could be particularly put on the water supply sector."

"The community participation factor can not so easily or efficiently be allocated to government agencies. It is a domain where NGOs and voluntary agencies are much more involved. it can be examined whether in a combined and correlated effort of the KWA with the 'local' administration institutions and the NGOs one could possibly cooperate to a maximum effect, whereby the maximum funds could be included in the allocated relevant project fund. The KWA would thus have a coordinator-task in this set-up."

"The rural sanitation is the action field of the rural development department. It is primordial that the State of Kerala establishes a legislative, administrative and organisational frame work in this action field, before further large scale actions are to be taken up"

"Supportive actions for the Kerala Water Authority: in the SEUs liaison-relation to the KWA and the beneficiaries in the project area a dialogue could be entertained by SEUs which could result in positive recommendation for improvement of relationship to both sides. In this function of SEUs no other governmental or non-governmental agency is involved. The strengthening of the KWA in the Socio-Economic sector (as well as internally oriented as well as externally oriented towards the public) is an important field of action and should be seriously looked into. The system that is needed should be an auto-generating one, which continuously evaluates and appraises the upgrading of the awareness of the socio-economic needs and its implementations for the betterment of the KWA and its intr-relation with the public."

In TLO's point of view, it was wrong to insist on actual SEU-programme and activities because, that SEU was a realisation which had its conception in the donor approach and objectives. He thought that it was much more recommendable if an independent study could be supported which would look into the different appropriate feasibilities within the Kerala context (taking into account all the hurdles, bottlenecks, problems, (mis)conceptions, financial and personal restrictions and other (im)possibilities). That study should then have to reveal the possibilities to ensure, in the most appropriate and most feasible way, as much of the SEU-programme as possible.

That, to TLO's point of view, would imply a small appropriate beginning which would have the seeds of improvement in it, but which had to prove itself. He could think for example that within the public relations (PR) section (a one man office at that moment and in the process of implementation) among others a social wing (SW) of for the beginning, let them say at least three professionals could perhaps be included to ascertain the co-ordination and implementation with other service organisations out side the KWA on socio-economic actions. Project funds could be allocated to these activities, and if financiers (donors) wanted, a more important programme could be drafted to reach the goals. This PR/ SW could ofcourse prepare different alternatives to improve work activities in different sections of the KWA. In fact this was a difficult and complex field and the TLO strongly proposed a study to be undertaken with guidance and assistance of the KWA, to look into the different possibilities, and to put forward appropriate proposals which could pass the relevant authorities for

approval, the study should then accompany and follow up the implementation of the agreed proposal.

The TLO suggested, that study could be part of a bigger study for the organisational improvement of the KWA in general. The study (ies) could perhaps be supported in the context of the Indo-Dutch co-operation programme by its institutional support fund programme.

The TLO also commented that with regard to affiliated, but not inherent, activities in the actual SEU like sanitation mapping etc. other solutions have to be considered to achieve (via appropriate procedures) the right goals (mapping for example until the Survey of India or any other such institutions can fulfill their job in the right way), which have to be organised by the KWA. The sanitation exercise should be the first to be filled-in on a sound way in the Kerala Government context (Pesman H. S. 1989).

From these statements it can be seen that the three Advisors had conflicting percepions regarding SEUs, integration issue.

Firstly, the Danish was a pro-integrator. However, he understood the difficulty of getting new post (altogether SEUs have 44 staff) sanction in the KWA because of tight expenditure cut and the stupendous selection procedures involved in the appointments through the KPSC. He felt post sanction was to have obtained at the time of project negotiations itself otherwise afterwards the recipient department would loose interest.

Secondly, the Dutch SEU-Advisor strongly argued for SEUs' unconditional integration at least in a phased manner, and even with extended financial support from donors. He was sympathetic to his good SEUs' staff and above all very much concerned about their uncertain future and loosing them to other permanent jobs. He also wanted to introduce integration into the KWA as a sugar coated package.

Third and finally, the Dutch TLO was against the integration of the SEUs. TLO perceived the SEUs as totally a donor-initiative and not a choice of the recipient organisation, implying that the donor's brain child was doomed to fail because it is not indigenous. More over he saw that the SEUs were performing activities already done by other State Government Departments. Further, SEUs' main activity of user involvement was a domain of NGOs and voluntary agencies, and less appropriate for a government organisation. TLO favoured a detailed study of the SEUs' activities and the implications of integrating it into the KWA before pressing for amalgamation. TLO also hinted the need for a total organisational development in the KWA rather than SEUs' integration.

After considering all these aspects, the mission arrived at following conclusions.

* Review Mission found it premature to even consider institutional and financial integration of SEU-activities in the KWA. Without the KWA itself expressing the need for e.g. socio-economic mapping and site selection of water points as a required

component in the detailed engineering design for water schemes, a push for SEUs' integration could not be made.

The mission, therefore recommended that additional time be given for a positive demonstration of SEU-activities within KWA during 1990 to end of 1992. This was to demonstrate the benefits which could be achieved and to strengthen a practical dialogue with and integration of activities in KWA. Mission suggested increased involvement of STA and TLO to facilitate this dialogue and mutual understanding (JRM 1989).

6.2.3 Findings by the Dutch Review and Support Mission (RSM) of October 1991

The 1991 Dutch Review and Support Mission composed of two experts from the ETC consultants and one expert from Action For Food, Delhi and visited the State between 22nd October and 8th November 1991 with the objective to identify important issues related to implementation and funding of schemes has made the following remarks.

> SEUs' position vis a vis Kerala Water Authority has been the topic of much debate. At the time of the mission the debate has subsided. This was firstly because SEUs' performance was acknowledged and alternative organisations were not at hand. Secondly SEUs' strategy of non-expansion was appreciated- all the three SEUs operated with a core team of three professional staff only. Thirdly SEUs' approach to involve KWA staff more closely has grosso modo met with the same attitude.
>
> Mission felt still, a shift of SEU functions to KWA was not materialising and continuity of such functions was not ensured.
>
> **RSM was of the opinion that the decision on total integration of SEUs had lost its relevance- total integration was clearly not a feasible option.** However substantial part of SEUs' work package were better placed with governmental agencies. Lastly it was felt that SEU experience could also benefit other projects in the sector, and that such input would enhance institutionalisation of integrated approach.

The RSM, in broad lines proposed the following:

- Functions of the SEUs which by nature required continuity- sanitation and mapping of distribution net works are examples- were to be institutionalised within appropriate government agencies.

- After securing the shift of the above functions, to consider the long term prospects of the remaining SEU activities and the future of SEU itself. One option was for SEUs to develop into an independent organisation the services of which could be hired.

- To make extension of SEUs' contract period a point of attention for the next RSM visit.

- Other donor agencies such as World Bank to be stimulated to include socio-economic issues in their water and sanitation projects in Kerala (RSM1991).

6.2.4 Findings by a Dutch-Danish Joint Review Mission (JRM) of September 1992

This mission arrived at the following conclusions:

- If the new approaches in water provisions initiated by the SEUs were to be absorbed into KWA the Authority would need to move its overall orientation from that of a civil engineering organisation towards that of a consumer service. In order to do so it would need to train its "main stream staff" to appreciate the techniques and benefits of community-oriented approach of water supply.

- The progress with regard to institutionalisation of SEU activities in KWA has been localised and unsystematic. For example local IPD officers have realised the bene fits offered by improved mapping and standpost site selection techniques, while these were dismissed by their Head Office as time consuming and expensive. A number of individual officers, including senior staff, offered enthusiastic support for the SEU activities while others were wholly negative.

- In short there was currently no sound basis for the institutionalisation of any of SEU activities within KWA. Nor could such a basis be developed on the initiative of the SEUs. There was an urgent need for policies and programmes within KWA to ensure the conceptual and practical application of community focused planning and implementation methods for its overall water supply programme.

- Within KWA there was no structural development of a consumer oriented approach which might enable it to achieve its mandate economic self-sufficiency. An examination of the designations, distributions and responsibilities of the KWA's Head Office Divisional and subdivisional professional staff indicated an almost total engineering specialisation.

- Thus there was no structural entry point into KWA for the consumer oriented activities being developed by the SEUs. Although a number of individual members of the KWA enthusiastically supported the development of a new approach, it was clear that their commitment provided a wholly insufficient basis for its consolidation and integration into the Authority. Without such an approach, new water supply schemes could not be effectively designed or operated and maintained and satisfactory cost recovery (which depends on good relations with consumers) would be possible.

- It was clear that KWA as an institution had not adequately adjusted its objectives, structure and programmes to reflect its new financial requirements.

- It was obvious to the mission that institutional process would be complex and would

require considerable inputs from SEUs' staff. This mission concluded that this process would take some more years to complete. JRM therefore recommended that the contract for all SEUs and Co-ordinating Office should be secured for a minimum period of three years, and preferably five years from October 1992 (JRM 1992).

At this period of time, KWA's hardware activities were incomplete and were progressing slowly and steadily through important construction phases. SEUs' software activities were also proceeding side-by-side almost at the same pace. The need for institutionalising and thereby sustaining those activities was largely felt by the donors. On the contrary, KWA was not inclined to integrate either the SEUs or its activities. The subsequent Missions in 1993, 1994, and 1995 turned their attention to a new organisational form for the future of SEUs and its experiments and programmes.

6.2.5 Recommendations by a Dutch Review and Support Mission (RSM) of March 1995

A new organisational set up for the future of SEUs was finalised during this mission. This mission discussed and recommended a Memorandum of Association and Rules and Regulations of a Socio Economic Unit Foundation to be registered under the Travancore-Cochin Literary Scientific and Charitable Societies Registration Act XXII of 1995.

The proposed foundation should have ten founding members, a General Body, a Governing Council and an Executive Director.

The objective of the foundation would be to provide support in the planning, implementation and evaluation and/ or directly plan and implement programmes/ projects on rural/ urban development, community participation and management, gender issues, innovation and promotion of local/ appropriate technology and health promotion especially in the field of water supply, water conservation, sanitation education, environment and other areas related to improvement of quality of life of the people with special emphasis on women and children.

This mission recommended to the RNE to support the new foundation's application for clearance to receive foreign contributions under Foreign Contributions Regulations Act and also to consider the possibility of some initial funding for the foundation's Programmes, or RNE might discuss with UNICEF the possibility of funding support as part of its programme in Kerala (RSM 1995).

6.2.6 Starting of the SEU Foundation

In the mid 1995, the SEU Foundation was got registered under the above mentioned act and decided to start functioning from April 1996 onwards (SEUs 1995).

6.2.7 Opinion of KWA Engineer's Group that visited SEU activities

During February and November 1994 a group of six senior engineers of the KWA in the Rank of SEs and EEs made a familiarisation visit to the SEUs activities. This was in line with the recommendations of a RSM of May 1994. The group of engineers after their visits has made the following recommendations. And their report was conveyed to the SEus in 1995.

- "As per engineering criteria, followed world wide for designing distribution system, specific guide lines exist regarding population forecast. But if socio-economic mapping is insisted for future NAP (Netherlands Assisted Projects) this may be done at the time of investigation of scheme itself by the investigation wing of KWA in such areas where it is felt that socio-economic status of the of the locality should also be considered for designing pipe line for that area.

- The activities such as fault reporting, taking care against the wastage of water, keeping the tap premises clean, stand post site selection can also be institutionalised. For this the concept of ward water committee and core groups formed in Panchayats is acceptable. The existing works done by ward water committees may continue. The formation of ward water committee and its related activities by the panchayats would be a pre-requisite for future NAP.

- Training on health education, fault reporting etc. may be carried out in KWA's Training Centre.

- Under ground maintenance of pipe lines as suggested in Cheriyanad (name of a Panchayat comming under NAP) community management experiment can not be accepted by KWA as it involves much technical knowledge and it requires amendment of KWA Act.

- Panchayat has to remit the annual cost towards stand posts to KWA. So it is the responsibility of the Panchayat to bring into practice the cost recovery of the users of stand posts. The KWA need not spend money from their revenue for this aspect."

The Engineers Group felt that the SEUs had done a commendable job on Low Cost Sanitation sector in the rural areas. In water related activities also, they had done a good job. These were possible by large flow of funds from external agencies. Once the external agencies withdrew from the scene the funding for the SEUs, as being done now, might be a problem (Engineers Group 1995).

The Senior Engineer's report can be considered to have the following meaning. Even though the Senior Engineers group mildly appreciates that the SEUs have done a commendable job in low cost sanitation and water related activities, they consider that it is not affordable to KWA's financial position as these activities were done with large donor funds.

engineer's group does not agree with cost recovery experiment by the KWA for public stand

post because it is the look out of the Panchayat to remit money to the KWA. Engineers do not accept under ground pipe line repairs by the users because, it is much technical. They suggest to provide training at KWA's Training Centre. In the case of formation of WWCs, Core Groups, empowerment of SPAs, fault reporting etc., if done by the Panchayat will be acceptable, incase it is a pre-requisite for NAP schemes. Finally Socio-economic mapping only for NAP schemes would be undertaken by KWA's IPD wing.

In short, the KWA Engineer's group conditionally agrees with socio-economic mapping by the KWA, then WWCs and SPAs in NAP schemes, even that, only if the donors insist on them. Training will be at KWA's Training Centre. In other words they are neither convinced with the need for SEUs nor its experiments and programmes.

6.3 Conclusions

From the inception of SEUs concept, there was the idea that SEUs should eventually be incorporated into the formal water sector structure, that was amalgamated with KWA. After 1990 (only, three years after start-up SEUs) it became clear that conservatism, lack of co-operativeness and, in part, outright hostility to renovations offered by SEUs, on the part of KWA, thwarted this initiative. Compromise stand was taken to grant SEUs, NGO status to maximise chances of survival after donor funds would dry up.

Since the inception of the SEUs, repeatedly deadlines were set to decide on the integration and Future of SEUs' activities. Due to one or other reason each time postponed. Divergent suggestions came up for and against integration, from the donors side as well. Among the donors' professional advisors, there were differences of opinion about the justification of integration itself and the form and timings of integration. Even then possible measures were recommended by various review missions with a view to attain integration. But integration of SEUs' activities in the KWA has not yet materialised.

The JRM noted that KWA's mandate of organisational autonomy and financial self-sufficiency was a mirage because important powers were retained by the government and KWA as an organisation was not designed and tuned up to fulfill its statutory mandate.

At the time of formulating the SEUs projects and its objectives, the donors did not assess the managerial and institutional capacity of the KWA to perform its expected functions. At the same time the organisation was more open to cultural and political influences.

During their efforts for capacity building among the community, the donors failed to address more significant weaknesses of the service delivering organisation. As a consequence of generating over demand on the part of the users by the SEUs, which the KWA was not able to cope with, in spite of its best efforts, forced the KWA to regard the SEUs as a rival competitor.

Chapter 7

SEUs and its activities: the viewpoints of KWA engineers

7.1 Introduction

This chapter discusses the data collected in interviews with 48 KWA staff conducted by the author at KWA headquarters, regional offices, project offices and fields between October 1995 and January 1996. A profile of the interviewees such as their position, qualification, length of service and age group is presented. Aspects like the sensitivity of the issue of SEU-KWA relations, co-operativeness of the respondents, their perceptions about SEUs and views on the integration issue are highlighted. Finally there is an analysis of the individual statements of the interviewees as regards their attitudes towards integration as to whether positive, mildly positive, negative, conditionally positive or negative.

7.2 Interview procedure

The interviewees were selected randomly from among the senior KWA officers who have been dealing with water supply projects having SEUs activities. Attention was paid to include more senior managers since their opinions are influential in KWA's decision making process. Respondents are spread over SEUs-related project areas, ranged from the top level of KWA's Chairman to the lowest level of a pipe line fitter. Majority are senior engineers. The KWA has nearly 90 senior managers and 29 of them are covered in the interviews.

The interviews were conducted between October 1995 and January 1996. Most of the interviews were held at the official headquarters office or residences of the respondents; located throughout Kerala State. Interview timings were decided on the basis of pre-fixed appointments. Interview durations extended from 30 minutes to several hours.

A set of pre-selected open ended questions were used to elicit the views of the respondents. Their explanations, illustrations and quotes were noted down at the time of interviews. Precaution was taken not to guide and influence the replies of the respondents.

Table 7.1 gives information on respondents. It shows that most respondents were older than 45 years, occupied middle or higher managerial positions, had post-graduate levels of education and more than 20 service years. Finally, all but three respondents were male.

Table 7.1 Profile of respondents: age, educational background, position and length of service (N=48)

Parameter			
Age group (years)	25-34	35-44	45+
	3	11	34
Educational background	Undergraduate	Graduate	Post-graduate
	8	13	27
Position	Junior manager	Middle manager	Senior manager
	10	9	29
Length of service (years)	0-10	11-20	21+
	3	8	37

Source: primary data

7.3 Sensitivity of the issue of KWA-SEUs relations

Interviewing was made difficult by the guarded attitude of many KWA officials who were approached for an interview. A number of persons declined to participate. Others seemed to sabotage the research by postponing scheduled interviews and certain interview could not take place. The interviewer always tried to adjust himself to suit the convenient timings of the interviewees. Many occasions, repeated attempts, and long waiting was needed to get appointments.

The author ranked respondents for their willingness to co-operate. Results of this exercise are shown in Table 7.2. A majority of respondents (34 persons) were judged to be non-cooperative; only 14 persons were judged to participate actively and willingly in the research.

Majority of the officers participated with considerable reluctance and hesitation. Some seemed afraid of taking part in an interview and did not fully disclose their true opinions even though they were assured that such information would be kept confidential and used only for research purposes. Some of them did it with casual and indifferent attitude. A small minority showed interest and enthusiasm. A few of the respondents displayed disappointment and resentment to a study concerning the SEUs.

Table 7.2 Co-operativeness of respondents as rated by the author

Cooperativeness	very low	low	neutral	moderate	high
N	15	19	10	6	8

Source: primary data

The data presentation below is divided into two parts. First data on aggregate responses will be presented in the form of tables. Then individual statements by interviewees will be considered.

7.4 Perception of SEUs activities by KWA staff

How did KWA respondents perceive SEUs activities? Tables 7.3, 7.4 and 7.5 sum up the responses of the 48 interviewed KWA officials to three questions pertaining to the beneficial effect of SEUs' activities for KWA's work.

Table 7.3 Have SEUs' activities been helpful (conducive) for KWA's objectives?

Response	no	yes	no opinion	all
N	5	28	15	48

Source: primary data

From the above Table, it is clear that the majority (28) of the officers conceded that SEUs experiments and programmes were conducive to achieve KWA's long term objectives. A considerable number (15) adopted a neutral stand. Their disinclination to answer the question may be due to two causes: a) they were afraid of certain undesirable consequences and felt it safer to keep quiet; b) they had insufficient knowledge of SEUs' activities to form an opinion. A small minority (5) were open in their disagreement with the SEUs' programmes.

Table 7.4 Are you in favour of copying SEUs activities to KWA projects?

Response	no	yes	no opinion	all
N	5	31	12	48

Source: primary data

From the above Table (7.4), it can be seen that a majority (31) of the Staff favoured to copy SEUs activities to KWA's other projects. While 12 people took a neutral stand, a small minority (5) expressed disagreement. This is in line with the findings in Table 7.3. Putting together, it implies that a majority acknowledged the long term benefits of SEUs' programmes to the KWA and favoured their replication to other projects.

Table 7.5 Has SEUs rendered KWA's activities more easy?

Response	no	yes	no opinion	all
N	3	18	27	48

Source: primary data

From the above Table (7.5), it can be seen that majority of the Staff (27) kept silent to the question whether the SEUs' activities had made KWA's activities easy. 18 members reacted positively while 3 reacted negatively. A possible explanation is that the awareness generated by SEUs' efforts have brought in added responsibility and accountability to KWA's project activity and performance. Better performance always requires more responsibility and burden.

7.5 Relationship with SEUs

The presence of adequate communication between the two parties was assessed. In that SEUs experiments and results were adequately documented and communicated to the appropriate levels in the KWA. KWA's participation and involvements in SEUs' programmes were also evaluated. KWA's policies and concepts were taken into consideration while designing SEUs'

experiments. And whether the two parties worked together.

Table 7.6 Has there been adequate communication between KWA and SEUs ?

Response	no	yes	no opinion	all
N	4	17	27	48

Source: primary data

Table 7.6 shows that the majority (27) kept neutral to the question whether there was adequate communication between SEUs and the KWA. Majority kept silent. They chose to avoid any possible displeasure and resentment. A minority responded positively, while a minority opposed. This suggests communication between the SEUs and the KWA was less than optimal.

Table 7.7 Has KWA participated actively in SEUs experiments?

Response	no	yes	no opinion	all
N	3	16	29	48

Source: primary data

The results in Table 7.7 resembles that in Table 7.6. The question regarding adequate participation to the KWA staff in SEUs' programmes was also answered along the same lines as the question on communication. Together the results of Tables 7.6 and 7.7 shows that only a minority of interviewees (about 30%) regarded communication on co-operation with SEUs as adequate. It seems to suggest that co-operation was not optimal.

7.6 Views on the integration of SEUs

Questions on the integration of SEUs into KWA yielded a high number of " no opinion " statements.

Interviews revealed that the majority of the interviewed officers were unaware of the SEUs' integration objective. This is shown in Table 7.8. A near majority (23) did not answer the question whether they rejected SEUs' integration. While 10 people opposed to SEUs' integration, 15 people favoured the same.

Table 7.8 Would you reject integration of SEUs into KWA?

Response	no	yes	no opinion	all
N	10	15	23	48

Source: primary data

Table 7.9 Would you support the view that integration has to wait until benefit/cost of SEUs activities has been assessed?

Response	no	yes	no opinion	all
N	1	7	40	48

Source: primary data

Table 7.9 shows that a large majority kept silent to the question whether they support a benefit/cost assessment of the SEUs before integration, probably also because they might be unaware of the integration objective. While seven people favoured a study, one person did not favour it.

7.7 Individual statements of KWA officials

In the following sections we will look at individual statements by interviewed KWA staff. Respondents have been classified into four groups: those explicitly against SEU and/or its activities (nine respondents). Those mildly in favour of SEU-type activities (13 persons). Those strongly supportive of SEUs activities (five persons). A final group of four respondents, all senior engineers, stated that they would endorse SEU activities but only when certain conditions would be fulfilled.

7.8 Interview statements: respondents strongly contra SEUs and its activities

A number of participants (nine) were very outspoken in their aversion of both SEUs as an organisation and its approach to rural water supply (interviews 2, 5, 11, 19, 20, 29, 33, 39, 40). Statements of this group bring out the hidden resentment of KWA staff vis-a-vis SEUs and its activities. Key statements made by this contra-SEU group will be quoted below.

a) Lack of communication and Participation

> "KWA could not involve and participate in SEUs' activities due to lack of communication" (interview 11)
>
> "SEUs launched many experiments. Their objectives were good. If they were done in participation with KWA it would have been good. Experiments were not practically implemented in the field. This can be seen by inspecting the field. So far an assessment study was not made" (interview 11)
>
> "SEUs have not cared to seek KWA's suggestions or to incorporate it. They did everything according to their own design" (interview 11)
>
> "There was no close dialogue or interaction between SEUs and KWA except for periodical reports from the SEUs. SEUs travelled along their own track. They could not win the confidence of KWA" (interview 11)

b) SEUs, approach cannot be copied because of finance and other constraints

> "Even though fault reporting is a good experiment, benefits could not be derived due to lack of facilities for timely follow up on the part of the KWA" (interview 2)
>
> "Pipe line repairs can not be entrusted to the users since they are not accountable to

the KWA" (interview 2)

"KWA has limitations on staff, logistics, finance etc" (interview 19)

"SEUs activities were not as per KWA's concept. These activities were not relevant to KWA's scenario and not acceptable" (interview 19)

"SEUs' experiments are cost intensive. It could not be copied in other schemes, which as development activity are highly subsidised. So the SEUs will be an added burden to the KWA" (interview 19)

"SEUs fostered too much expectations among the people about KWA's capability and performances. People became prejudiced against the KWA because of this excessive expectations. People demanded far in excess of KWA's capacity because of such excessive awareness" (interview 29)

"SEUs have opened up the idea of consumer orientation. If it is to be continued, the KWA has to adopt it as a policy" (interview 11)

c) *SEUs superfluous*

"In the KWA, community participation already exits in the form of periodical section level meetings and division level meetings" (interview 5)

"Through appropriate government policy and government order, the village health workers and village extension officers can be made use of for carrying out such activities. No more additional sociological or health education staff will be needed by the KWA. KWA's Assistant Engineers and Work Superintendents can do it with a certain kind of incentives" (interview 11)

"No extra expertise is needed for locating street fountains. KWA's work superintendents and the member of the local Panchayat can very well do it. Panchayat member is responsible to the user community. WWC is not needed" (interview 2)

d) *SEUs' poor performance*

"SEUs have no idea about sustainability of water supply schemes, even though they profess to be experts in the field of large scale piped water supply" (interview 20)

"The SEUs showed the same latrine to two consecutive Review Missions for performance evaluation. More over the Missions were taken to pre-arranged locations for field observations" (interview 2)

"SEUs' activities should be assessed by an independent body" (interview 19)

"SEUs' idea was to integrate its people. Effort for integrating the activity did not take place" (interview 19)

"After the formation of SEUs all Missions were contacting the KWA through SEUs' channel" (interview 19)

"SEUs have not done anything beneficial to the KWA; stand post site selection is not fool proof, awareness creation is not satisfactory because people are not ready to pay for the stand post water, cost recovery experiment has not proved a success. The benefits of the experiments are not commensurate with cost" (interview 39)

"The SEUs take criticising attitudes rather than discussing and helping. They adopted a dominant attitude with a superiority complex. SEUs were not able to gain the confidence and co-operation of KWA. SEUs impressed that they were closer to the donors and had a big brother attitude. Instead of making up the weaknesses and complementing the KWA, the SEUs have damaged the image of the KWA" (interview 29)

e) Illustrations of specific instances

1. "In one of the panchayats SEUs and WWC located a stand post in a private plot, while there was sufficient public land available in the vicinity. Subsequently there occurred a change of ownership of the private plot. The new owner constructed a compound wall keeping the stand post inside. The KWA was forced to shift the stand post outside the compound on to the side of the road". KWA staff strongly feel that this embarrassing situation could have been averted if SEUs had obtained timely formal consent from the former land owner (interview 29).

2. "In another Panchayat, the pumping of water from bore wells caused the lowering of water levels of open dug wells in the surrounding areas. The local people resisted the KWA from further pumping from those bore wells. SEUs were not able to persuade the opposing people to allow pumping at least a limited quantity of water from those bore wells to an acute water scarcity area"(interview 40)

3. "In yet another Panchayat, people frequently broke open the drinking water pipe lines and diverted water for irrigation purposes. The SEUs could not persuade the people to desist from such irregular activities"(interview 40).

4. "In the same Panchayat there is a colony of backward class (scheduled castes) people. In this colony, an excess number of stand posts (more than that allowed by the standard norms) were functioning prior to the commissioning of Bilateral Project. At the time of commissioning the Bilateral Project, on the advise of the SEUs, the KWA blocked the surplus stand posts and stuck to their stand. Against this action the colony people appealed to the District Administration about the denial of an already enjoyed facility especially by a disadvantaged section (State and National Governments give

a higher priority to water supply schemes benefiting scheduled castes, but not in the case of bilateral schemes). The District Administration intervened and the KWA was forced to reconnect the already disconnected stand posts. The KWA staff consider this as a humiliation and damage to their image and it could have been averted if the SEUs were prudent enough in their procedures" (interview 40)

5. "In a certain Panchayat, people were informed against KWA's performance. An anti-KWA feeling was created. In two project areas strong anti-KWA feeling was generated by the SEUs. In one place awareness went on to such an extent that people came forward in an organised manner to physically manhandle the KWA staff" (interview 40)

KWA staff consider all these incidents as examples of SEUs working on the wrong direction.

7.9 Interview statements: respondents mildly in favour of SEUs and its activities

A second group of 13 respondents professed to be mildly in favour of SEUs and its activities but were not fully aware of the relevance of SEUs and its activities; they sometimes did not know of the plan to integrate SEU/activities into KWA; and they had no clear opinion on how this integration might be realised (interviews 1, 4, 6, 8, 9, 14, 24, 26, 27, 28, 41, 42, 46).

The interviews disclosed the following aspects.

a) Lacking communication and participation

"KWA is not included in the stand post siting activity. SEUs adopted a controlling/ commanding approach and not a supporting approach" (interview 9)

"SEUs helped to create awareness. SEUs worked as a separate entity, they did not work jointly. People could not see some thing or any thing coming out of the KWA. So they took this as KWA's weakness. Because of this trend, the SEUs could not win KWA's impression" (interview 42)

"KWA and SEUs were not working together. There was need for improving interaction between the two parties." (interview 27)

"80% of KWA's staff are not in friendship with the SEUs staff. They feel the SEUs come form outside to command them." (interview 41)

"Communication between SEUs and KWA was very poor. Many people did not have the time to read SEUs' half yearly reports. Monthly seminars between SEUs and

KWA's staff would have been better. Meetings of less than 40 people for short duration-discussions, comments and suggestions would have improved the understanding and relations needed for a joint working of KWA and SEUs" (interview 4)

"Participation was at higher levels only, it was poor at lower levels, in fact people at the lower levels generate results in the field" (inter view 4)

"KWA's suspicion about SEUs' amalgamation stood in the way of close interaction between SEUs and the KWA" (interview 4)

"There was a lack of understanding of the problems of the KWA by the SEUs. There was a lack of rapport between SEUs and the KWA" (interview 28)

b) KWA 's constraints

"KWA needed more staff to meet the demands generated by the SEUs" (interview 9)

"KWA engineers had lot of work and could not participate in SEUs experiments." (interview 42)

"In KWA training should be strengthened with social importance. KWA staff should be given training by field experienced people" (interview 17)

"KWA has less consumer orientation and accountability" (interview 17)

"KWA staff do not want to share the power and responsibilities. We have to delegate the people the power and responsibility of their facilities" (interview 17)

"KWA has aversion to public contact. Public awareness will come in the way of KWA's works. KWA is afraid of awareness creation." (interview 27)

"KWA has no interest in integration" (interview 27)

"Integration of SEUs people was a wrong concept. Integration of activities is constrained by human and financial resource limitations" (interview 6)

"KWA is not user oriented. KWA is purely engineering wing. There is difference between engineering and socio-economic approach. KWA people do not have the orientation to approach people and understand their problems. For that specially trained people are needed. SEUs' Field Organisers have special orientation. KWA people will feel difficulties to get used to such activities. By training the KWA's staff alone it is not possible to perform these activities. Separate people should be used for such works" (interview 31)

"KWA is practically a government body; no external people can be integrated. It is better to maintain status quo" (interview 4)

"KWA's set-up is very limited to copy SEUs' activities. KWA has very limited staff, less training, resources etc. SEUs have limited work load, enough staff, vehicles, good salary etc" (interview 28)

"Because of the liberal set-up and financial freedom, the SEUs could work effectively. Replication into KWA will not be that much effective because of KWA's tight government control and bureaucratic set-up" (interview 26)

c) KWA's present staff can handle SEUs' activities

"KWA staff have the ability to do what SEUs have done, but for their lack of resources" (interview 26)

"KWA's staff themselves can carry out these activities. Local staff can do it. They need be given training. No separate staff is needed. KWA's staff who already gained experience in SEUs' projects could have spread these activities to KWA's other project areas." (interview 14)

d) Relevance for integrating into other government departments

"SEUs activities were more in resonance with that of the local bodies. So amalgamation has more relevance with local bodies. Regarding participation KWA's section level committees are adequate" (interview 4)

"SEUs should be kept as a separate unit and works should be got done by through them. SEUs should never be part of the KWA organisation" (interview 41)

e) Appreciation for SEUs

"SEUs works are highly useful." (interview 41)

"SEUs experiments are beneficial to develop the pay and use culture. The culture of the people is to demand every thing free" (interview 17)

"SEUs works are good, but KWA has limitations like lack of resources, logistics, man power etc. (interview 4)

f) Poor performance by SEUs

"SEUs exploited the situation to justify their continued presence" (interview 42)

"To motivate KWA's staff, SEUs have to generate successful examples in the field" (interview 27)

"SEUs' experiments are beneficial to the KWA. SEUs give over emphasis to experiments" (interview 6)

"SEUs became friends of the people and complained about KWA before the people. SEUs always represented the people and argued for the people. They did not support the KWA. SEUs sat on the KWA." (interview 28)

"SEUs experiments are good. SEUs tendency has been to project mistakes. SEUs' approach should have been helpful and to support KWA rather than finding fault with them" (interview 24)

"SEUs staff made efforts to get entry into the KWA. SEUs have a vested interest to justify their activity probably to become part of the KWA" (interview 26)

"One or two years would have been enough to finish SEUs activities in Bilateral Project areas. But it did not happen." (interview 14)

g) Illustrations of specific instances

1. "SEUs acted as a fault finder at site meetings: At the monthly project site meetings, SEUs raised long lists of noncompliance by the KWA's subordinate staff, and embarrassed them in the presence of their superiors." (interview 28)

2. "One public standpost was allotted to a school by the SEUs in one of the bilateral projects. The headmaster gave his consent to install it inside the school compound. But the local people represented to instal it outside the school compound so that they also could use it. However, SEUs' Unit Head was adamant to fix it inside the school compound. On the other hand, KWA's Assistant Executive Engineer was determined to fix it outside the school compound. This dispute could not be resolved. Eventually, this tap had to be cancelled. This incident occured one and a half years ago. According to KWA officer this is one example of how the SEUs' did not help them" (interview 24)

3. "During the past eight years SEUs could have spread their activities to KWA's other schemes. But it was not done. So it has to be suspected that SEUs had a clandestine motive to justify their continued presence by prolonging these activities. As time passed by the SEUs were not seen as much vigorous as they were originally"

(interview 14)

7.10 Interview statements: respondents strongly favouring SEUs approach

A third, smaller, category of five respondents stated to be strongly in favour of incorporation of SEUs activities in KWA operations (interviews 15, 31, 36, 37, 38). One of these was in favour of making a separate structure in KWA for SEUs type activities.

The other four strongly supported SEUs activities but only one proposed that KWA take over SEUs activities, the other three had no clear idea about the organisational form of such a unit.

a) Appreciation for SEUs

"KWA staff were in good working relations with the SEUs, KWA could work effectively as well as build good image because of SEUs." (interview 38)

"SEUs was a good support on software side. Field Organisers very much supported KWA's activities." (interview 37)

"KWA's former MD suggested in the co-ordination committee meetings the idea to copy SEUs' experiments in a few (one or two) selected KWA schemes." (interview 31)

b) Need for special staff and units

"SEUs experiments are good. It can be tried in a few selected KWA schemes. For taking over these pilot studies by the KWA, separate staff should be recruited." (interview 31)

"KWA does not have the orientation to generate community awareness and participation." (interview 36)

"Community participation activity carried out by the rural development department staff and health education by the health services department staff will not cause duplication, since they do not do the activities now performed by the SEUs." (interview 15)

c) Special units can function within the KWA organisation

"There is no possibility for political influence in WWC formation and its

memberships, since they provide little chances for monetary benefits and favouritism." (interview 31)

"KWA looks in terms of hardware, technology and money. There is no human face for KWA's activities. KWA is not taking any interest in SEUs activities. There is no transparency. When transparency is there, corruption will go out. SEUs bring the benefits of these aspects to the people." (interview 15)

d) KWA staff can take over these activities with the required training

"When KWA take over these activities, its staff can do it. Grass root level people should be given intense training." (interview 15)

7.11 Interview statements: conditional endorsement group

This group includes senior officials, two males and two females all with post graduate qualifications. All of them were fully aware of SEUs integration objective. Not outspoken; adopt diplomatic position; emphasise need for cost-benefit study. This group generally accept that SEUs have done good job but expressed strong apprehension about the high cost involved in SEUs activities. They also felt the SEUs enjoyed enough financial and working freedom. They are not appreciative of SEUs socio-economic mapping. One claimed that KWA staff themselves prepared equally good socio-economic maps. Another commented that socio-economic maps would soon loose its relevance because of Kerala's population growth and unplanned and unorganised growth of settlements. All of them strongly argued for benefit cost assessment before taking any decision.

a) SEUS experiments too costly for KWA

"SEUs works are impressive. SEUs have huge infrastructure and huge foreign aids. Within KWA's institutional and financial capacity it is not possible. SEUs experiments are within the scope of panchayats except fault reporting. The present institutional and financial capability of KWA is not adequate to replicate the activities except fault reporting. KWA is very much constrained by government controls." (interview 1)

"Regarding cost recovery experiment on public stand posts, it is the responsibility of the local Panchayat to pay Rs 875 per tap per year to the KWA. Panchayats have appropriate infrastructure for such cash collections where as the KWA lacks it. So the KWA need not spend any money on this account." (interview 1)

"90% of SEUs works are related to sanitation. SEUs have more funds and people for socio-economic mapping. There is need for cost/ benefit assessment on health improvement, effective use, wastage reduction etc." (interview 31)

"Integration of SEUs as such is difficult, because of legal and administrative problems" (interview 3)

"Cost/ benefit of socio-economic mapping has to be assessed. Panchayats are the main beneficiaries of SEUs . So SEUs itself cannot be integrated to KWA." (interview 34)

"Health workers of the health services department and Panchayat members can do the activities of SEUs more economically" (interview 3)

"WWCs, SPAs, cost recovery experiments etc. are agreeable provided it is proved cost effective" (interview 3)

b) Complaints about public stand post siting

"During engineers group visits to familiarise with SEUs activities, they inspected 5 to 6 public stand post locations. At one of the places people, complained that public stand posts were not located according to the convenience of the people. At another place the group found one extra stand post provided by the engineering staff. It was unnumbered and over and above those identified by the WWCs and installed in order to obviate people's protests." (interview 1)

"Several complaints regarding the siting of stand posts by the WWCs have reached the a particular Division Officer (EE), and the same was brought to the notice of the SEUs." (interview 31)

"Too much participation is problematic. There are number of instances in a particular district where SEUs could not fix stand post locations due to serious differences of opinions." (interview 1)

c) Less appreciation for socio-economic mapping

"KWA staff can do the socio-economic mapping as well as it is being done by the SEUs' staff. For example in one of the Bilateral project areas the difference between the map made by the KWA staff and SEUs staff was less than 1 to 3%." (interview 31)

"The SEUs idea is good, some of its experiments are beneficial to the KWA: socio-economic mapping may be problematic because the settlement growth is neither organised nor planned. Still mapping is useful subject to such limitations." (interview 34)

7.12 Conclusions: summary of findings

To round up, a survey was conducted among 48 KWA staff connected with SEUs related projects to evaluate their opinions about the integration issue. Majority of the respondents (29) belonged to KWA's senior managers having more than 20 years service and post gradate qualifications who could influence the decision making process. The interviewees were randomly selected from their whole group with a bias towards senior managers.

The survey revealed that a majority of respondents were unaware of the integration objective, while it was known to a small minority. Majority conceded the benefits of SEUs programmes in achieving KWA's objectives. They found it very difficult to cope with the excess demands generated by the SEUs, in KWA's present settings. There are constraints like human, finances, and logistic resource limitations. More over SEUs experiments are very expensive and inappropriate to the KWA, whose activities are mostly subsidised by the government.

The Survey also revealed that KWA is a construction oriented department. It was aversive to public awareness. Several officers suggested that KWA's present staff if given proper training and incentives could handle SEUs type of activities. For a consumer orientation KWA needs special policy adoption.

The majority of the respondents indicated the absence of adequate communication between the two parties. KWA did not have sufficient participation in SEUs experiments and programmes. The two parties did not work together. There was insufficient understanding and poor working relations between SEUs and KWA staff, especially at the lower ranks.

Majority of the KWA staff agreed to integrating SEUs activities, but not the SEUs' staff. SEUs should not form part of the KWA organisation. They should stand as an independent entity to maintain working freedom and efficiency. A number of staff pointed out that most of the activities done by the SEUs staff were similar to those performed by other government departments like health services and panchayats, and integration has more relevance to those departments. In a semi-government organisation like the KWA, it is very difficult to appoint new staff because of administrative and legal problems.

Chapter 8

Other Causes of Friction Between SEUs and KWA: Professional Jealousy

In the introductory chapter of this study a number of possible causes of friction between KWA and SEUs staff were mentioned that have not been dealt with so far. These are, in the first place, professional jealousy of KWA staff vis-a-vis SEUs personnel: KWA staff concerns about the special perks available to SEUs staff, fears of KWA staff that SEUs personnel 'infiltrating' in KWA might avail of short-cuts in climbing the ranks, and misgivings of KWA personnel regarding the loyalty of SEUs staff which was felt to be with the employing donor country rather than with KWA or another Indian government agency. In the second place, differing attitude and educational background of KWA and SEUs staff created a rift between the two organisations. Evidence on these sources of friction will be presented in this chapter.

8.1 Salary structure

Table 1 provides a comparison of pre-tax salaries earned by KWA and SEUs staff. Although KWA and SEUs used the same remuneration scales, SEUs staff earn significantly higher salaries because in lieu of pension they are given a Special Project Allowance (SPA). As can be seen in Table 1, the SPA meant that salaries of SEUs personnel were about 25% higher than those of colleagues of equal rank in KWA. This fact is well-known among KWA staff and gives rise to feelings of jealousy.

Table 1 Salary structure of KWA and SEU compared, 1988

Job title	Monthly salary before tax, KWA staff (in Rs.)	Additional Special Project Allowance SEU staff (in Rs. per month)	Monthly salary before tax, SEU staff (in Rs.)
Executive coordinator	5,700	2,338	8,038
Head	4,500 and more	1,350	5,850 and more
Health educator/community organiser	3,600 - 4,499	1,050	4,650 - 5,549
Office superintendant	2,800 - 3,599	800	3,600 - 4,399
Administrative staff	1,500 - 2,799	600	2,100 - 3,399
Driver	1,100 - 1,499	350	1,450 - 1,849
Peon	less than 1,100	300	less than 1,400

Source: Administrative Manual (1991)

8.2 Perks

Alongside the emoluments mentioned above, perks enjoyed by SEU employees are a source of professional jealousy.

First, SEUs staff enjoy much higher daily allowances for official travel than their colleagues in KWA. Table 2 offers a comparison of travel allowances and shows that SEUs staff received between times and five times as much as KWA staff when on the road. KWA are very poorly rewarded for travel expenses and habitually falsify vouchers to make ends meet. Furthermore, SEUs staff are eligible for air travel without exception; in the KWA only first-grade officers are eligible for such a facility.

SEUs' draftsmen and drivers are given outstation duty allowance at a fixed monthly lump sum amount of Rs 375. Where as corresponding KWA staff are entitled to outstation travel allowances on the basis of actual travel distances and duration of stay at standard rates and the resulting monthly claims are often less than the above fixed monthly lump sum. SEUs' AE is given fixed monthly lump sum amount of Rs 450 as outstation duty allowance. Where as the maximum monthly travel ceiling limit for the KWA's AE has been Rs 350.

Table 2 Daily Allowances for Official Travel, KWA and SEU Compared (1991, in Rs.)

Grade (Rs.)	Within Kerala		Outside Kerala		Metro Cities	
	SEU	KWA	SEU	KWA	SEU	KWA
2500 and above	160	40	400	65	600	250
1800 - 2500	128	32	350	50	500	200
1250 - 1800	96	24	300	40	400	175
750 - 1250	84	21	280	40	360	150
less than 750	-	16	-	30	-	100

Source: Administration Manual (1991)

Second, SEUs personnel contribute nearly 10% of their annual salary to a Contributory Provident Fund. The incentive to make this contribution is the curcumstance that their employer then donates a similar amount in the fund. In other words, SEUs staff is granted a 10% salary bonus.

Third, during the annual Onam festival all SEUs employees receive one month's salary as extra gratification. In the KWA, only the lower category of staff is given this allowance which is also subject to a very low maximum ceiling.

Fourth, KWA staff is entitled to an annual medical reimbursement equal to one month's salary. SEUs staff may declare up to 80% of all medical expenses without a financial limit.

These examples show that SEUs staff enjoy a large number of perks that KWA personnel must do without. Although the details of these additional benefits are not known in KWA circles, the existence of such perks is widely rumoured.

8.3 Recruitment

For a permanent recruitment in the KWA, candidates have to pass through the long rigorous selection procedure of the State Public Service Commission. This includes written tests, interviews, police verification, and communal job reservations. SEUs staff are not

required to pass through such a number of formalities during their recruitment. This is a cause of resentment among KWA staff.

8.4 Career progress

An informal cause of resentment and opposition against integration of SEUs into KWA by KWA officers is the feeling among KWA personnel that SEUs staff will be able to rise through the ranks quickly and more easily than staff who have entered the organisation through the normal recruitment channel described above. Fears of KWA staff that SEUs entrants can engage in "queue jumping" is an important cause of opposition to SEUs' integration. This was often mentioned in informal discussions and a frequent topic of discussion among senior KWA staff.

8.5 Educational background

A final source of friction is the different educational background of SEUs and KWA staff. Whereas SEUs staff all hold post-graduate qualifications and are trained in various branches of the social sciences, KWA staff are predominantly engineers, mostly civil engineers and the majority of staff do not hold post-graduate qualifications, which are common only among the ranks of senior officers.

8.6 Conclusions

Professional jealousy is an important source of friction between KWA and SEUs. This source of friction was never stated as the official reason for resentment of KWA staff to SEUs' integration, but played an important role below the surface. KWA officers are aware of the fact, or hold strong suspicions, that SEUs personnel enjoys considerable secondary benefits in the form of extra remunerations, better medical insurance, more generous travel allowances. This creates jealousy among KWA staff. Furthermore, KWA staff, in particular senior officers, feel the prospect of integration of SEUs into KWA as a threat to their career prospects as they harbour fears that KWA infiltrants will be able to jump queues and make quick progress in their KWA careers due to their special status and way of entering the organisation.

Chapter 9

Conclusions and Recommendations

9.1) Topic and objective of study

At the Start of the UN Drinking Water Supply and Sanitation Decade in 1980, Kerala received 85% grant assistance from Dutch and Danish donors for 11 rural water and sanitation projects benefitting two million people. The respective project reports prepared by the State Public Health Engineering Department underwent detailed assessment by external Appraisal Missions.

The project Appraisal Missions found two problems: (1) with regard to the inappropriate siting of standposts and (2) lack of awareness of targeted users. It was decided to set up special units funded by Dutch and Danish Governments specially to find solutions to these problems. Socio-Economic Unit, as this small agency was called, was set up in 1987 and carried out a number of demonstration projects between 1987 and 1995. In general, SEUs' utilisation of users' involvements in health education, project planning, monitoring, fault reporting, evaluation etc. showed tangible improvements in project performance in terms of quality and reliability of service delivery as well as in reduction of health hazard. A crucial issue which remained unresolved, however, was a transfer of SEUs' user oriented approach to the implementing state agency.

9.2) History of Socio-Economic Units

As an organisation the SEUs consisted of three regional units and a central co-ordinating office. The regional units has ten staff members while the co-ordinating office has six staff. They composed of Senior Sociologists, community organiser, health educator and other administrative and supporting staff. SEUs northern unit started in 1987 and the south and central units and the co-ordinating office started in 1988. The hardware project activities also started almost in the same period and went on side by side.

9.3) The SEUs/ KWA Integration Issue

From the inception of SEUs concept, the idea floated around that SEUs should eventually be incorporated into the formal water sector structure, that is, would be amalgamated with KWA. However, already by 1990, only three years after start-up SEUs, it became clear that conservatism, lack of co-operativeness and, in part, outright hostility to the innovations offered by SEUs, on the part of KWA thwarted this initiative. The eventual solution found

to this problem by the Dutch and Danish donors was to grant SEUs, NGO status to maximise their chances of survival after donor funds would dry up.

Since the inception of the SEUs, repeatedly deadlines were set to decide on the integration and future of SEUs' activities. Due to one or other reason these were invariably postponed. Divergent suggestions came up for and against integration, from the donor's side as well from the Indian side. Among the donors' professional advisors, there were differences of opinion about the justification of integration itself and the form and timing of integration. Even then possible measures were recommended by various review missions with a view to attain integration. But integration of SEUs' activities in the KWA did not materialise.

As early as in 1989 the three professional advisors of the donors were at loggerheads about integration. While the Dutch SEU-Advisor was strongly arguing for integration, his technical counterpart was opposing it on the grounds that SEUs were a donor approach and initiative and at the same time the commitment on the part of the recipient organisation viz., the KWA was absent. Evethough the Danish Senior Technical Advisor mildly favoured the integration, however he was convinced of the difficulty of new appointments in the KWA due to several reasons..

9.4) Obstacles to integration: views of KWA staff

Interviews with KWA officials revealed that interviewees were conditionally positive or neutral vis-a-vis the project approach of the SEUs. However, the interviews also brought to light substantial resentment in KWA circles versus the SEUs and its activities. The interviews covered five areas of possible friction, discussed in the opening chapter, that may have hampered the transfer of SEUs and SEUs activities to KWA. These are communication problems, jurisdictional trespassing, professional jealousy and conflict, lack of cooperation, and different professional and personal attitudes of SEUs and KWA staff. Interview statements show that each of these five sources of friction have indeed blocked the transfer of SEUs/ SEUs activities.

i. Interviewed KWA staff felt that SEUs had not communicated its activities sufficiently or properly;
ii. A substantial number of KWA interviewees stated that SEUs was a trespasser operating in the jurisdiction of regular state agencies, and that it was therefore superfluous because it only interfered with and duplicated their actions.
iii. KWA staff harboured feelings of jealousy regarding SEUs staff because SEUs received substantially higher pay and enjoy secondary conditions of employment (travel allowances, medical insurance, bonuses, savings schemes) that KWA personnel did not have access to. Higher-level KWA staff feared that SEUs officers would harm their own career prospects if integration of SEUs into KWA would materialise. KWA staff perceived SEUs staff as queue jumpers because their entry into service and climbing through the ranks was much easier than that of KWA employees.
iv. KWA staff felt that SEUs performed a solistic act in its projects and did not care to involve KWA in its activities.

v. KWA staff, predominantly civil engineers and predominantly without post-graduate education, viewed SEUs' social science post-graduates with some misgivings.

9.5) Additional obstacles to integration or transfer of SEUs/ SEUs activities

The study brought a number of additional obstacles to successful transfer of SEUs approaches to light:

vi. A surprisingly large number of interviewed KWA staff was unaware of the integration objective in itself and of the activities carried out by SEUs. This reinforces the finding that of inadequate communication to KWA.

vii. The showcase projects carried out by SEUs did not convince many KWA officers of the effectiveness of SEUs' approach to rural water supply. KWA staff was of the opinion that any sign of above-average performance of these pilot projects was due to ample funds available rather than a consequence of the participatory approach used.

viii. KWA's autonomy, financial and otherwise, is a paper autonomy. Even if it had the will, KWA lacks the actual autonomy to implement any change in its approach to rural water supply and sanitation. KWA needs state government sanctions for any change in present staffing and procedures it wishes to make.

ix. Present structure of budget propped by state government provides a disincentive for KWA to become more consumer-oriented.

x. The original time plan of the SEUs project was too limited: it was envisaged that transfer of consumer-oriented procedures to KWA via pilot projects would take only three years. This was far too short a period to compete the organisational turnaround necessary to realise this change.

xi. Although a majority of interviewees conceded the benefits of SEUs programmes in achieving KWA's objectives, they found it very difficult to cope with the excess demands generated by the SEUs in KWA's present settings. Constraints mentioned include human resources, finance, and logistical resource limitations. Moreover SEUs experiments were thought to be too expensive and inappropriate to be copied by KWA.

9.6) Contradictory priorities in Dutch aid policies

The failed transfer component of the SEUs experiment in Kerala highlights a fundamental priority conflict in Dutch aid policies. The primary priority of Dutch foreign assistance, poverty alleviation, forces project designers to concentrate predominantly on the users of water supply and sanitation services. This means that the suppliers of such services, such as KWA, are no direct focus of the project. Any structural improvement in the quality and coverage of services must, however, pay equal attention to both the suppliers and consumers of such services.

The SEUs experiment indicates the consequence of such an approach. In framing the

assistance to social sectors like Rural Water Supply and Sanitation, the India Country Desk in the Dutch Ministry of Foreign Affairs assumed that Indian counterpart organisations (mainly involving engineering departments), given their alleged technical bias, would be unable and/ or unwilling to deal with complementary non-technical issues[1]. Socio-Economic Support Units were established and financed through Netherlands funds, to both fulfill such non-technical functions and to act as catalysts in promoting an integrated approach and securing the sustainability of a project's achievements.

However, as this study has shown, this approach created serious antagonism among the main supplying agency in Kerala state, viz. KWA. In effect, the long-term structural improvement of rural water and sanitation services was thus sacrificed to the short-term goal of completing a string of rural projects. Although the decision to take such a short-cut is understandable, better knowledge of the institutional structures in India could have given rise to different solutions. In the end, the sustainability of the project result can only be achieved by an Indian endorsement of the integrated approach, either through governmental or non-governmental organisation. In other words much earlier attention should have been given to whether non-technical aspects covered by support units eventually be integrated into existing engineering departments (in spite of their concentration on production data), or whether they should be taken over by other departments such as social welfare, health services etc.

The findings of this study concur with the 1994 evaluation of the Operation and Review Unit assessment of the Netherlands development cooperation with India during the period 1980-1992 which found the following bottlenecks in the implementation of projects and programmes:

a. the set-up of the project including a top-down approach in project planning;
b. the scope of activities (often involving large and heterogeneous areas, without an adequate plan regarding project phasing);
c. institutional problems (including bureaucratic delays in both countries, rapid transfers of Indian project staff and problems caused by inadequately institutionalised operation & maintenance);
d. insufficient knowledge about prevailing power structures in the project area. Besides there was inadequate project preparation with a lack of base-line data including that of institutional structures at local, district and state levels[2] (Operations Review Unit 1994) .

The recent evaluation of the Netherlands' Development Co-operation with India by the Operations Review Unit of the Netherlands' Ministry of Foreign Affairs also disclosed problems with the Project Appraisal Missions. These were their limited duration of stay, composition of the appraisal team and their peculiar working procedures. The inadequate

[1] The executing Indian agencies for aided RW/S projects include: the Jal Nigam in Uttar Pradesh, The Panchayat Raj Engineering Department in Andhra Pradesh, the Gujarat Water and Sanitation Board, and the Kerala Water Authority.

[2] Part of the problems can be explained by the fact that the composition of the appraisal teams, the duration of their stay and their working procedures were often inadequate for a through assessment of the crucial (some times non-quantifiable) issues (Lepton and Toye 1990).

assessment by the Missions resulted in a failure to understand the crucial issues involved.

To recapitulate the main conclusions of the study: the investigation found that the Dutch/ Danish project planning focus on the user community and its consequent neglect of the crucial weakness of the supplying organisation was a main source of the lack of sustained impact of SEUs' showcase experiments on Rural Water Supply and Sanitation Service levels in Kerala state.

The consequence of this failed experiment is that SEUs has to find an independent organisational set-up to sustain its experiences and programmes and hire its services. The SEUs experience also indicates that KWA requires real autonomy and a drastic internal reform to turn it round towards a consumer oriented service agency.

9.7) Recommendations

i As implemented, the Dutch demonstration project probably increased aversion of KWA staff against an integrated approach to Rural Water Supply and Sanitation. We recommend strongly against Rural Water Supply and Sanitation projects with demonstration components grafted onto them, unless Kerala field organisations are closely involved from the start in such projects.

ii Future donor assisted attempts to transfer an integrated water supply and sanitation approach to KWA should preferably be made in the form of a stand-alone project.

iii Any demonstration project carried out in the above framework should be planned and implemented in close cooperation with KWA.

iv It can be anticipated that the transfer period will be at least ten years. The project should be designed accordingly.

v If the Dutch development assistance is to promote a structural improvement of quality of Rural Water Supply and Sanitation Services, then equal attention must be paid to consumers and suppliers of such services.

APPENDIX 1

Community participation in Rural Water Supply Schemes (Isac John)

People's participation is an essential element in the success of any water supply scheme. There is need for standardising the approach of including people's participation to gain their co-operation. It would also be appropriate to organise committees at Ward Panchayat and District levels.

In this chapter we detail some characteristics of personal support and institutional structures necessary for the sustained participation of communities in Rural Water Supply Schemes (RWSS).

I) STAND POST ATTENDANTS

The ward committee will appoint a volunteer as stand post attendant with the following responsibilities.

1. See that minimal amounts water is wasted and that the surroundings of stand post clean.
2. Take care of the surroundings of the stand post; see that no shrubs and grass grow around.
3. Keep the drain clean.
4. Ensure that consumers observe the following points:
   - handle the tap properly.
   - do not wash cloths on the platform or near the stand post.
   - do not use drinking water for other purposes like watering plants.
   - do not use water to wash domestic animals or automobiles.
5. Report any fault or repair to concerned authorities immediately.

II) WARD WATER COMMITTEE's (WWC) STRUCTURE

1. Panchayat ward member 1
2. Lady representative (from women's organisation) 2
3. An active social worker 1
4. Representative from youth organisation 2
5. ICDS (Intensive Child Development Services)/ or Junior Public Health Nurse/ or any other representative from related departments 1

   Total 7

SEUs' member (ex-officio)

III) GUIDELINES TO SELECT WWC MEMBERS

The Panchayat committee members may use the following guide lines while selecting members for WWCs.

1. The respective elected representative of the concerned Panchayat ward
2. Should be a resident of the particular ward
3. Should be a beneficiary of the water supply scheme
4. Should be a respectable and reliable person
5. Should be literate
6. If those who handle drinking water are mostly women, there should be a minimum of two women in the committee
7. Should be above 18 years of age
8. Should be willing to offer voluntary service
9. Should be willing to attend training classes

IV) RESPONSIBILITIES OF THE WARD WATER COMMITTEE MEMBERS

1. Assist the pre-selection team in the process of site selections
2. Assist in the process of acquisition of private property when necessary
3. Help installation of stand posts and solve problem likely to rise in the future
4. Organise people's participation for the implementation of the project and in its operation and maintenance
5. Take action on stand post attendant's reports of misuse of drinking water
6. See that stand post surroundings are kept clean and create awareness among beneficiaries on this aspect
7. Health-related activities aimed at the residents of the projects should be organised and SEUs workers assisted
8. In times of need and when there is water related problem inform the Panhcayat Water Committee (PWC)
9. Act and steps to solve major repairs of water supply systems in consultation with the Water Authoritiy
10. Record and act on complaints
11. Record and act on complaints lodged by consumers in the ward
12. Extend support to the public and the concerned authorities whenever required
13. Create awareness among the village population on the design, construction and operation & maintenance of water systems and also organise health education classes

V) HEALTH SUB-COMMITTEES

Two dynamic women and one man selected from the WWCs should be given training in health education and organisational abilities

VI) WWC MEETINGS & PROCEDURES

1. The representative ward member will be the president
2. The committee will select the secretary
3. Meetings shall be held at least once in a month
4. Organising meetings and recording minutes of the meetings shall be the responsibility of the secretary

5a. Any member failing to attend three consecutive meetings shall automatically forfeit his membership

5b. New members to the committee will be elected in accordance with the normal guide lines

6. Members not sufficiently active in the WWCs may be removed from the committee depending on the consensus of other members
7. Two members of the WWC shall be nominated to the Panchayat Water Committee
8. The SEUs will be responsible in identifying local organisations and social workers for the activities of the WWC
9. Selection of stand post attendant

VII) PANCHAYAT WATER COMMITTEES

1. Panchayat ward members
2. Non-political representative from the WWC
3. Assistant Engineer nominated by the KWA
4. Assistant Engineer of the Electricity Board
5. Health Inspector of the Health Services Department
6. Panchayat Executive officer
7. Village Extension Officer of Rural Development Department (if available)
8. N.S.S (National Service Scheme) Programme Officer (if available)
9. I.C.D.S Officer/ or Supervisor if available
10. SEUs' representative

Panchayat Water Committee should be convened once in three months by the Panchayat President. Panchayat President shall preside over the meeting. In the absence of the Panchayat President, the Vice-president or Executive Officer may preside over the meetings.

The Committee may issue special invitations to any other related department as and when required.

VIII) RESPONSIBILITIES AND DUTIES OF THE PANCHAYAT WATER COMMITTEES.

1. Deliberate over problems not solved by the WWCs
2. Consider complaints and reports accorded by WWCs
3. Observe regularly the health status of the Panchayat and use this information as the basis for the design and conduct of classes on health education for the people in the Panchayat area
4. Help Water Authority in solving problems at Panchayat level
5. Assist Water Authority in collecting water charges
6. Supervise operation & maintenance of water supply systems in the Panchayat
7. Assist in taking action against water charge defaulters
8. Assist in taking action against misuse of drinking water
9 Extend support to the WWCs
10. Provided all necessary information to the district level committee
11. Extend all support and supervise Link Workers and health sub committee

IX) DISTRICT CO-ORDINATION COMMITTEE

1. District Collector
2. Additional District Magistrate
3. Members of the Parliament and Members of the Legislative Assembly
4. Panchayat Presidents
5. KWA Executive Engineer
6. KWA Assistant Engineer
7. District Medical officer
8. District Health Education Officer
9. District Mass Education Officer
10. District Planning Officer
11. District Women's Welfare officer
12. District Social Welfare officer
13. District Youth Co-ordinator
14. Deputy Director (Education)
15. District Panchayat Officer
16. Project Officer, District Rural Development Agency
17. Project Officer (ICDS)
18. Medical Officers of Primary Health Centres
19. Field Publicity Officer

20. District Information Officer
21. Block Development Officer
22. SEUs' members

The District collector shall convene the Co-ordinating committee once in six months and review trends in water supply, sanitation, health education and related matters.

X) OBJECTIVES OF THE DISTRICT CO-ORDINATION COMMITTEES

1. Review of activities in the field of water supply, sanitation, health education etc.
2. Co-ordinate activities of departments working towards the same direction
3. Expedite activities of the various government departments without causing any financial burden to the government (SEUs 1989)

APPENDIX 2

MONITORING FORMAT USED FOR USE AND MAINTENANCE OF LATRINES

1. Panchayat....
2. Ward....
3. Latrine....
4. House No....
5. Date of latrine built....
6. Number of persons in house.... No of persons using the latrine....
7. Conditions of pan & trap

a. cleanliness good (without faeces, sand, mud etc)	No	Yes
b. does latrine flush well? (if not, check junction box/pit)	No	Yes
c. foul smell	No	Yes
d. yellow colour	No	Yes
e. scratches or breakage in the pan	No	Yes

8. Behavioral practices:

a. water kept inside	No	Yes
b. water kept out side	No	Yes
c. soap kept nearby	No	Yes
d. availability of brush	No	Yes
e. use by children above 3 years (ask child if possible)		
9. Check whether the person is aware of the purpose of water seal	No	Yes
10.Is the water seal visible or clean	No	Yes
11.If the latrine is more than 2 years in use ask did you change the pit if yes indicate the date....	No	Yes
12.Check whether person is aware of the purpose of junction box	No	Yes

Date....

Name & signature
Monitor....

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