PROJECT ASSISTANCE CLOSE-OUT REPORT

OF

THE WATER SUPPLY AND SANITATION SECTOR PROJECT

SRI LANKA

PROJECT NO. 383-0088

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1.0 Introduction

The primary objective of this report is to fulfill the requirements of AID HB-3 regarding final monitoring and project close out activities. This report will review the project accomplishments to date against the planned outputs indicated in the project design in order to assess to what extent the project has accomplished the original purpose. Finally it will summarize lessons learned from the project and also ascertain what actions are required for post project AID monitoring responsibilities.

2.0 Background to Project Design and objectives

The Water Supply and sanitation Sector Project (WS&SSP) was developed by USAID in response to a growing need perceived among the international donor community in this sector for strengthening relevant institutions in order to maximize the benefits transferred through development assistance. This felt need was very strong in the water supply & sanitation sector as the sector institutions had inherent weaknesses and were not capable (to manage, operate and monitor water & sanitation systems) of achieving the goals of the International Drinking Water Supply and Sanitation Decade (IDWSSD).

The focus of the WS&SSP was the National Water Supply & Drainage Board (NWSDB) of Sri Lanka. The NWSDB had been formed out of the Department of Water Supply & Drainage in January 1975, as an autonomous body (public corporation) under the Ministry of Local Government, Housing & Construction (MLGHC). The NWSDB was responsible for planning, providing, operating and controlling efficient water supply facilities for public, domestic and industrial purposes and to recover costs for same.

Other responsibilities of NWSDB include such functions as the provision of piped sewerage facilities, research and training. At its inception the NWSDB had a staff of about 1,600 and was responsible for operating 96 water supply schemes.

At the time of the project design stage (late 1983/ early 1984) the NWSDB had been managing 161 piped supply schemes with a staff of almost 6,000, of which about half were casual employees. During this period it was observed that the agency was functioning reasonably well in terms of construction of new schemes. However performance was less than satisfactory in the area of scheme operation and maintenance and financial viability. For example in 1983 collection represented only 12% of O&M cost and the number of billed consumers to staff ratio was only 8.4.

The basic problems with the NWSDB identified at the project design stage was that it had not been able to change its organizational role from government department to public corporation to meet the new demands created on it. The new role demanded that its focus be changed from capital projects to O&M and consumer billing. In other words its bias towards construction had to be shifted towards economic viability and cost recovery, thus moving towards a self financed organization. This change of role of NWSDB was not easily adaptable as the NWSDB management in 1984 was almost entirely the same as pre-1975 cadre and the organization culture and operating procedures of the old department had been used in the corporation without substantial changes.

The operational deficiencies identified could be summarized as follows;

* Negligible emphasis on O&M
* Minimum commitment to financial viability
* Negligible accounting/budgetary discipline
* No corporate planning
* Little attention to community/user consideration
* Reliance on government subsidies
* Totally reactive to direction from MLGHC, local authorities and members of parliament

The selected deficiencies could only be overcome through the changes in NWSDB staff attitudes supported by new operational skills and procedures.

3.0 Project Goal, Purpose and Objectives

The project goal is to improve the health and well being of the people of Sri Lanka. The achievement of this goal would be measured by the increase in the number of people served by safe and reliable water supply systems and adequate sanitation facilities and by the reduced incidence of water related morbidly and mortality.

The project had two elements; a comprehensive institutional building component and a program to improve health education and rural sanitation services through the Ministry of Health (MOH). By the end of the project the combined project activities expected to produce:

- A reorganized, consolidated and decentralized NWSDB with increased capacity concentrating more on operations and maintenance.

- Established NWSDB operational units and improved policies and procedures for management, planning, public relations, commercial operations, personnel management, training, construction, operations and maintenance, information management and research.

- More effective NWSDB operation through better trained and motivated staff and improved facilities and equipment and logistic support.

- A NWSDB water Rehabilitation/Construction program in up to six regions of the country that are fully integrated with a MOH Community Health and Latrine construction program.

3.1 Project Inputs and Outputs

The project consist of two major elements: (a) NWSDB institutional development; and (b) health education, sanitation and community participation. Inputs to be provided within each of these areas include: technical assistance (long and short term business management, commercial, training, personnel management, environmental engineering, supplies and stores management, water quality, operations and maintenance, public health education, social science and environmental sanitation expertise); training (long and short term overseas training and study tours, participation in international workshops, seminars and conferences, and in-country workshops and health education support); commodities (office, training, laboratory, workshop, and stores equipment and supplies, and project vehicles); facilities construction and renovation (office, training,

laboratory, workshop and stores facilities, and staff quarters); water supply system construction and rehabilitation; latrine construction; technical and socio-economic research studies; and recurrent costs. Specific activities to be undertaken through the project in each major element are outlined in the following sections.

Planned financial inputs to the project were provided through grant and loan funds from AID in the amount of US$ 13.5 million and GSL cash and in kind contribution of approximately $ 7.3 million. The total funds provided against the line items are given in the project financial summary (Appendix 1). As per the financial summary funds obligated for technical assistance are ($7.59 million), training ($565,000), commodities ($2.185 million), facilities ($1.230 million), construction/rehabilitation (1.475 million) and research studies ($56,000). Actual expenditure were; TA ($7.362 million), training ($408,492), commodities ($1.814 million), facilities ($539,941), construction/rehabilitation ($1.247 million) and research studies ($25,555).

Planned project outputs include a wide range of institutional and physical achievements which are summarized in Logical Framework Matrix in Table I.

4.0 Accomplishment, Actual and Projected

Table 1 - Logical Framework Matrix

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS		STATUS
Outputs:	Magnitude of Output:		% Completed by PACD:
1. Consolidated decentralized NWSDB placing increased emphasis on water supply systems O&M.	1. New or renovated office, training, laboratory, workshop, and staff housing facilities with equipment, supplies and logistical support at the NWSDB Central Office, and 5 Regional Support Centers located throughout the country.	1) Consolidation:	100
		2) Decentralization:	
		- Facilities Construct.	50
		- Decen. Operations	35
			(4 RSC)
		3) Commodities	99
2. Functional NWSDB Units in each of the following areas:			
a) Management: Strategic planning, policy making, public relations, management operations, information systems.	2a. Established, tested, operating plans, procedures and manuals for each area of NWSDB operations.	2a.1 Strategic Planning	85
		2a.2 Policy Making	90
		2a.3 Public Relations	100
b) Commercial Budgeting: Accounting, financial planning, permanent billing, billing & collection, supplies & stores, tenders & contracts, fixed assets inventory.	2b. Trained and motivated staff in all NWSDB Units (3,000 permanent staff).	2b.1 Management Info. System	65
		2b.2 Budgeting/Fin. Planning	90
		2b.3 Supplies & Stores	100
		2b.4 Tenders & Contracts	100
		2b.5 Fixed Assets Inventory	100
c) Human Resources Development: Short-term training systems development, skills training, personnel administration.	2c. Two long-term trainees, 34 short-term overseas trainees, 15 in-country workshops.	2c.1 Human Resources Dev.	100
		2c.2 Personnel/Administration	100
d) Capital Facilities Management: Facilities planning, design, construction and rehabilitation.	2d. Five technical research studies completed.	2d.1 Capital Facilities Management	80
e) Operations & Maintenance: Process control, maintenance management, water quality.		2e.1 O&M/Process Control	100
f) Special Services: Internal audit, legal, information management, research, and administration.		2f.1 Internal Audit	100
		2f.2 Information Management	80
3. A functioning Rural Sanitation Unit (RSU) in the NWSDB.	3a. RSU at NWSDB Central Office.		100
	3b. Regional sanitation teams in the field.		100

Table 1 - Logical Framework Matrix (Contd...)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	STATUS
Outputs:	Magnitude of Output:	% Complete by PACD
4. Sub-projects serving as demonstration studies (a) new NWSDB procedures for construction/rehabilitation work and (b) health education and sanitation via the RSU.	4a. Two new water supply systems construction sub-projects.	0
	4b. Four water supply systems rehabilitation sub-projects.	100
	4c. 15,000 latrines constructed in six sub-projects.	45 (100 in 4 projects)
	4d. Intensive health education including delivery to six sub-project areas.	67 (100 in 4 projects)
	4e. Three socio-economic research studies completed.	100
Note: Completion status refers to August, 1991		

SOURCE: Final Report on Institutional Development of the NWSDB.

Output	Explanation
1.	Facilities construction - poor progress by contractors was due to adverse security situation in the country. (Refer to photographic plates)
1.	However, it was observed that the decentralization achieved in 3 RSC (in Greater, Colombo, Central and Southern RSC's) was greater than 100%. No work done in fifth RSC (North-Eastern) because of adverse security situation.
1.	Commodities - small items that were missing/damaged still under insurance review.
2a.	Strategic planning - comprehensive staff resources lacking in CPD.
2b.	MIS - replication of O&M - MIS still not complete and executive management acceptance of MIS still not totally positive.
2b.	Budgeting/financial planning - zero based approach still under field test, financial planning still not totally taken over by counterparts.
2f.	Information management - same comment as 2b. MIS.
4a.	New water supply sub-projects - not started because of adverse security situation (Jaffna and Southern RSC).
4b.	Rehabilitation water supply sub-projects - construction only commenced in late 1990, but was completed in the four sub-projects which were implemented.
4c/4d	Latrines/health education - completed in the four sub-projects which were implemented.

TABLE 3 - Output Level Indicator

Indicator	Baseline	Lop Target	Cumulative to Date
a) Establish RSCs	0	5	4
b) Est. Strategic Planning	0	100%	90%
c) Consumer *Complaints	10/1000	0/1000	3/1000*
d) Est. MIS	0	100%	90%
e) Billing time	6 Months	1 Month	1 Month
f) Budget Planning and Control	0	100%	100%
g) Finance Performance	(156) Rs.M Deficit	Self Sufficiency	174 Rs.M Surplus
h) Est. Training Dept.	0	100%	100%
i) Trained Staff	0	3000 Permanent Staff	3000
j) (i) Water Supply Sub-projects	0	6	3.9
(ii) Facilities Construction	0	23 Buildings	6 Buildings
k) O&M process control	0	100%	100%
l) Research Studies	0	8	7
m) Est. of RSUs	0	100%	100%
n) Health education in 6 Water Supply Sub-projects	0	100%	67% (100% in four sub-projects)
o) Latrine const.	0	15,000	6721

* Complaints per 1000 connections.

5.0 Summarized Project History

The WS&SSP was initiated in August 1984, with the signing of the Loan and Grant Agreement and the obligation of US $12.3 million in project funds. The Mission was able to expedite the contracting process required for technical assistance quickly and by May 1985 the firm of Engineering Science Inc. had been awarded a contract and had a six person US advisory team in place in Sri Lanka. In November 1985, the GSL satisfied the last of the conditions precedent under the agreement and the project should have been positioned to move quickly into full implementation. However, this was not the case. During the latter half of 1985, much of the NWSDB staff thought that the manner which the project was being implemented was subjecting them to rapid and radical organizational, attitudinal and behavioral changes at a rate quicker than they were prepared to accept. NWSDB staff showed strong resistance to these rapid changes. This resulted in delays in planned areas of improvement. These difficulties were finally resolved in early 1986, by the replacement of several senior members of both the NWSDB and technical assistance team. Although all parties had agreed to a more incremental approach to change within the project, since that time the initial delays have caused many activities to slip more than a year behind their original schedule.

Due to the above delays and also on the recommendations provided by the mid-term evaluation team, USAID approved a one year extension of the PACD. The PACD was extended from August 31, 1990 to August 31, 1991. The project was again extended to December 31, 1991 to accommodate NWSDB purchasing a diesel generator.

By the time of this Project Completion Report most of the planned organizational changes have been completed, staff have been trained, policies and procedures were developed and the planned decentralization objectives of NWSDB have been achieved. However, the construction of physical facilities, particularly regional offices, workshop and laboratories was affected by delays and stoppages from its inception due to civil turmoil in the country in 1988/89. At the end of the project, out of 23 programmed buildings, only 6 had been satisfactorily completed, and 3 were to be completed at a later date using the NWSDB's own resources. 14 others never got off the drawing board or were abandoned at the tender stage either because of non responsive bids or adverse security situation. **(Ref. Table 4)**

It was interesting to note that the poor progress of the Facilities Construction activity did not affect overall decentralization program since other arrangements were made. For example, other external services agencies (ESA) provided additional space and facilities for the Central RSC. The Anuradhapura RSC was temporarily amalgamated with the RSC Ampara, and in Kurunegala Region local resources were mobilized to improve facilities.

Out of the six water supply sub-projects planned, four projects were completed. Work in one project in Southern RSC was abandoned because of the adverse effects of the JVP insurrection and the sixth project which was located in Jaffna never started because of terrorist activities in the area.

Community participation, health education and latrine construction were accomplished on schedule in four of six areas. All the sub-project communities were integrated into the project cycle health education. Training curricula were developed and utilized and 5400 adult latrines were constructed. An addition 1300 pre-school latrine were also constructed. Approximately 370 volunteer village health workers were trained to carry out health education activities. As of December 31, 1991 100% of the project grant funds and 95% of the project loan funds had been committed and the total accrued expenditures were 87% of the obligation.

TABLE 4

Facilities Construction - Planned and Actual

Construction Program	Actual
1. Upgrading Central Laboratory/Training Section (Head Office)	Abandoned by Contractor
2. Upgrading Central Stores	Abandoned by Contractor
3. Upgrading Central Workshop	Abandoned by Contractor
4. Groundwater Stores (Colombo)	Completed
5. Southern RSC (Matara) - Office	Completed
6. Southern RSC Workshop/Stores	To be completed by NWSDB
7. Southern RSC - Housing	Never Started
8. Central RSC - (Kandy) Office	Completed
9. Central RSC - Workshop/Stores	To be completed by NWSDB
10. Central RSC - Housing	Never Started
11. Northern RSC - (Anuradhapura) - Office/Workshop/Stores	NWSDB
12. Northern RSC - Housing	Never Started
13. Kurunegala Region - Stores/Workshop	Never Started
14. Kurunegala Region - Housing	Never Started
15. Ratnapura Region - Office	Completed

16.	Ratnapura Region - Workshop/Stores	Never Started
17.	Ratnapura Region - Housing	Never Started
18.	Ampara Region - Office/Workshop/Stores	Never Started
19.	Ampara Region - Housing	Never Started
20.	Bandarawela Region - Office/Workshop/Stores	Completed
21.	Bandarawela Region - Housing	Completed
22.	Jaffna Region - Office/Workshop/Stores	Never Started
23.	Jaffna Region - Housing	Never Started

Source: Final Report on Institutional Development of the NWSDB.

6.0 Status of Project Inputs and Activities

At the time of writing of this report all project inputs have been supplied. Direct AID technical assistance was completed on August 31, 1991, although USAID has extended selected TA through an AID/W central project for further year on the request of NWSDB. Thus, US $400,000 were obligated from the construction component of the project and transferred to the WASH Project. The PACD was extended to December 31, 1991 to allow completion of one final procurement action. This equipment has now arrived in the country. Percentage completion of planned outputs given in Table 1 and also summarized below.

6.1 Technical Assistance

The principal technical assistance contractor was Engineering Science Inc (ESI), who have sub-contracted to Ernest and Whinney, Chartered Accountants and to Resource Development Consultants, who have been providing engineering and other staff. The total amount of contract (383-0088-C-00-5011-00) is US $7,291,851 and the level of effort under this contract is 238 person/months involving long term and short term Technical Assistance. Out of total US $7,356,136 obligated US $7,069,014 have been disbursed under this contract.

The effective date of this contract was April, 1985 and the completion date was August 31, 1991. The contract consist of provision of technical assistance to NWSDB in the areas of management, commercial, human resource development, capital facilities management, operations and maintenance and special services.

The following reports were submitted.

1. The Final Report on Institution Development of NWSDB.

2. Greater Colombo Water Supply System Master Plan Update.

3. A study on Health Impact Assessment of Health Education and Sanitation Component of the NWSDB Institution Development Project.

4. Design, Operation and Maintenance Manual.
5. Quarterly Progress Reports.

The final claim of the TA consultant has still not been submitted. A recent audit of TA contracts has questioned overhead payment (US $2,104,490) applicable to TA contract. The contractor has to resolve this issue through negotiation with the AID.

6.2 Facilities Construction

Out of the eleven facilities construction contracts, only five were completed before the PACD (refer Table 4.). The balance construction contracts which had serious construction delays (i.e. Anuradhapura, Kundasale, Bandarawela, Matara and Telewela projects) were mutually terminated during the first quarter of 1991. The NWSDB has already commenced on the construction of the balance of work using their own resources as well as other donor assistance. As per the detailed work plan submitted by NWSDB for balance work, the remaining work on facilities will be completed by December 1992. The NWSDB has agreed to send USAID the monthly progress records on these activities.

Funds amounting to US $1,234,467 were obligated for this component, out of which US $656,651 and US $539,941 were committed and disbursed to date respectively.

The Regional Legal Advisor approved payment for the price escalations of building materials and electrical fittings. However, payment of cost escalation of labour was excluded. The final claims have already been received by the consultant M/s. Engineering Consultants Ltd.,

Construction & Rehabilitation

Out of four water supply sub-projects undertaken for construction only three sub-projects were completed (100%). The fourth sub-project achieved only 95% progress, as it was affected due to land acquisition problem at the reservoir site. All four sub-projects were inspected immediately after the PACD and USAID reimbursed the value of work in all sub-projects excluding the cost of the reservoir at the fourth sub-project. To date 94% of the committed funds have been disbursed. There will be no claims in the future under this item.

Training

Out of US $60,000 of grant funds obligated, US $21,260 and US $21,260 were committed and disbursed to date respectively. Similarly, out of US $505,000 of loan funds obligated, US $387,232 were committed and disbursed to date respectively. The NWSDB was able to complete the activity 100% during the third Quarter of 1991. Under overseas training program, 4 Nos. long term (over 90 days) and 60 Nos. short term fellowships were awarded. Under incountry training program, 80 training workshops were conducted which covered 1,472 Nos. participants.

This component consisted of two elements:
(a) Training System Management and (b) Skill Training
Under (a) it was planned to improve the training capacity of NWSDB by:

(i) Expanding the training skills among the trainers.
(ii) Providing advancement opportunities to retain qualified trained staff.
(iii) Upgrading training facilities and equipment Benefits achieved under this element are:

- Substantial expansion of the Training Division including a new support unit.
- Creation of a comprehensive training information planning and an evaluation system.
- Training certification program.
- Implementation of a training of trainers program.
- Preparation of a Training of trainers Program.
- Preparation of a core curriculum including trainer manuals.

Under element (b) several training programs locally and overseas have been undertaken to develop the skills and knowledge of employees of NWSDB. These training courses were designed and selected carefully thus maintaining very high relevancy to NWSDB activities. NWSDB staff were trained on modern techniques related to water supply and waste water technology and manpower development. For example, one accountant, one manager and a chief internal auditor were given 3-4 months training in the United States to develop and motivate their subordinates. Most of the employees trained under this project are performing their duties with greater confidence and effectiveness. Substantial expansion of the training division interns of

facilities and manpower were achieved.

Commodities

99% of the funds for commodities have been utilized. Most of the overseas and local commodities procured have been inventoried and labelled by the NWSDB with the assistance of USAID, and the inventory is available. In all the regional offices and copies of inventory have already been sent to USAID. However, it is important to note that the workshop and stores equipment have not been put to the maximum use as the planned facilities were not completed in regional centers. USAID has already advised the NWSDB to take appropriate actions to transfer those valuable pieces of equipment lying idle to those regions where it can be put to good use.

Host Country Contributions

Host Country Contribution, both direct and indirect cash and in kind, during the life of project as appropriately US $2,521.000. This represents only about 21% of total project expenditures to date and is less than the minimum amount (25%) stipulated in the Project Agreement. However, USAID believes that this may be an underestimate and is making arrangements to employ a local accounting firm to review and analyze the project activities accounts and to recompute the host country contribution.

7.0 LESSONS LEARNED

The following are the lessons learned during the implementation of the project (from 1984-1991). Many of the lessons learned during the implementation were useful inputs or feedback by the TA Consultants, USAID and the counterparts respectively to make the overall project a success.

7.1 Project Impact/Design

The project was designed on the basis of "Sudden Shock" institutional change rather than a gradual start. This resulted in a massive adverse reaction against change by NWSDB staff. The sudden strong pressure for changes exerted by the consultants generated an equally strong opposing force from the NWSDB staff.

A prescriptive project design must be avoided at all cost in an institutional development project of this nature. It not only imposes a series of potentially unacceptable modifications on the institute, but also burdens the TA consultants with procedures and changes that have to be implemented in order to satisfy their contractual obligations. This could lead to the consultant's downfall or their failure to deliver results.

An institutional development project cannot be designed in detail through use of short term consultants. These experts should focus more on developing the global change requirement, the detail strategies and task-specific targets while ensuring involvement of the TA consultant and counterparts.

7.2 Selection of Consultant

The key to successful institutional development intervention in an engineering organization such as NWSDB is the selection of an appropriate TA consultant having a balanced team. This team should have a mix of technical specialists and Organizational Development/Institutional Development experts. The technical specialists should have good interpersonal skills and should be amenable to being coached in such skills by other team members. Moreover the team should be able to work in deferent cultural settings and should be skilled at working collaboratively with their counterparts.

7.3 Transferring Ownership/Change

All change strategies, new procedures and other project interventions must be owned by the counterparts. From ownership, comes acceptance and commitment which in turn lead to sustainability. Training in technology transfer should be arranged early-on in the project for the institutional development team members. The potential benefits of implementing new systems must be highlighted in order to engender enthusiasm for supporting the system.

7.4 Internal Performance Monitoring

Performance indicators must be developed within the institutions and must be relevant to the operations being measured. Performance targets must be achievable. Performance review meetings should be held regularly concentrating on specific functional areas. The meeting should be attended by top management.

7.5 External Monitoring

An external monitoring team visiting the project on a regular basis will help to counter adverse tendencies such as the TA team concentrating more on procedural details rather than focusing on the overall vision and also preventing the TA team shifting from time consuming process consultant role to a more progressive role.

The external monitoring team should be comprised of the same members or at least have the same team leader in order to ensure continuity of approach.

The monitoring team members must be knowledgeable in institutional development concepts, and should be highly attuned to cultural sensitively.

The team should focus continually on the issues of sustainability and should provide major changes in the project approach, resources inputs, project duration etc., necessary to achieve this goal.

7.6 Involvement of External Environment

Political forces that exist in the external environment could be used to accelerate the overall institutional development momentum. Such forces should preferably be defined collaboratively with counterpart staff so that the institutions as a whole can realize the benefit gained by improving its performance.

Formal meetings should be arranged on a frequent basis between the political lobby and the institution to review institutional development strategies and to discuss the effects of external environment on the stated goals.

The institutional development team should identify the key individuals in the external environment who can influence certain institutional development strategies to be accelerated if obstructions in the institution arise. However, extreme care must be exercised to ensure that external forces are in line with institutional development goals and do not affect the participative process on achieving institutional development.

7.7 Length of Project

Experience on the WS&SSP proved that successful institutional development takes time. According to specialists in this field, an institutional development project takes seven to ten years to turn around an institution so that reforms are sustained.

The total WS&SSP project duration was 6 1/2 years which includes 12-month extension of technical assistance to guarantee substainability of project achievements.

7.8 Project Administration/Monitoring

The monthly/quarterly progress reports submitted by the contractor for USAID were the most widely used monitoring tools. These reports indicated the recent accomplishments and identified many problem areas. In addition to these reports, field trips, and other reports submitted by members of the TA and USAID project staff have provided a timely data source to USAID. However, it was noted that these reports did not relate progress to the stated objectives of the project. They were able to show the overall picture of the institutional development status. The actual project monitoring carried out by WASH was innovative and highly successful.

Their monitoring activities included formal interviews and a collaborative workshop attended by the TA team and the chief NWSDB staff. Open and frank discussions were encouraged and the final outcome was an action plan to cover the next year's efforts. The procedure used by them was highly accepted and appreciated by the NWSDB staff and the consultants alike since it gave an opportunity for all the main NWSDB staff to discuss objectively how things were going. The TA team found this event highly profitable, since it enabled priorities to be refocussed and helped to prevent the consultants deviating from project objectives. Finally it is important to mention that a key factor in the success of the project was due to strong support received from all levels from Government of Sri Lanka and USAID officials.

7.8.1 Commodity Procurement

The TA consultant and USAID should have used a better system of commodity tracking in order to ensure early and effective utilization of valuable pieces of equipment by NWSDB. Procurement of computer resources should have been standardized and limited to a few reputed vendors.

7.8.2 Host Country Contracting

All the parties concerned with the contracts should have used a more innovative and flexible approach in order to solve the problems faced by the contractors. The standard host-country construction contracts contained a clause to provide cost escalation and inflation, which was ordered to be deleted by USAID. Delays in mobilization and execution, and subsequent inflation (up to 100% on materials) rendered contractors unable to meet costs, resulting in delays or default.

It is very important to asses the effectiveness of the payment/disbursement method adopted by host country and USAID. The time required between completed work and direct reimbursement to contractors was up to six months because of four levels of approval required (local A&E firm, NWSDB regional and central office, and USAID).

7.9 Mid-Term Evaluation

The mid-term evaluation had objectives such as assess progress of activities, identify major problems, asses whether the project would achieve its goal, asses project effectiveness in terms of AID policy objectives, and recommended modifications and special considerations.

This evaluation proved very important for the project. It recommended that the TA contract be extended to enable the project goal to be attained. It was also recommended that the consultant include more meaningful performance indicators in the quarterly reporting to USAID.

7.10 Project Audits

The project was audited on two occasions by the USAID regional audit unit in Singapore. The first audit in 1988 was a traditional accounting type of audit, focusing on commodity utilization, quantifying achievement of objectives as stated in the Project Paper, and host country contribution. It was noted by the TA consultants that the audit team was not able to think in line with the basic concepts of an institutional development project. This may be because their terms of reference was not broad enough to cover all the aspects in an institutional development project.

The second audit in 1991 was focussed on the USAID's approach to project management and on the financial reporting details of the contract. The audit recommendations pertaining to (a) monitoring and reporting on project achievements, (b) controls over project commodities, (c) host country contributions, were quickly resolved and appropriate actions have been taken to ensure closure.

8.0 Post-Disbursement Reporting and Residual Monitoring Requirements:

The terminal disbursement date is May 31, 1992. No post disbursement reports are requested. A final monitoring and evaluation and final impact evaluation may be carried out during the year 1992/1993 with funds from Project Development and Support. USAID has already transferred US $400,000 to Central funded WASH contract to extend the Technical Assistance for another year after PACD. Under this extended TA, WASH would help NWSDB to strengthen institutional development monitory and feedback activities to sustain the benefits gained under WS&SS Project.

The World Bank has already extended its support to NWSDB in its Institutional Development program .

9.0 Summary of Financial Statement. (Please refer Table 5.)

10.0 References:

1. Engineering Science Inc (1991). **Final Report on Institutional Development of the NWSDB.**

2. Dawson J.M., Rowell, M.G. and Randeniya, M. (1988), **Mid-term Evaluation of the Water Supply and Sanitation Sector Project.** USAID, Colombo.

3. Engineering Science Inc. **Quarterly Progress Reports - WS&SSP.**

4. **Project Implementation Reports,** USAID Colombo.

5. Engineering Consultants Ltd., (1989-91) **Final Report on Architectural and Engineering Services on Project Facilities.**

6. **Project Paper on Water Supply and Sanitation Sector,** USAID Colombo, 1984.

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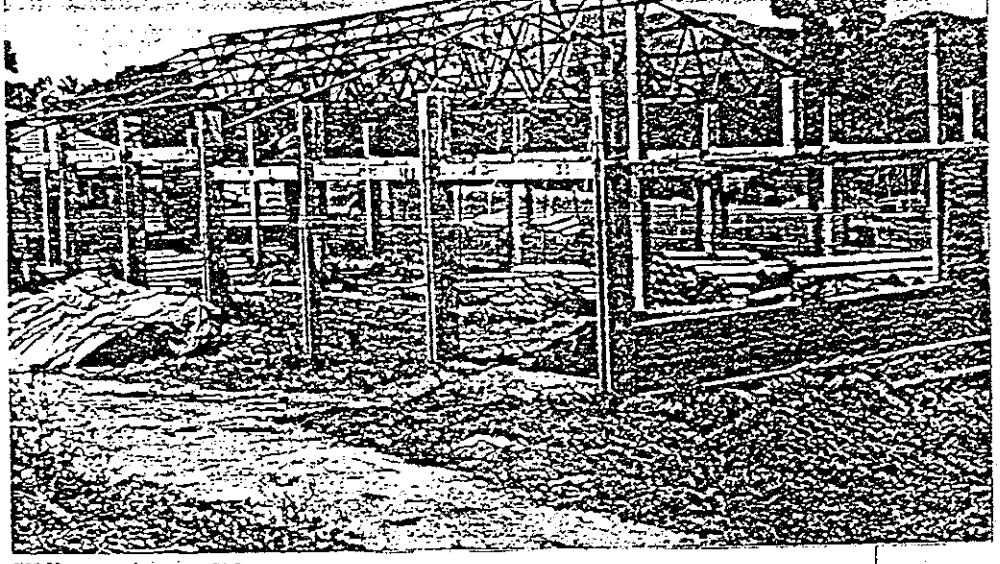
TABLE 5

APPENDIX 1

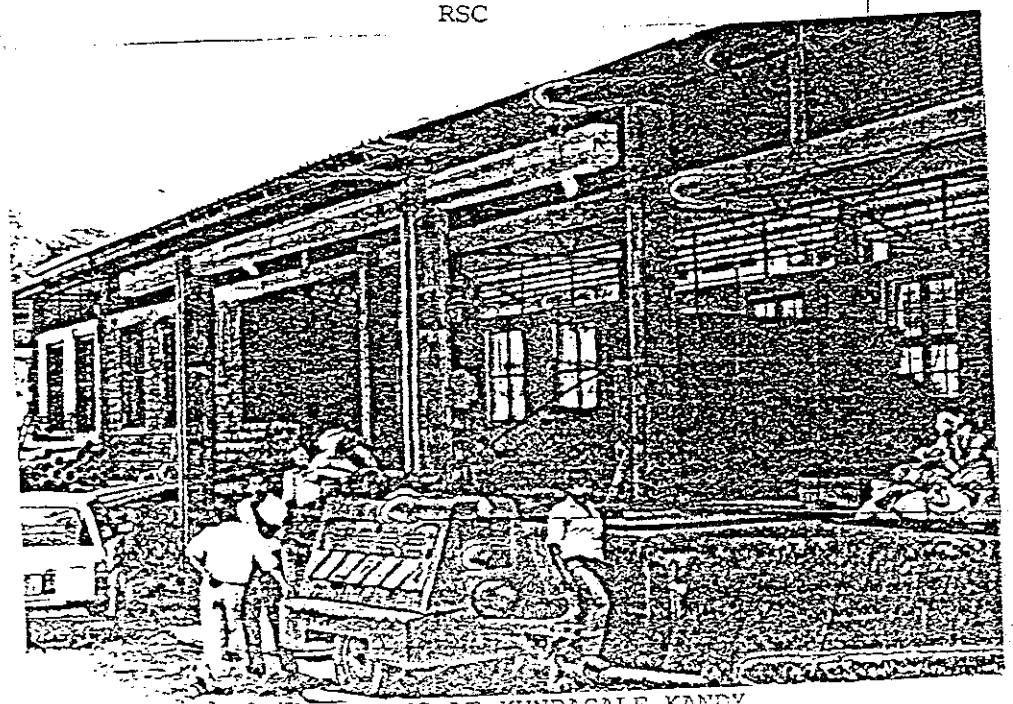
SUMMARY OF PROJECT FINANCIAL REPORT
AS OF MAY 7TH, 1992.

	Element	LOP Fund	Obligation to date	Commitment to date	Expenditure to date	Pipeline
	GRANT	6,040,000	6,040,000	5,954,722	5,944,686	95,314
01	Technical Assistance		5,924,000	5,907,907	5,897,871	26,129
02	Training		60,000	21,260	21,260	38,740
03	Research Studies		56,000	25,555	25,555	30,445
	LOAN	7,065,000	5,850,371	5,738,662	5,393,331	1,671,669
01	Technical Assistance		1,665,533	1,546,087	1,404,195	261,838
	Training		505,000	387,232	387,232	117,768
	Commodities		2,135,000	1,824,226	1,814,693	380,307
	Facilities		1,234,467	656,651	539,941	694,526
	Construction/ Rehabilitation		1,475,000	1,324,466	1,247,270	227,730
	PROJECT TOTAL		13,105,000	13,693,384	11,338,017	1,766,983

* Host Country Contribution - US $2,521,007.00 verified to date

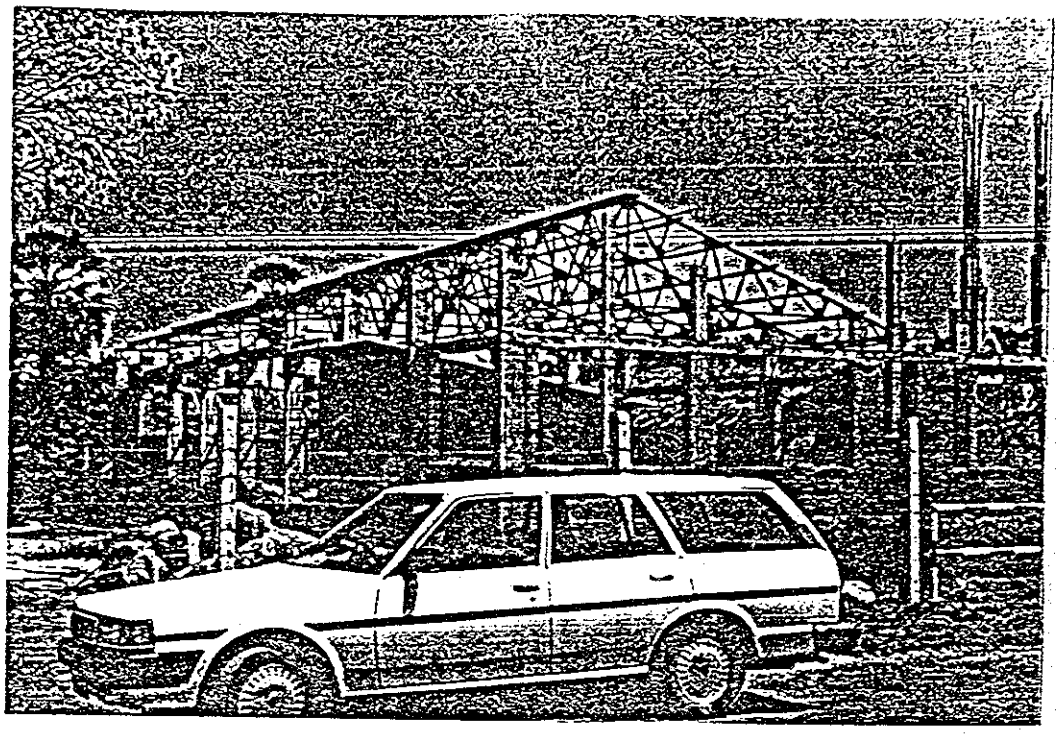


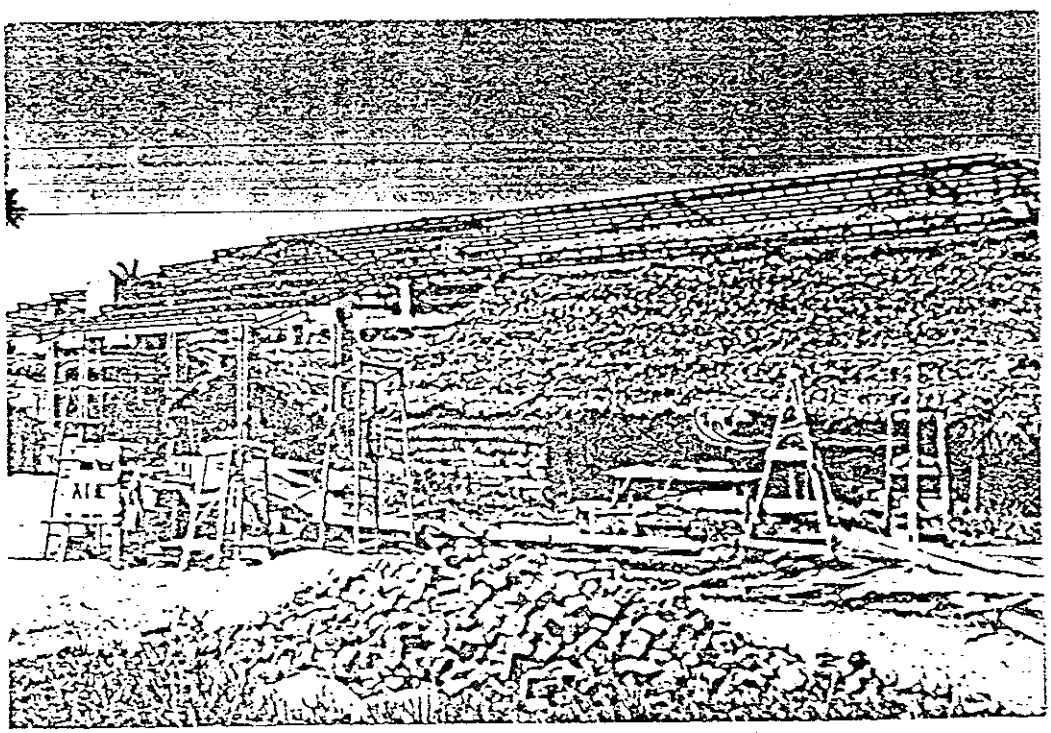
WORKSHOP BUILDING AT KUNDASALE KANDY RSC



STORE'S BUILDING AT KUNDASALE KANDY RSC

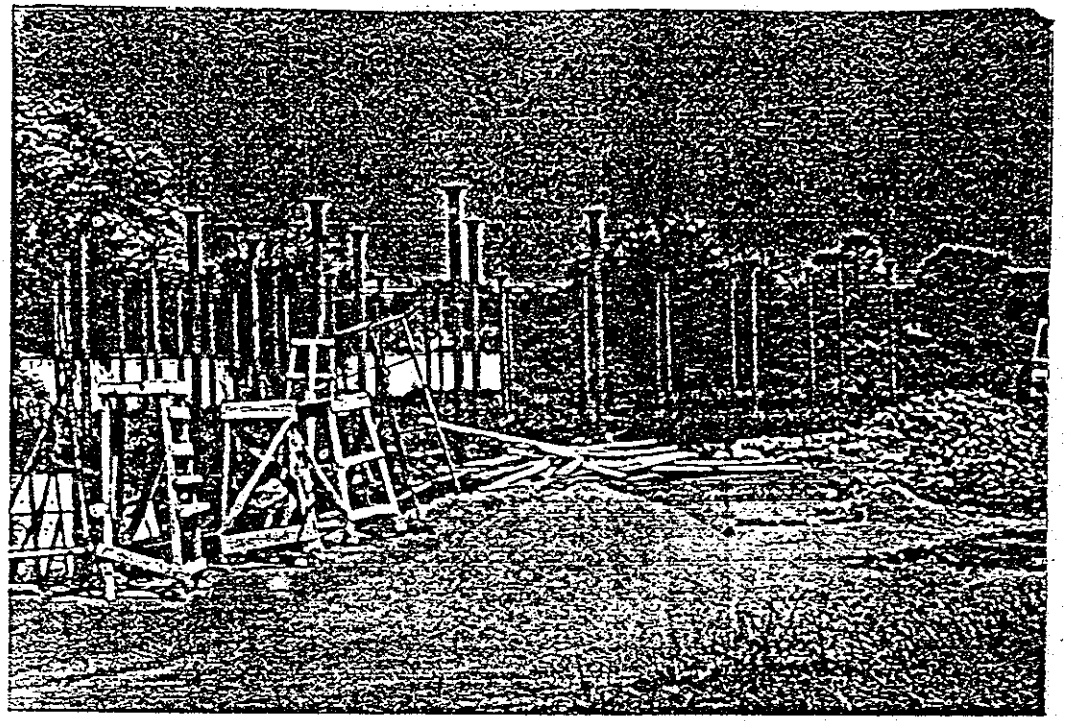
OPEN STORES BUILDING AT KANDY RSC

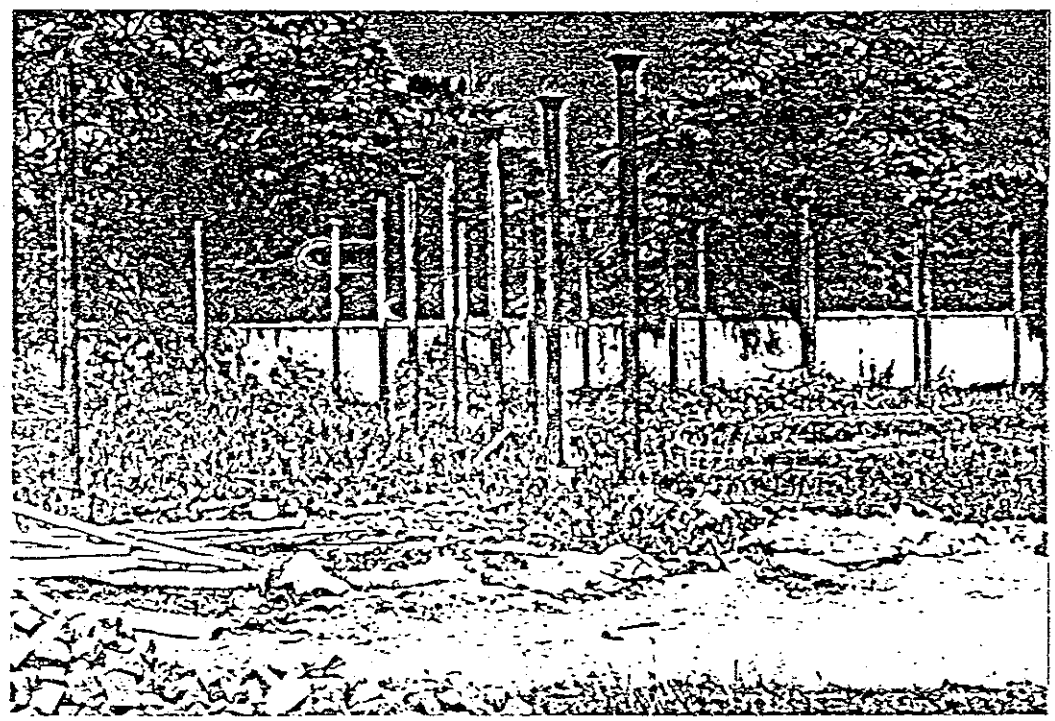




WORKSHOP BUILDING AT ANURADHAPURA

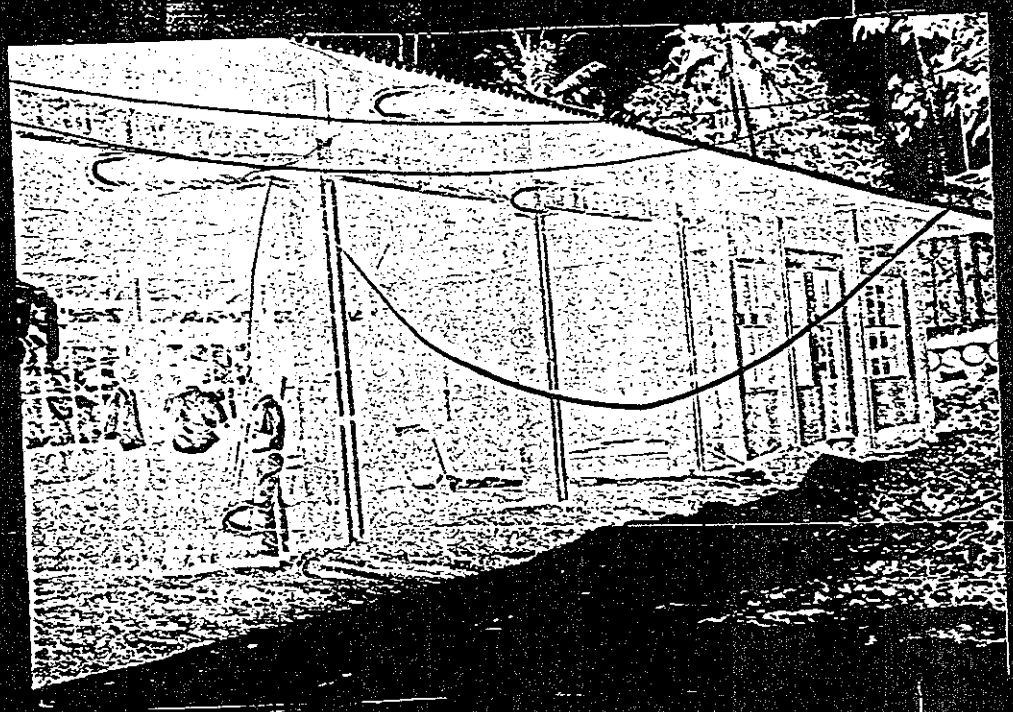
REGIONAL OFFICE



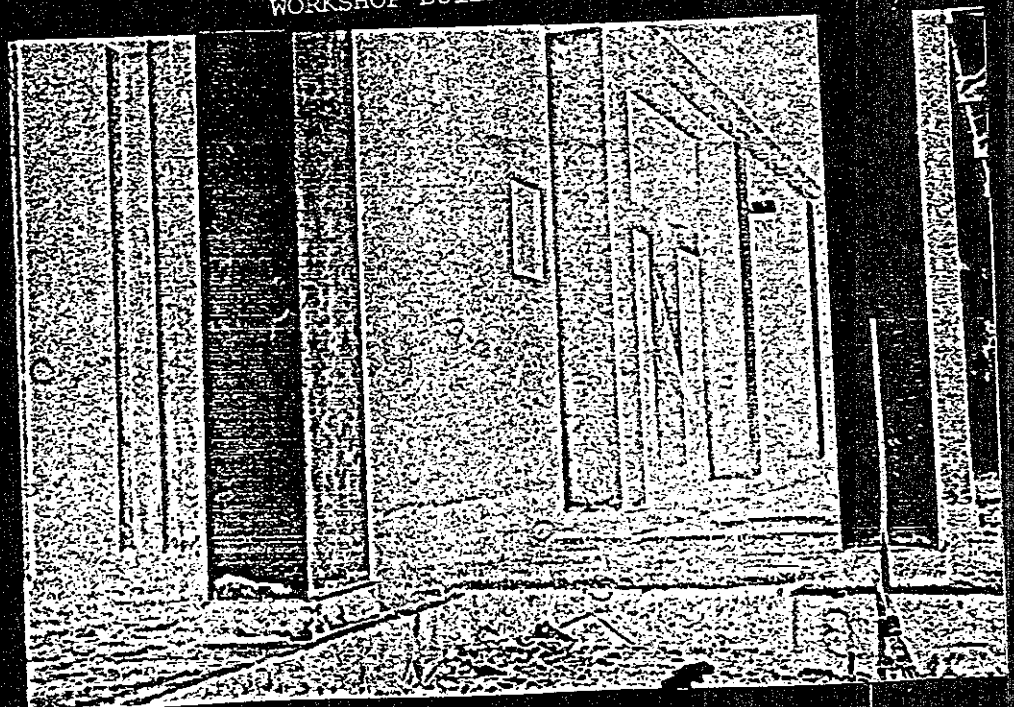


OPEN STORES BUILDING AT ANURADHAPURA
REGIONAL OFFICE

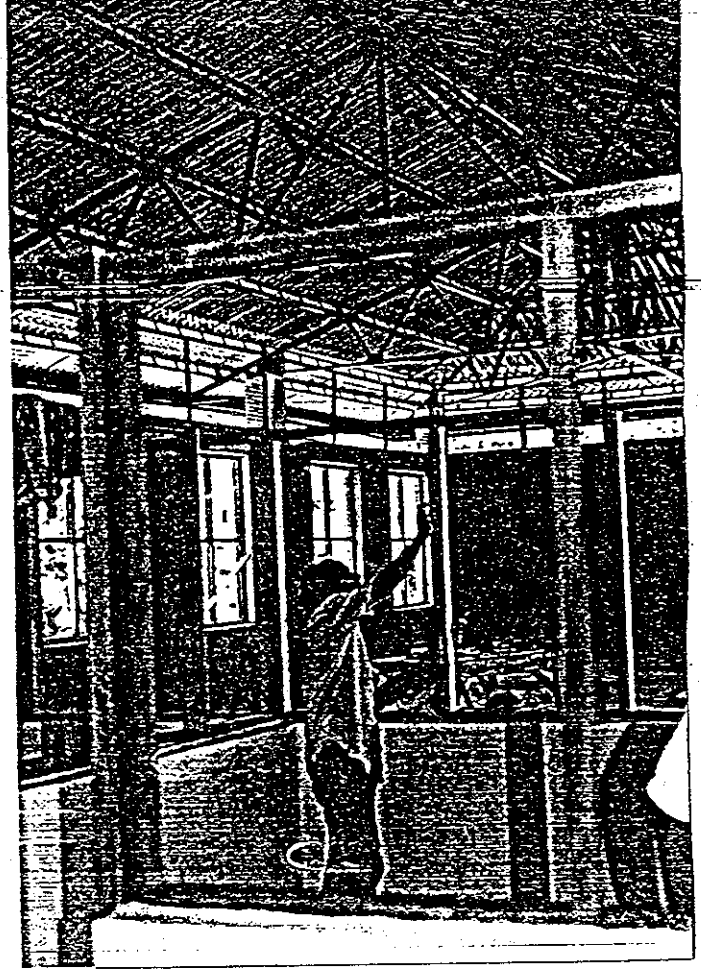
WORKSHOP BUILDING AT MATARA RSC

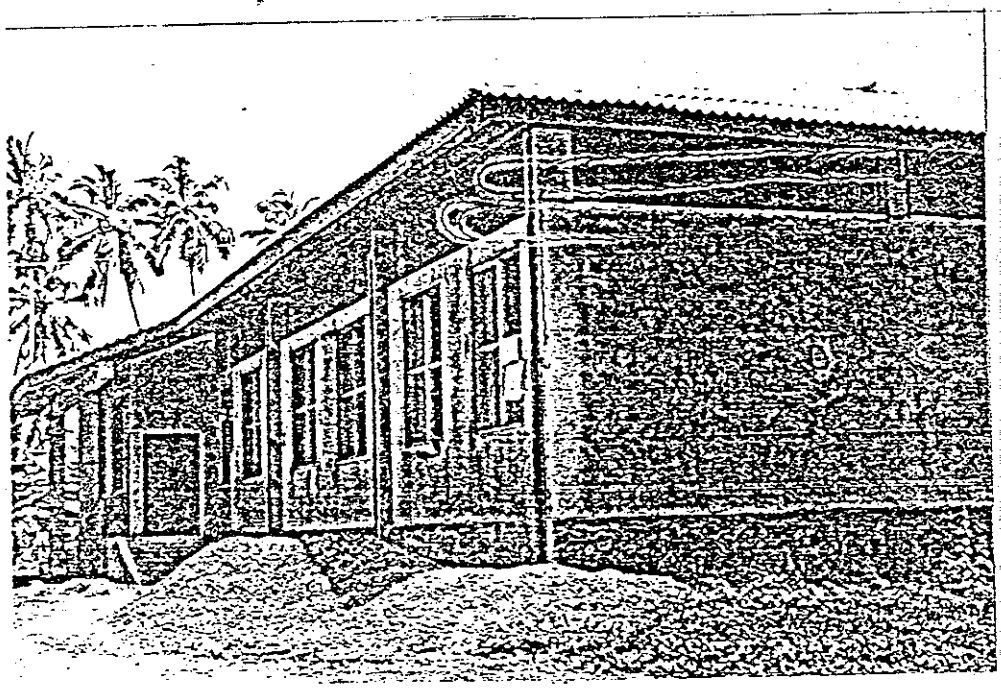


WORKSHOP BUILDING AT MATARA RSC

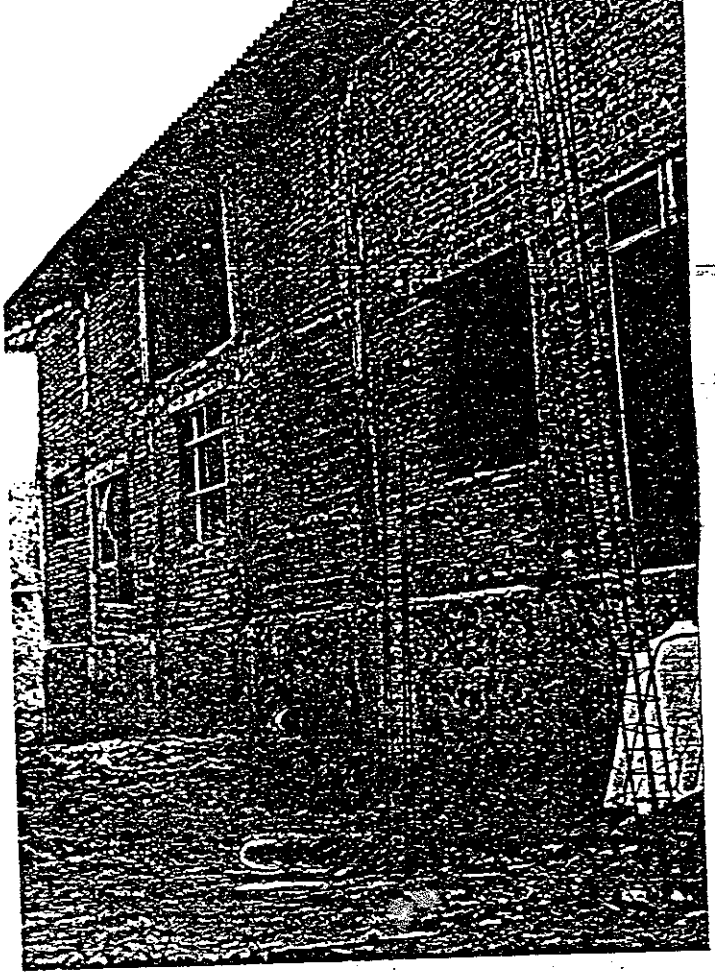


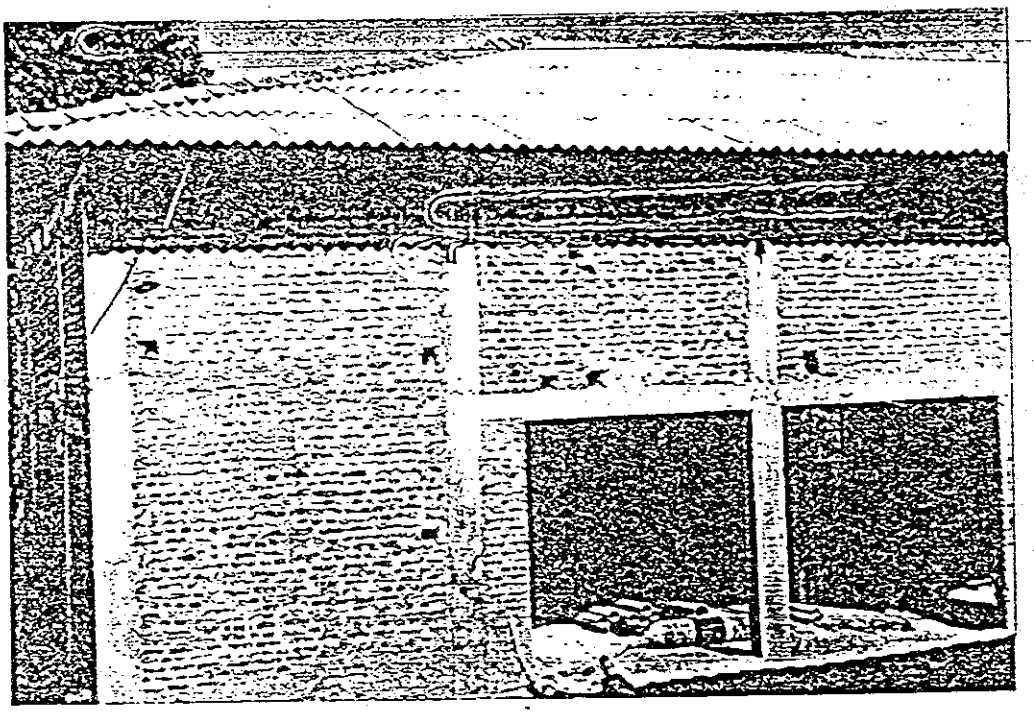
WORKERS CHANGING ROOM AT MATARA RSC





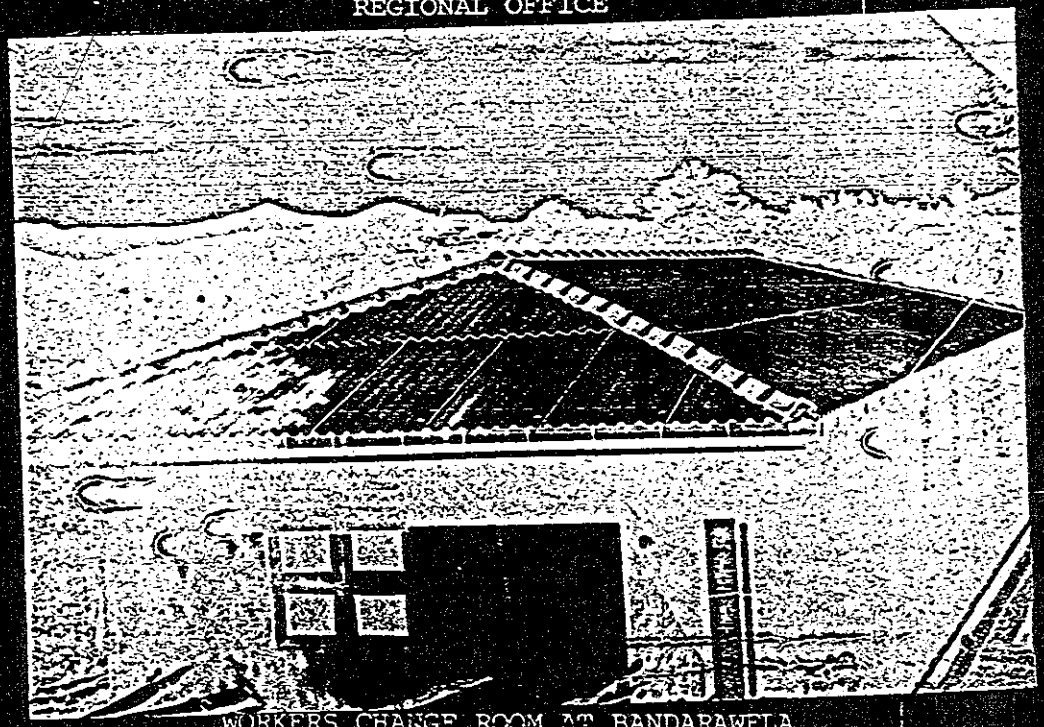
STORES BUILDING AT MATARA RSC





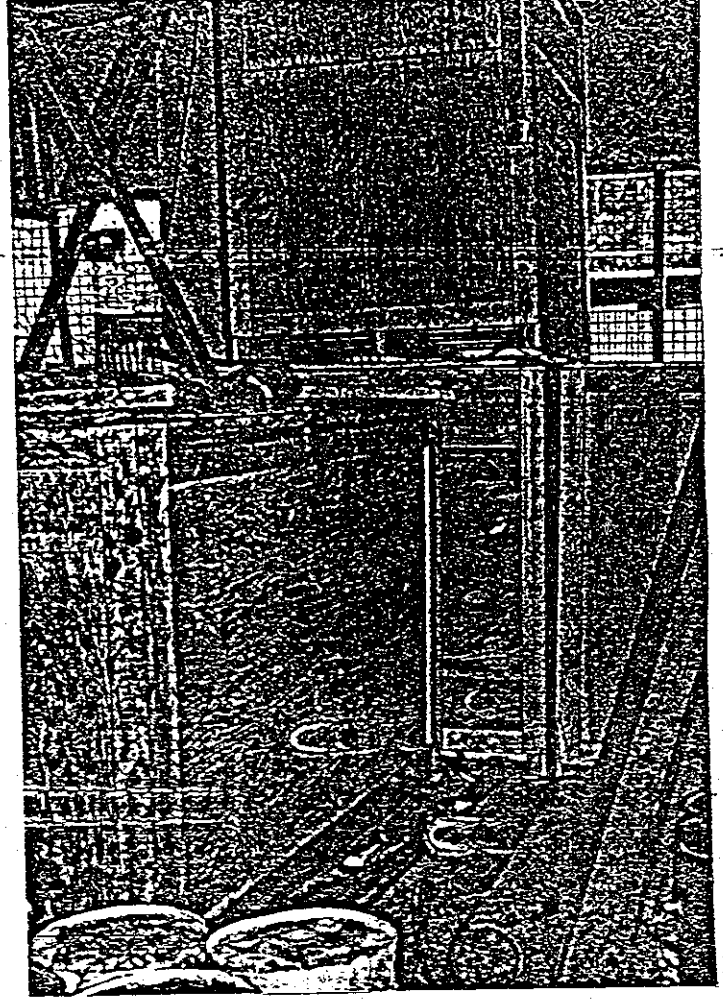
WORKSHOP BUILDING AT BANDARAWELA
REGIONAL OFFICE

STORES BUILDING AT BANDARAWELA
REGIONAL OFFICE

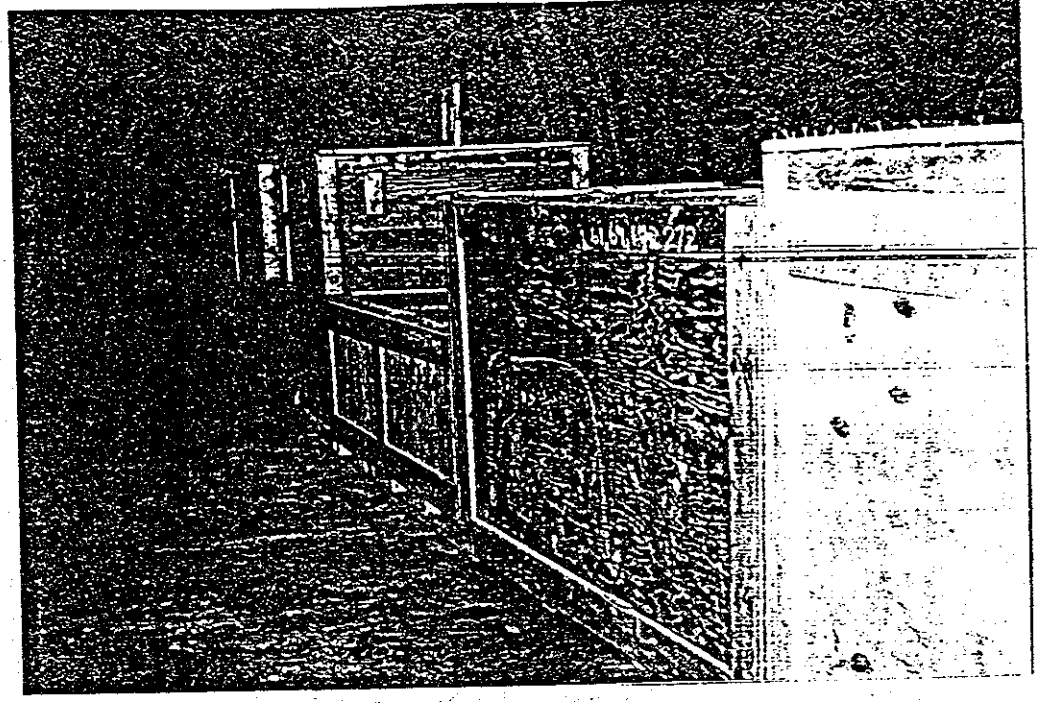


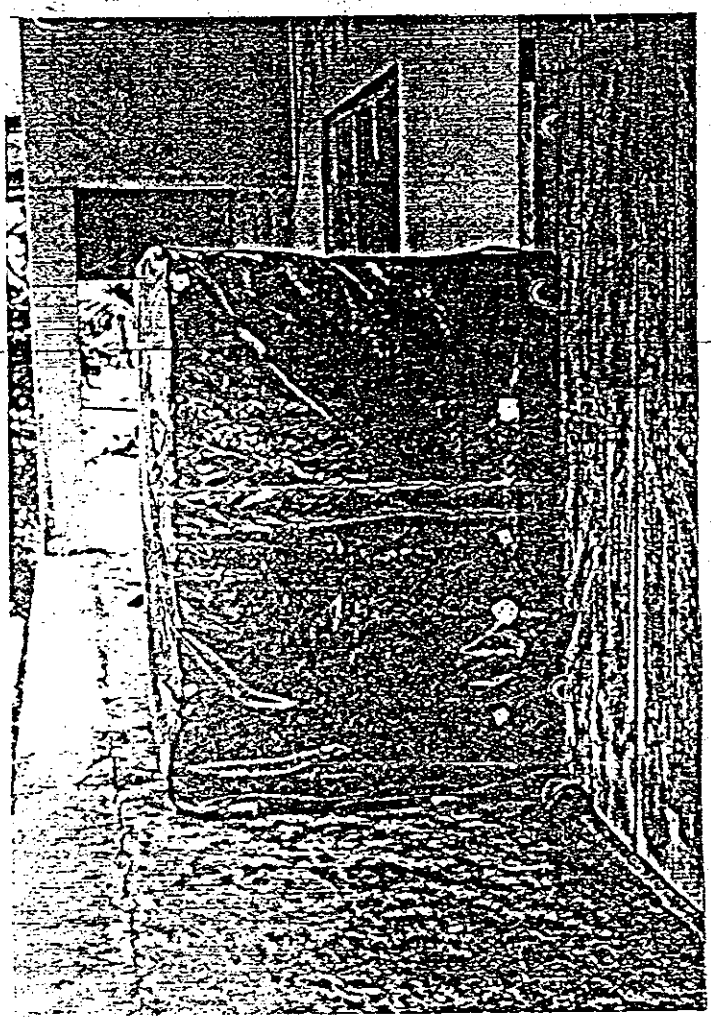
WORKERS CHANGE ROOM AT BANDARAWELA
REGIONAL OFFICE

REGIONAL OFFICE AT BANDARAWELA

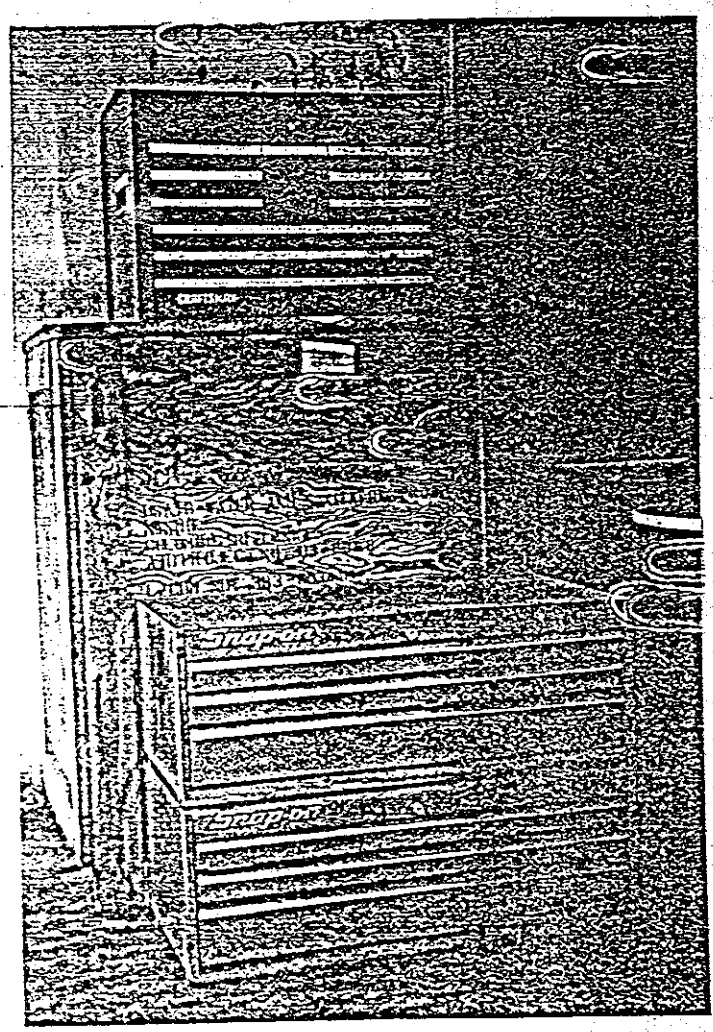


WORKSHOP EQUIPMENT AT KANDY RSC

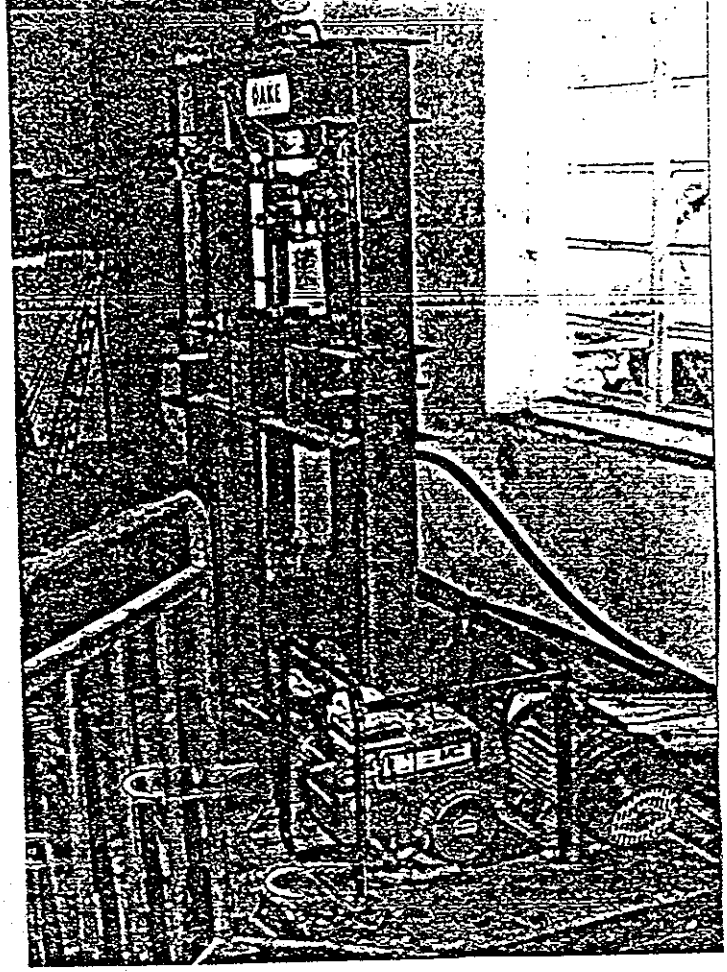


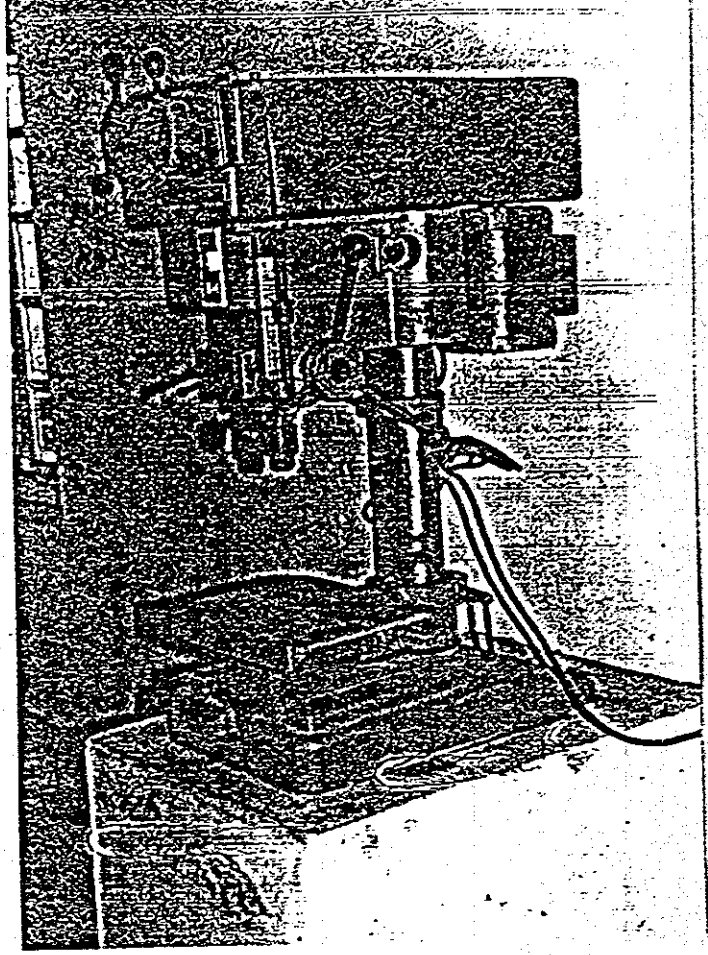


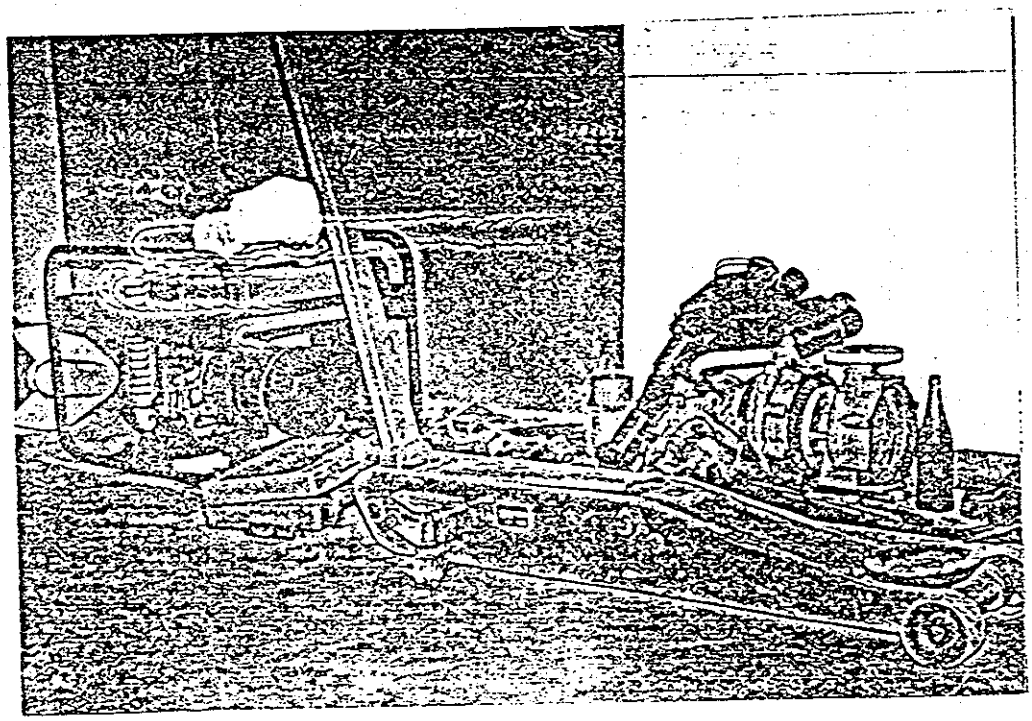
WORKSHOP EQUIPMENT AT MATARA RSC



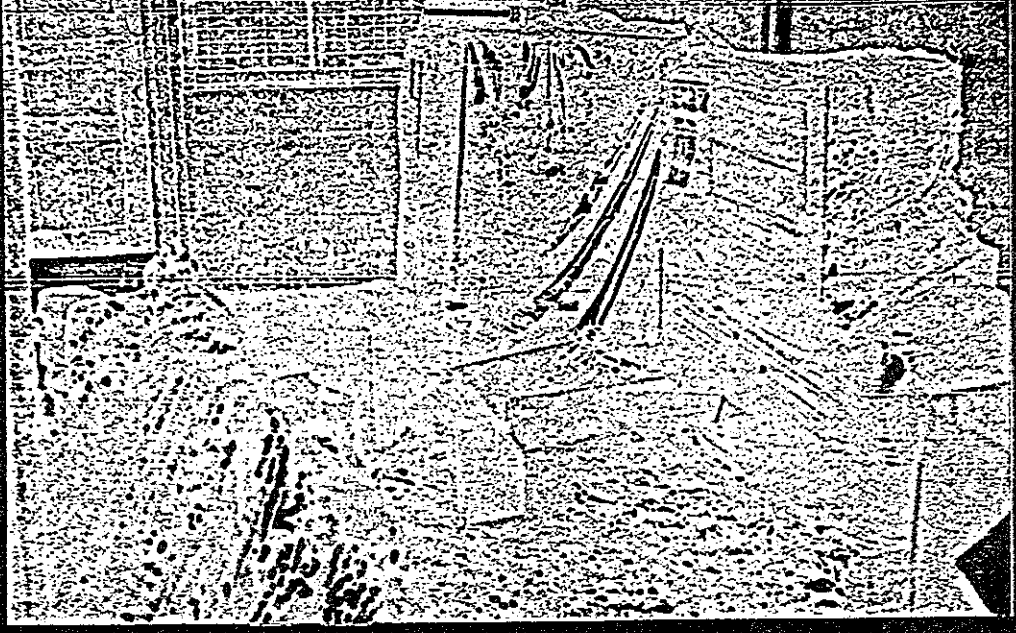
WORKSHOP EQUIPMENT AT MATARA RSC

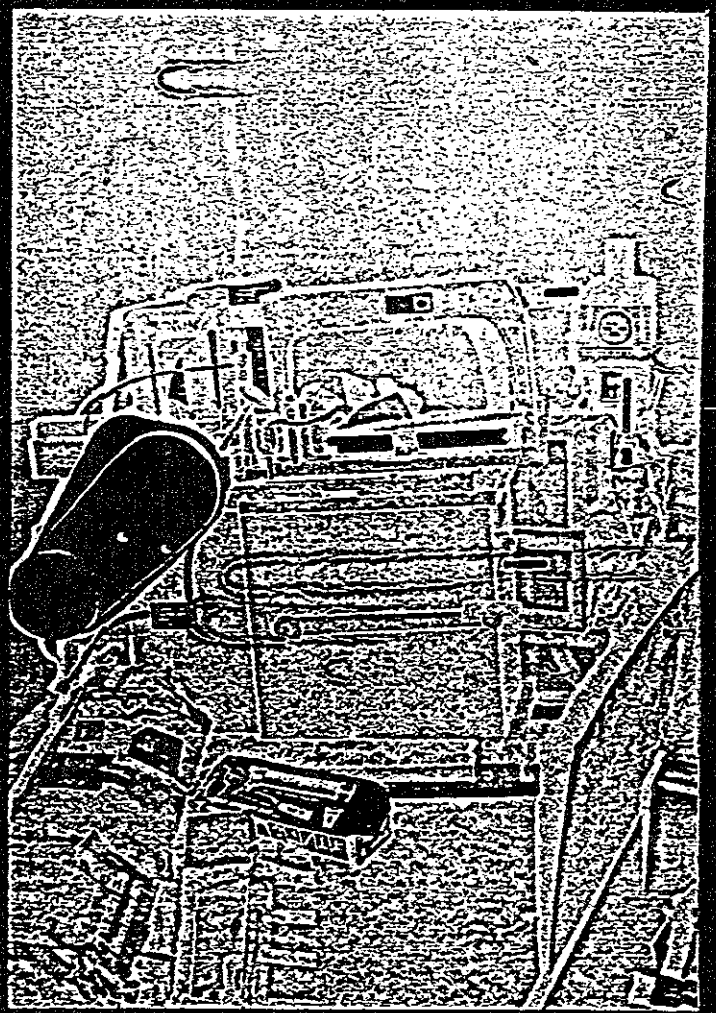


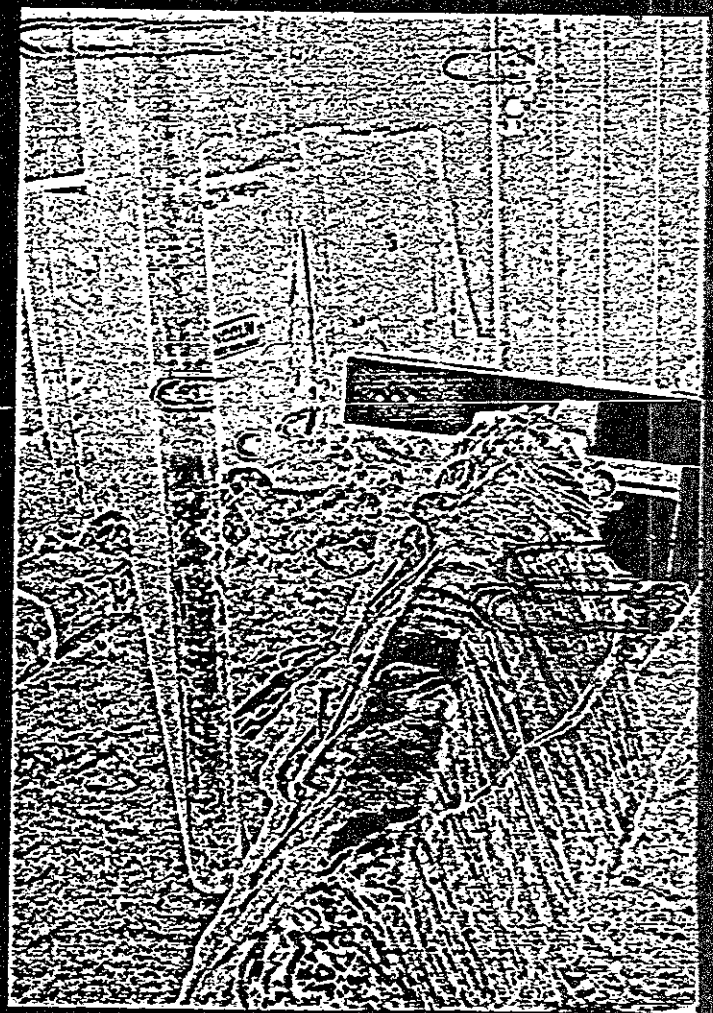




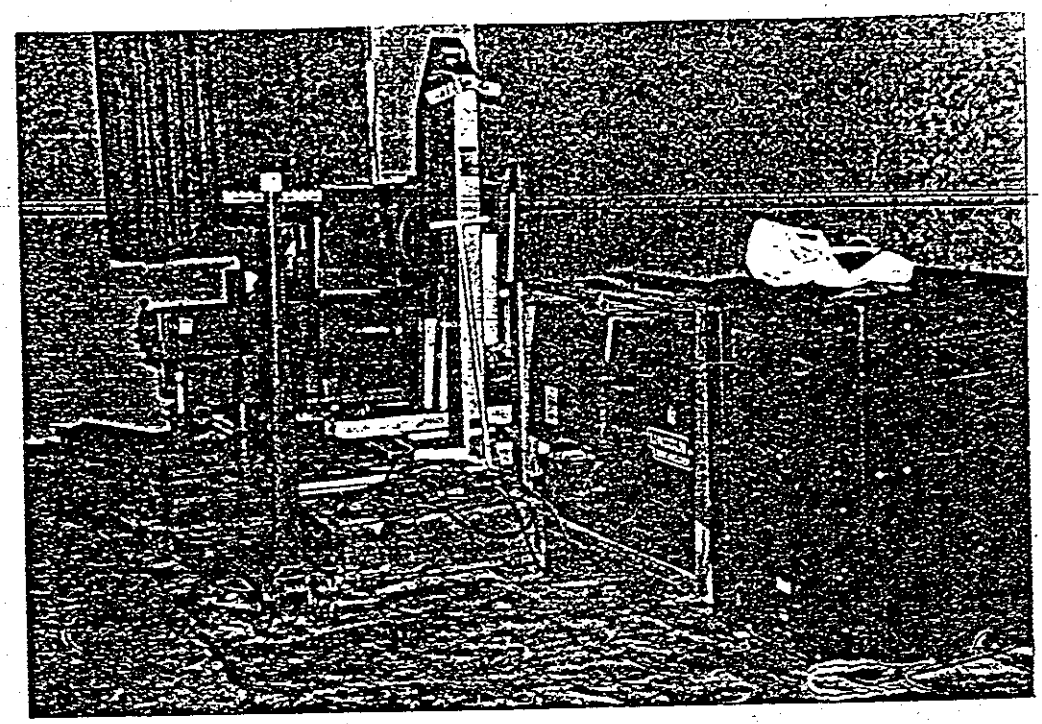
WORKSHOP EQUIPMENT AT ANURADHAPURA
REGIONAL OFFICE







WORKSHOP EQUIPMENT AT RATNAPURA
REGIONAL OFFICE



WORKSHOP EQUIPMENT AT BANDARAWELA
REGIONAL OFFICE