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Village Water Supply Section  
Ministry of Interior,  
Chieftainship Affairs and  
Rural Development

HELVETAS  
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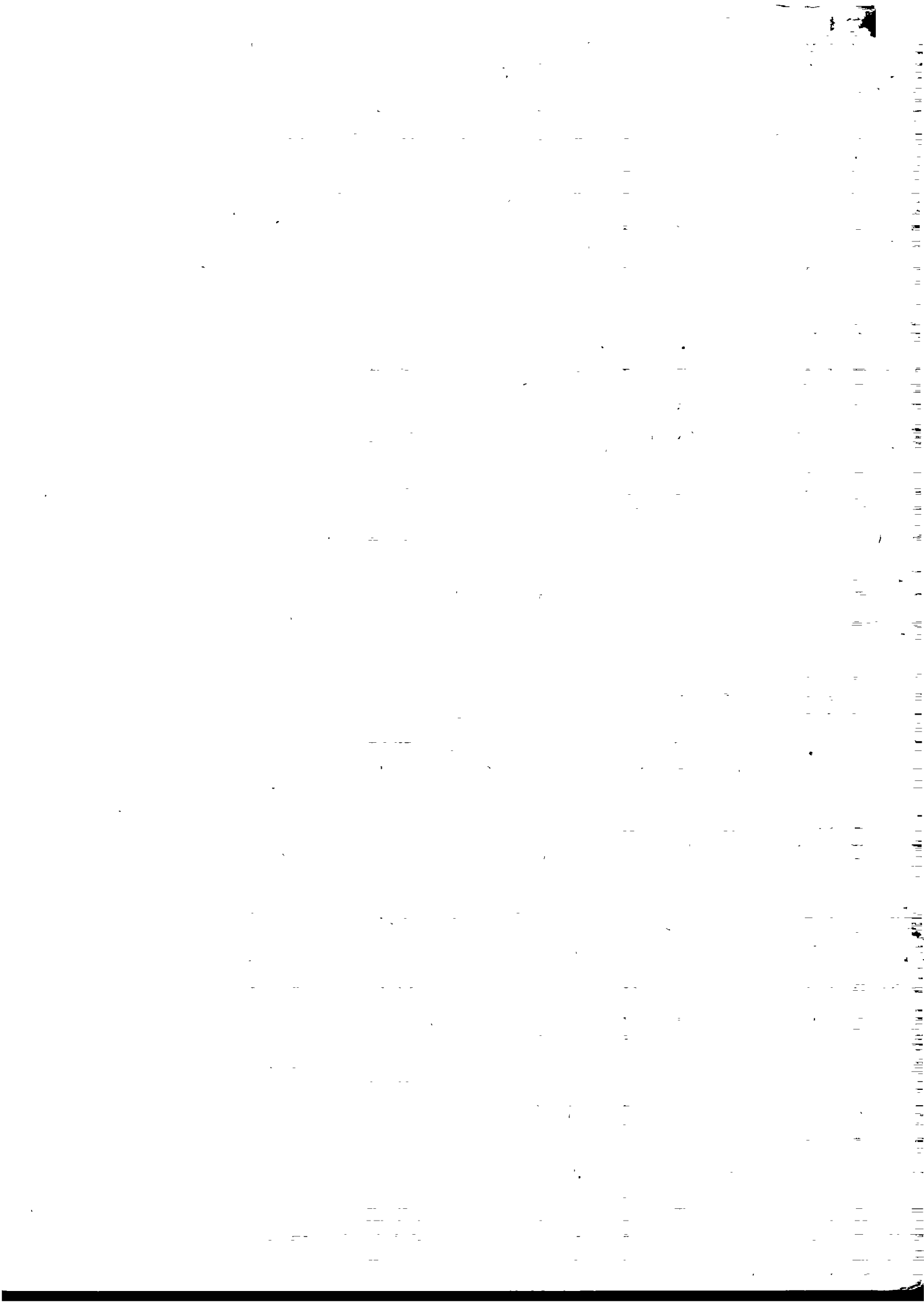
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F I N A L R E P O R T

PART II

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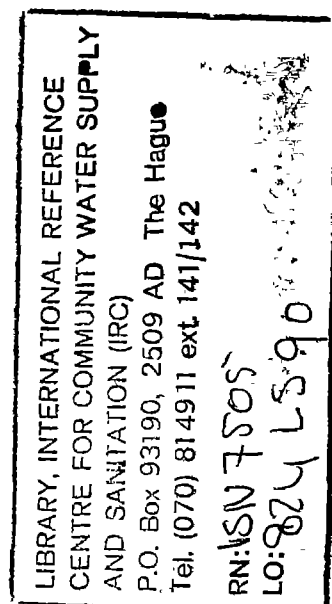


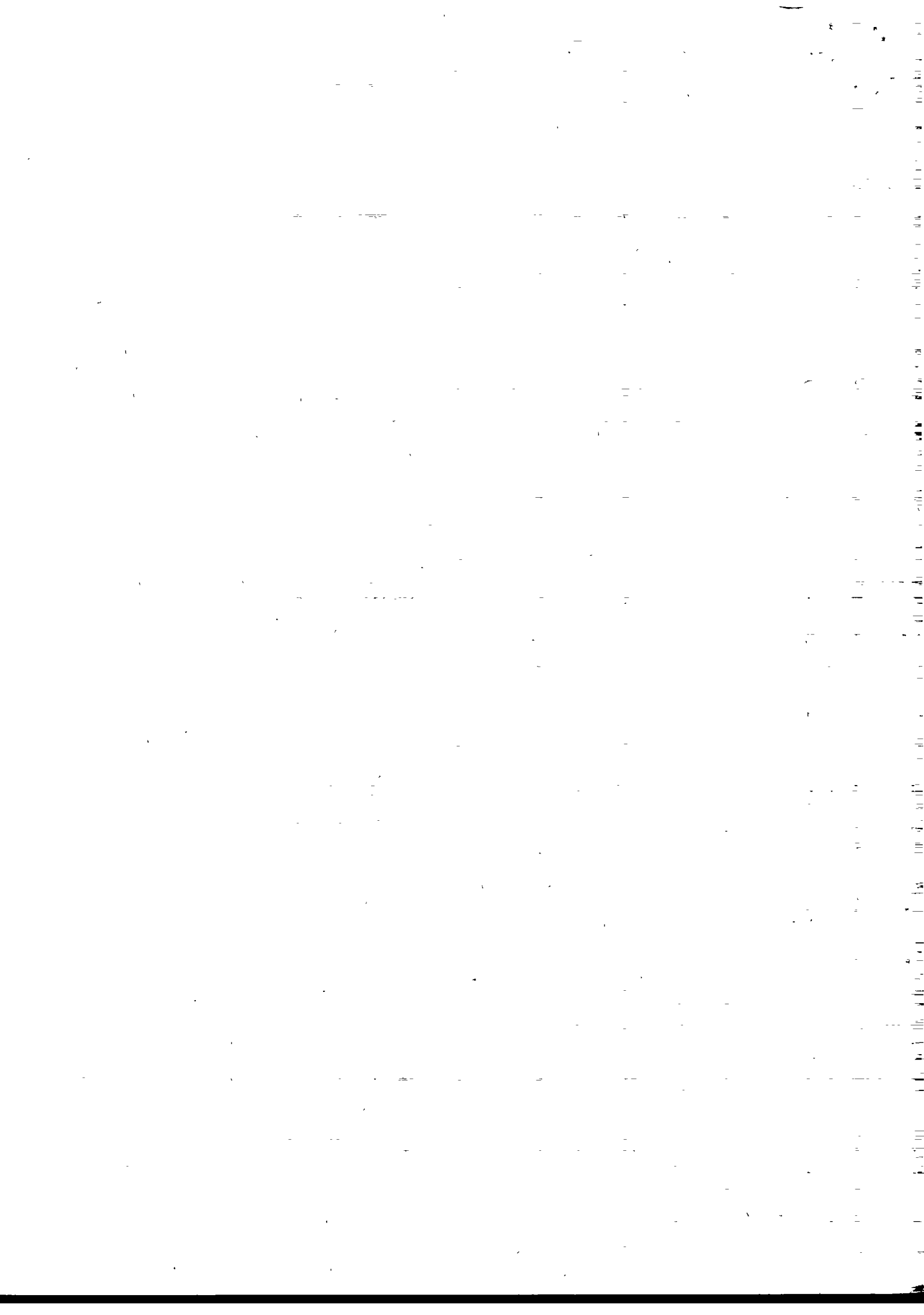
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ANNEXES:

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Annex 4 Proposed Water & Sewerage Order  
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## 1. INTRODUCTION PART TWO

At the end of a long stay it is with a degree of sadness to prepare a final report. I arrived in Oct 1984 and will be leaving end of May 1990. During my stay I worked in Butha-Buthe, Leribe and finally for the last few months in Maseru. This long residence in the country has not gone by without developing some feelings of attachment. In fact, today I still feel Butha-Buthe to be my home town and there is a special attachment to the district team there.

As mentioned in the preface, I feel compelled to write part of my final report in English. Foremost, I have to thank all the staff of VWSS and my colleagues of HELVETAS. Without their sometimes outstanding support and the many ideas and suggestions I would not have achieved any results. I hope that someone may follow my footsteps. Apart from the staff I am also grateful to many other Basotho who helped me to gain understanding and insight in language and culture.

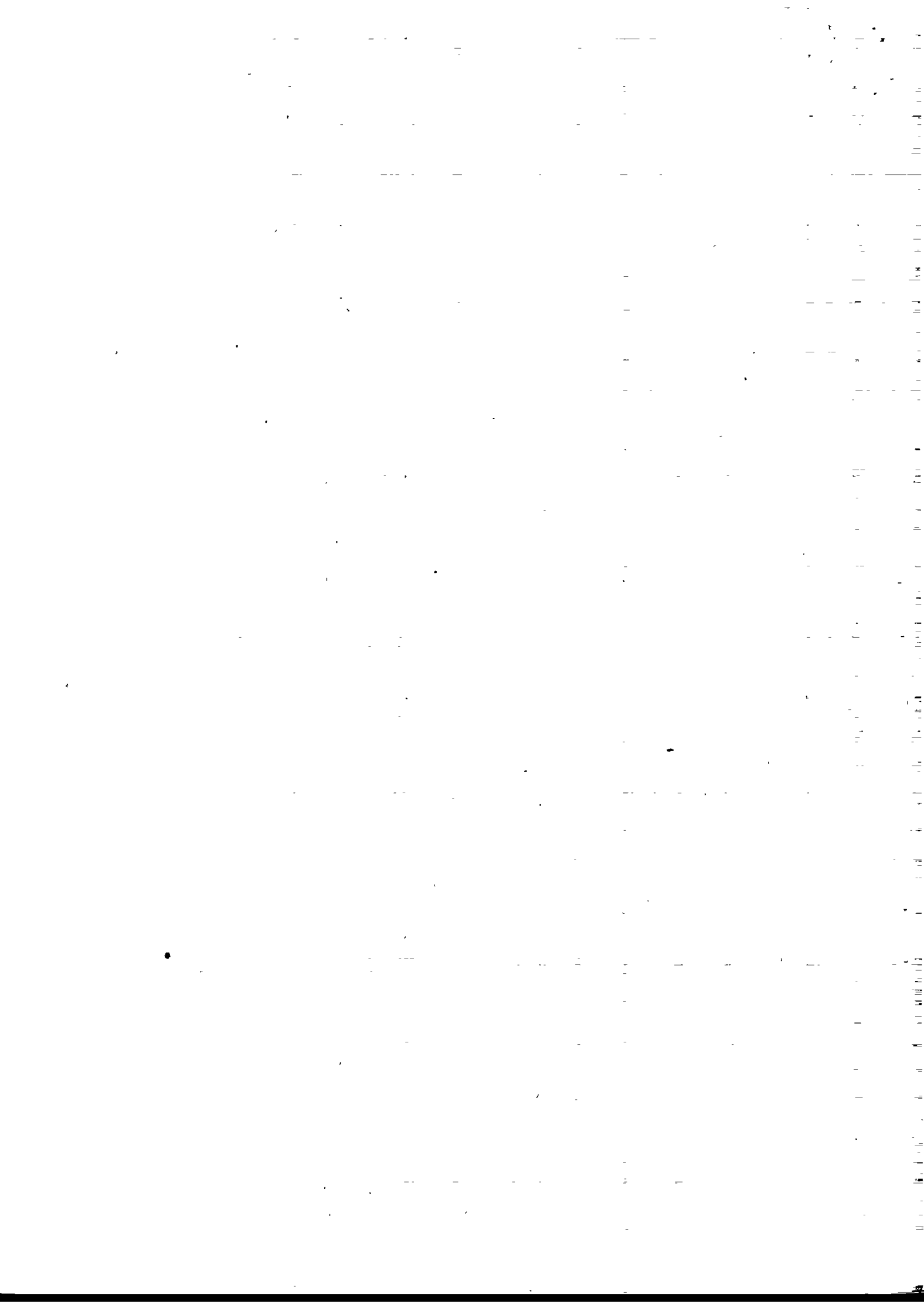
My comments in the final report are based on working-experience. They are an attempt to leave some of my personal opinions and a slice of my knowledge in a written form in the country. However, it is an attempt only covering a very small part of the many different subjects that are part and parcel of an institution such as VWSS. Again, for convenience, the present paper is rather an accumulation of selected items which I feel are of some importance for the future.

For expatriate successors I should like to say that exercising modesty and sensibility towards another culture will provide the best basis for work. However, never believe that it is possible to fully understand a foreign culture .

Thank you.

J.A. Mueller

Maseru, June 1990



## 2. THESES

There are numerous obstacles to improving the performance of VWSS. These are to a large extent beyond the direct influence of VWSS. However, efforts should be made to have some say when time has come of working towards a solution.

The theses are laid down without much support to be maintained or proved.

- 1) The legal frame work is not comprehensive for the activities of VWSS, namely as regards the status, duties and authorities of the Village Water Committees.

The only frame-work available is as follows:  
( order no 9, ddc/vdc/vwc and Amendment 1986 )

A positive move is the preparation of the new Water and Sewerage Order. Alterations or amendment will be necessary to match it with VWSS needs.

- 2) Sesotho has no word covering the concept of "preventive maintenance".  
Such a word, or the specific use of an existing word has yet to be developed, a word that a university student and an old farmer in the mountain can understand equally.

Although the literacy rate is very high compared with other African countries, there is to say that the statistics may be misleading. The reason being that in Lesotho many people are literate in Sesotho but not in English, the second official language.

Sesotho has under-laying concepts of maintenance in very specific fields only; ( the houses, the craals ) but none that would match the technical understanding of indogerman languages.

English / Sotho Vocabulary A. Casalis, Morija 1981, 11th edition, 9th reprint:

maintain, v., ho emisa, ho tiisa, ho tsetlamisa, ho boloka, ho tiisetsa

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Southern Sotho English Dictionary; A. Mabile & H. Dieterlen,  
Moriya 1974:

- emisa: has the meaning of : to raise to educate, to stop ,to  
suspend; ... to perform ( marriage ceremony )

- tiisa, to affirm, to strengthen, ... to confirm a person baptized  
as child ...

- tselamisa: to pour, etc; there is no connection at all with  
maintaining !

- boloka: to keep, to save to put by to take care of , to bury  
MEANING. (Salvation, safe-keeping, keeping things for oneself or  
others, things being small items or things of value (money etc)  
but not connected to a building, craal or similar.

- Tiisetsa, n., unseasoned kaffir corn porridge

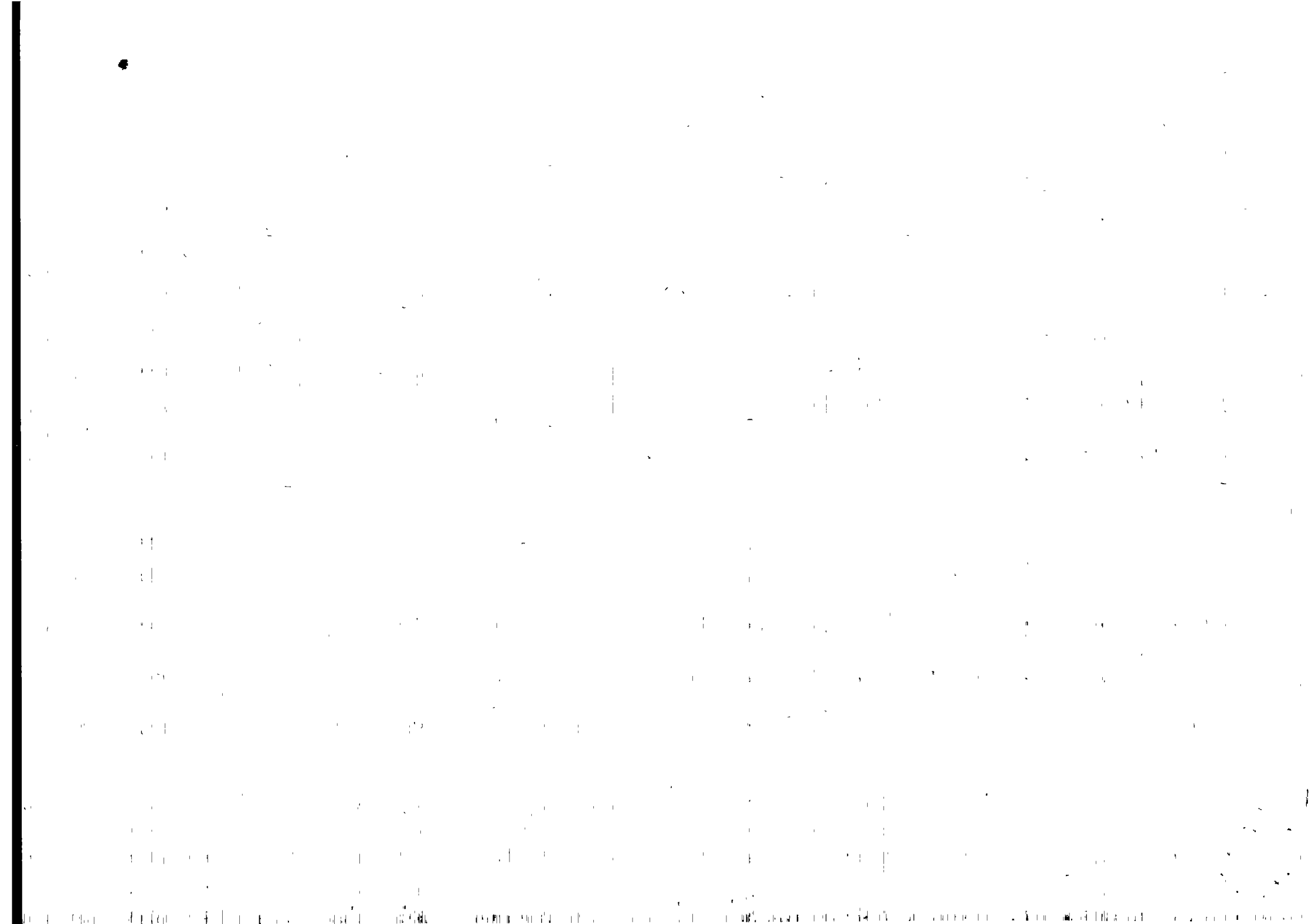
Other choices sometimes used:

- lisa, v.t., to herd, to watch, to look after, to watch over  
oneself etc

- molisa, n., shepherd pastor, keeper

- tiso, n., looking after, supervision, care  
CONNOTATION. all this words, though "molisa" is used in VWSS for  
the caretaker, are unfit; this words can only be used for living  
beings, persons and animals, that is the under-laying meaning!

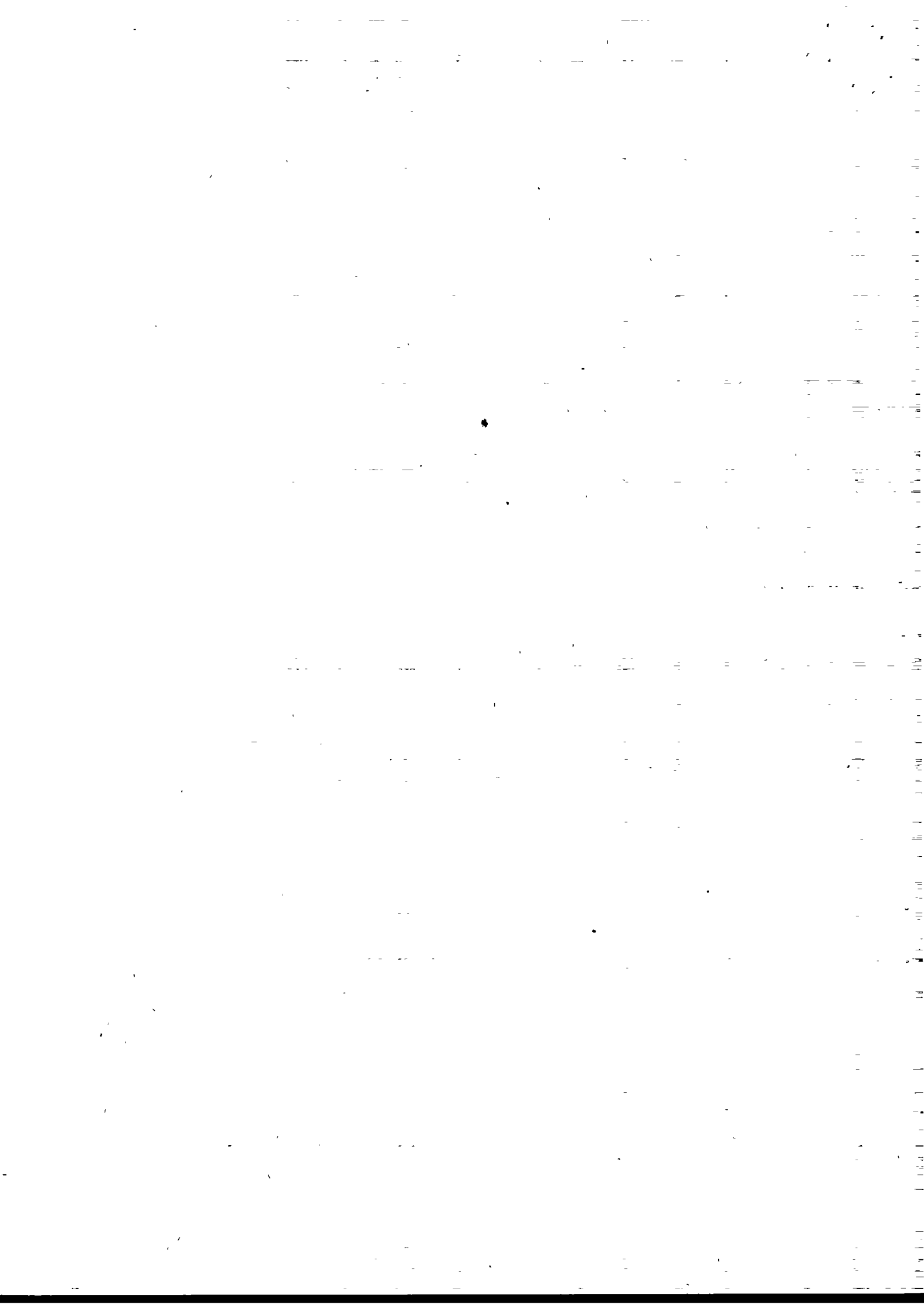
- thiba(-ile), v.t., to prevent, to stop, to impede,  
CONNOTATION. again this word is used in connection with guarding  
cattle or people, a passage etc, it is unfit for "maintenance".



- 3) Development is too much linked to the available Donor Assistance, there is no local national concept available.

( CPDO is not able to do a reasonable planning for all sectors and setting the priorities as the items of a national plan of public investments. The high number of projects (about 640 ) compared to the staff in planning is already an indicator.

- 4) The part of cost to be met by the villagers is too low to generate a true feeling of communal possession of their water supplies.
- 5) There are no short term alternatives toward this problem easily and readily available, those are long term tasks.



### 3. THE COSTS OF WATERSUPPLIES

A problem most often encountered when comparing costs of water supplies is the fact that costs are by far not comprehensive. One obvious reason for this shortcoming lies in the fact that engineers and technicians are usually running such organisation. The influence of administrators and accountants is marginal. Thus in most of the figures produced no overhead costs and the like are included. The results are sums that do only represent the input in the form of Financial Assistance.

Considering modern management, in-house-training has to be considered as part of normal overheads. The figures may be 1 to 2 percents too high because some funds have been used for preventive maintenance, not recovered under the cost-recovery-programme. Other costs not included hereunder are the rent for land-use, office-buildings etc., on the other hand monies from technical assistance have been used to erect buildings in most of the districts.

An attempt to come near to real costs is presented hereunder:

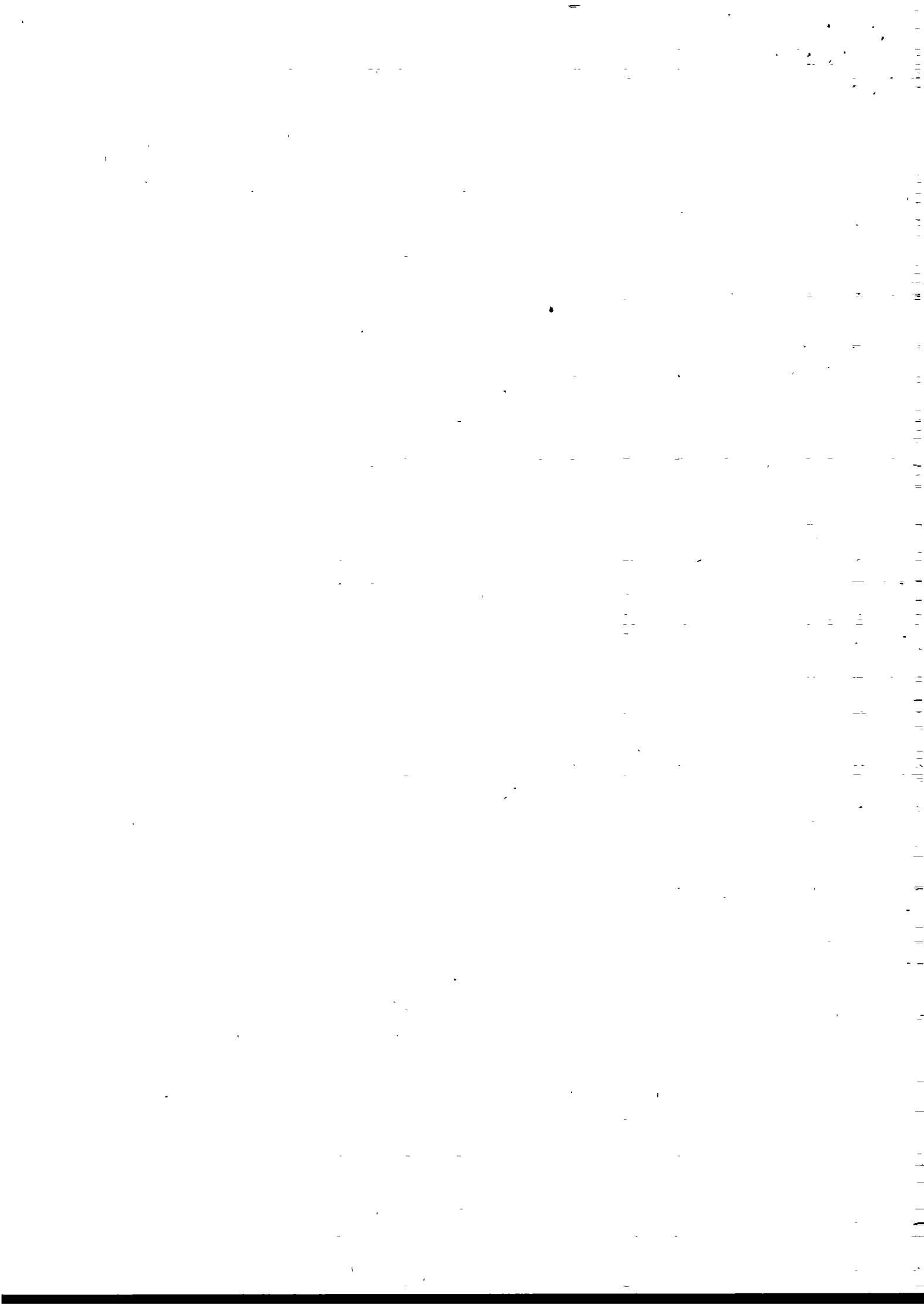
|  | Years 1983-1989         |
|--|-------------------------|
| Total Inputs:                            | TOTALS:(Maloti)         |
| GOL Recurrent:                           | 7,574,000 *)            |
| GOL Capital :                            | 8,037,000 *)            |
| Donor Contributions:<br>( T.A. and F.A.) | 39,630,000 *)           |
| TOTALS:                                  | 55,241,000<br>=====     |
| Population served from 1983-1989:        | 544,000 *)              |
| Cost per Capita:                         | M 101.55 1) 3)          |
| Cost per Capita:                         | \$ US 43,67 2)<br>===== |

\*) See attached statistical data VWSPROD.WK1

1) The figures are not adjusted for inflation

2) estimates approx middle rate 83-89: 0.43 \$/M

3) The village contribution (labour) is not added.



## 5. COST ON HAND PUMP MAINTENANCE

The Distribution by District:

| <u>District</u> | <u>Installed</u> | <u>Under Const.</u> | <u>Total</u> |
|-----------------|------------------|---------------------|--------------|
| Butha-Buthe     | 12               | 62 *                | 74           |
| Leribe          | 191              | 140 *               | 331          |
| Berea           | 658              |                     | 658          |
| Maseru          | 494              | 40                  | 534          |
| Mafeteng        | 479              | 30                  | 509          |
| Mohale's Hoek   | 311              | 200 **              | 511          |
|                 | -----            | -----               | -----        |
|                 | 2,145            | 472                 | 2,617        |

\* Irish No 2 Programme

\*\* Planned Programme for next 18 month

The total of handpumps in the Northern Region is now 405. During the 11 month observed while a private firm carried out maintenance work 47 HP's had to be attended to. For this case we have to disregard the newly installed handpumps, thus remaining with a number of 203 being minimum 2 years, maximum 6 years in service.

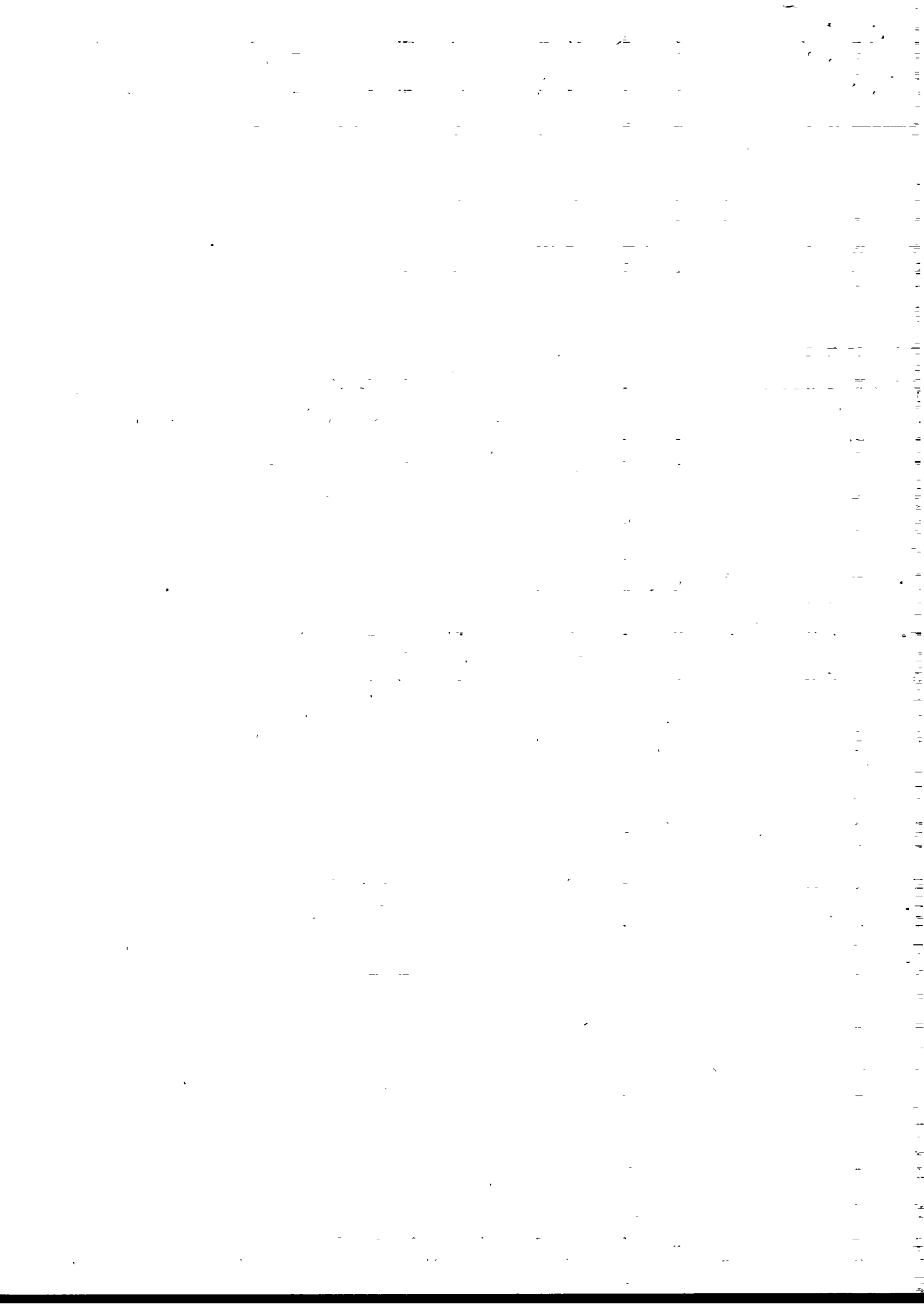
About 20% of the Handpumps attended had to be removed because of problems related with the borehole, the rest consisted of attending mechanical problems.

This small sample might not be fully representative for VWSS. However, if this rates would reflect the VWSS average we could conclude as follows:

- At any given time 23 % of the HP's are out of order. Thus by 1993, 606 handpumps have to be attended in the course of a year.
- Taking M 180.00 per Handpump as a flat rate as upper limit of cost by a private firm, the bill for VWSS would amount to M 109,080.00, not withstanding the additional cost to rehabilitate or redrill the boreholes.

Cost: 606 handpumps \$ 180.00 = 109,080.00

- Assuming that the cost of rehabilitating boreholes is equivalent to redrilling ( which may well be the case if the bore hole has to be rehabilitated more than one time , because of insufficient quality of the casing ) then the cost would be as follows:





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In 1994 there will be a number of 2417 hand pumps older than 3 years. 4.6% of that number will need rehabilitation or a new bore hole costing M 3000.00.

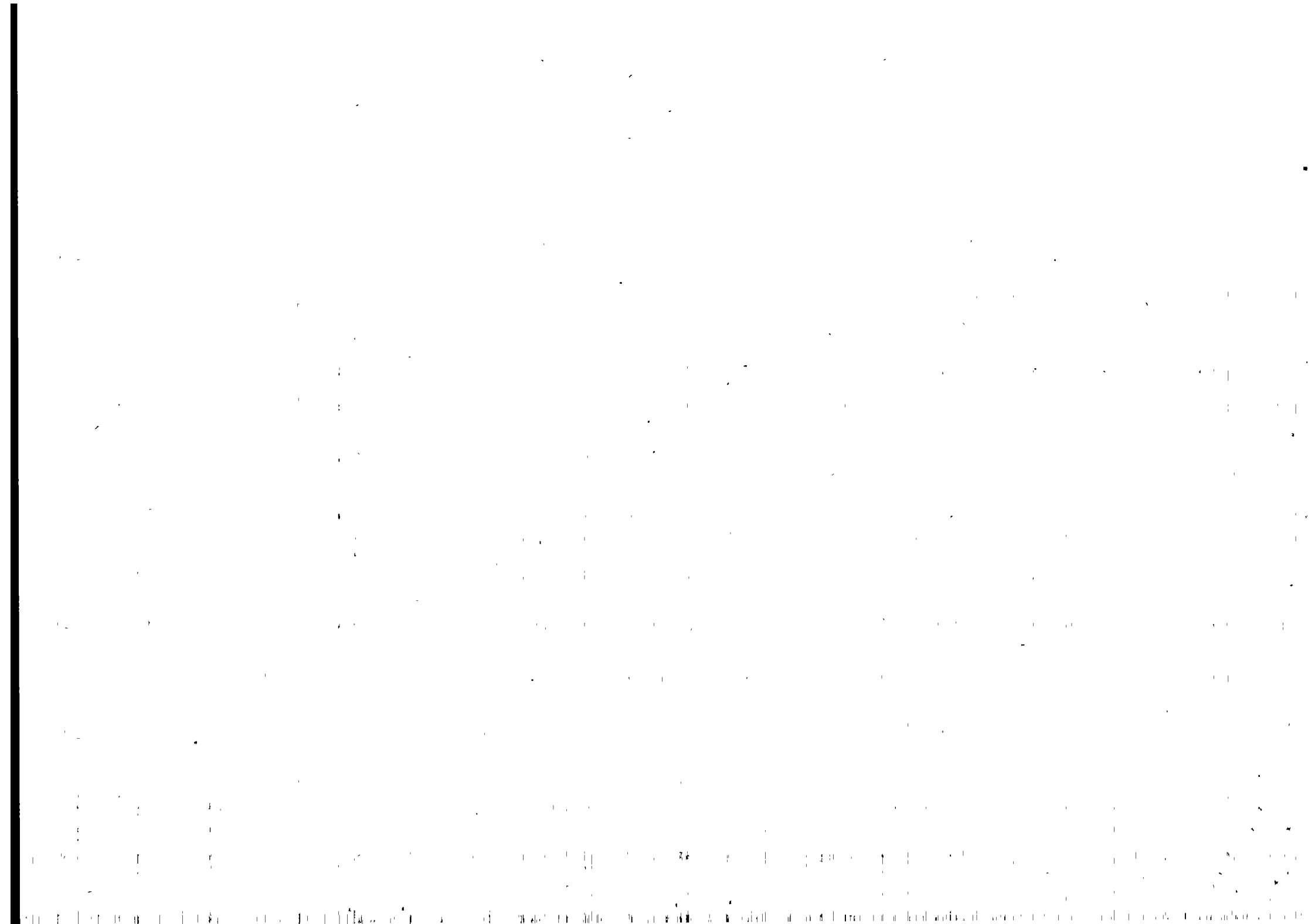
Cost: 120 boreholes @ 3000.00 = 360,000.00

- Considering our extremely high overall costs on vehicles I am of the opinion that VWSS total costs including the overheads may not be cheaper than private enterprise. I would therefore recommend a careful study as to determine the costs of the services when carried out by VWSS.
- As regards the caved-in boreholes and considering the relatively low drilling-prices I still consider that looking for some simple and low-cost improvement on the quality could pay in lower rates of boreholes that are caved in. In 1993 we may have 120 boreholes to attend, that is beyond our capacity with the cable-tool rigs, thus another solution must be found.

Totalling the probable costs on this conservative estimate we can already conclude that in the FY 1993/94 about M 469.000.00 will be a minimum requirement for handpump maintenance only.

#### CONCLUSION:

As the actual technique of borehole engineering is generating consequences of very high maintenance / rehabilitation costs it is important to consider a more expensive but more reliable design at the beginning of a new drilling programme.



6. COSTS OF WS MAINTENANCE CREWS DURING FY 1989/90

An Approximation: 1)

Suppositions:

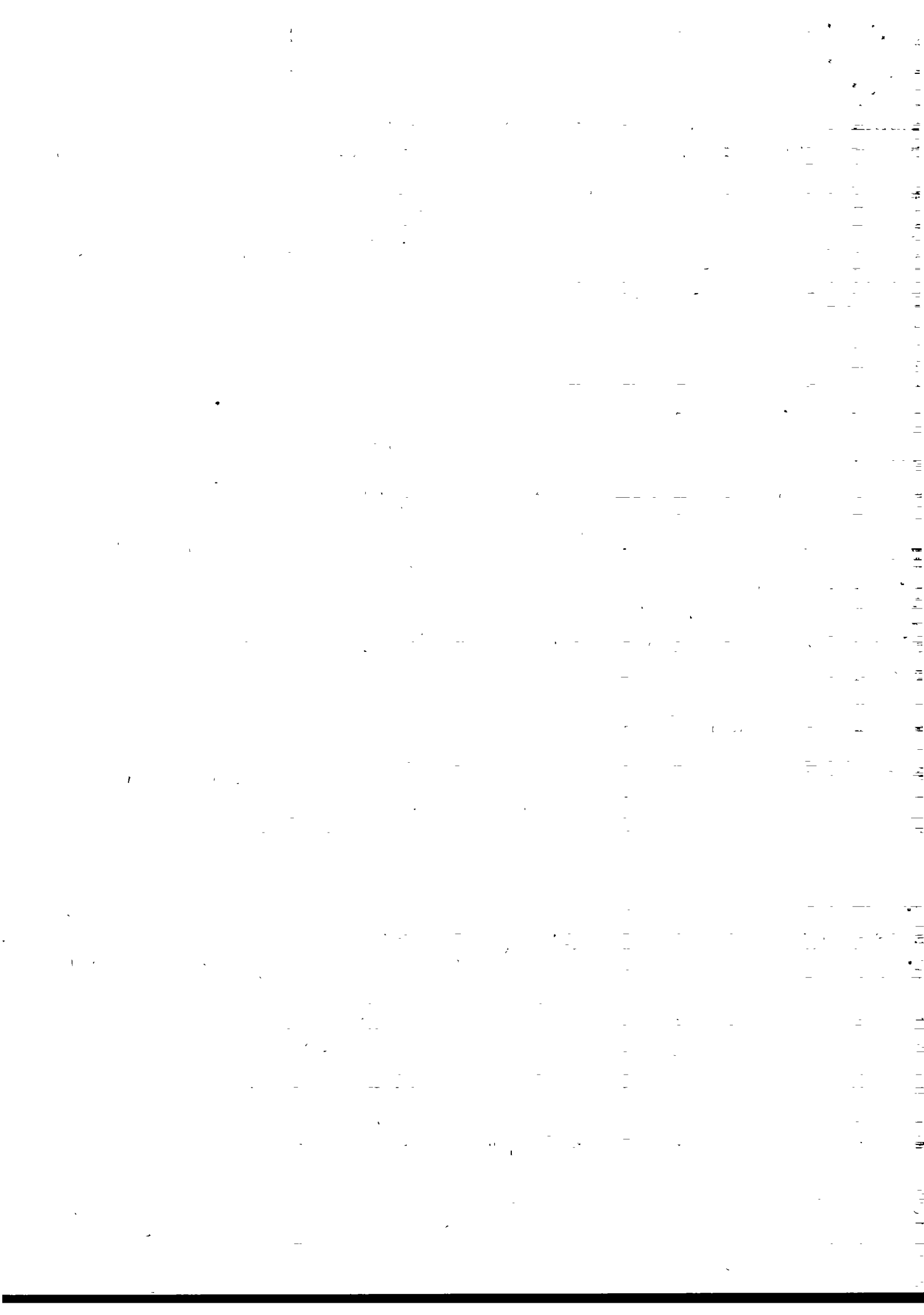
- actual salaries and wages
- Vehicle maintenance cost: M 8440.00 ( experience RSP )
- Vehicle Depreciation : M 5000.00 p.a.

|              |                   |                   |
|--------------|-------------------|-------------------|
| Mokhotlong:  | LS                | 100.00            |
| Butha-Buthe: | LS                | 1,000.00          |
| Leribe:      | Labour:           | 3,880.00          |
|              | Vehicle:          | 53,140.00         |
| Berea:       | Drilling Rigs:    | 17,820.00         |
|              | Handpumps:        | 3,900.00          |
|              | Supervision:      | 10,670.00         |
|              | Vehicle:          | 13,440.00         |
| Maseru:      | Drilling rigs:    | 9,370.00          |
|              | Supervision:      | 7,400.00          |
|              | Vehicle:          | 13,440.00         |
| Maseru HQ:   | Maintenance crew: | 37,420.00         |
|              | Vehicle:          | 26,880.00         |
| Thaba Tseka: | Foreman:          | 8,870.00          |
| Mafeteng:    | Drilling rigs:    | 18,080.00         |
|              | Maintenance crew: | 11,040.00         |
|              | Supervision:      | 15,000.00         |
|              | Vehicles:         | 20,160.00         |
| Mohaleshoek: |                   | ?                 |
| Quting:      |                   | ?                 |
| Qachas Neck: | Supervisor:       | 8,950.00          |
|              | <b>SUBTOTAL:</b>  | <b>280,560.00</b> |
|              |                   | <b>=====</b>      |

|                                       |                   |
|---------------------------------------|-------------------|
| Allow for depreciation of 2 tractors: | 10,000.00         |
| Allow for driver and fuel:            | 5,000.00          |
| Allow for fuel of cable tool rigs:    | 5,000.00          |
| Allow for rig spares:                 | 12,000.00         |
| TOTAL ANNUAL RECURRENT EXPENSE        | 31,000.00         |
| VWSS INTERNAL ACTIVITIES ONLY:        | <b>330,560.00</b> |

Add for costs paid to privatisation  
 programme contractors:(labour + trans- 52,490.00 2)  
 port only)  
**TOTAL SPENT DURING FY 1989/90: 365,050.00**

- 1) This approximation does not allow for any overheads which may be about 10% - 15%.
- 2) Oct 88 - March 90 only => 6 month



## 7. MONITORING OF OPERATION AND MAINTENANCE

This problem is not new but is gaining increased attention from the donor community. The question is reasonable. Considering the high investments ( \$ m 2.5 p.a. ) such question could have been expected long ago. In future, therefore, we need a system that may satisfy the donors requests. However, in the very first place we do need a system that fits the requirements of VWSS, being a Government institution.

Certain pilot projects are under way and will be scrutinized by our own In-House-Evaluation. ( Mark Moran ) We should see his results in a certain relation: Being an insider very often leads to some bias. Notwithstanding his findings VWSS needs to be open for neutral comments of outsiders.

Some discussion has also taken place elsewhere as regards O&M. Such work of others may well be integrated an/or combined with our own findings.

Considering the findings and proposals of the Joint Lesotho-Swiss Evaluation we may also consider whether we could gain something by asking for a backstopping of members that were involved in that evaluation at that time. Annual visits could bring us some additional input from an experienced but neutral person. Such routine would also result in being compelled annually to reflect on achievements and deviations from planned (or unplanned) goals.

Certain principles for monitoring are already established and should be considered. Successful monitoring of O&M in VWSS will only work if it is simple and inexpensive. Based on the many different information I had access to following proposal could also be considered:

### STATUS OF WATERSUPPLY:

- a) Is fully operational. (to be defined)
- b) Is partly operating.
- c) Does not work.

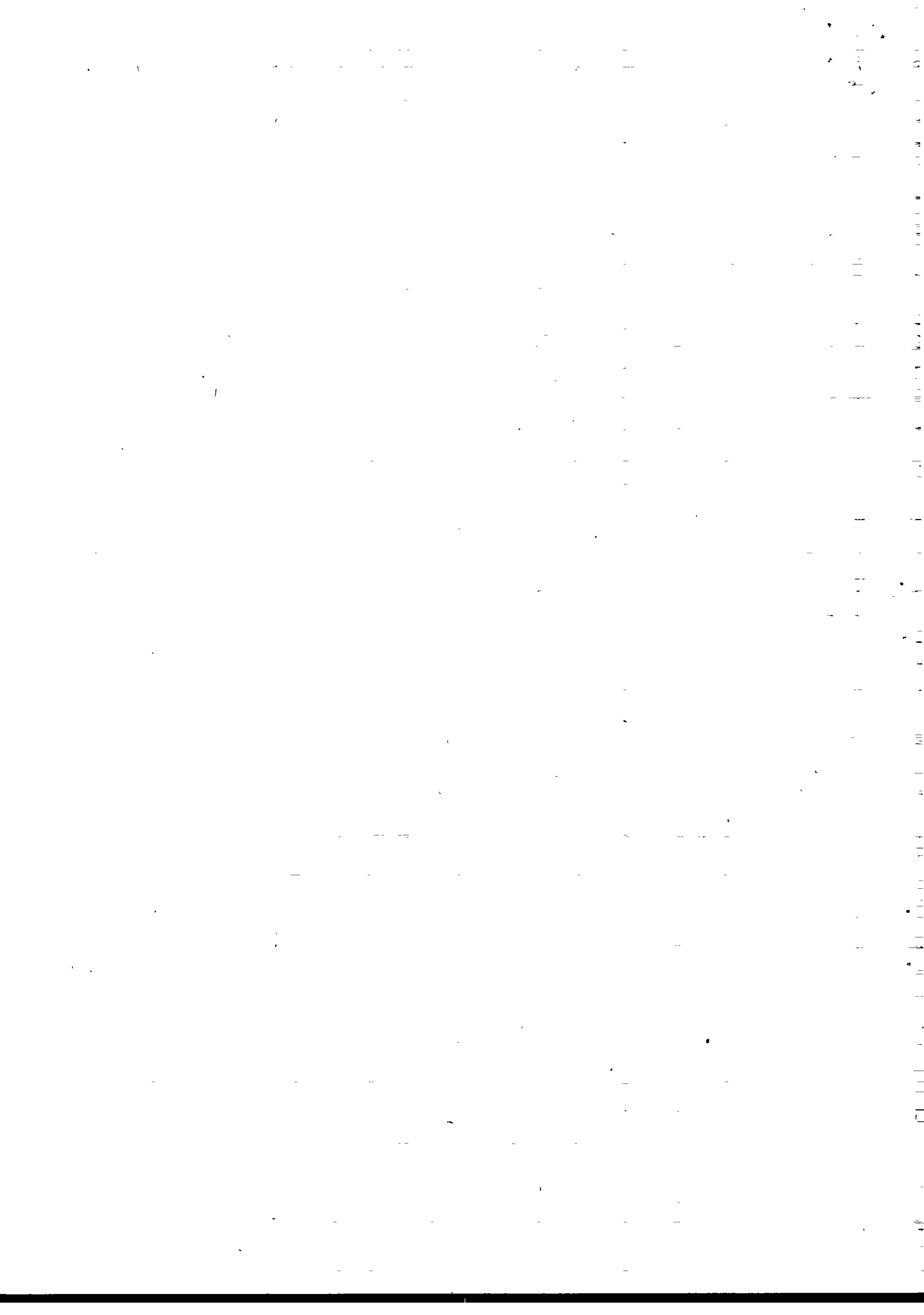
### QUALIFICATION OF FAULTS:

- 1) Faulty construction.
- 2) Fault of planning.
- 3) Faulty materials or bad workmanship
- 4) Break-down not reported.

Above proposal is basically the result of discussions during AGUASAN 1989.

Another consideration important to VWSS is the requirement that this information gathering is acceptable from two points:

- The cost in terms of staff, transport and fuel must be reasonable, otherwise the exercise cannot be sustained.



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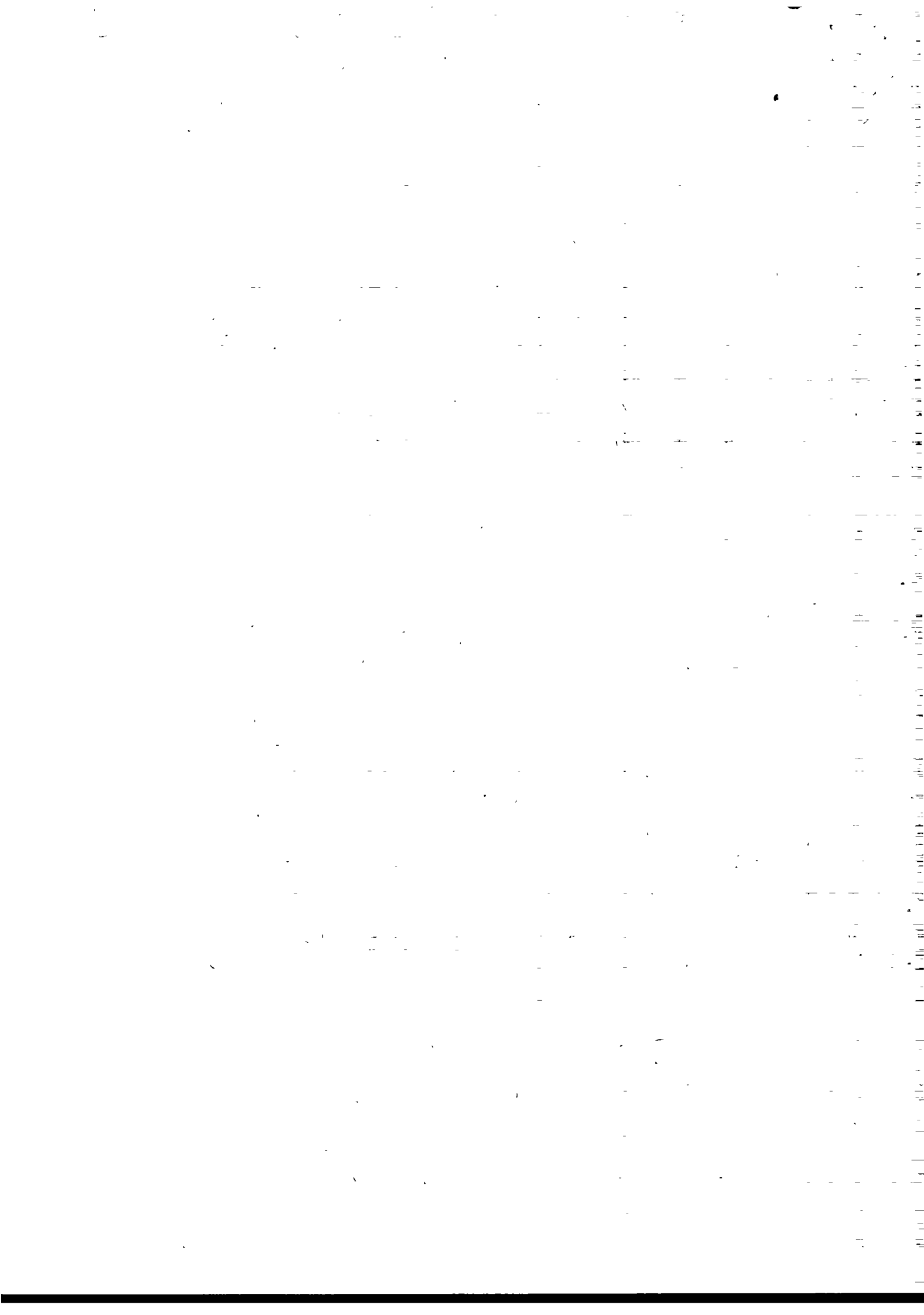
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- The data must be collected regularly. The frequency of data-collection should be feasible with the available means of VWSS.

Data should reach Maseru routinely where it could be recorded regularly. In the light of computerization at regional level it seems likely that the information could be processed at that level and Maseru would receive the update on magnetic media.

The document, MINIMUM EVALUATION PROCEDURE (MEP) for watersupply and sanitation projects; ETS/83.1; CDD/OPR/83.1 could be used in addition.

As far as data collection is concerned we should also look into the possibilities to cooperate with the Bureau of Statistics and the University of Roma. For more details see comment on Statistics.





## 8. OUTLOOK ON VWSS ACTIVITIES AND STAFFING

Reference is made to following attachments:

- Population Census, Preliminary Results  
Bureau of Statistics, Maseru, Jan 1987  
(Preliminary Results)
- Population-Table of Urban Centers  
Bureau of Statistics, Maseru,  
(unpublished) provisional
- Lesotho Statistical Yearbook 1988,  
Bureau of Statistics, Maseru, Jan 1990  
( page 18 )
- Statistics VWSS - Projections 1A  
J. Mueller 4/90
- WWSPROD.WK1 ( VWSS PERFORMANCE )  
J. Mueller 1990
- Budget Estimates FY 1989/90

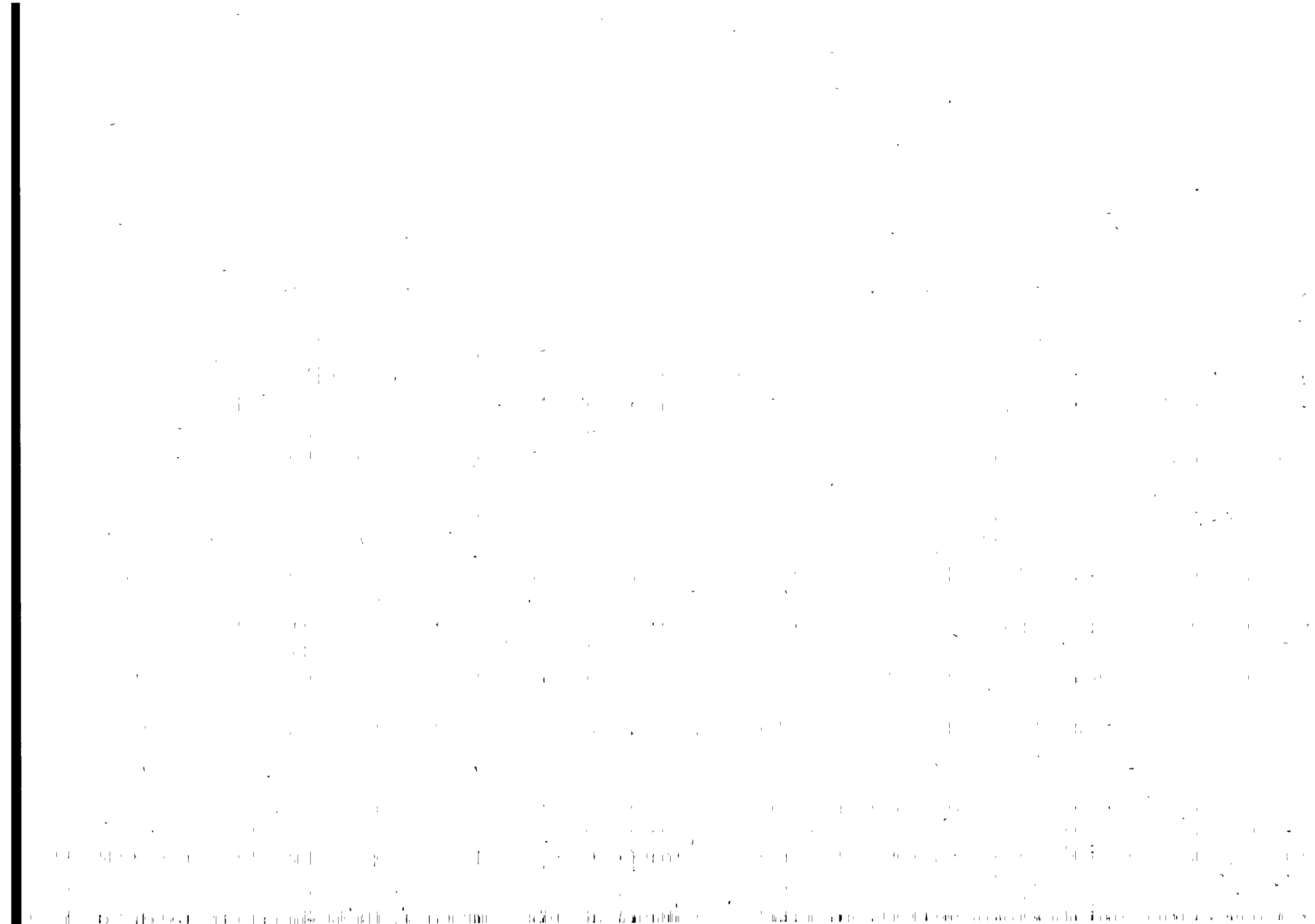
### INTRODUCTION:

VWSS has reached a crossway where decisions must be made and some concepts developed concerning the different fields of production, such as new construction, cost recovered maintenance and monitoring, the technical aspects of the Rural Sanitation Programme and the effects of the draft Water and Sewerage Order to be introduced some time in the nineties.

In the future construction will also become more difficult as the easier accessible areas in the lowlands are covered and activities are shifting more into the mountain valleys.

A look at the Census information reveals that the rural population is growing rapidly, annually by some 35,000. There is no data yet available indicating a declining trend. Therefore we have to presume that the growth rate may remain as high as over the past ten years.

Other facts to be considered is the high financial dependence on Donor Assistance as well as the fact that this decision is finally a political one.



a) Construction of new Water Supplies

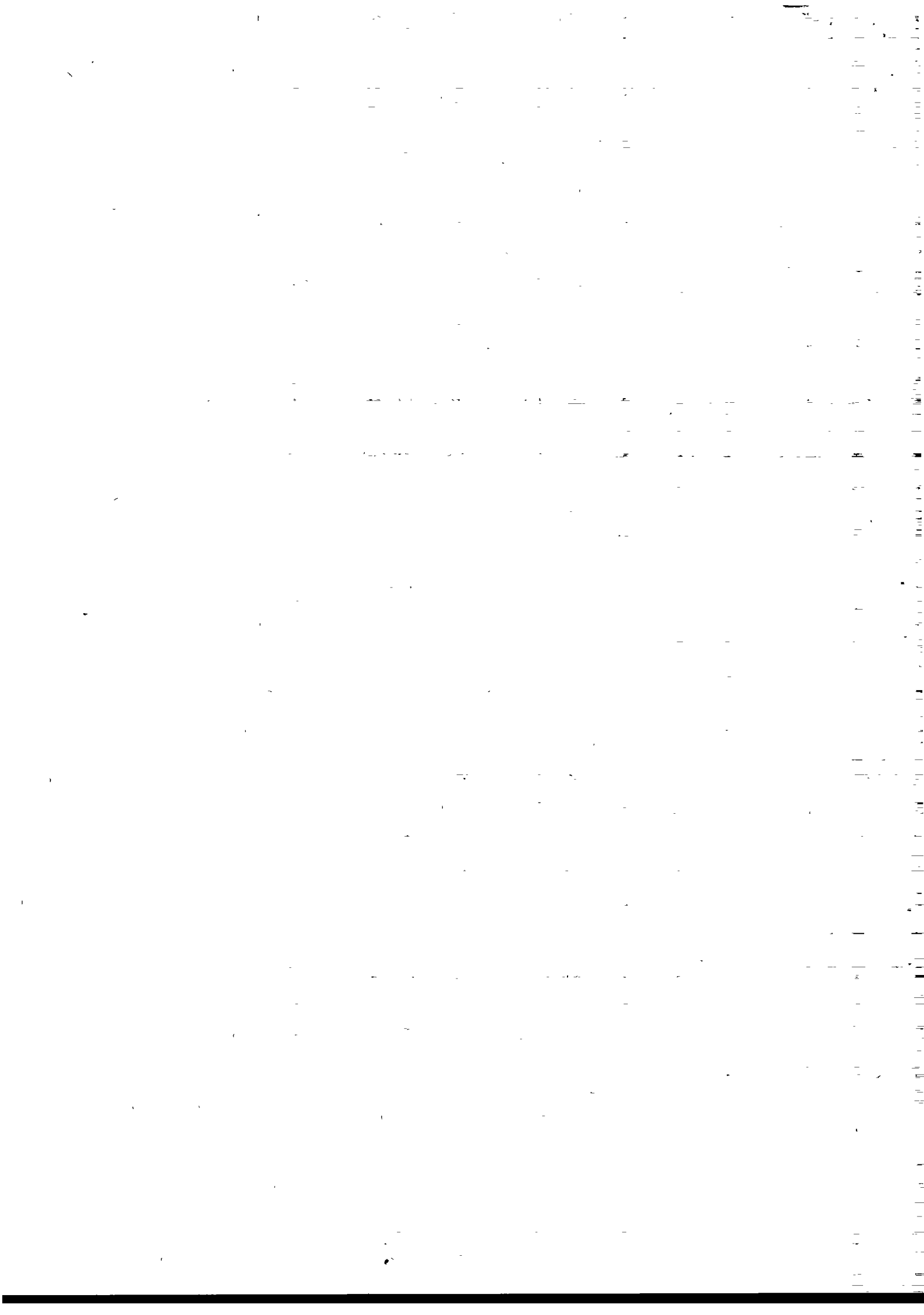
Referring to the VWSS Projection 1A, it is evident that VWSS cannot agree to lessen the output of new construction considerably in the short term. That would lead to a backlog and a situation where it might become very unlikely to ever reach a nationwide coverage with rural water supplies due to the fact that the growth rate would outstrip the construction performance. Thus until 1993 VWSS has to try keeping an annual output of a population served in the range of 80,000. The output may then gradually be lowered to an output of 60,000 p.a.

As a result of the probable reduced pressure to build new supplies and on economic considerations, VWSS has to carefully plan the reallocation of some of the staff from construction towards maintenance. But for the years 90 -93 additional staff is necessary to maintain production while improving maintenance, costrecovery and monitoring.

7  
Considering the total costs per capita of water supplied being US \$ 44 or Maloti 119 at 1989/90 prices and an average annual inflation rate of 4% and with the assumption that VWSS would keep the production constant at 80,000 people served every year the programme would reach the 100% target in 2004. The total financial requirements summing up to US \$ 70,500,000.00. (GOL input and Donor Assistance.) A inflation rate in terms of US \$ Ü

Keeping the production at the actual level with the presently available staff would exclude increasing other activities that are as important as construction of new water supplies. That leads to the conclusion that the staff must be increased in order to be able to obtain satisfying results in the whole range of VWSS activities.

The productivity per staff on the Table "VWSS performance" reveals some rates between 237 (1987) and a high 362 in 1985. Here it has to be said that these peaks in productivity and in production during 1985/86 are due to borehole programmes in the lowlands. This is not sustainable. It is reasonable to presume a productivity rate of 250 people served per VWSS-staff.



MANPOWER REQUIREMENTS

|  | Annual Production: | 80,000           | 60,000 |
|--|--------------------|------------------|--------|
| Staff on VWS construction including<br>Administration, Stores and Workshops:<br>( assumed productivity 250/1 ) | 1989               | 1990             | 1997   |
|  | 281                | 300              | 260    |
| Staff on Rural Sanitation programme  | 23                 | (50)             | 50     |
| Staff for Cost-Recovery-Maintenance and<br>Monitoring, estimate:   | 26                 | 40               | 60     |
|  | =====              | =====            | =====  |
|  | 330 <sup>1</sup>   | 390 <sup>2</sup> | 370    |
|  | =====              | =====            | =====  |

For an output of 60,000 as could be the case in the long-term - 260 members of staff would suffice. Theoretically that would mean that nation wide coverage would be achieved around the year 2020.

This summary thus indicates that VWSS should begin with recruiting about 20 T.O's within 1990/91. Depending whether the Sanitation programme is getting off the ground country wide the need might even be higher.

b) Cost Recovery Maintenance:

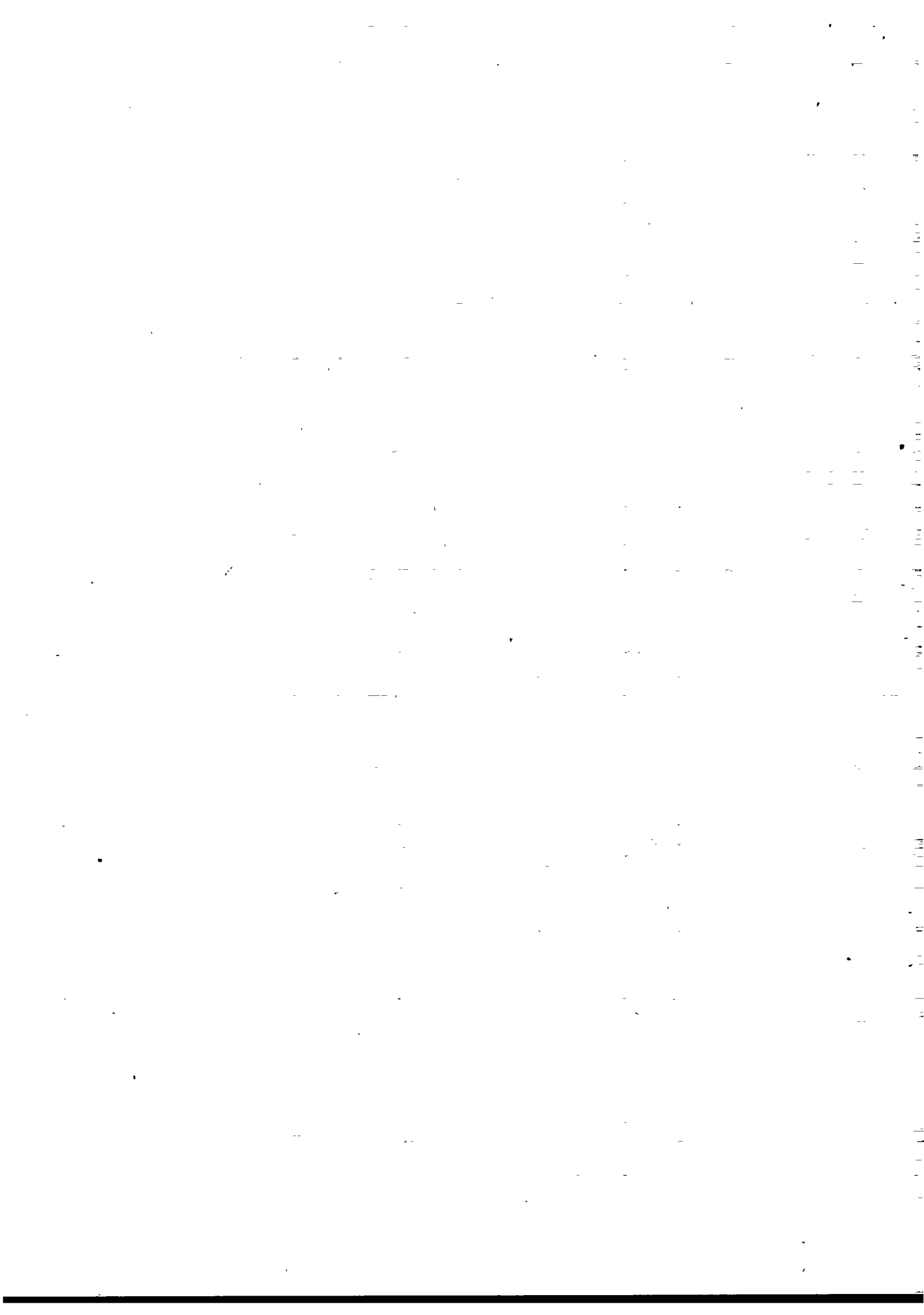
Except for construction there is the need to improve the activities of the cost recovery maintenance.

Apart from technical questions we have to understand that the book-keeping and stores procedures must be arranged so as to be able to assess the returns and our costs in VWSS. Such a system does not yet exist in a simple and effective manner. A concept of how and who is performing the different duties related to monitoring the costing has to be established as soon as possible.

Another decision that has been long pending and should be finalized soon is the allocation of maintenance staff from Maseru Head Office to the three regions. This matter has been discussed at length over the past two years. It is now time to take actions.

<sup>1</sup> This figure excludes students abroad and overseas.

<sup>2</sup> Instead of such a high increase of staff within a year, VWSS could consider to divert a moderate number from construction towards monitoring and maintenance. Even then, the total staff of VWSS has to increase.



The concept as such was clear: each region has a crew who is able to perform service on diesel engines, windmills and hand pumps. For the bore hole maintenance this concept has been altered in so far as it was decided that Mafeteng should be the centre for bore hole maintenance for region centre except Berea district and south, Maputsoe for region north and Berea District. In my opinion this different allocation of centers is unpractical in the long term. Borehole maintenance and Regional Centers should be the same. That would simplify matters of subwarranting, accounting and channeling of the flow of information. This is a crucial point when talking of monitoring. Unless the flow of information is streamlined in the most simple manner, monitoring is simply rendered more difficult.

Gravity maintenance has been assigned to the districts. If VWSS intends in earnest to have and keep control on the expenses, than the flow of materials out of the different stores must be properly kept track of and charged in a specific sub-vote, perhaps under Counterpart Capital. This would allow to compare the returns in the financial report against materials issued and invoiced. The milage and the working time appear on the invoice, but to sum up the total cost of VWSS we need also to know the travelling time, as this is part of the maintenance cost too.

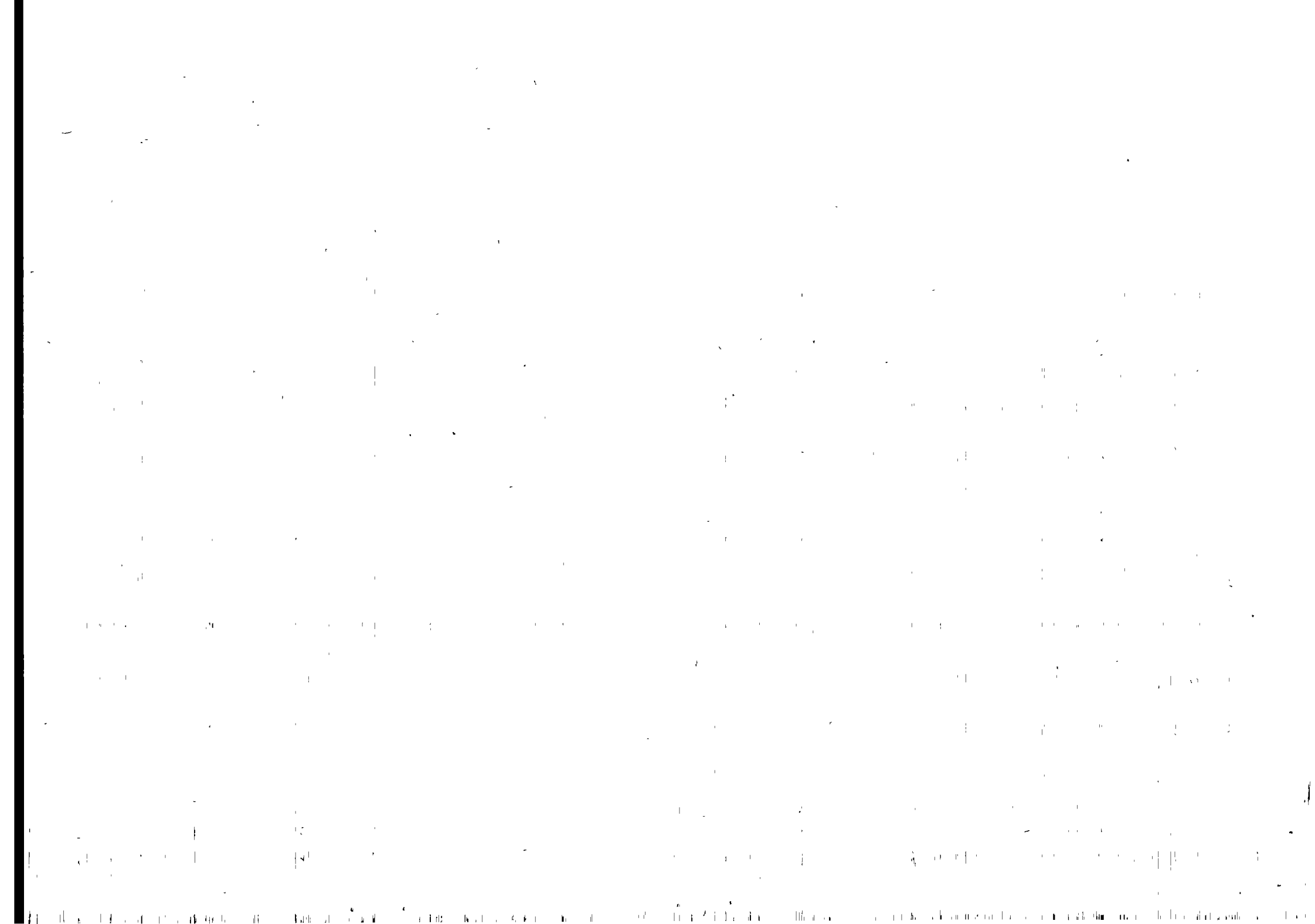
Some comparison of maintenance expense is available. ( 7 th Annual Report, USAID- project, p. 27 )

TABLE CR-1

COMPARISON OF MAINTENANCE EXPENSE

|            | <u>WASH</u>  |             | <u>YWS</u>   |
|------------|--------------|-------------|--------------|
| Labour:    | 37.3%        |             | 36.8%        |
| Materials: | 18.1%        | <i>same</i> | 17.4%        |
| Transport: | <u>44.6%</u> | <i>?</i>    | <u>45.8%</u> |
|            | 100.0%       |             | 100.0%       |

This table was established with very little data at that time, perhaps not enough to be significant. After the FY 1989/90, where VWSS spent almost M 500,000.00 on maintenance, it should be possible to verify the percentage presented on above table.

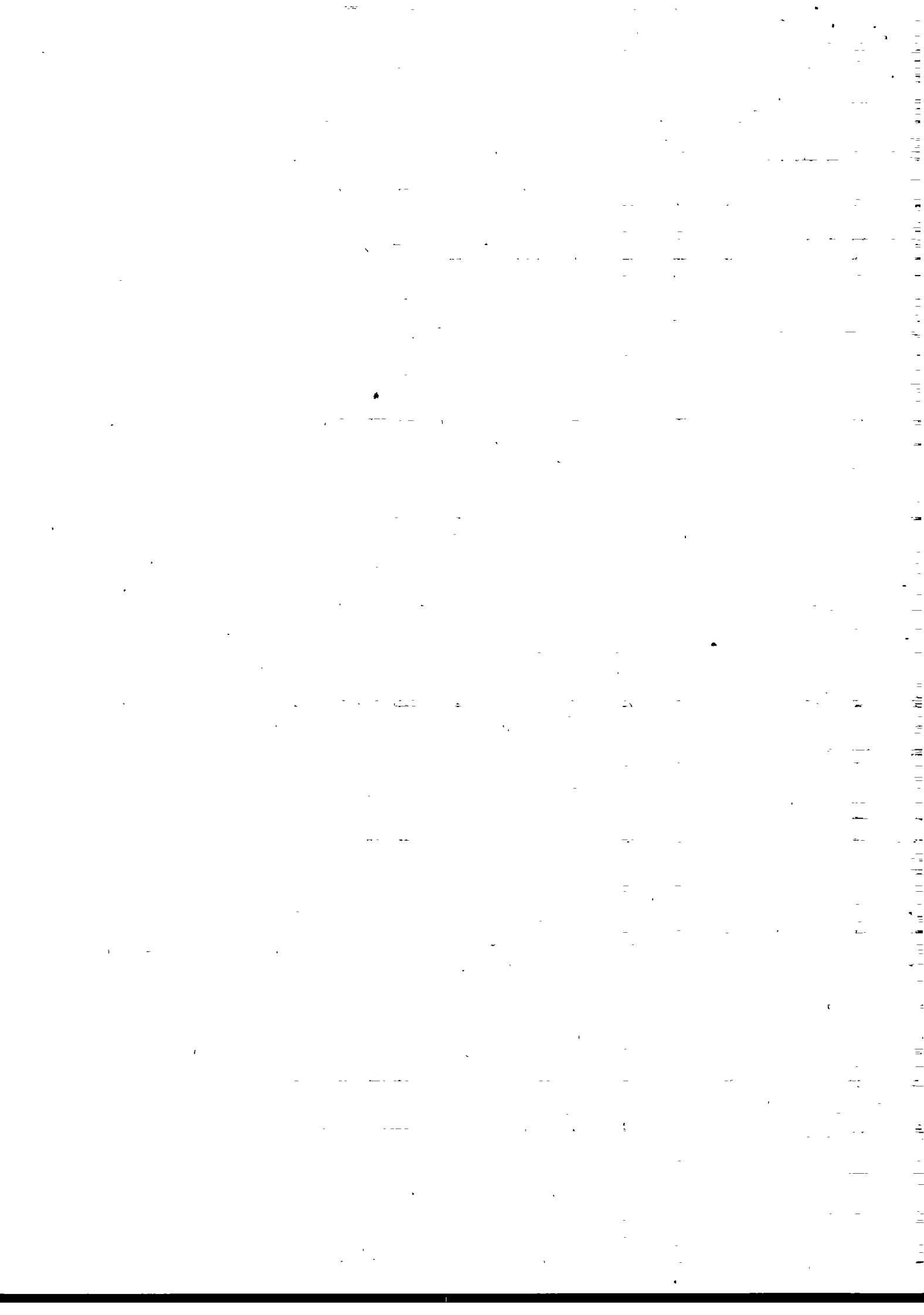




c) Monitoring

Monitoring for new construction is well established and works fine. How?

Monitoring for maintenance ( break down reporting, records of response time, records of unreported cases, unpaid invoices on maintenance ) is not yet established country wide. Each district is left on its own. No returns are channeled to Maseru, thus the Head office has no information about jobs done and invoiced, except routine maintenance done by the Maseru crew, nor is there information about outstandings, where villages refuse to settle the bill. A common form for such returns has to be established as soon as possible. In the future VWSS should be in the position to know how many systems need maintenance regardless of the willingness of people to pay the maintenance of their system. Anyway, as long as villagers can be reasonably sure, that repairs will be done anyway by a donor (or GOL) - who hates to see his own input wasted, no reason exists in local philosophy for paying for repairs. Financial concepts differ here strictly; it is accepted local thinking, that debts will be met only if the Creditor can prove his own need for funds. Donors (or GOL) never qualify in this context for repayment. This is based on the traditional social interrelationship by lending and owing.



## 9. THE PROPOSED WATER AND SEWERAGE ORDER

### INTRODUCTION

This proposed order, now in preparation, may become effective some time in 1992/93. This new order would put all departments concerned with water-use under the umbrella of one ministry. The areas of activities are clearly demarcated. This, in general is the essence; in my opinion a step in the right direction.

The main feature different to the actual VWSS policy is the fact that the order provides not only for drinking water, but domestic use in general. There is no transition paragraph as far as existing water supplies are concerned.

### DUTIES UNDER NEW ORDER:

115

- a) assist to make adequate water supplies
- b) assist to maintain & operate water supplies
- c) prepare disposal schemes
- d) conduct sanitary inspections
- e) to sample and analyze water
- f) to train members of water supplies for operation and maintenance
- g) to educate concerning:
  - water as value and asset
  - possible health dangers
  - pollution prevention

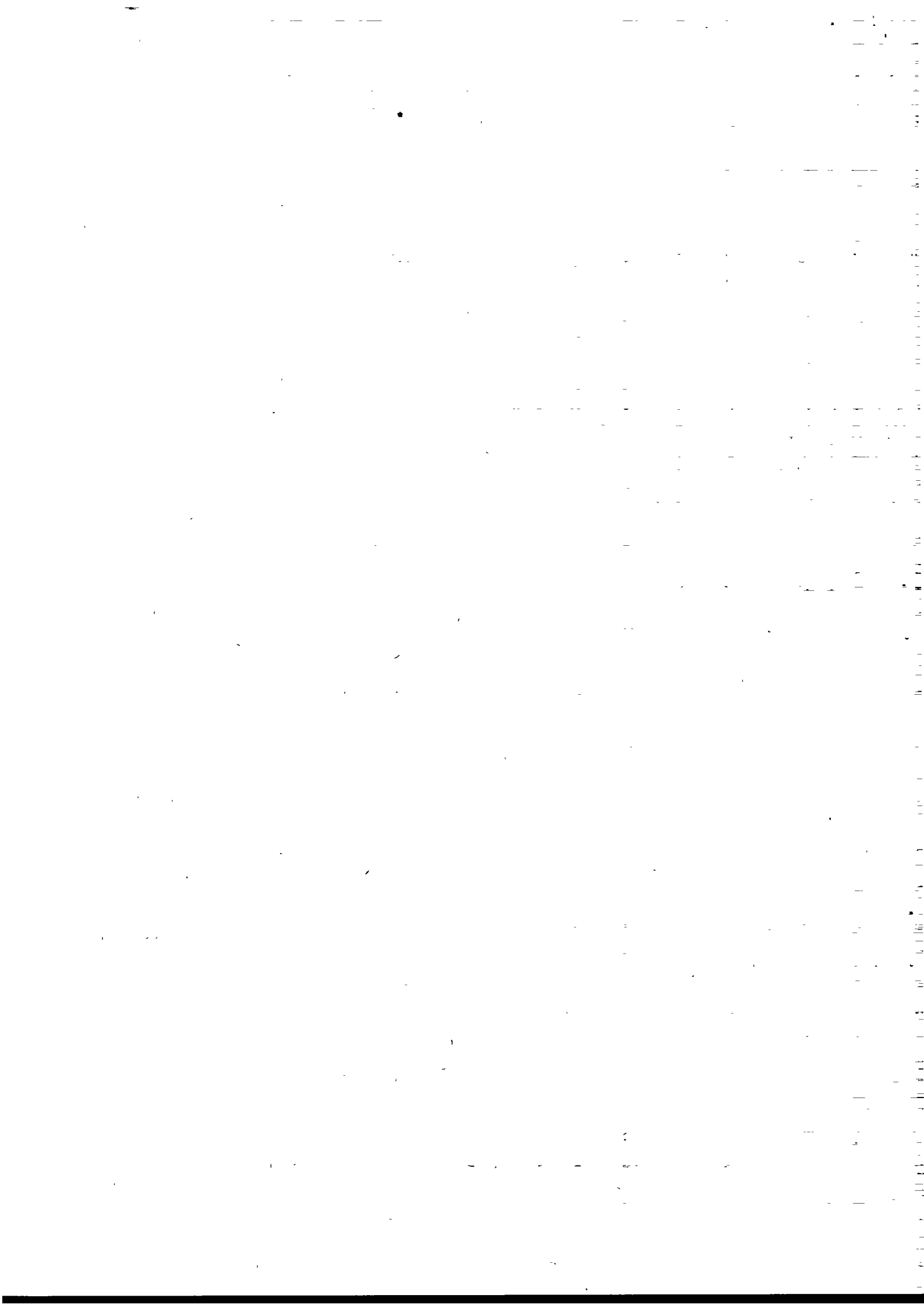
### RIGHTS:

- to set conditions
- to charge for O & M
- to enter land and premises
- to apply for abstraction & discharge

### PROBLEM AREAS:

115

- g) This education as such should perhaps rather be a duty of Ministry of Health.



119 Duty to provide supplies  
(3) approval and final agreement

The form of agreement, whether written or any other form, is not described.

120 Trading Account for Capital Works

Cash has to be deposited with Department of Rural Water Supplies.

120  
(2) payment from villages at the beginning of each financial year for maintenance and repairs.

( Transition )

There is no specific mention for villages which have already a water supply

121  
(1) keep separate accounts  
- for deposits of new supplies  
- for recurrent annual maintenance & repair funds

This implies that DRWS will need an efficient and able group of book keepers / accountants to prepare:

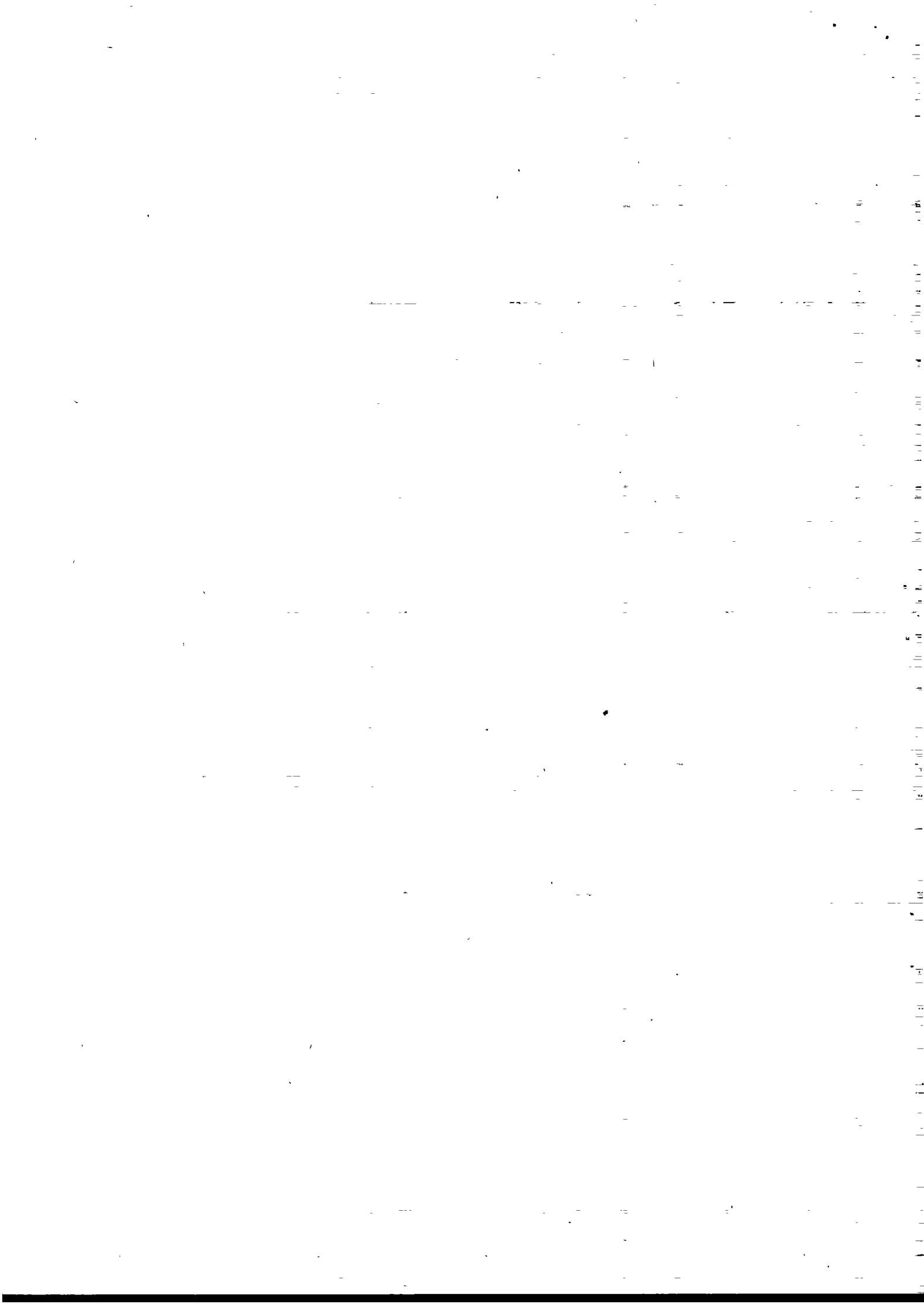
- a) annual returns for each village with a water supply
- b) final bills at the end of the construction of each new watersupply. ( End of retention period )

The retention period is not defined.

123  
(a) wayleave application for public servitude

That means more administration

127  
(a) "misuse or waste of water" is not defined in more detail.



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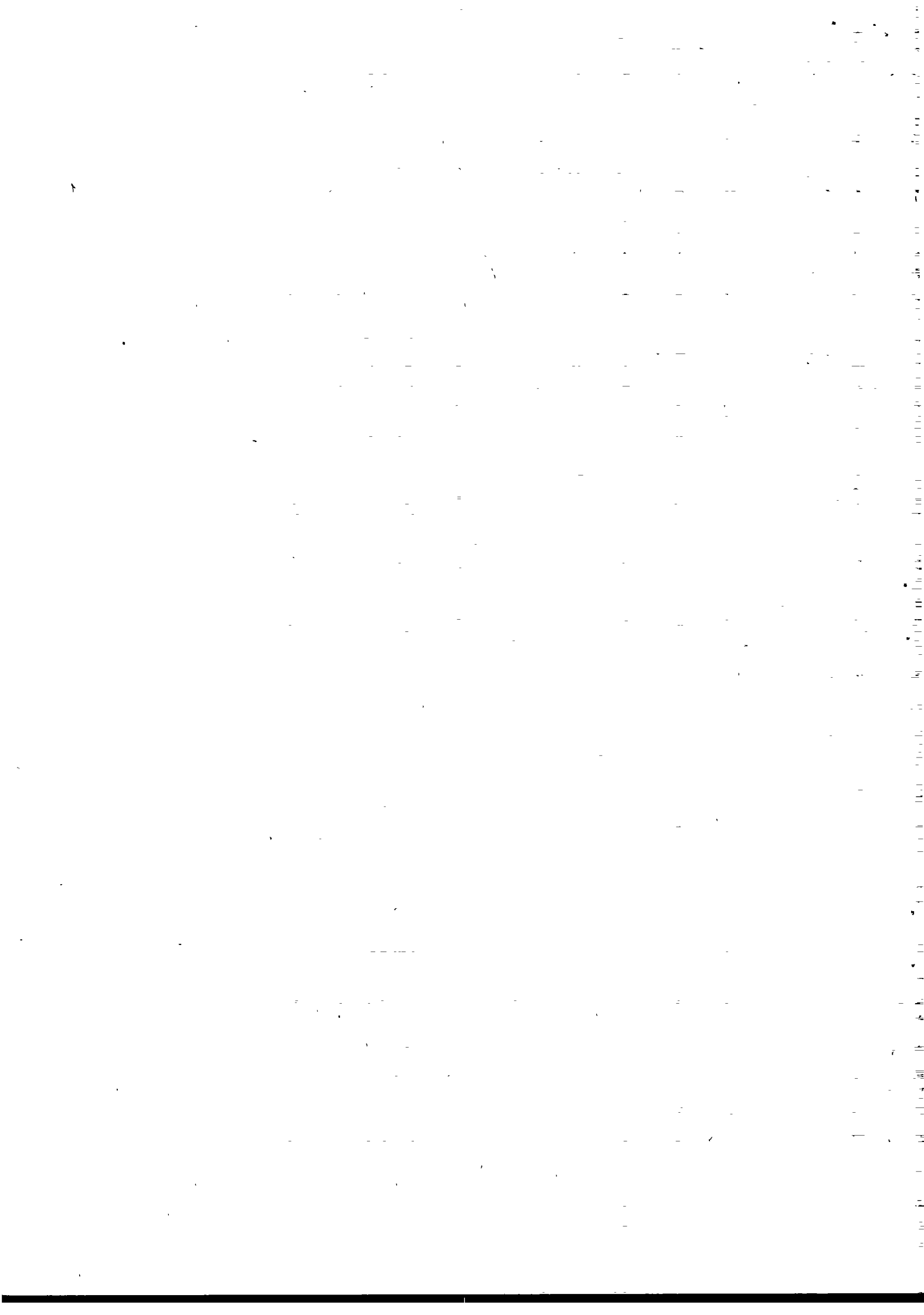
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**RURAL SANITATION:**

There is no mention of involvement in Rural Sanitation.

**CONCLUSION:**

Before this order is implemented, VWSS should already seek support to get staff trained for the additional administrative burden which cannot be managed by the available staff, nor has the staff the necessary skills to handle a trading account. It would therefore be strongly recommended to provide training for a cadre of well qualified accountants who would be able to carry out the work properly at that time.





## 10. CONCEPTS:

### COMMENTS AND IDEAS:

There is to say that any concept or policy has to be amended from time to time. The reason is simple; circumstances do change with time.

VWSS has several concepts or policies in operation at this time. New circumstances that may occur, or ill-defined rules in a new concept will lead to the necessity of amendments, changes or even cancellation of existing regulations as well as the creation of new guidelines.

Following concepts exist but need improvement and/or to be applied with more discipline:

#### Concept: The flow structure of Information

In principle it is clear that all information is channelled through the Regional Engineers. In practice, some of the information is channelled directly from District to Head Office. In the Head Office very often the letters are bypassing the Registry, thus are not registered as received.

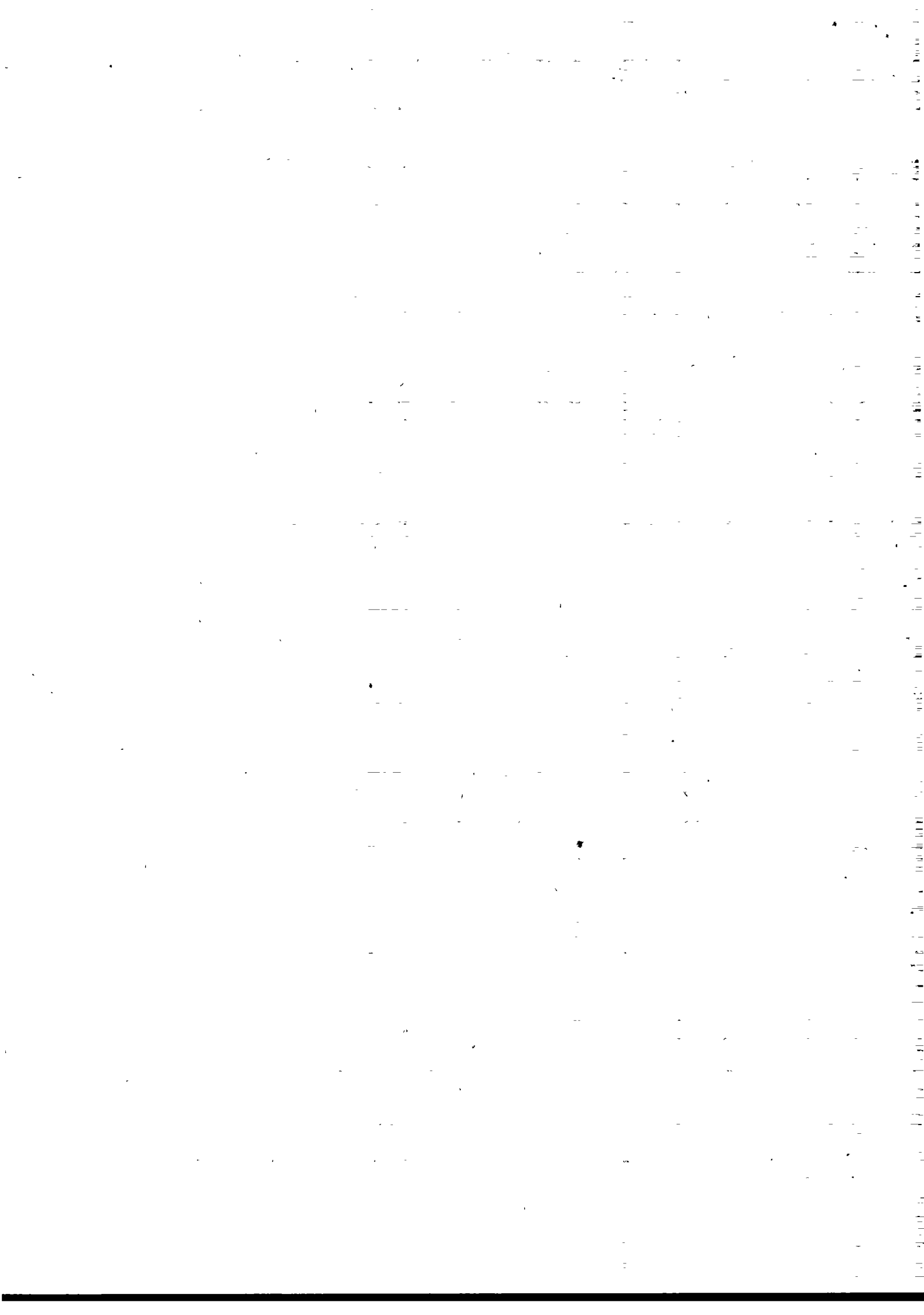
#### Concept: The property rights on VWS

In theory, village water supplies are handed over to the villagers upon completion. Indeed, the property right on the water supplies lies with the Government of Lesotho until the legislation would be amended to this effect. The finance order is very clear in this respect. The proposed " Water and Sewerage Order " would remedy this situation.

#### Concept: Housing, Housingcommittee, LSPP

In theory a Housing Committee has been elected about two years ago by the Engineers Meeting. Practically this committee is defunct due to that fact that some members have left the country. It is a general experience that committees fail to be active over any lengthy period of time. Thus in the future committees may rather be considered for very specific tasks.

As far as housing is concerned care must be taken that the original ownership documents and the building permits are kept properly. There is no general understanding whether the originals should be kept at regional office or headoffice.



FOLLOWING CONCEPTS DO NOT EXIST, BUT COULD BE CONSIDERED

Concept: Watersupplies improvement ( increased quantities )

The question of improved water supplies ( yard taps ) is a problem that has ever been cropping up from time to time. Due to the prevailing trends VWSS will soon have to be able to declare its official standing. It would be worthwhile to establish some clear rules as and under what conditions VWSS could agree to consider them in design and, perhaps, would carry them out expertly.

Having said that, VWSS should be concerned to scrutinize the revised Standard Manual with the proposed Water and Sewerage Order.

Concept: Jobdescriptions, Organigram, VWSS needs.

It is now for many years that the Jobdescriptions have not been revised and updated according to the changing circumstances. The official GOL job description for the C.E. is still dated of 1982. It is obvious that such document is now outdated.

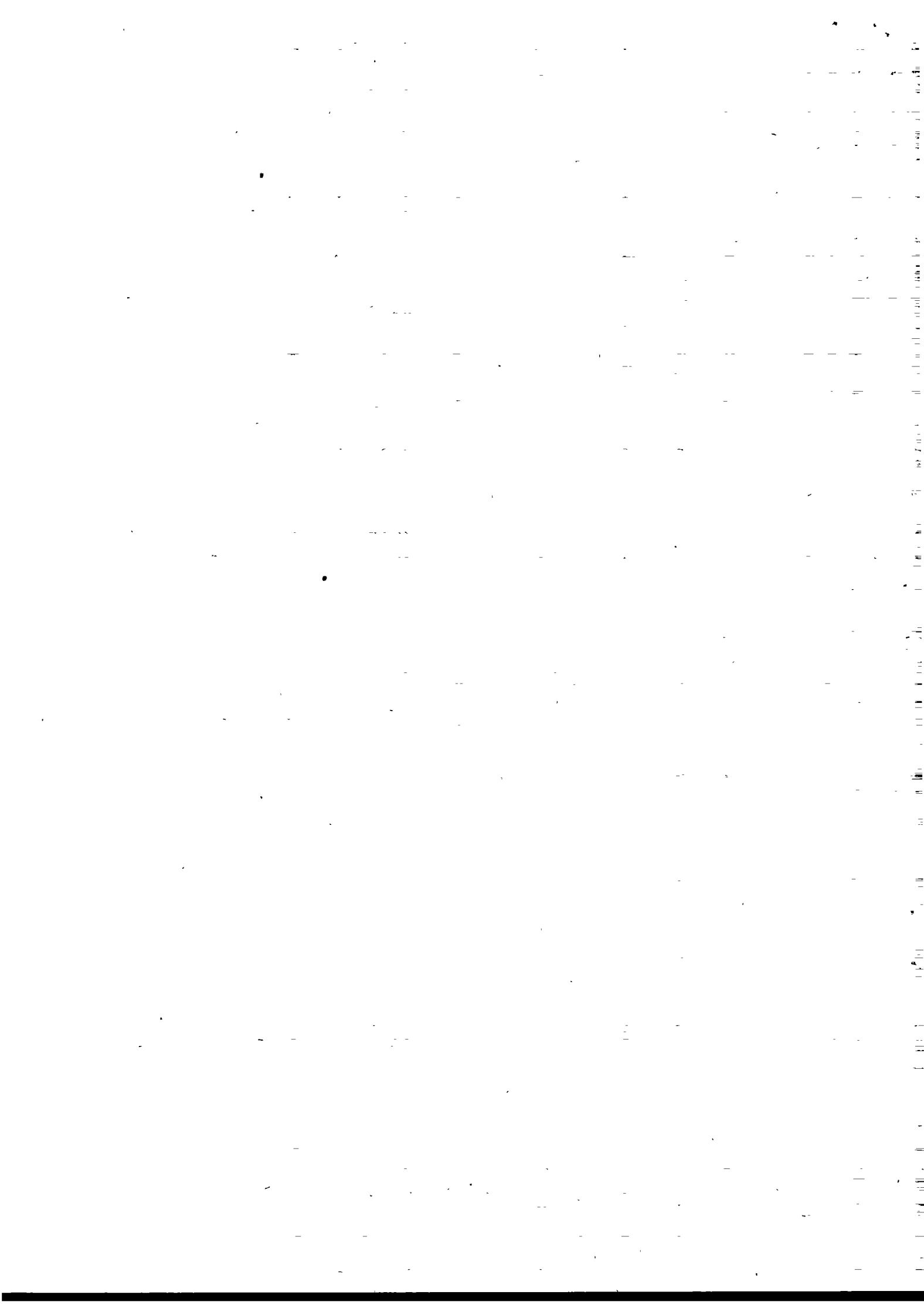
When establishing a new set of job descriptions in the future care must be taken that they fit with the public service regulations and related rules. Again, it would be of some importance that the organigram structure cover the needs Of VWSS rather than fitting the demands of the different donors. To achieve this goal, some other concepts need also be established.

Concept: Determination of long term annual targets

Regardless of the financial requirements, VWSS should try to establish at what staffing level there could be an optimal output as regards new construction, monitoring and maintenance, privatization of maintenance, privatization of construction, the rural sanitation programme as well as services that could be obtained from other government offices. Such best solution should take into consideration of the high growth rate in rural Lesotho (35,000 p.a.)

Concept: Monitoring of Maintenance including costing

VWSS in 1989/90 has spent about M 400,000.00 on maintenance. However, no one has yet checked the costs on the different pilot projects in order to establish the cost effectiveness which in turn would lead to the optimal choice. Again, no common indicators have ever been selected to make the different projects comparable.



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Concept: Cooperation with MoH, especially RSP

The cooperation with the NRSP has been rather of an ad hoc type, according to the circumstances resulting from the different bilateral agreements. VWSS should establish some guidelines for the whole donor community. Uniform agreements as far as the technical aspects of RSP are concerned would finally help to develop a nation wide job description for all district engineers.

Again, such guidelines should match the proposed Water and Sewerage Order.

The question whether to have generic masons or specialized staff needs careful consideration. There are very high costs involved; once in the form of loss of production/maintenance ( two weeks courses necessary ) secondly the need of RSP masons is very limited. ( max 50 at full operation ) This can probably not justify to provide training for the whole labour force.

VWSS has a trend for specialization to obtain better results in the different operations. The results have been positive. The same can be expected if a specific number of staff will specialize in RSP activities.

Concept: VWSS and other Water related Institutions such as Water & Sewerage, Water, Minerals and mining, Groundwater, Wateraffairs

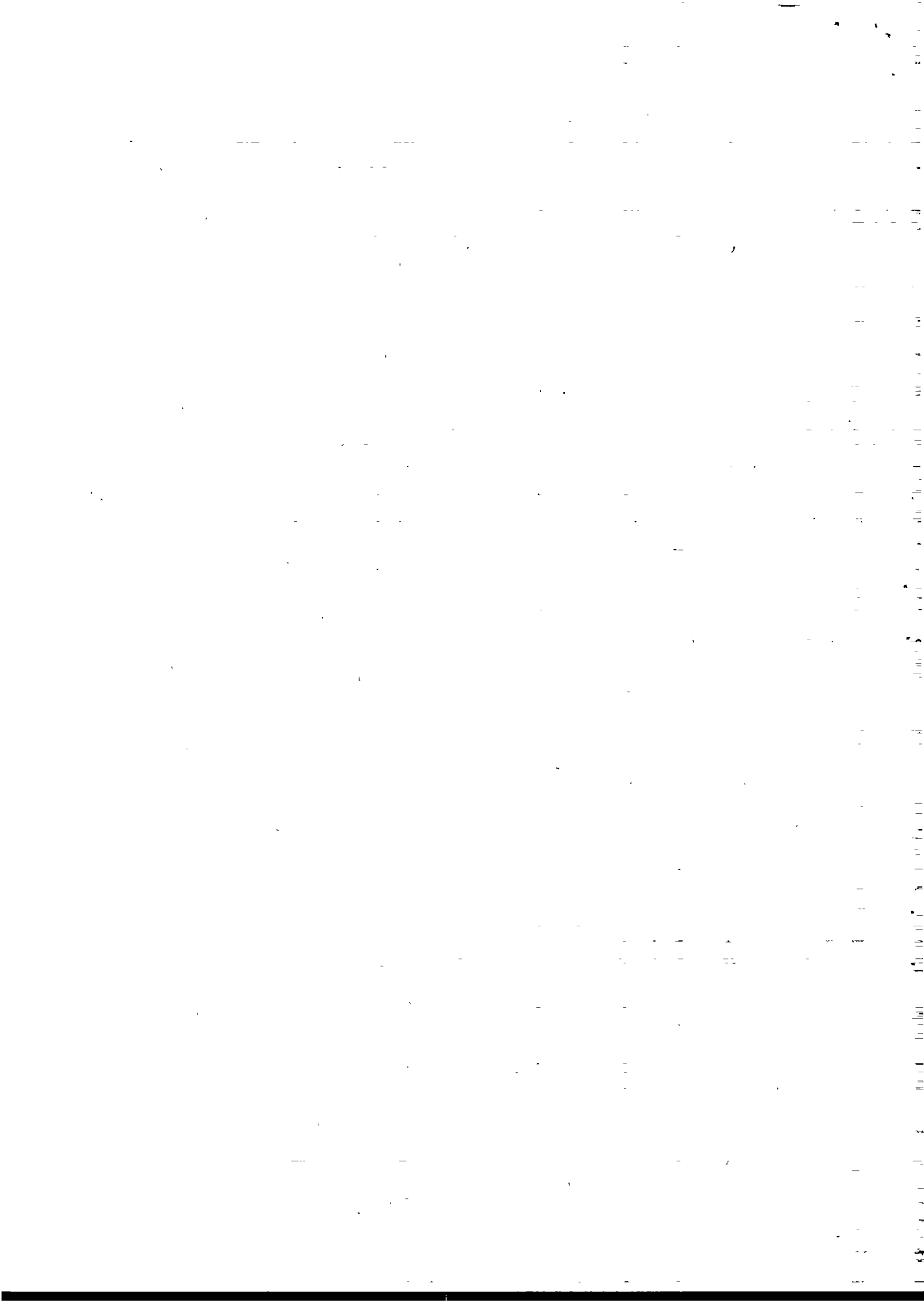
In the light of the proposed Water and Sewerage Order it would be obviously worthwhile to keep in touch with this offices in a more active and official form.

Concept: Cooperation with Bureau of statistics

Considering the major input into monitoring in the years to come, in my opinion, VWSS should explore the areas where mutual co-operation and assistance could be of an advantage for the two parties concerned.

Concept: Privatization in the future

The privatization programme is under way without any reasonable results except the USAID final report comments. However, these were preliminary results at its best. An attempt to get the necessary findings, cost effectiveness, reliability, indicators to keep projects comparable etc is still outstanding. The study of Mark Moran can only cover part of the aspects of the complex questions raised as far as the feasibility and cost effectiveness of private enterprise in maintenance is concerned.



## 11. VWSS MANAGEMENT

### ( The Organigramme )

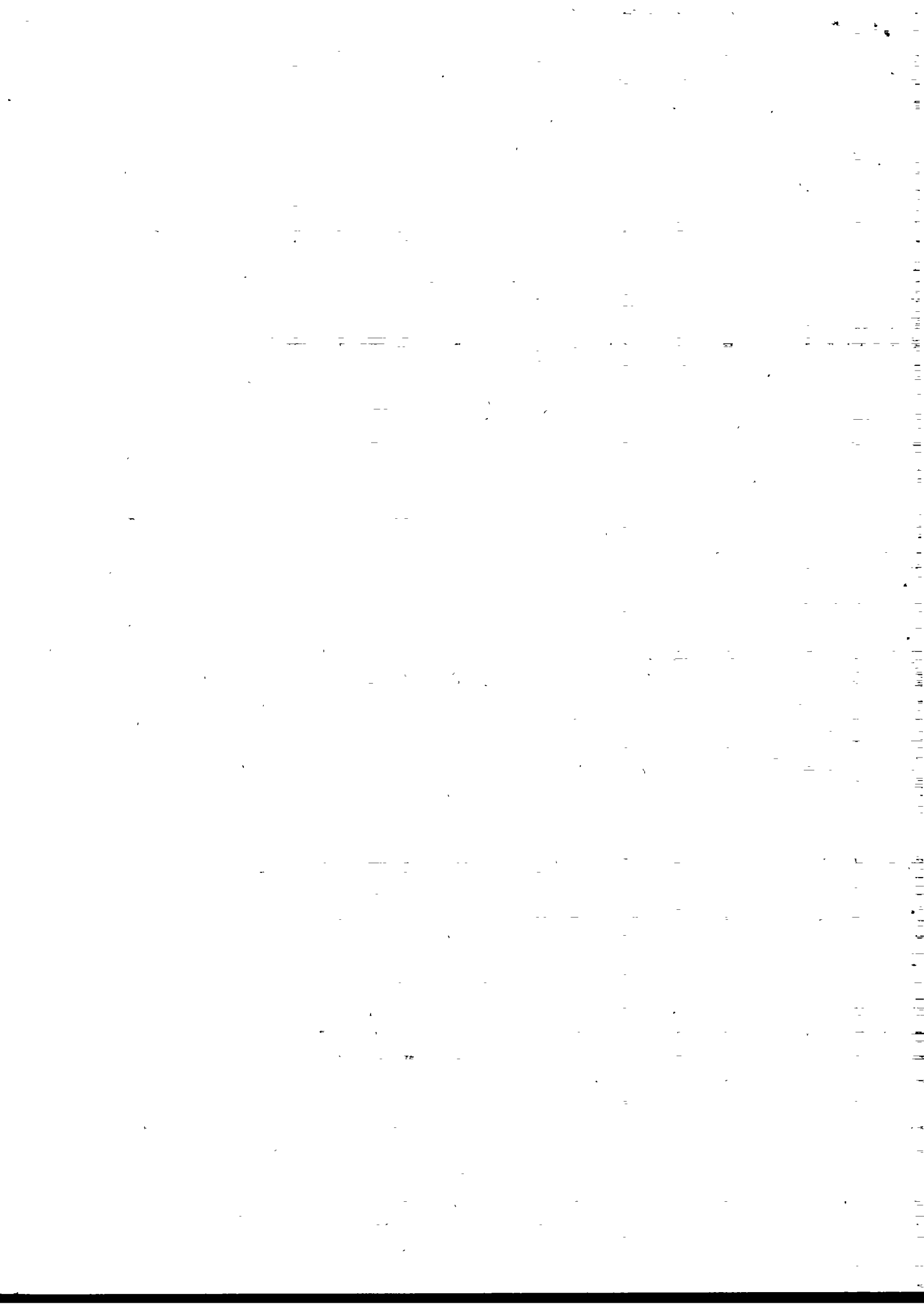
Any institution is compelled to react to the change of situations. So far VWSS in comparison with other government institutions has done well. That, of course does not imply that there is no room for improvement. VWSS has typical weaknesses, found worldwide in government institutions carrying out duties in a technical field. It is the clash between typical bureaucrats as found in government service and technocrats,

Typically, the position of the AAS and Accounts are Staff-level positions who could advise the management. Due to the fact that these positions are filled by posting from an office other than VWSS, we should consider to establish well trained assistants, perhaps employed by VWSS to provide continuity within the Section. Donors and newcomers must be made especially aware of the circumstances mentioned in the last USAID report on page 26 through 29.

However, the present restrictions as regards employment, caused by IMF impositions, where the major donors are also members, donors should be informed and perhaps guided into a direction whereby the Bi-lateral Agreements would provide for the above mentioned improvements as far as administration is concerned. Finally, the administrative part of the VWSS section needs the same support as the technical one, improving equally, for the benefit of the whole.

Provided that the Staff level is organized well, and able to carry out its duties properly, the temptation to circumvent or omit certain requirements would much be reduced. Thus, in my opinion it is very important to improve the staff positions in general and involve that staff to the full extent in what is their assigned duties anyway by government regulations. This, in turn would ease some of the administrative work-pressure now dumped on technical staff and make them available for more activities in the field they are trained for.

Annex 3 is a proposal for a revised Organigramme.





12. RSP OUTLOOK ( Costs )

Considering the introduction of a "generic" mason there are a view points that must be kept in mind. The need in future at full operation will not exceed 10 Districts with 5 RSP T.O's each. Thereof 20 are already operating in 6 Districts. Thus only 30 additional masons are needed.

It should be considered that all Supervisors attend a short course because under the new agreements they should supervise VWS's and T.O's advising Local Latrine Builders at the initial stage.

Skills have to be slightly different, as these T.O's have more a role of a teacher and advisor. Not all of the VWSS staff has these capabilities.

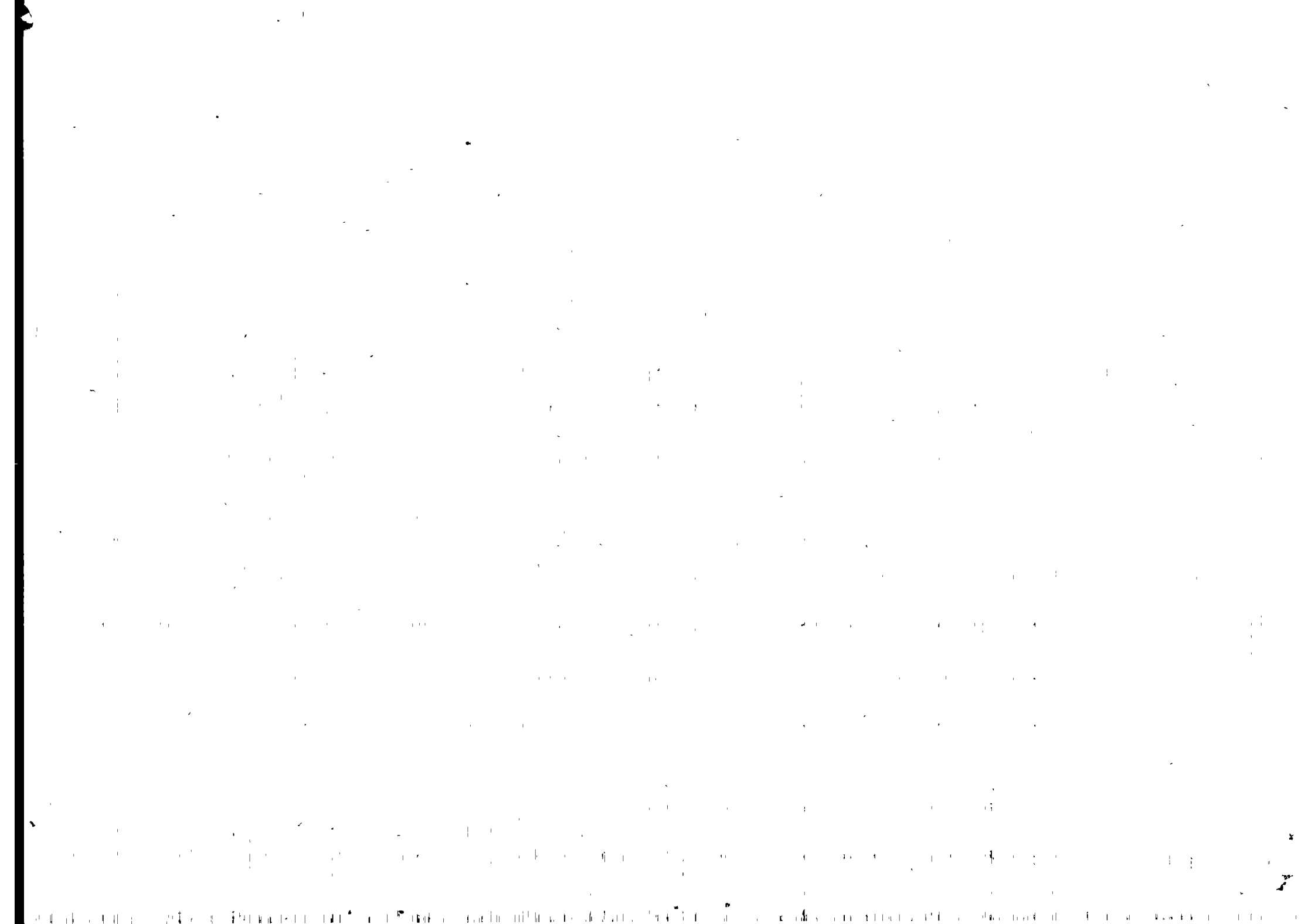
The cost of training and loss of production in VWSS would be considerable, as listed below. Again it would not make good sense to equip all masons with the extra tools necessary for RSP activities. The tools alone would cost about M 500.00 each at 1990 prices.

Rural Sanitation, in my opinion will not become a permanent activity. Once a certain maximum number of LLB's has undergone training there should be a point of saturation in the local labour market. Again the proposed Water and Sewerage Order does not cover this area of activity. At a time of transition the activities would have to be negotiated again between WENMIN and MoH.

DISTRICT:

|        | SUP | FIELDST | SUBTOTAL*) | RSP STAFF |
|--------|-----|---------|------------|-----------|
| MOK    | 1   | 6       | 7          | 3         |
| BB     | 2   | 18      | 20         | 4         |
| LE     | 2   | 14      | 16         | 4         |
| BE     | 3   | 16      | 19         | 5         |
| MAS    | 3   | 17      | 20         | 0         |
| TT     | 2   | 7       | 9          | 0         |
| MAF    | 1   | 15      | 16         | 0         |
| M'HOEK | 1   | 9       | 10         | 4 *) NRSP |
| QU     | 1   | 7       | 8          | 0         |
| Q'NECK | 1   | 9       | 10         | 0         |
| -----  |     |         |            |           |
| TOTALS | 17  | 118     | 135        | 20        |
| =====  |     |         |            |           |

\*) Not including the actual RSP staff



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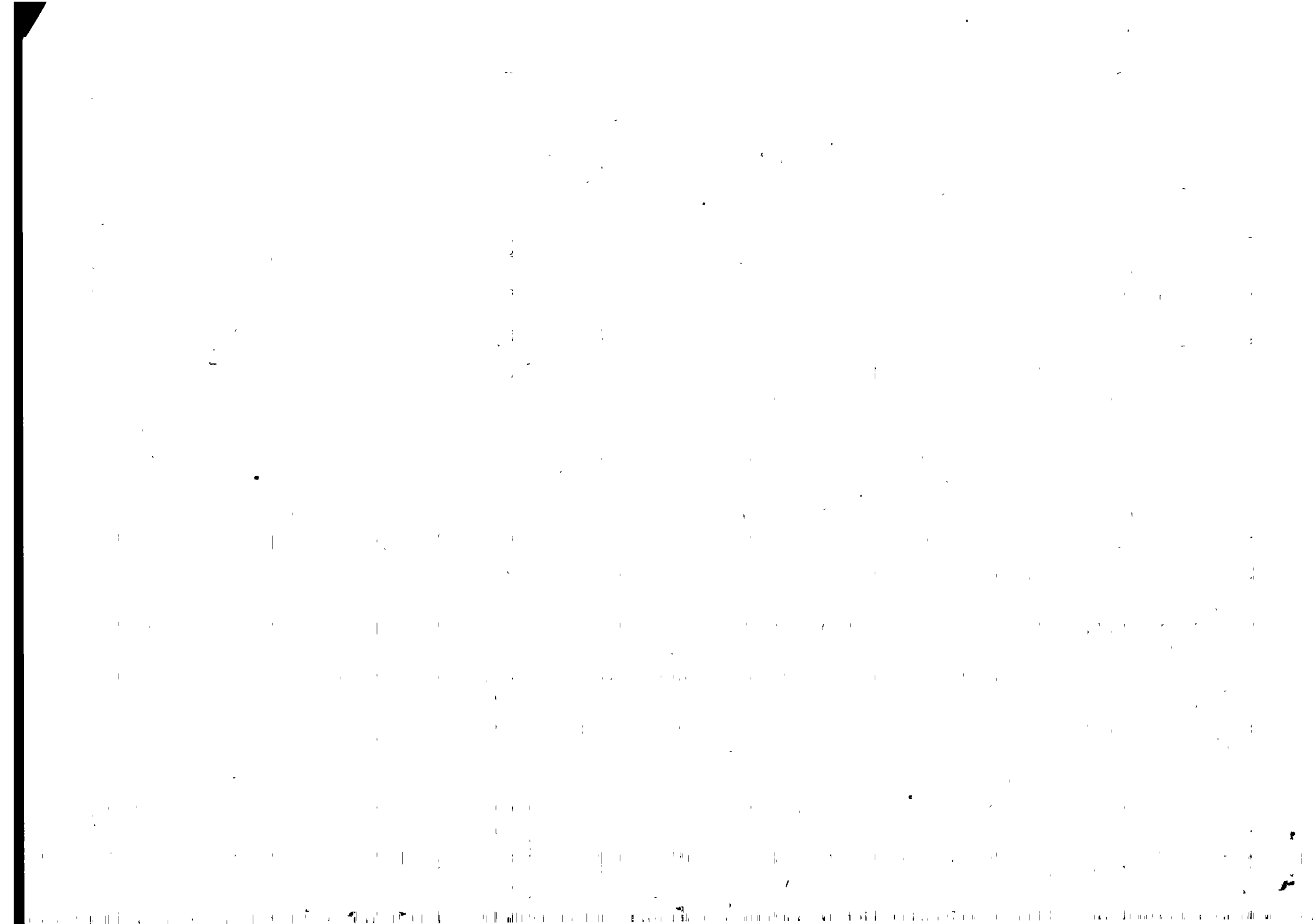
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In my opinion VWSS should provide training for all supervisors and about 30 masons only.

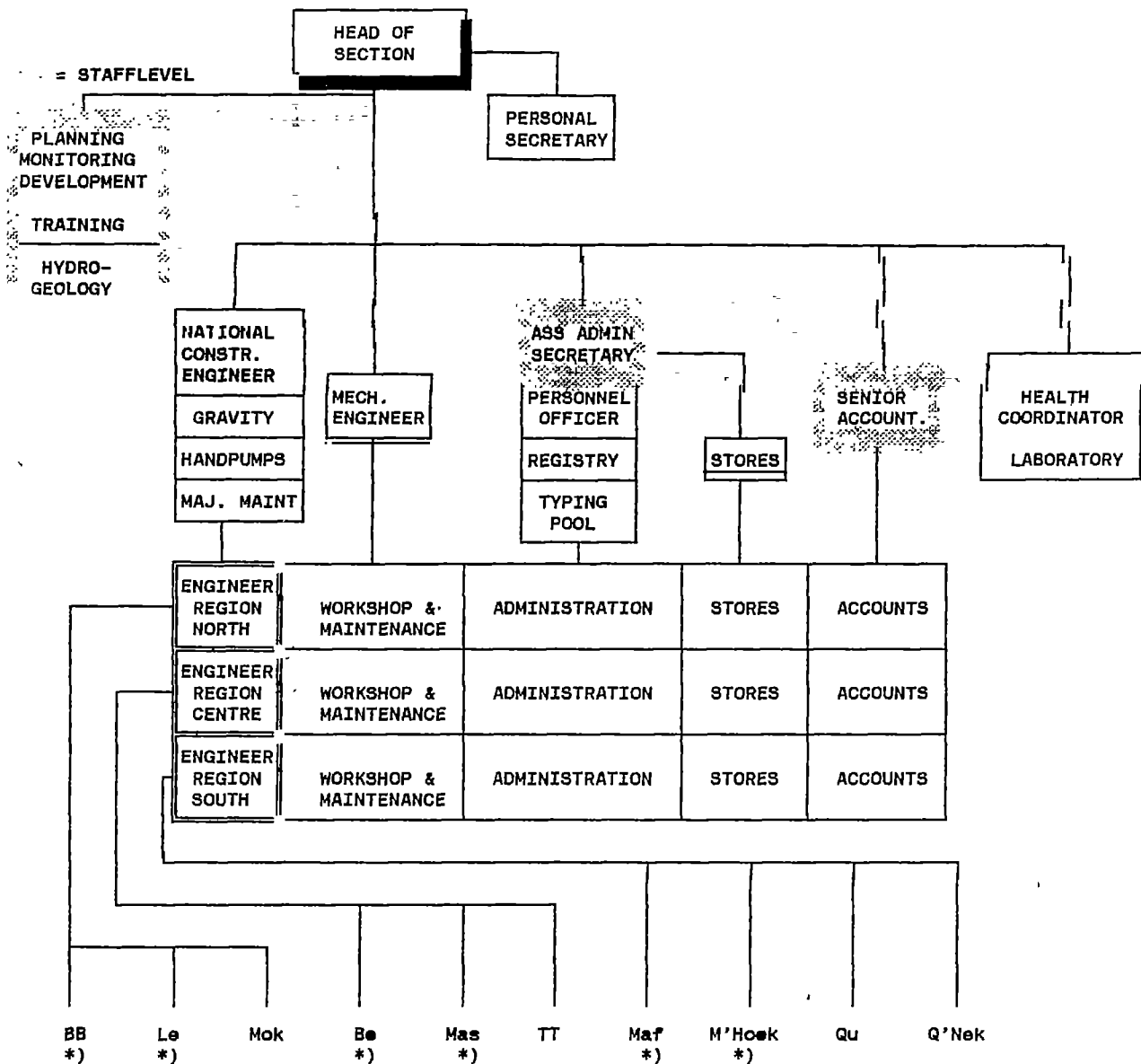
COST COMPARISION:

|   | Supervisors<br>and all Fieldst<br>( 135 ) | Supervisors<br>and 30 Staff<br>( 47 ) |
|---|---|---------------------------------------|
| a) loss on production                               | > 3 %                                     | ca. 1 %                               |
| b) cost of course<br>( No of Staff x 27.00 x 5 days | 18,225.00                                 | 6,345.00                              |
| c) additional tools                                 | 59,000.00                                 | 15,000.00                             |
| <b>TOTALS:</b>                                      | <b>77,225.00</b>                          | <b>21,345.00</b>                      |
| =====   |   |                                       |

JM. 10,5.90



**A PROPOSAL FOR A REVISED ORGANIGRAMME FOR VWSS**



District Engineer  
Ass. Engineer

STO's:  
1 Supervisor Construction  
16-20 Fieldstaff

1 Supervisor Gravity Maintenance & Monitoring  
1-2 Fieldstaff

1 Supervisor Borehole & Handpump Maintenance      2-3 Fieldstaff \*) where necessary  
1 Tractor & Driver or ( Mercedes 4x4 50%)

4 - 5 RSP SPECIALIST STAFF ( temporary )

ABOVE ORGANIGRAMME COULD FIT THE REQUIREMENTS OF VWSS / DONORS AS WELL AS GOVERNMENT REQUIREMENTS

