



**PAN AFRICAN INSTITUTE FOR DEVELOPMENT - WEST AFRICA
(PAID-WA)**

UNDP-WORLD BANK ASSESSMENT PROJECT

**PARTICIPATION, GENDER AND DEMAND-RESPONSIVENESS:
Making the Links With Impact and Sustainability of Water and Sanitation Investment:
West African Component.**

**WEST AFRICAN
REGIONAL REPORT**

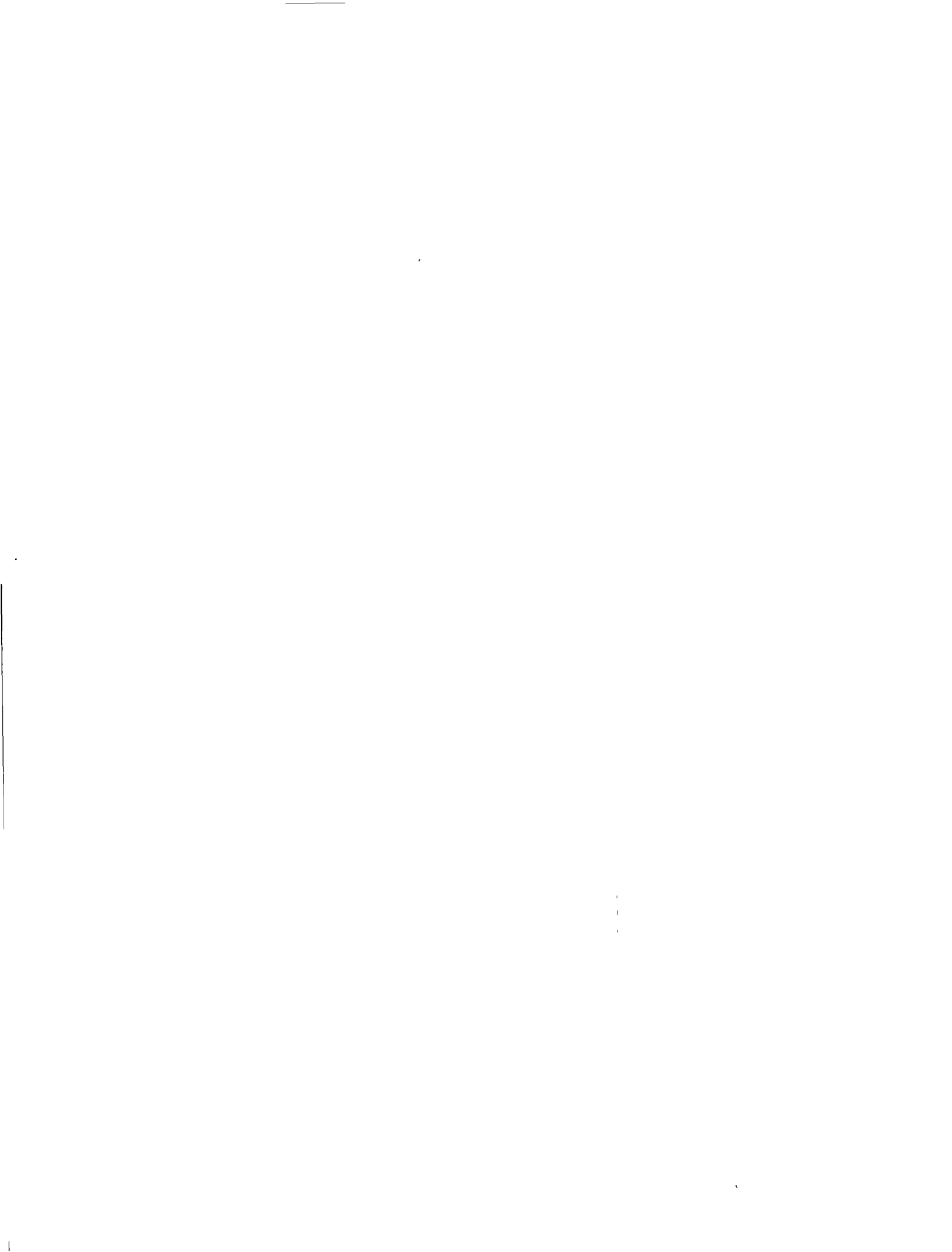
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LIST OF ACRONYMS

%:	Percentage
<:	Less than
C&O&M:	Construction, and Operations and Management
C1:	Helvetas Project in North-West and South-West Provinces of Cameroon
C2:	DED Project in Centre and South Province of Cameroon
CIDA:	Canadian International Development Agency
DANIDA:	Danish Institutional Development Agency
DED:	German Development Association
e.g.:	For example
ESAs:	External Support Agencies
G1:	DANIDA Project in the Volta Region of Ghana
G2:	CIDA Project in the Upper & Regions of Ghana
GNP:	Gross National Product
GWSC:	Ghana Water and Severage Corporation
IRC:	International Water and Sanitation Center
O&M:	Operations and Management
PAID-WA:	Pan African Institute for Development - West Africa
PRA:	Participatory Rural Appraisal
UNDP-WB:	United Nations Development Programme - World Bank
UNDP:	United Nations Development Programme
US\$:	United States Dollar
W/S:	Water and Sanitation
WDR:	World Development Report
WPP:	World Population Projection
X:	One Water Committee

ACKNOWLEDGMENT

The West African assessment involved a lot of activities, time and vital information to which a number of organisations and people have contributed. To start with, the Pan African Institute for Development West Africa appreciates the pioneering of the programme by UNDP-WB and the inclusion of Africa which is another step towards improving the conditions of living in the rural communities. The International Water and Sanitation Center (IRC) has been an important partner with PAID in promoting the water and sanitation sector in Africa, and its contribution and support during this assessment programme have been quite useful.

This study acknowledges the cooperation of participating institutions, namely, Helvetas Swiss Association, DED German Development Service, Volta Community Water and Sanitation Project, Community Water Project (COWAP) Upper East and West, from Cameroon and Ghana, particularly in the release of their staff to serve in the assessment teams. From Ghana we have Festus Kwame Kwadzokpo, Patience Samanhyia, Wigbert Y. Dogoli, Louisa Dayang and Emmanuel Aadi Angachaab; and from Cameroon, Hannelore Knott, Harald Zauter, Charlotte Tchampi, Rose Ewune Elive, Ntche Peter and Ashu Stephen who worked hard to ensure that the data collected was useful and provided other necessary support.

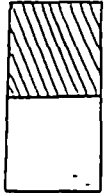
The contributions of the assessed village communities in both countries and their water committees have been valuable and we thank them for these.

The secretarial staff from PAID-WA particularly John Akat who was with the project throughout, Catherine Tangunyi and Chantal Nseke; and from IRC, Loekie Broersma, have all done commendable job to ensure the projects success.

Finally, this project acknowledges the drive and commitment of the assessment coordinating team: Jennifer Francis (IRC), Rosetta Bola Thompson, Andrew Tanyong both of (PAID-WA) and the contribution of Sylvester Adeh Nsoh in ensuring the due completion and achievement of the project's objectives in the West African region.

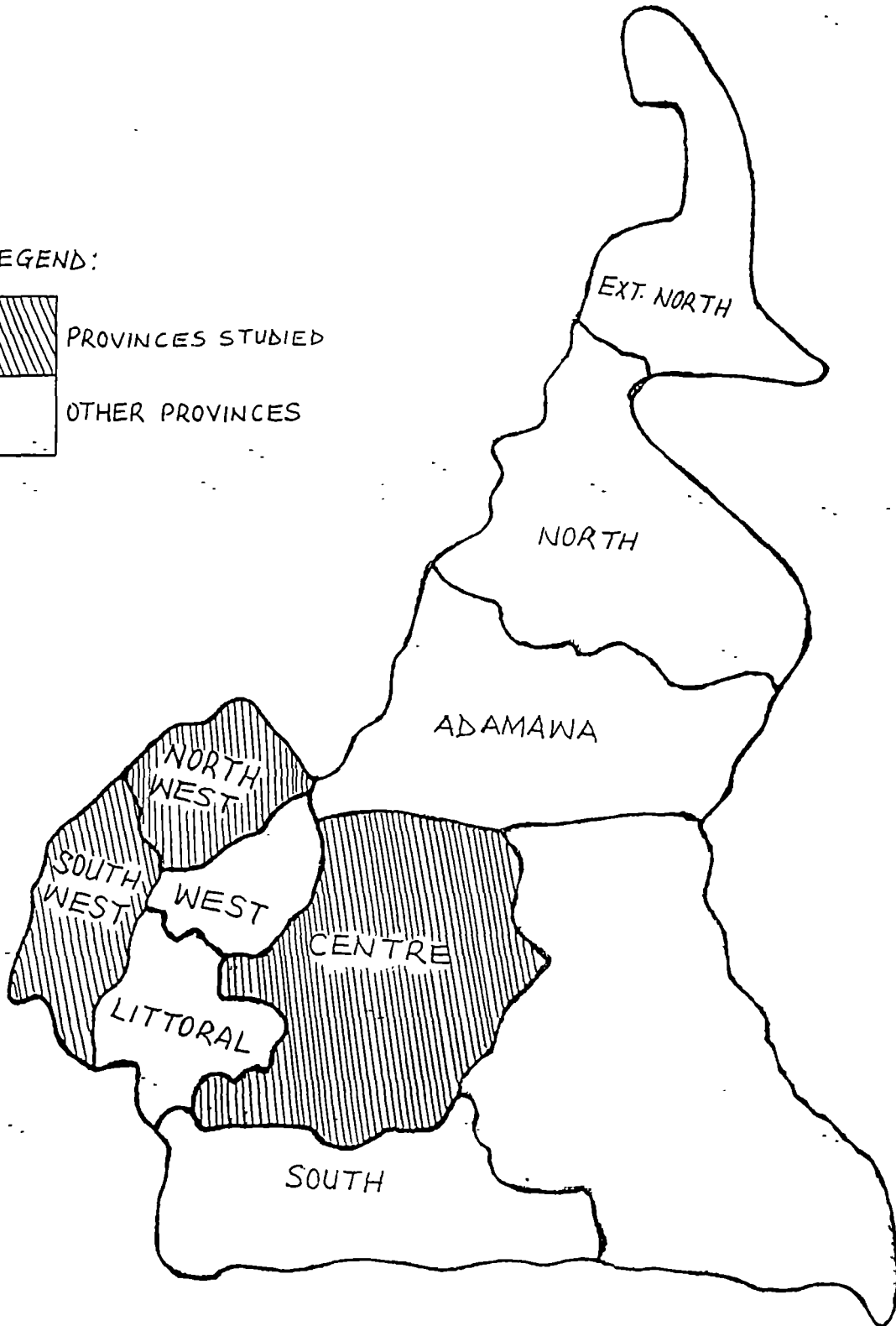
MAP OF CAMEROON

LEGEND:



PROVINCES STUDIED

OTHER PROVINCES



EXECUTIVE SUMMARY

This report is the outcome of the assessment undertaken in Cameroon and Ghana, representing the West African sub-region, to determine the link of some key factors, namely participation, gender, demand-responsiveness, with impact and sustainability of water and sanitation investment. Five sector institutions representing four water and sanitation projects, some government departments, and sixteen beneficiary rural communities were involved in the study.

Participatory learning and action (PLA) methods and tools were used comprising of Participatory Rapid Appraisal (PRA) and SARAR techniques. The following are the main findings.

National Policy

- * Sector policy on water and sanitation does not cut across the region; only one country out of the two has a policy in place. Governments, however, are interested in the provision of water for the rural communities.
- * Government policies are expected to complement the on-going decentralisation process in the region. Ghana is ahead of Cameroon in the sector policy
- * There is a general external support agencies' (ESA) assistance to sector policy/strategy development in the region. The ESAs have clear objectives and approaches towards gender, demand-responsiveness and participation, which could be an influence in that area and in project implementation.
- * Poverty sensitivity in sector service provision is still poor
- * There is a combination of key players on the government side in collaboration with ESAs as service providers
- * Integrated development, and the development of the private sector to support this sector are inadequate in the region.

Institutional Approaches

1. Participation at the initiation of projects is usually higher in terms of contributions than in decision-making. Community involvement in decision making increases after taking over the project.

2. Operational strategies are influenced by ESAs with both positive and negative impacts. For example, the strategy of demand-responsiveness might have a positive impact on self-reliant development but could be negative when no choice of technology is given
3. Participatory approaches and tools are inadequate, and inadequately used for capacity building
4. There is lack of capacity in skills for autonomous management and control at community level; and there is usually no legal status for water committee operations.
5. Enabling environment for autonomous involvement of community in O&M is better in Ghana.
6. Capacity of staff, in gender and poverty analysis, is still inadequate
7. Hygiene education is hardly emphasised which is a big risk to actual portability of water. Sanitation, hygiene and water should go hand in hand

Community Level

1. Choice of technology differs in the region and may have an impact on coverage and demand. Appropriate implementation of technology is still doubtful
2. Poor attitude of people in the region towards payment for water is a major handicap for autonomous management of project
3. Demand culture in communities needs to be enhanced
4. There seems to be a general acceptance by the community of the new water source. The nature of the data however, does not allow for confirmation of the impact of improved water on health and other parameters.
5. General lack of quality monitoring after establishment puts a big risk on portability of water
6. Water Committees exist in the region although not all have legal status or are effective. The water committees were enforced by the project, which may explain the ineffectiveness of some. Perhaps villages may have preferred alternative structures
7. Water needs are being met, but used ineffectively for all purposes
8. Though women are mandatorily included in water committees, most of them are not in strategic decision-making positions. Many are not functional due to

lack of capacity. A study on the impact of gender sensitiveness on the effectiveness of the committees may give more information.

9. There is no class differentiation within communities when it comes to contributions.

The key **recommendations** from the study are as follow:

- The need for rational national policy and strategies to guide sector operations
- Capacity building for institutional staff particularly in gender, poverty and demand-responsiveness to enhance participation and demand
- There is need for periodic quality testing of water to ensure continuous flow of potable water to the people
- More attention should be paid to hygiene and sanitation as is being paid to water
- Specific studies are required to establish, more concretely, the effect of certain parameters on demand culture, and willingness of people to pay for water services in rural communities.

CHAPTER ONE

1.0 INTRODUCTION

1.1 STUDY DESCRIPTION

The UNDP-World Bank project on "Participation, Gender and Demand-Responsiveness: Making the Links with Impact and Sustainability of Water Supply and Sanitation Investments" was pilot tested in the West African region, one of the five global regions covered during this testing phase. The study took four months, from July to November, 1998, and was coordinated by the Pan African Institute for Development - West Africa in collaboration with IRC International Water and Sanitation Center. Countries involved are Ghana and Cameroon (which is still taken within the West African zone for PAID-WA's activity coverage).

During this period, the following activities were undertaken:

- Selection of participating sector institutions and their assessment teams;
- Regional workshop for all the assessment team members to introduce the assessment methodology and tools;
- Country training programme for each of the two participating countries which dwelt in greater detail on the tools and methods;
- Field assessment;
- Institutional assessment.

The study's main objective is to identify ways of increasing the sustainability of water supply and sanitation services for poor communities through capacity building of sector agencies to respond to users' demands for water supply and sanitation services, using gender sensitive and participatory approaches.

Specifically, the study sets out to:

- assess whether demand-responsive and gender and poverty sensitive participation are positively associated with sustained water and sanitation services; and the impact of such services on women and men, rich and poor;
- familiarize communities and agencies with self assessment methods using gender and poverty sensitive tools;

- develop, continually review, and institutionalize the assessment methodology and findings in national, regional and global sector institutions.

1.2 BRIEF REGIONAL DESCRIPTION

The UNDP-WB project on participation, gender and demand-responsiveness: Making the Links with Impact and Sustainability of Water and Sanitation, is a global programme of which West Africa is a part. The following is a brief description of the region from which two countries were selected for this study.

1.2.1 Geographic and Climatic Conditions

The West African sub-region, which is reputed to have the highest population density in Africa, lies within the equatorial and tropical zones. It has a variation of dry, wet, cloudy and cold seasons, with a variety of vegetation associated with these climatic conditions. These include forest region of mangrove, dry lowland rain forest, and coastal vegetation; savanna region including sudan and sahel type vegetation; montane forest and grassland region. This mix of climatic conditions and vegetation vary according to geographical locations even within countries, and thus affect the type of water sources available, the agricultural tendencies in the region, and the natural resource availability.

1.2.2 Population

The sub-region comprises of eighteen (18) countries with a total population of 228.7 million in 1995 (WPP 1994-95). The exceeding high figure is due to the influence of Nigeria which alone accounted for about 49% of the whole. At an average annual growth rate of 2.85%, the population projection for 2000 is 264.3 million, with Ghana and Cameroon, the study areas, accounting for 13.38% of total. Habitation pattern is more of rural, with an average of 66.8% of the population in sixteen countries living in the rural region in 1994 (WDR 1996). However, only about 30% of the rural population in eleven countries had access to water during the same period, and a range of 27-36% to sanitation. Rural population level might not have changed drastically as there is a current but gradual trend of preference for this location.

West African countries are rich in cultural diversity and language varieties. While official languages in the region are English, French, and Spanish, pidgin-English/French is prominent in some of the countries at the local level. There are also a number of local indigenous languages in each country.

Adult illiteracy rate has been exceedingly high for women compared to men. WDR 1996 report indicated that as at 1995 this was an average of 70.3% for female and 47% for male. External and internal efforts might have brought about some improvement especially with the special focus of world women conferences on

CHAPTER TWO

2.0 METHODOLOGY

2.1 RESEARCH DESIGN

This was a non-intervention single-round cross-sectional study on selected community water supply and sanitation investments. The study focused on the initiation and implementation of the projects and specifically sought to investigate the level of awareness and practice of community participation, differential gender needs and demand-responsiveness. The investigation was also to identify the link between these variables and the impact and sustainability of the water projects.

2.2 DURATION OF THE STUDY

The West African study was conducted over a period of 4 months and was in two phases:

- village level assessment which took 1 week per selected village community
- institutional and sector assessment phase for each participating project

2.3 DATA COLLECTION METHODS, INSTRUMENTS AND TEAMS

Participatory Learning and Action methods and tools were used throughout the study. The methods comprised a combination of Participatory Rapid Appraisal (PRA) and SARAR techniques. Specifically the following techniques were used:

- **community data collection:** to obtain general information on participating communities and allow the identification of other factors than participation, gender and demand responsiveness that may explain the variation in service sustenance
- **focus group discussions:** means of collecting in-depth information on the views of group members on issues not predefined
- **wealth ranking:** - for identifying the socio-economic classes in the community.
- **community mapping:** map drawn by community members to show the location in the community of all water points constructed during the project; these points were to be visited during the transect walk
- **transect walk:** this is undertaken by researchers and community members to cross-check information on the map, and determine to what extent a well-sustained water supply and/or sanitation is present in the community
- **pocket voting:** for identifying changes in behaviour of people according to the use of services before/during/after project initiation
- **ladders I:** for assessing the extent to which the service meets the demand/needs of users and the benefits they derive from the service.

education for girls and women. Usually, and even for West Africa, rural communities have a higher rate of adult illiteracy.

Most common religions are christianity, islam and traditional types.

1.2.3 Economic Situation

All of the countries within this sub-region are of low-income category with an average GNP per capita of US\$372.5 (1994), and a heavy burden of indebtedness (1990). Most are exporters of non-fuel primary products, with just about two in diversified exports including fuel (WDR). The region is mostly an agrarian society with main production and exports being agricultural products.

1.2.4 National Sector Policy

The wave of decentralisation in West Africa, and the emphasis of government sectoral policies towards this trend, has contributed to the progress being made in the provision of water in rural areas, and the attraction to the sector of external support agencies (ESAs). Though only one of the two countries assessed during this programme has a clear sector policy, the other is also making some efforts in rural water projects. Not as much attention is noticeable in sanitation, however.

Technology design and type for water and sanitation projects are not necessarily standardised in the region. Choice of technology is often determined by the water source type in each community.

The following chapters cover the methodology used, analysis of findings, and the conclusions and recommendations. Further details of institutions involved, and maps of the villages assessed are attached as annexes.

- **ladders II:** for assessing the impact of the service on women's time and workload in relation to that of men
- **card sorting:** this is to determine the nature of contributions made to the project by men and women, rich and poor

Hundred Seeds tool was not used because of the cultural conflict it could generate in the communities.

The wealth ranking conducted in the communities brought out community specific descriptions of the three socio-economic classes of rich, in-between, and poor. Criteria for separating community members into the various socio-economic groups were community defined and specific. So they varied across communities, projects and countries.

2.4 SAMPLING

The study used a multi-stage quasi-random sampling approach which led successfully to the selection of study countries, country projects, communities and respondents.

2.4.1 Selection of the Study Countries

Due to the relatively short assessment period, two countries were selected from the West African Region namely Cameroon and Ghana. Selection was based on convenience because of the higher chances of obtaining community water supply institutions who will be willing to collaborate in the programme. The influence of PAID-WA in Cameroon and IRC in Ghana within the sector was an advantage.

2.4.2 Selection of in-Country Projects

Two projects (Helvetas and DED) were selected from Cameroon and two (VRCWSP and COWAP) from Ghana. The selection was guided by the following criteria:

- * Existing for at least 5 years;
- * Has well defined policy or methodology;
- * Has community water supply and/or sanitation projects having at least 3 years duration;
- * Community projects being demand-driven and participatory;
- * Readiness of organisation to participate financially (30% contribution);
- * Willingness and readiness to release staff to participate in the assessment

2.4.3 Selection of the Communities

Using the lottery simple random method, four communities were selected from each of the 4 study projects for a total of 16 communities. To be listed for selection, communities should meet the following criteria:

•

- Project initiated by community members
- System still functional
- The system should have had at least 3 years duration
- There is some form of management in place
- The community is willing to participate in the assessment
- The village is accessible by a motorable road

2.4.4 Selection of Respondents

- * At institutional level, respondents were: technical and social staff who were part of the community projects at inception or actively working with the selected communities now; contractors and private sector technicians on the projects (where applicable); as well as community leaders.
- * For the community assessment, respondents comprised of:
 - focus group
 - community members selected through stratified random sampling based on sex and socio-economic class
 - water committee members

2.5 DATA COLLECTION PROCEDURE

The study was preceded by a demonstration phase in one community not included in the study. At both phases, data collection began with community level assessment. The data collection involved several stages, using different tools for interaction with the community members.

At the initial meeting with the community, project objectives and study coverage were explained before completing the data sheet for that community. This is followed by wealth ranking for socio-economic classification; community mapping which is drawn with the contributions of all members present, and a transect walk to confirm all locations on the map. Thereafter, the assessment team worked with the selected focus group to collect other data using the other tools earlier listed. Further information was collected through an interview with members of the water committee.

Community level assessment was followed in turns by institutional assessment and policy level assessment. These were done mainly through card sorting, and pocket voting.

2.6 DATA ANALYSIS

Data analysis progressed from project country to regional-level. At each level, the data was appropriately regrouped and analysed under 6 headings: functioning system, effective financing, effective management, demand-responsive water services, division of burdens and benefits, demand responsive, and gender/poverty sensitive participation in services.

Both quantitative and qualitative analyses were done, leading to country- and regional-level conclusions.

2.7 STRENGTHS AND LIMITATIONS OF THE METHODOLOGY

2.7.1 Strengths

- The methodology relied on the principle of multiples, with particular focus on multiple levels of assessment which facilitates cross-validation of data across levels. Assessment team found it quite useful.
- Monitoring of community assessment procedure by the coordinating team provided opportunity for guiding assessment teams in correct implementation of tools.
- Methodology is a means of collecting large amount of data within a relatively short time.
- The participatory nature makes respondents active rather than passive participants in the data collection process.
- More detailed and broadly confirmed information could be gathered.

2.7.2 Limitations

- The use of project staff for community data collection might bring in some questioning bias as happened, but corrected in one community; and it could equally introduce a response bias as respondents may tend to provide desirable answers to ward off sanctions;
- Mental and on the spot translation of questions into local languages by field assessors rather than standardising the translations could introduce some bias;
- Pocket voting on water use after introduction of the project was found to have a shortcoming of not being able to equally reveal reasons for continuous use of non project sources, where this was the case;
- Group scoring may cloud the views of less affluent respondents, and threaten representativeness of the responses particularly where the proportion of such less affluent individuals in the group is high;

- The quasi-random nature of the sampling and small size of sample countries and projects limit generalisation of the results regionally.
- The field research team found some tools - mapping, transect walk and history of participation - to be unavoidably long. This could affect collected data.

CHAPTER THREE

3.0 MAIN FINDINGS

3.1 INTRODUCTION

This section presents the key findings of the study which are grouped under three main sections:

- Community assessment.

The findings in this section are sub-divided under sustainability and impact.

- National policy assessment
- Institutional policy assessment

Within the context of this presentation, links would be made between the factors: participation, gender/poverty sensitivity, and demand responsiveness; and impact and sustainability of water and sanitation projects.

Eventhough findings cover water and sanitation projects, sanitation is not that detailed as this is a component of only one project.

In the section, C1 refers to Helvetas in the north- and south-west provinces of Cameroon, C2 to DED in the Centre Province; G1 to Volta Region CWSP and G2 to COWAP, Upper Regions in Ghana

3.2 COMMUNITY ASSESSMENT

3.2.1 Water Supply

3.2.1.1 *Sustainability*

Sustainability in water supply is measured by three indicators: functionality of systems, effective financing and effective management both at the committee and community levels.

3.2.1.1. (a) *Functionality of Systems.*

Variables designed to measure the functionality of systems include coverage, timeliness in repairs, systems operations and quality of water.

Coverage:

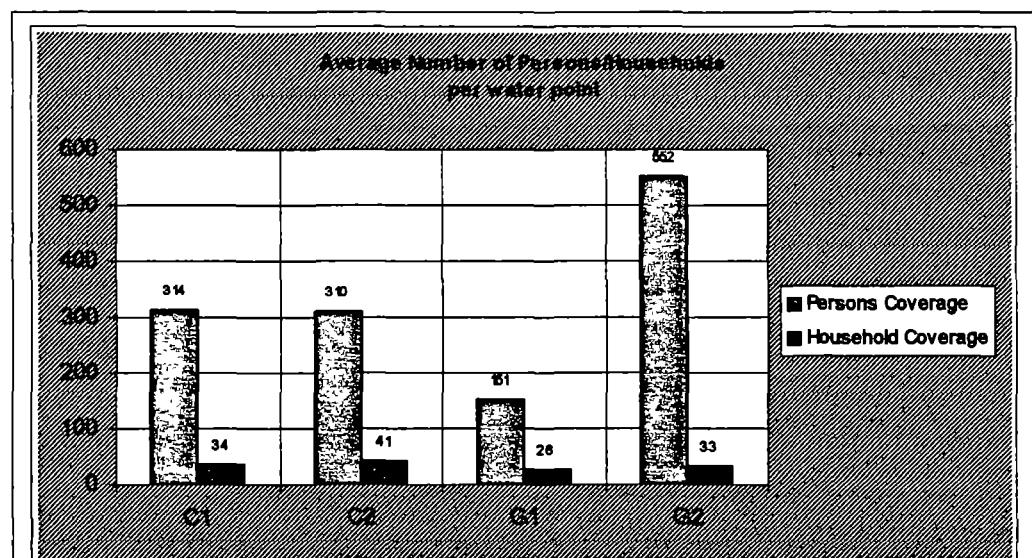
Number of household/persons to project water point or source were the indicators used to measure coverage. Table 1 and Figure 1 present the results.

Table 1: Coverage of Water Supply

Project	No. of communities	Total population	Total No. of households	Total No. of project water points	Coverage (Persons, household per water point)
C1	4	3498	377	11	318 persons 34 households
C2	3	1864	251	6	310 persons 41 households
G1	3	2264	429	15	151 persons 26 households
G2	4	5517	230	10	552 persons 33 households
Total	14	13143	1287	42	313 Persons 30 households

Source: Data from the study

FIGURE 1: Average Number of Persons/Households per project water point



Source: Data from the study

The Table and Figure above indicate that coverage in the region, from the assessed projects, is close to the Volta Region target of at most 300 persons per water point. Within countries, the assertion holds true except for one project with as high as 552 persons per water point. It is not possible to assess the regional household coverage because of lack of a reference standard.

Regional coverage in terms of person coverage is not so good as this remains above the Volta standard.

- **Timeliness in Repairs**

Generally, repairs are not effected within two days after a breakdown. Given that project sources are few, there is a high probability that community members use non-project sources in periods of breakdown of their source. This probability is particularly higher where there is no alternative project water point in the vicinity or where delays in effecting repairs are far above average for the region. For example, a delay as long as 5 months was registered in one community in Ghana.

- **Systems Operations: Availability and Reliability of Water from Project Source.**

Availability and reliability of water in the region is highly influenced not by the technology used, but the implementation of the technology. Technologies used include wells, protected natural water sources and standposts. Water is unavailable from wells during the dry season in all the communities where this is the technology of choice. This may be linked to shallowness of wells or inappropriate lengths of pumps.

For communities where gravity systems are in use, constant water flow is expected but this is not the case because of tank silting and delays in repairs.

Water needs of community members are therefore only met when water is flowing. During this flow period there appears to be no sex or socio-economic class distinction as to water use.

- **Quality of Water**

Table 2: Impressions on Water quality

Project Sectors	Water quality as judged by community members (social judgment)	Water quality as judged by scientific methods
C1	Good	No scientific testing
C2	Good	No scientific testing
G1	Good	No scientific testing
G2	Good	No scientific testing

Source Data from the study

Table 2 shows that there is commonality of perception of community members on the quality of water from project sources. They generally consider project water as good probably based on social factors: taste, odour and turbidity. However, it is not possible to objectively judge the quality of the water since no scientific testing is done, not even in the community where tank silting is an overt indicator that water entering the tank has impurities.

On the whole, therefore, the actual quality of water from project sources is doubtful.

3.2.1.1 (b) *Effective Financing*

- **Cost Recovery**

A clear picture of cost recovery in the region is hard to determine because of a high rate of non-reporting particularly in Cameroon. Of 24 income and 24 expenditure reports expected in the 3 years (1995-1997) from the 8 communities of each country, only 6 income and 13 expenditure figures were reported for Cameroon, giving proportions of 25% and 54% respectively. Reporting was better in Ghana where income and expenditure reporting was 83% and 79% respectively.

Thus, it may be rational to assess cost recovery only on the basis of Ghana since figures are available for the most part. Cost recovery in this country is generally good.

- **Timeliness in Payment.**

In general, available figures indicate that payment is generally a problem in the region. Not all community members do pay. Table 3 summarises the situation.

Table 3: Proportional Distribution of Payment Pattern

Sector	Proportion of Reported Figures for each Project		Available Figures	
	Not paying	Late paying	Not paying	Late paying
C1	100%	75%	10-99%	10-90%
C2	50%	0%	not reporting	not reporting
G1	50%	75%	0-93%	0-93%
G2	0%	25%	25 %	25%

Source: Data from the study

Columns 2 and 3 of Table 3 indicate that across the region, there is differential reporting on proportions of community members not paying and late paying. Reporting is generally poor. Figures are therefore sufficiently available only for a few communities. This limits rational judgment. Within this limit, columns 4 and 5 indicate that although the proportions of not paying and late paying is as low as 0% in some communities during a specified year, this rises to as high as 100% in some other communities. It is therefore possible that where cost recovery is succeeding, only few people pay to recover cost.

Across and within countries, those not paying have no formal exemption. Also charges are the same across sex and socio-economic class although in some cases women pay less not because of lower ability to pay but due to welfare considerations. It is possible that the flat payment rates operating in the region are too high for community members, hence the high proportions of defaulters. It is also possible that this is linked to poor accounting as income and expenditure records are not properly kept particularly in Cameroon. Training on accounting may be necessary.

3.2.1.1 (c) *Effective Management and Participation*

◆ **Water Committee Level**

All the assessed communities have water committees. Variables used to assess effectiveness of management and participation at the committee level include statutes and conceptual tasks, composition and decision-making, sharing functions and functioning of committees, and types of skills received and practised-capacity building.

- **Statutes and concepts of committees.**

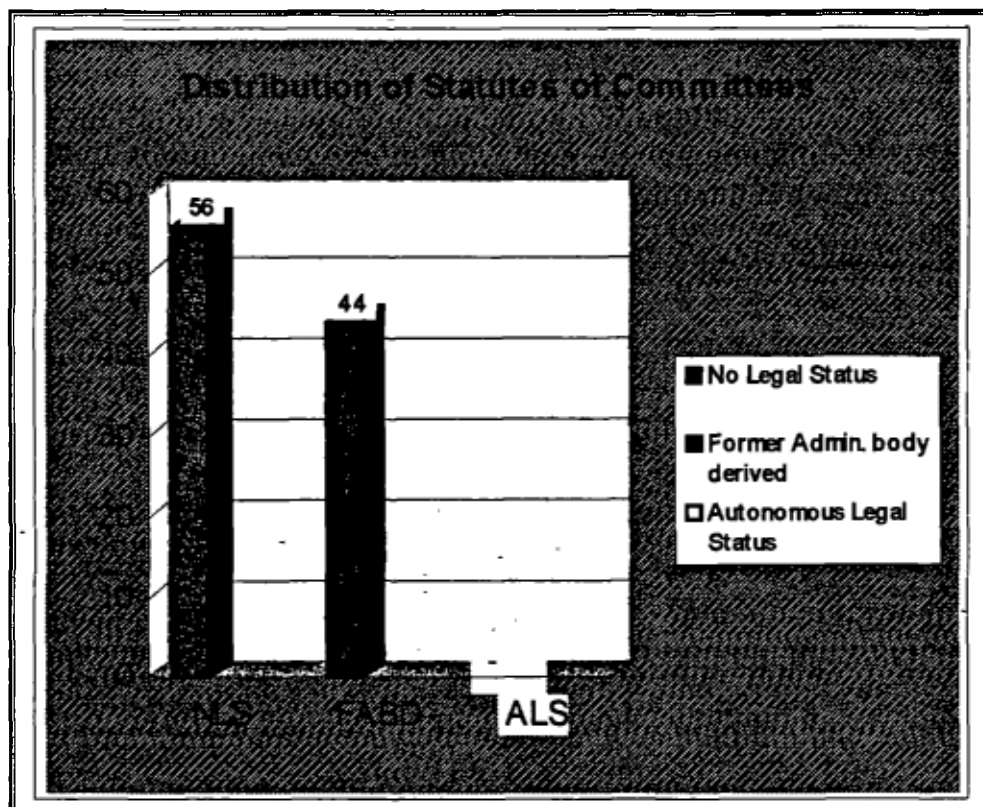
A text clearly stating or implying the need for communities to form water committee exist only in Ghana (national policy) but then, this only superficially specify the conceptual tasks of committees or the nature of their statutes. Some information on committee statutes was however collected through interviews with committee members.

Table 4: Statute of Committees

Project Sector	No Legal Statute	Derived from formal administrative body under which it falls	Autonomous Legal Statutes	Total
C1	x	xxx	----	4
C2	xxxx	----	----	4
G1	----	xxxx	----	4
G2	xxxx	----	----	4
Total	9	7	0	16
Proportion of Total	56%	44%	0%	100%

Source: Data from the study

FIGURE 2: Distribution of Statutes of Committees



The Table and Figure shows that no committee in the region has an autonomous legal statute. Committees either have no legal statutes or are derived from a formal administrative body under which it falls, with a slight majority having no legal statutes. This implies that committees are not officially mandated. However, the finding that committees in the Upper Regions (G₂) have no legal statutes is surprising given that the formation and use of water committees is contained in Ghana national policy on community water projects. The variability of committee statutes across country projects, but similarity of statutes within projects, suggests either that statutes are conferred nationally but sector institutions have to motivate the process or committee statutes are perceived by committee members.

The similarity of statutes within projects does not mean similarity of statutes on management and water use. Whereas all committees in Ghana have formal rules and statutes on management and water use as well as built-in protection against water and funds misuse, in Cameroon only a few committees have such attributes. Notwithstanding this, even committees with management statutes have limited powers, for committees either with management powers or not, have no control over amounts and contributions made for construction.

In terms of conceptual tasks, committees in the region all have typical executive posts including president and vice, secretary and vice, treasurer, and financial secretary. Most of the strategic posts are held by men, with women serving as treasurers, hygienists; this delineation of tasks is more prominent in Ghana.

- **Composition and Decision Making**

Committees for which member details are available (15 committees) are all male dominated. Given that few women are in strategic positions implies that decisions, particularly the strategic, are mostly made by men.

- **Sharing functions and functioning of committees.**

Generally, skilled work including checking lines, chairing meetings, taking minutes, doing accounts, maintenance and technical fittings are taken up by men. In Ghana, however, women are increasingly being trained as fitter mechanics.

Committee work is generally unpaid in the region, but the few paid jobs are for the most part, held by men.

- **Type of skills received and practised: Capacity building.**

All assessed committees have trained members. Whilst in Cameroon training is mostly in the area of budgeting, organising and conducting meetings, and monitoring and control, in Ghana it is not clear on what issues training concentrates.

Across projects and countries, training has been received by men and women members. However, there are certain areas where training has only been received by men:

- O&M particularly in the Volta region
- Management of water and committee affairs particularly in Cameroon Projects.

Generally committee members can demonstrate skills in areas where they have been trained. Interestingly in Cameroon, one committee which has not had training in management and control had committee members (male and female) who could demonstrate skills in this area.

Whereas in Cameroon no sex differential existed in the demonstration of skills, in two of the projects in Ghana only men could demonstrate accounting skills or skills in organising meeting. As in Cameroon, one committee has women who could demonstrate skills on project issues eventhough not formally trained on them.

◆ **Community Level**

Variables designed to assess community level management include community contributions in cash, kind, labour and project materials, contributions in decision making, and the demand culture of communities.

- **Community contributions in cash, kind, labour and project materials**

All assessed projects make contributions in cash, kind and labour materials and this is done by men and women, rich and poor. The form in which cash payment is made varies across countries and projects. While in Cameroon all forms of cash contributions (full cash, partial cash and installment cash) are made, in Ghana only full cash contribution is made in the Volta project and partial cash in the Upper projects.

Sex differentials are also noticeable in the form of cash payment. For example, in a project in Cameroon, men (rich and poor) dominate as to full cash payment while women (rich and poor) usually make partial and installment payments. It is possible that this differential is a design of the community not of the individuals.

Project material contributions are project specific. Whereas in Ghana no project material contributions are made, in Cameroon kind contributions including project materials are made differentially by men and/or women depending on the acceptable norm in the community, and the perceived economic strength. The non-involvement of communities in Ghana with project material contributions may be the design of the national policy.

Generally, skilled and or paid jobs are done by men except the recent move involving training of women as fitter mechanics in Ghana.

- **Community Contribution to Decision Making**

Dominant decision making bodies vary across the countries of the region. In the assessed countries, communities are not involved in decisions during construction. Also the dominant decision making bodies have males in the majority. However, whereas the community is the leading decision maker in Ghana, the water management committee is in the lead in Cameroon. Committee and chiefs/elders respectively come in the second and third position in Ghana while these positions are occupied by fon/chief and village council or heads of families in Cameroon.

It is however, not clear how the whole community makes decisions in Ghana since it is difficult to bring every community member on the negotiating table; except through regular general assembly. Usually, it is a select group which is labeled "the community".

- **Demand Versus Coverage**

Excluding the Volta region, coverage is generally slightly below Volta policy standards. Only the Volta region has good coverage. Is it that communities in the Volta project have a better demand culture or that the Volta project induces demand or its communities more than others, or the communities are unable to meet their share of construction cost? Arguing that the gravity system (the technology of choice in the Volta region), allows for easy expansion and hence greater coverage may not be the explanation for the Helvetas project is using the same technology in Cameroon but has a coverage which is twice below that of the Volta.

It is possible that though the strategy of demand response may be beneficial to sustainability, it may be harmful to coverage. This can only be properly clarified if the ability and willingness to pay of communities are assessed and linked to coverage. Unfortunately, income and expenditure figures which could provide a lead, are not reported for all communities.

3.2.1.2 *Impact*

3.2.1.2 (a) *Effective use of Project Services*

Table 5: Effectiveness of use and Behaviour Change

Project	Use of Water	Behaviour Change
C1	domestic needs only	Yes, but still use nonproject sources.
C2	domestic needs only	Yes, but still use nonproject sources
G1	<ul style="list-style-type: none"> • Domestic needs • Construction of houses • Watering of animals 	Yes, but still use nonproject sources
G2	<ul style="list-style-type: none"> • Domestic use • Construction of houses 	Yes, but still use nonproject sources

Source Data from the study.

There is generally a measurable behaviour change involving switching to project sources but this is not total. The non-total behaviour change may be linked to the irregularity of water from project sources as this tends to be seasonal or periodical. Low awareness is also a possible reason.

Water use in relation to improved sources varies across the countries and tend to be country-specific. Whilst in Cameroon project water is strictly for domestic use, in Ghana, it is also used for construction of houses and watering of animals. Thus, water use seems to be effective only in Cameroon.

3.2.1.2 (b) Satisfaction with project water

Table 6: Sex distribution of communities accordingly to levels of satisfaction

Level of Satisfaction	C1		C2		G1		G2		Overall
	Men*	women*	Men*	Women*	Men*	Women*	Men*	Women*	Average*
Not satisfied	0%	0%	25%	25%	50%	0%	0%	50%	18.7%
Satisfied below average	50%	50%	75%	50%	50%	0%	0%	50%	40.7%
Averagely Satisfied	25%	50%	0%	25%	0%	25%	25%	0%	18.7%
Satisfied just above average	25%	0%	0%	0%	0%	75%	75%	0%	21%
Very satisfied	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source Data from the Study

* Percentage of communities with men/women declaring the level of satisfaction

FIGURE 3: Sex Distribution of Communities According to Level of Satisfaction (Female)

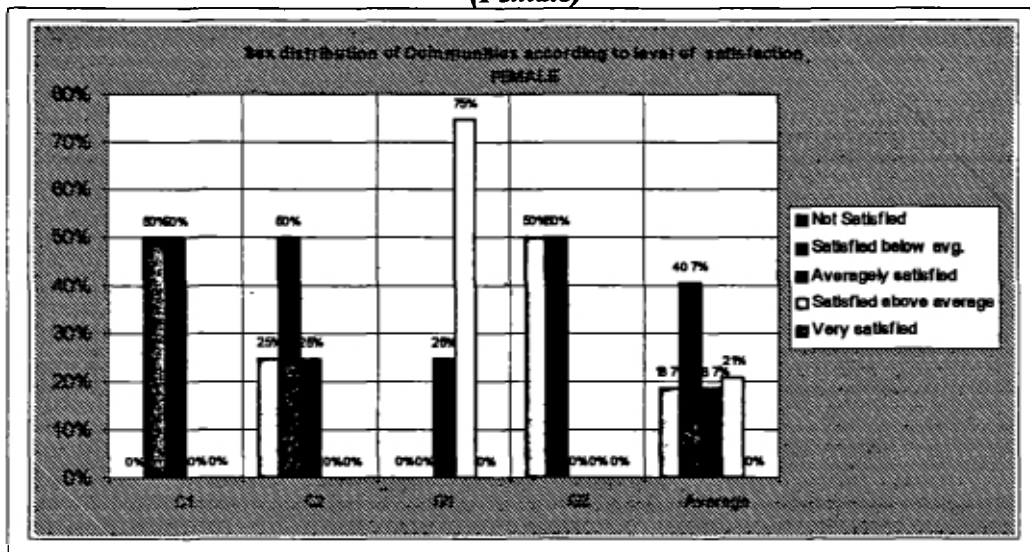
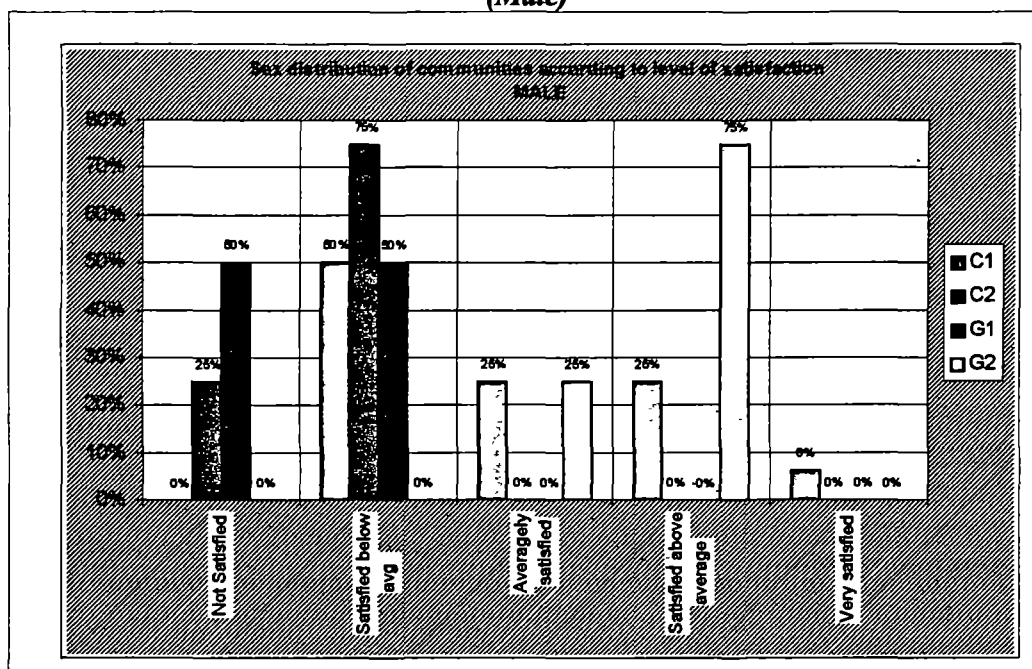


FIGURE 4: Sex Distribution of Communities According to Level of Satisfaction (Male)



The Table and Figures show that in none of the assessed community are either men or women very satisfied with their water project. This may be linked to the non constant availability of water from project sources. Most communities are satisfied below average.

Across countries of the region, Table 7 distributes the 16 communities according to levels of male and female satisfaction.

Table 7: Overall Distribution of Communities According to Overall Levels of Male/Female Satisfaction

Levels of satisfaction	Male	Female
Not satisfied	18%	18%
Satisfied below average	43%	37.6%
Averagely Satisfied	12.6%	25%
Satisfied above average	25%	18.7%
Very satisfied	0%	0%
Total	100%	100%

Source. Data from the study

This shows that the satisfaction level of most communities across the region is below average. However, the proportion of communities with men at the highest recorded level of satisfaction (satisfied just above average) is greater than the proportion of communities having women at that level. Less satisfaction on the part of women may

be from the fact that across projects, water is needed for domestic use in which case women are the greatest clients.

3.2.1 (c) Perception on Fulfilment of Expectations

Table 8: Level of benefits

Projects	Anticipated Benefits				Average	Achieved Benefits				Average
	Rm	Pm	Rw	Pw		Rm	Pm	Rw	Pw	
C ₁	62.6%	59.3%	62.4%	59.8%	61%	70.9%	77.3%	70.7%	81.5%	75.1%
C ₂	88.8%	74%	88.8%	80%	82.9%	96%	77.2%	92%	100%	91.3%
G ₁	84%	87.5%	90.2%	84.2%	86.5%	93.7%	90.7%	90.7%	87%	90.5%
G ₂	66.5%	54.5%	73.5%	69%	65.9%	89.7%	72.7%	81.2%	81.2%	83.4%
Average	75.5%	68.8%	78.7%	73.2%	74%	87.6%	74.5%	83.6%	87.4%	84.5%

Source: Data from the study

Notes:

RM: Rich men, PM: Poor men
 RW: Rich Women, PW Poor women

FIGURE 4(b): Level of Anticipated Benefits

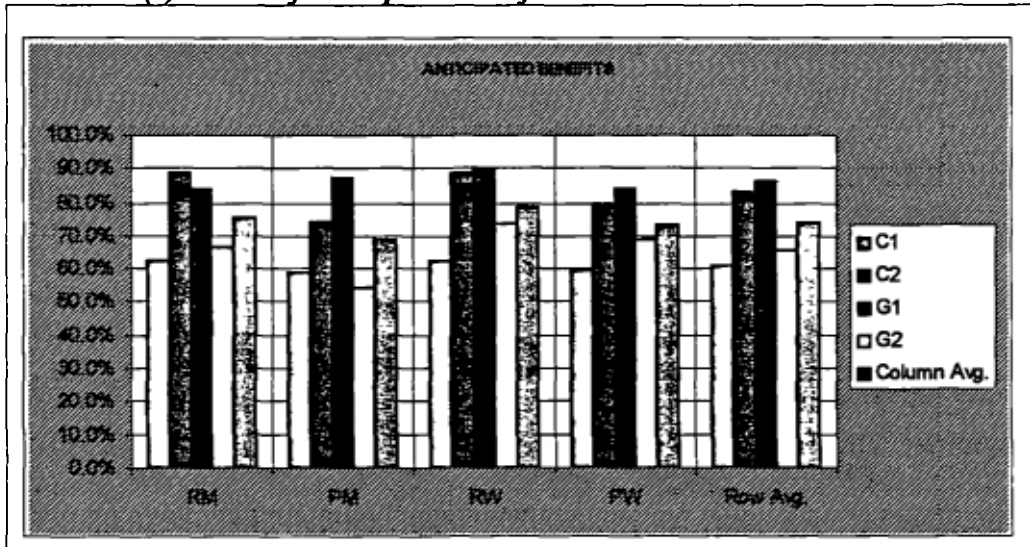


FIGURE 5: Level of Achieved Benefits

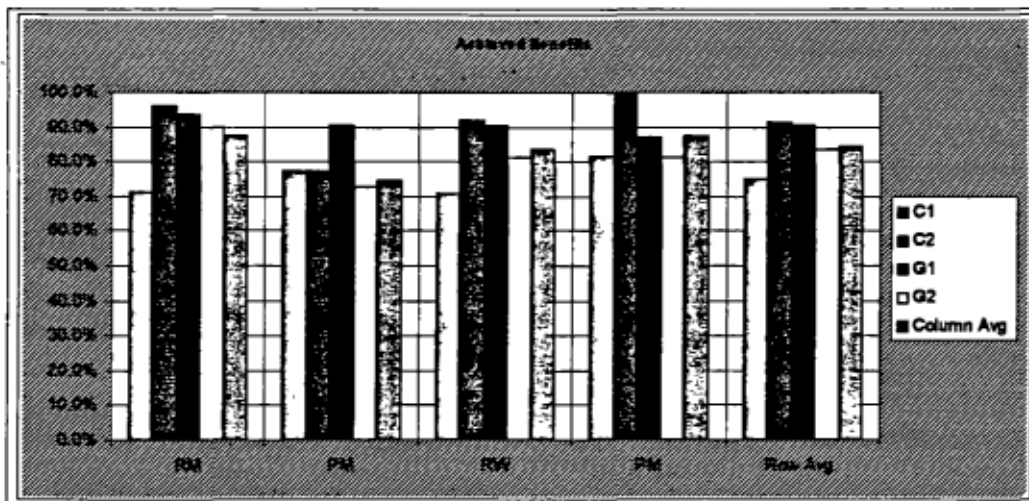


Table 8 and Figure 5 show that achieved benefits are given a value which is higher than anticipated across countries. Anticipated benefits, vary with communities but are similar at country level.

Overall, relative to other sex and socio-economic class, the poor have the lowest anticipated benefits, while rich women have the highest. For achieved benefits, rich men and poor women record the highest.

Across projects the lowest anticipated benefits (54.3%) came from poor men in the Upper regions while the highest (90.2%) came from rich women in the Volta region. The lowest achieved benefits (70.7%) are from rich men and women in the north- and south-west of Cameroon whilst the highest (100%) are from poor women of the centre province.

Issues on which anticipated and achieved benefits centre include: increased family activities, reduced walking distance, reduced burden on women, reduced lateness to school, improved health condition, increased confidence to host visitors, increased number of men carrying water, improved hygiene, improved livestock rearing, better access to portable water, increased income generation, more house construction and rehabilitation, increased population, forest regeneration, aversion of payment for water, education and change in drinking water and source.

Improved health is the single expected and achieved benefit cutting across all communities of the region and is generally highly prioritised. Interestingly only one of the 8 assessed communities thinks better access to portable water is a benefit from the water project. Equally, increased family activities, reduced burden on women, reduced lateness to school and increased number of men carrying water are benefits raised in all communities of the Volta region but do not seem to be benefits in eleven of the remaining communities (12 in number).

3.2.2 Sanitation

Across and within countries, sanitation is only implemented alongside water in the Volta region. Consequently, a rational comparative analysis at the regional level is not possible. Salient findings in relation to the Volta sanitation programme include:

- ***Sustainability***

- emphasis on latrines
- promotion of household, communal and institutional latrines
- poor household and communal latrine coverage
- high cost for households: Households have to cover 90% of investment cost and soil instability blocks the use of cheaper alternatives. These may explain why mostly the rich own latrines.
- WATSAN committee hygienist and school hygiene committees are in charge of sanitation management but the External Support Agency (ESA) has all information and makes decisions.

- ***Impact***

Behaviour is yet to change because community members still defecate in places other than project latrines. However, communal latrines are used without discrimination as to sex and socio-economic class.

3.3 NATIONAL POLICY ASSESSMENTS

- **National Policy Support**

A national policy on community water and sanitation seems to be differentially available in the region.

Whereas Ghana has a national policy on community water supply in application since 1996, Cameroon is yet to have one. What guides operations in Cameroon are declarations and agreement texts, a bill of 1998, and as directed by the Ministry of Mines, Power and Water Resources. Table 9 summarises the content of the Ghana national policy and the Cameroon agreement texts, bill and declarations.

Table 9: Salient Issues in National Regulatory Texts.

Variable	Cameroon agreement texts, bill, and declaration	Ghana's national Policy on Community Water Supply
Target	Portable water for all	Acceptable water and education services to rural communities and small towns
Strategy	Communities to own and manage their water supply	<ul style="list-style-type: none"> • Communities to own and manage water supply • Private and non-governmental organisation to provide necessary services
Participation	Cash, labour and kind	Cash, labour and kind
Pillars to sustainability and participation	<ul style="list-style-type: none"> • Demand - response • Cost sharing 	<ul style="list-style-type: none"> • Demand - response • Cost - sharing
Proposed Actors	<ul style="list-style-type: none"> • Community • Ministry of Mines, Power and Water Resources • Department of Community Development of MINAGRI 	<ul style="list-style-type: none"> • Communities • Private companies • NGOs • District assembly • CWSD of GWSC
Influence of ESAs	Strong	Uncertain
Gender and poverty arrangements	Poor	Poor
Financial Participation	Defined only at project level	Clearly defined <ul style="list-style-type: none"> • communities 10% • government 15% • ESAs 75%

Note

NGOs: Non-governmental Organisation
 CWSD: Community Water Supply Division
 GWSC: Ghana Water and Sewerage Corporation
 MINAGRI: Ministry of Agriculture.

Table 9 shows that the countries share in common demand-response and cost sharing strategies for sustainability. Also gender, poverty and participation arrangements are not clear. Both countries' regulatory texts do not include participation in decision-making.

Agreements/declarations and policies do not share in common the following:

- *Strategy*: Private sector involvement in Ghana but not in Cameroon
- *Proposed Actors*: More actors in Ghana with heavy representation of the private sector as opposed to Cameroon where, excluding communities, only government institutions are involved.

The absence of a policy in Cameroon is probably the explanation for the strong influence of ESAs

3.4 INSTITUTIONAL ASSESSMENT: Institutional/Sector Policy Support

Variables expected to measure institutional policy support include: service objectives and implementation strategies, field team composition and team work/approach, expertise of agency, capacity building, managerial support, nature of water and sanitation policy, and strategies relating to demand - response, participation, gender and poverty.

3.4.1 Service Objective and Implementation Strategies

Specific focus was on service and community ownership and management.

3.4.1 (a) Focus of Service.

Table 10: Distribution of Institutions/Sectors as to their focus

Score	Variable	Projects	Total
0	Focus was on achieving water and sanitation (W/S) construction targets	C ₁	1
1	Focus was also on continuing adequate W/S service	G ₁	1
2	Focus was also on continuing adequate W/S service for all, including marginal groups		0
3	Focus was also on continuing water services for all which safeguard environmental management for continuing quantity, quality and availability	C ₂ G ₂	2
Column Total			4

Source: Data from the Study

The Table shows that projects in the region were more likely to adopt service objectives and implementation strategies which focus on achieving W/S construction targets as well as continuing adequate W/S service for all which safeguards environmental management for continuing quantity, quality and availability. Also, it seems focus is project specific as projects within same country do not have a similar focus but some projects across countries do have a similar focus. However, caution should be exercised as the sample is small (4 projects). Projects which diverted from this likelihood include one with objectives and implementation strategies which focused only on achieving water and construction target, and another project which in addition, focused on continuing adequate W/S services along with achieving construction targets.

3.4.1 (b) Community Ownership and Management

Table 11: Distribution of Projects as to Community Ownership and Management

Score	Variable	Projects	Total
0	State owns services and State utility manages it	-	0
1	State owns services but certain management tasks have been delegated to the community	-	0
2	Community owns and manages service after completion, but has no special powers	C ₁ C ₂	2
3	Community owns and manages services after completion and powers have been delegated to it to manage the service (e.g. community sets its own changes)	G ₁ G ₂	2
Column Total			4

Source: Data from Study.

Table 11 shows that issues on community ownership and management were country specific, with Ghana having a more adequate policy. Whereas, in Cameroon, communities own and manage services after completion without special powers, in Ghana they do so with delegated powers. It is possible that individual country governments intervene to determine community ownership and management standards to be followed by projects.

3.4.2 Expertise as reflected in type of agencies involved, field team composition and team work/approach

3.4.2 (a) Expertise of Agencies: Planning and Monitoring Systems.

Table 12: Distribution of projects according to planning and monitoring system

Score	Variable	Project	Total
0	No gender and poverty aspects were present in planning and monitoring systems	C ₁ C ₂	1
1	Planning and monitoring systems segregated data by sex and socio-economic strategy	G ₁	1
2	Planning and monitoring systems collected specific information on participation and effects for men and women, and the poor	-	0
3	Data on participation of and effects for men and women and the poor were used to adjust strategies and human resource development	G ₂	1
Column Total			4

Source: Data from the study

Table 12 shows that planning and monitoring systems differed across countries of the region but they were the same for projects in Cameroon suggesting similarity in project thinking or intervention of a national determining body or even discussion across projects.

It seems projects in Cameroon are more likely not to include poverty and gender aspects during planning. Planning and monitoring systems were better in Ghana when compared to Cameroon but differed across projects within the country.

3.4.2 (b) Social expertise in service establishment.

Table 13: Distribution of Projects According to Involvement of Social Staff in Service Establishment

Score	Variable	Project	Total
0	No agency/department with social expertise was involved	-	0
1	Social agency or department took part in service establishment but had no specific expertise on gender/poverty/demand responsiveness	G ₁ G ₁	2
2	Social agency or department was one of the project agencies and had expertise on gender, poverty and demand - responsiveness	C ₁ C ₂	2
3.	As in 2 and technical agency management could explain the relevance and cite strategies/elements of a gender and poverty sensitive approach	-----	0
Column Total			4

Source Data from the study

The data shows that within the region, projects differed as to the involvement of social expertise in service establishment. Design was country specific with Cameroon having a better approach. All projects involved social agency/department in service establishment but whereas in Cameroon such an agency had expertise on gender, poverty and demand-responsiveness, in Ghana, the agency had no such expertise. Given that the concepts under consideration are recent, difference in dates of establishment of projects may be the explanation; but this is not the case for it seems projects in Ghana are more recent.

It should be noted, however, that subsequent discussions and interview with institutional staff in Cameroon revealed there was really no expertise on gender analysis and handling poverty issues in the project.

3.4.2 (c) Expertise as Reflected in Field Team Composition

Table 14: Distribution of Projects According to Field Team Expertise

Score	Variable	Project	Total
0	No social expertise was present in field teams	0	0
1	Field teams included social staff but without specific know-how in gender, poverty and demand specific approaches.	C ₂ G ₁ G ₂	3
2	Field teams included social expertise with knowledge and skills in gender, poverty and demand responsiveness	C ₁	1
3	As 2, plus technical team members appreciated a gender and poverty sensitive approach and could show elements of such approach in their own work	0	0
Column Total			4

Source. Data from the study

Table 14 shows that water and sanitation projects in the region were more likely to have social experts in their field teams but such social experts were without specific know-how in gender, poverty and demand specific approaches. Within countries however, this likelihood applied to Ghana but not so much to Cameroon where one of the two assessed projects had field teams which included social experts with knowledge and skills in gender, poverty and demand-responsiveness.

3.4.2 (d) Expertise as Reflected in Team Work/Approach

Table 15 Distribution of project teams according to expertise reflected in team work/approach

Score	Variable	Projects	Total
0	No interdisciplinary team approach was used	0	0
1	Social and technical specialists worked in parallel	C ₁	1
2	Social and technical teams co-ordinated their activities and plans	C ₂	1
3	Social and technical teams prepared and implemented one programme and had an integrated procedure	G ₁ G ₂	2
Column Total			4

Source. Data from study

Table 15 shows that expertise as reflected in team work varied across the region as social and technical staff differentially co-ordinated or not their activities and plans. However, within countries assessed in the region, Ghana's projects had social and technical teams which prepared and implemented one programme and had an integrated procedure. No such similarity in team approach was visible in Cameroon. Similarity as obtained in Ghana may be linked to the availability of a national policy.

3.4.3 Capacity Building

Table 16: Distribution of Projects in Relation to Capacity Building

Score	Variable	Project	Total
0	Funds for staff training were absent or less than 5% of investment funds. Capacity and skills building and tools development did not include participation	-	0
1	Capacity building in social aspects existed but events were ad hoc, low funded (<10% of technical training) methods and materials were conventional (classroom lecture, hand outs) and trainees were unable to use training in the field	-----	0
2	Capacity building in social aspects existed, was part of regular training and orientation for all staff, was funded in balance with technical training, used participatory training methods and tools that were then applied in the field, but did not include poverty and/or gender sensitivity and equity aspects	C ₁ G ₁ G ₂	3
3	Sector agencies used specialised personnel to design and conduct capacity building interventions and tools. Capacity building events were part of regular training and orientation for all staff, were funded in balance with technical training, used participatory training methods and tools that were then applied in the field and included poverty and/or gender sensitivity and equity aspects	C ₂	1
Column Total			4

Source: Data from the study

Table 17 indicates that projects in the region were more likely to have an aspect of capacity building in social aspects which was part of regular training and orientation for all staff, was funded in balance with technical training, used participatory training methods and tools that were then applied in the field, but did not include poverty and/or gender sensitivity and equity aspects. However, this is more so in Ghana where one of the projects had a capacity building strategy better than the rest of the projects because in addition, the strategy included issues of gender sensitivity and equity in its training.

3.4.4 Management Support.

Table 17: Distribution of Projects According to Management Support

Score	Variable	Project	Total
0	Management was not conscious or did not consider as their tasks demand response, women's, gender and poverty issues.	-	0
1	Management defined roles of women as passive beneficiaries or target groups for health education and programmes, had women as add-on. Demand responsiveness was defined as acceptance or non-acceptance of agencies choices, with at most marginal adjustments.	C ₁ G ₁ G ₂	3
2	Management saw new roles for women as a means to increase the effectiveness of projects/programmes. The need for broader user choice was recognised but without differentiation for sex or class	C ₂	1
3	Gender as a concept was correctly defined in project documents and management could explain why a gender and poverty approach was practised. It could describe what G&P strategies were practiced in the water and sanitation programme and could mention some of the effects for the project/programme and for the people.	-	0
Column Total			4

Source. Data from the Study

Table 17 shows that, in the region, management was most likely to define roles of women as passive beneficiaries or target groups for health education and programmes and had women as add-on. Demand - responsiveness was seen in terms of accepting or not accepting agency choices, with at most marginal adjustment. Within countries, this remained true except in Cameroon where one of the projects saw new role for women as a means to increase the effectiveness of projects/programmes. In this project, the need for broader user choice was recognised but without differentiation for sex or class.

3.4.5 Staff Performance Incentives

Table 18: Distribution of Projects According to Staff Performance Incentives

Score	Variable	Project	Total
0	Gender - and poverty consciousness in staff was not acknowledged by staff's management and superiors, or if acknowledged, management and superiors discouraged these attitudes.	-----	0
1	Individuals could practice a participation, gender and poverty conscious approach but management and superiors did not recognise or appreciate these attitude and actions. Staff performance indicators were strictly quantitative: numbers of facilities built, % funds disbursed, no. of training programmes held, no. of people trained etc.	C ₁ G ₁	2
2	Management and superiors informally acknowledged and appreciated attitudes and approaches that enhanced participation and gender and poverty balance in process, and results. Staff performance criteria also included qualitative criteria such as degree of participation in planning and performance of schemes and scheme administration	G ₂	1
3	Management and superiors formally acknowledged and appreciated attitude, and approaches that enhanced participation and gender and poverty balance in process and results. Staff performance criteria included performance of schemes and community organisation and gender and poverty sensitivity and equity in activities outputs and results.	C ₂	1
Column Total			4

Source: Data from study

Table 18 shows that approaches to staff performance incentives varied across countries and within countries of the region. This leaves a feeling that they were agency determined.

3.4.6 Nature of sector policies for water and sanitation

3.4.6 (a) Aim

Table 19 Distribution of Projects According to their Aim

Score	Variable	Project	Total
0	Sector policies aimed at construction; sustained services and use were not mentioned	-	0
1	Sector policies aimed at establishment of services and facilities that continued to be maintained and function (no criteria of functioning included)	C ₁	1
2	Sector policies aimed at the establishment of services and facilities that continue to be maintained and function (no criteria included) and be used by the target population (% unspecified)	G ₂	1
3	Sector policies aimed at the establishment of service and facilities, that continue to be maintained and function according to set standards and used by a specified % of the population	C ₂ G ₁	2
Column Total			4

Source. Data from the study

Table 19 shows that aims of sector policies were only similar for two of the projects. There was variability of aims within countries raising the suspicion that aims of projects were determined by external support agencies. However, nowhere in the region was the aim of sector policy only geared towards construction.

3.4.6 (b) Target of policies

Table 20: Distribution of Project Policies

Score	Variable	Project	Total
0	Policies set target of % population covered, but did not define the meaning of the term coverage (presence of systems or system use) and the nature of those left unserved (who may be the poorest sections).	-	0
1	Policies set targets of use by all of safe and sufficient amounts of water and safe sanitation	-	0
2	Policies set targets of use by all of safe and sufficient water and safe sanitation, achievement of target was monitored and programmes were adjusted	C ₁ C ₂ G ₁ G ₂	4
3	Policies set targets of enabling all men, women and children to achieve and maintain use of sufficient amounts of water that is safe for its respective purposes of use and safe sanitation practices; achievement of targets was monitored and programme adjusted, if required	-	0
Column Total			4

Source Data from the study

According to the above data, targets of sector policies were similar, within and across countries of the region. Sector policies set targets of use by all of safe and sufficient water and safe sanitation; achievement of target was monitored and programmes were adjusted.

3.4.7 Sector Strategies on Demand Response Participation, Poverty and Gender Sensitivity

3.4.7 (a) Demand Response Participation

Participation in cost sharing and management

Table 21: Distribution of Sector Policies According to Strategies for Cost Sharing and Management

Score	Variable	Project	Total
0	Community and users are not expected to contribute to services and take part in their management	-	0
1	Communities and users are expected not to contribute to construction but are expected to carry out routine maintenance and cover of minor repairs as defined	-	0
2	Communities and users are expected to contribute to construction and carry out routine maintenance and cover costs of minor repairs as defined.	G ₁ G ₂ G ₂	3
3	Communities and users are expected to manage contributions during construction as well as manage all minor repairs.	C ₁ -	1
4	In addition to above, contribution must be organised according to ability to pay	-----	0
Column Total			4

Source. Data from the study

The table shows that excluding a sector policy in Cameroon which differentiated itself, cost sharing and management strategies are similar in the region. Communities and users are expected to contribute to construction, carry out routine maintenance, and cover costs of minor repairs as defined. In the C₁ project, community members are also expected to manage construction contributions. It is possible that sector cost sharing strategies are not nationally determined, and by chance the three policies corroborated, or there is a national influence or a reporting error. However, it is equally possible that Helvetas (C₁) truly has a more appropriate cost sharing and management strategy.

- **Participation in Decision Making**

Table 22: Distribution of Sector Policies According to Strategy for Community Participation in Decision Making

Score	Variable	Project	Total
0	Communities and users have no choice or voice in project decisions and no rights to service delivery. Full dependency on outside service provider	----	0
1	Local leader or leaders have to be consulted, and training provided for local maintenance and minor repairs	-	0
2	Community should be consulted in planning and training provided for local maintenance, repairs and management	C1	1
3	Community should be consulted using participatory techniques in planning and training provided for local maintenance, repairs and management. Local managers should account for service management to customers.	C ₂	1
4	Project should provide a range of technological management and financing options which should be flexible to local adjustments and inform users so that they can make realistic choices.	G ₁ G ₂	2
Column Total			4

Source. Data from the Study

The table shows that across assessed countries in the region, sector policies vary in the strategy for community participation in decision making. Within countries however, variation is only true for Cameroon. Projects in Ghana are all out to provide a range of technological management and financing options which should be flexible to local adjustments and inform users so that they can make realistic choices. On their part, projects in Cameroon all seek to consult the community in planning and provide training for local maintenance, repairs and management but one of the projects seeks to use participatory techniques in this process and in addition, call on local managers to account for service management to users.

3.4.7 (b) Sector strategy on poverty: Financing strategy for the poor

Table 23: Distribution of Sector Policies According to Financing Strategy for the Poor

Score	Variable	Project	Total
0	Financing strategies imply that poor are not served because users do not pay and funds are lacking to construct, maintain and expand schemes. Less financing for sanitation of poor because sanitation is subsidized for all income levels.	-	0
1	Users must pay flat charge for O&M but resulting funds inadequate and are not earmarked for O&M and state subsidies do not cover the gap. More finances available but not enough to serve the poor. For sanitation, households above poverty level must pay the direct costs (no subsidy), so more funds for poor	-	0
2	Users must pay flat charge for C&O&M - resulting higher income is earmarked to maintain services and expand coverage for water supply: strategy enables poor households to improve water supply with no declining subsidy on high risk groups	C ₁	1
3	Users must jointly cover O&M and part of investment costs, but poor pay less (social tariffs for basic consumption) and have options in local arrangement to match the differential situations	C ₂	1
4	Sector must run on cost - recovery basis (construction and O&M). User can choose the option they want and can pay, but cost of basic level of W&S is based on carry capacity of poor.	-	0
5	No strategy for the poor	G ₁ G ₂	2
Column Total			4

Source. Data from the study

The Table above shows that there is no uniformity in strategies across countries of the region but there is country specific uniformity only for Ghana. Whereas all sector policies in Ghana have no specific financing strategy for the poor, all sector policies in Cameroon expect all users to pay for O & M although in one project only part payment is made for construction. Whereas one of the Cameroon projects expects to use resulting higher income to maintain service and expand coverage for water supply (WS) in order to improve access to water by poor households, in the other project, the poor, by design pay less and have options in local arrangements to match the

differential situation. The corroboration of sector policies in relation to financing strategies for the poor in Ghana may just be due to the availability of a national policy as against the absence of this in Cameroon.

3.4.7 (c) Presence and Definition of Gender in Sector Policy Strategies

Table 24: Distribution of Sector Policy Strategies According to Presence and Definition of Gender

Score	Variable	Project	Total
0	No strategy for the participation of women or for gender (some opportunities and same burdens for women and men)	C ₁ C ₂	2
1	Policy defines women's roles from a welfare perspective: women as beneficiaries and target groups in their reproductive roles.	G ₂	1
2	Policy defines women's roles from a perspective of programme efficiency and effectiveness. Women as contributors to planning, maintenance and management for better service and use	-	0
3	Policy defines women's roles from a perspective of reducing the disadvantages of women in comparison with men	G ₁	1
4	Policy defines the roles of women and men from a perspective of self-development and self-improvement without either one category dominating the other	-	0
Column Total			4

Source Data from the Study

Across countries of the region, sector policies vary as to the presence and definition of gender. Within countries, however whereas all sector policies in Cameroon provide no strategy for participation of women or gender arrangements, those in Ghana do provide in varying degrees. The difference is that whilst one project defines women's role from a welfare perspective, the other defines it from the perspective of reducing the disadvantages of women in comparison to men. These differential definitions may simply be due to differences in interpretation of the national policy. The absence of consideration for gender in sector strategies in Cameroon may rather be due to the absence of a supportive national policy.

3.4.8 Sector Collaboration on Water

Sector collaboration in the region is similar. This usually involve government and external support agencies (ESAs). In Ghana it is ESA and GWSC; and in Cameroon, ESA with the Ministry of Mines, Power and Water resources as well as the Department of Community Development. There is similarity in the involvement of communities in financing at the construction phase, and in financing and management during O&M.

Differences across sectors evolve around:

- Involvement in sanitation: only one project (Volta RCWSP) has a sanitation component. The absence of a sanitation component in Cameroon is linked to the fact that sanitation and water are under two different government arms (national and local governments respectively). The local governments, represented by rural councils, were not involved in the study
- Proportion of cash contribution required from community at the construction phase
- Systems and approaches used for provision of improved water.

CHAPTER FOUR

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

4.1.1 Policy Level Conclusions

- Not all countries, in the region have a national policy on community water supply. Whereas Ghana has such a policy, Cameroon is yet to develop one. National level water arrangements in Cameroon are presently only driven by sector arrangement emanating from the Ministry of Mines, Power and Water Resources.
- The key determinants of the exigence of water supply are variable in the region. Whereas in Cameroon ESAs, through their policies and approaches determine the exigence, in Ghana, ESAs, do not appear to be strongly involved in determining exigence for water supply probably because of the existence of a national policy.
- Besides the basic ESA - government collaboration, other key players vary in the region. The private sector, for example, is involved in one country and not in the other.
- Participation is only defined in terms of cash and kind contributions but not in decision- making, especially at the initial and construction phase.
- Demand, as a mandatory first step, is clear; communities have to ask. However, even though this may enhance sustainability, it is doubted whether this is not responsible for the low coverage across studied countries.

4.1.2 Institutional/Sector Level Conclusions

- ESAs work in collaboration with government departments even though the former dominate in some cases.
- During establishment of projects, communities are viewed as partners. Communities only become owners and managers after construction.
- Institutional staff are inadequately trained in terms of gender and poverty analysis. There is inadequate conceptualisation of gender as this is equated to women.

- Funding arrangements between governments, ESAs and communities are agency specific.

4.1.3 Field Reality Conclusions

- Technologies used are variable probably as a result of differential availability of surface water, local realities or ESA project objectives. However, the differential technologies do not seem to affect water flow patterns as water is generally not constantly available.
- The quality of supplied water is perceived good by community members but the absence of regular scientific testing leaves doubts as to the scientific quality.
- Fund collection is generally a problem. Community members' attitudes and perception that water is a free commodity may be the possible explanation. However, insufficient awareness in terms of planning for tomorrow cannot be excluded.
- Behaviour change in relation to use of project water is weak in the assessed countries probably because of limited access to water as a result of poor availability, unreliability of water flow and insufficient awareness.
- Community members experience expected benefits from water. Women are however not very happy with the water project probably because their domestic needs are no longer met when the water is not flowing.

4.1.4 Conclusion on Assessment Factors

- **Gender**

National regulatory texts do not specifically consider the issue of gender; only some sector policies/approaches do. Equally, institutional staff have not had formal training on gender sensitivity. At field level, women are yet to be found in strategic positions, skilled and paid jobs. Community decision making during O&M is male dominated.

- **Poverty**

Even though communities are at different levels of poverty, national and sectoral policies and field activities and actions do not seem to consider this. Thus, poverty is not a factor when fixing amount to be contributed by the community towards construction of water schemes. In the same vane, communities do not consider the

specific ability to pay of each community member when fixing O&M cost recovery charges.

- ***Participation***

Generally, communities are excluded from decisions bearing on the establishment of water supply schemes. Management is only shifted to communities during O&M. However, communities participate through cash, kind and material contributions.

- ***Demand-Response***

Demand response is the strategy for the assessed countries. It is however doubted whether projects have built-in mechanisms to enhance a demand culture at community level.

- ***Sustainability***

Within the consideration that assessed factors are instrumental to sustainability of the projects, the sustainability level is perceived to be just above average. This level is supported by the demand-response approach and the culture of subsequent community ownership and management particularly during O&M. However the late participation and ownership of community after construction, insufficient involvement of communities in decisions, and inadequate poverty and gender-sensitive strategies are limitations to sustainability.

In Ghana, the degree of sustainability seems to be higher than in Cameroon. This may be due to sector policy support existing in Ghana, and the private sector involvement for direct community sponsored technical back-up.

- ***Impact***

Assessed projects have substantial perceived impact as anticipated benefits of community members have been met, at times more than expected. The actual impact of the assessed projects is hard to clearly delineate due to the nature of the data and the irregularity of flow in certain locations. Data which can give an idea on the effect of projects on the prevalence of water-borne diseases are not available.

4.2 RECOMMENDATIONS

- A rational national policy on sanitation and water needs to be developed where this does not yet exist. Such a policy may help in determining the exigence for water and standardise operational approaches.
- Measures need to be taken to eradicate or minimise periods of non-flow of water from project sources as this may enhance the needed behaviour change. Constant cleaning of tanks and use of deeper wells or longer pumps may be fruitful.
- Staff capacity in relation to gender and poverty sensitivity need to be reinforced where this is lacking. In the same vane, policies and practices in the water sector need to be made more gender and poverty sensitive as this may promote the fulfilment of differential needs.
- Where high proportion of payment defaulters is the case, more appropriate strategies need to be developed in order to enhance fund raising. Extra funds may assist in multiplication of project water points and improve the present low coverage.
- There is a need to begin community ownership of water schemes from the construction phase. Communities should be provided information on a range of technologies along with the advantages and disadvantages so that they can choose. The right to information and choice are a basic human right.
- The demand culture of communities needs to be enhanced as this is suspected to be responsible for the low coverage in the region. Community education based on culture and literacy sensitive approaches are preferred.
- Appropriate behaviour change communication methods and tools need to be developed in order to promote positive water use and sanitation behaviour.
- Where sanitation is a built-in project component as is the case in Ghana, projects need to equally develop this. Efforts to reduce water related diseases will be boosted if portable water schemes are accompanied by appropriate hygiene and sanitation schemes. In the same vane, regular scientific water testing needs to be instituted.
- Further studies need to be carried out to ascertain the:
 - effect of contributing or not to water scheme establishment on demand culture of communities.
 - effect of ability and willingness to pay of communities on the demand culture, where payment to construction has been instituted

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ANNEXES

ASSESSMENT TEAM AND PARTICIPATING INSTITUTIONS

- **Project Management for West Africa:** *IRC International Water and Sanitation Centre*

Jennifer Francis - Representative

- **West African Coordinating Institution:** *Pan African Institute for Development - West Africa*

Team: Rosetta Bola Thompson - Coordinator
 Andrew Tayong - Member

- **Participating Institutions:**

Cameroon: Helvetas Swiss Association
 DED German Development Service

Ghana: Community Water Project/CWSD (Upper East and West)
 Volta Region Community Water and Sanitation Project

- **Field Assessors:**

Ghana: Wigbert Y. Dogoli)
 Louisa Dayang) COWAP
 Emmanuel Adii A)
 Patience Samanhyia)
 Festus K. Kwadzokpo) VRCWSP

Cameroon: Hannelore Knott)
Charlotte Tchammi) DED
Harald Zauter)

Rose Ewune Elive)
Ashu Stephen) Helvetas
Ntche Peter)

DETAILS OF PARTICIPATING INSTITUTIONS

R.2.1 Pan African Institute for Development - West Africa (PAID-WA)

Pan African Institute for Development (PAID) is a non-governmental organization established in 1964, with activities covering 48 countries of Sub-Saharan Africa. It has recognized international status with government and non-governmental organizations all over the world; and collaborates with local, national and international organisations which support African development.

PAID operates through four regional institutes located in Cameroon, Zambia and Burkina Faso using both English and French as official languages. One of these is the Pan African Institute for Development, West Africa based in Buea, Cameroon.

PAID-West Africa, like its parent body, is a development-oriented institution whose main objective is to carry out activities which promote and reinforce the capacities of African communities to initiate and effectively manage their own development. Its strategy for achieving this purpose is through training, field research and advisory services. It is thus involved in a number of programmes and projects covering the broad themes of :

- Development management and financing;
- Agriculture and rural development;
- Gender and development;
- Development of small and medium-sized enterprises;
- Training policies and systems;
- Environment, health and community development.

PAID-West Africa has, since 1992, been contributing to the development of the water and sanitation sector in its region mainly in the areas of capacity building and support services at both community and agency levels, with a plan to extend to policy level in due course.

At agency level, it has, in collaboration with IRC International Center for Water and Sanitation, ran training course for senior managers in the water and sanitation sector on Management for Sustainability in Rural Water Supply and Sanitation. This course started in 1993 and has graduated over 85 senior staff from seventeen anglophone African countries. Since 1994, the Institute has also been involved in a participatory action research on an international project on Management of Rural Water Supplies in Developing Countries, with Cameroon as its study area. Within the four year period,

the communities involved have been able to acquire new management capacity and methods, which will ensure sustainability of their systems. The project is at the dissemination phase to share the findings and experiences with organisations, projects, government departments and policy makers within and outside Cameroon. This involves publications and presentations at various forums, and the production of a video for training and advocacy.

The current UNDP-WB assessment project, Participation, Gender and Demand-Responsiveness: making the Links With Impact and Sustainability of Water and Sanitation Investment is another international sector programme in which the Institute is making significant contribution within its region. PAID-WA is coordinating this project in the West African region.

R.2.2 Helvetas Swiss Association

Helvetas is the worldwide name for the Swiss Association for International Cooperation. Founded in 1955, it was the first private development organization in Switzerland. Its main purpose is to actively contribute to the improvement of the living conditions of economically and socially disadvantaged people in Asia, Africa and Latin America. Both within Switzerland and abroad, Helvetas works towards the elimination of the causes of such disadvantages and promotes international solidarity among the Swiss population.

Since its foundation, It has contributed to development in many countries and has ongoing development programs, in partnership with governments and non-governmental organizations, worldwide, including Cameroon.

In 1964, the first cooperation agreement was drawn up between Helvetas and Cameroon. At that time, until 1989, Helvetas was known in Cameroon by the name SATA (Swiss Association for Technical Assistance). The agreement placed the activities of SATA within the Department of Community Development (DCD). Together with the Technical Section of CDD, the SATA experts concentrated their efforts on the construction of village water supplies, roads and bridges. In 1967, SATA opened the Building Training Center (BTC) in Kumba, South West Province, where over 1000 Cameroonians were trained in theoretical and practical courses as masons, foremen, plumbers, carpenters, road construction workers, caretakers and technicians. In addition, it sponsored the studies of 26 civil engineers. By 1987, the BTC was handed over to the government which carried on the training center with a changed concept and under the new name REDSTS (Rural Equipment and Development Specialization Training School). From 1969 on, SATA ran the CDD mechanical workshop in Kumba and later the one in Bamenda, North West Province.

The activities of SATA were extended from the anglophone part of Cameroon to the West and Central Provinces, but by 1988, the decision was made to finish the SATA activities after about 25 years of presence in Cameroon. During this period, approximately 300 village water projects, quite a few roads and bridges as well as some health centers and community halls were constructed and financed, in cooperation with CDD and with the participation of the concerned communities.

However, in view of the difficult economic, political and social situation, Helvetas came, in 1989, to the conclusion to continue its work in Cameroon with a modified concept. A new agreement between Helvetas and the Government of the Republic of Cameroon was signed in December 1989. This agreement, which is the basis of its current activities, gives Helvetas, an independent NGO, the possibility to collaborate with government and non-governmental partners.

Since 1990 the Head Office of Helvetas Cameroon has been in Bamenda. Thus, it works in close cooperation with local counterparts, government and non-governmental. It promotes capacity building among its Cameroonian partners to enable them gradually assume responsibility for the different aspects of the project. Planning, implementation and financing of development measures is done in close cooperative partnership with indigenous counterparts, be they state institutions or non-governmental organizations. Within the framework of such a cooperative agreement, Helvetas in principle only assumes those tasks which are beyond the local partner's own ability. In Cameroon, its main government collaborators in the sector are the Bamenda office for Technical Assistance (BOTA), a special unit of Department of Community Development (DCD), the DCD itself, and the Ministry of Mines, Power and Water Resources. Its financial assistance to projects is in form of foreign aid.

The overall goal of Helvetas Cameroon is to contribute to the improvement of the living conditions of the rural population in the North West, South West and West Provinces. This goal is pursued in four areas: rural infrastructure, natural resource management, women promotion and human rights and civic education.

R.2.3 DED German Development Service

DED participation in this programme is through the project named Provillage. This is a joint programme of water supply between the Cameroonian government represented by three ministerial departments (Ministry of Territorial Administration, MMPWR, MINAGRI) and the Federal Republic of Germany represented by DED (German Development Service). It is financed by a grant to Cameroonian government by the German Bank for reconstruction (KFW).

The global objective of the project "Provillage II" is to supply rural communities with drinking water in terms of quality and quantity and to consolidate the sustainability of the acquired water.

1

Its specific objectives as well as the expected results as mentioned in its planning document are shown in the following table:

SPECIFIC OBJECTIVES	EXPECTED RESULTS
To give local partners a sense of responsibility	Management transfer: <ul style="list-style-type: none"> • Mastery of resources' management • Mastery of the programme
To reinforce self-promotion of the rural communities	Water committees and maintenance cash box are effective and operational
To train and sustain technicians and local craftsmen	Transfer of technology Mastery of the construction techniques of the water systems Craftsmen are trained and are capable of working independently
To implicate medical institutions	Improvement of the communities state of health <ul style="list-style-type: none"> • Health education • Sanitation campaign • Global knowledge of the population state of health
To train and give animators a sense of responsibility	<ul style="list-style-type: none"> • Mastery of animation's techniques in: • Water project • Other project
To implicate the state structures	Efficiency of the state supervision <ul style="list-style-type: none"> • Programme monitoring by the state • Control water's quality • Statistical data bank and other information

To achieve these objectives, a plan of action was setup which determined for each objective a certain number of activities to be led. It also collaborates with local partners from centre, south and littoral provinces of the country.

Coordination of the project is by a technical assistant from DED

Provillage's policy on gender is to involve women in the project at staff level and in water committees. It uses a demand approach for its community services.

R.2.4 Volta Region Community Water and Sanitation Project (VRCWSP)

The Volta RCWS project is a 12 year (two phased) DANIDA supported programme which began in 1993 on the basis of a specific agreement between Ghana and Denmark on co-operation concerning rural water supply, hygiene education and sanitation in the twelve administrative districts of the Volta Region of Ghana. The project covers the Volta Region, one of the ten regions of Ghana.

The project's development objective is to contribute towards better living conditions of the rural population in the programme areas through:

- provision of reliable and easily accessible drinking water facilities, which are managed and sustained by the community.
- reduction in water and sanitation related diseases through hygiene education, and adoption of improved and hygienic toilets for individual households and institutions, such as health centre/post and schools.
- sustainability of the water and sanitation systems through:
 - community ownership and management of facilities.
 - active involvement of women.
 - private sector participation in the provision of goods and services.
 - demand-driven initiative, where the community demand for the services by applying to the project for assistance.

To achieve these objectives, the programme is assisting about 49% of the rural communities in the region to improve their water and sanitation facilities, and their hygiene practices. The primary target of the programme are communities with population between 150 and 5,000 inhabitants.

The project places great value on the provision of affordable and maintainable facilities to target communities. Before the advent of the project, sources of water are: streams, springs, waterfalls, boreholes and wells. For this project, the communities are given the chance to select the type of technology that they can afford, manage and maintain, and appropriate to their environment. Currently, the project provides the following water systems: hand dug wells, hand drilled wells, boreholes all fitted with hand pumps, piped water supplies from stream/spring fed gravity water systems, surface water treated through slow and filtration system. Two main hand pumps, Nira and Ghana modified India Mark II pumps are the only approved pumps installed.

In terms of sanitation, the following options are provided sanplat type, Mozambique lined/unlined, rectangular pit latrine and KVIP types-one to ten seaters.

R.2.5 Community Water Project (COWAP)

The experience gathered from the Ghana Water and Sewage Corporation (GWSC) on maintenance of community water supplies indicates a need for a continuing external financial support. Expected financial contribution to the project by communities was slow or not paid at all; this was a constraint to the project's development.

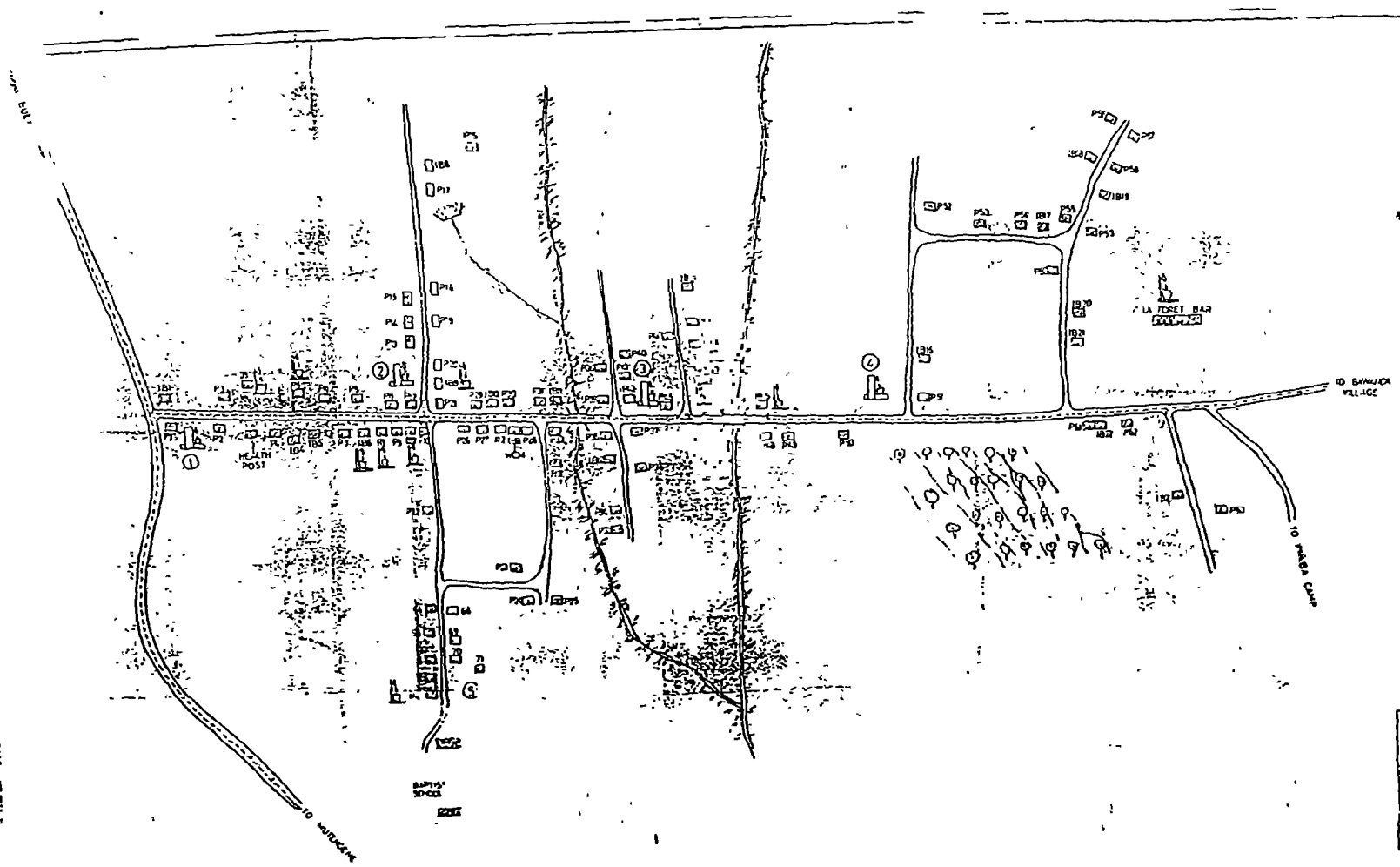
To ensure that users are not just beneficiaries but also active partners, a pilot project to test the capabilities of communities to own and manage water and sanitation facilities was established in July, 1989. The pilot project, named UNDP/WB Community Water and Sanitation Management Project, was located in fifty communities within the Bolgatanga district of the Upper East Region of Ghana. The project, among other things, was to test the concept of Village Level Operation and Maintenance system by providing VLOM Handpumps: Afridev, Aquadev, NIRA AF85 and Volanta to replace the old MoynO&Monarch pumps, and establish village committees to manage, maintain and repair them. The project was executed by GWSC with financial support from UNDP/WB through CIDA for a three year period. It was designed to include gender sensitivity as a key component. The success story of the pilot project gave birth to COWAP in 1993 to cover the two Upper Regions - East and West. This was shortly followed by the launching of a National Community Water and Sanitation Programme in 1994.

The Community Water Project has as its goal to transfer to rural communities the responsibilities to plan, manage and maintain potable and reliable water systems so as to maximize health benefits. It seeks to achieve this through a conversion programme whereby MoynO&Monarch handpumps originally fitted on drilled boreholes are changed to Village Level Operational and Maintenance (VLOM) Handpumps. Capacities of beneficiaries are developed to manage and repair them. The project also support a network of public and private sector institutions to support community based management of water supply and sanitation.

The ultimate aim of the project is Community Ownership and Management (COM) of water facilities in rural communities. So far, it has handed over a number of water facilities to communities who have been managing them for over three years.

**COMMUNITY MAPS:
TRANSECT WALK**

BOLIFAMBA



LEGEND

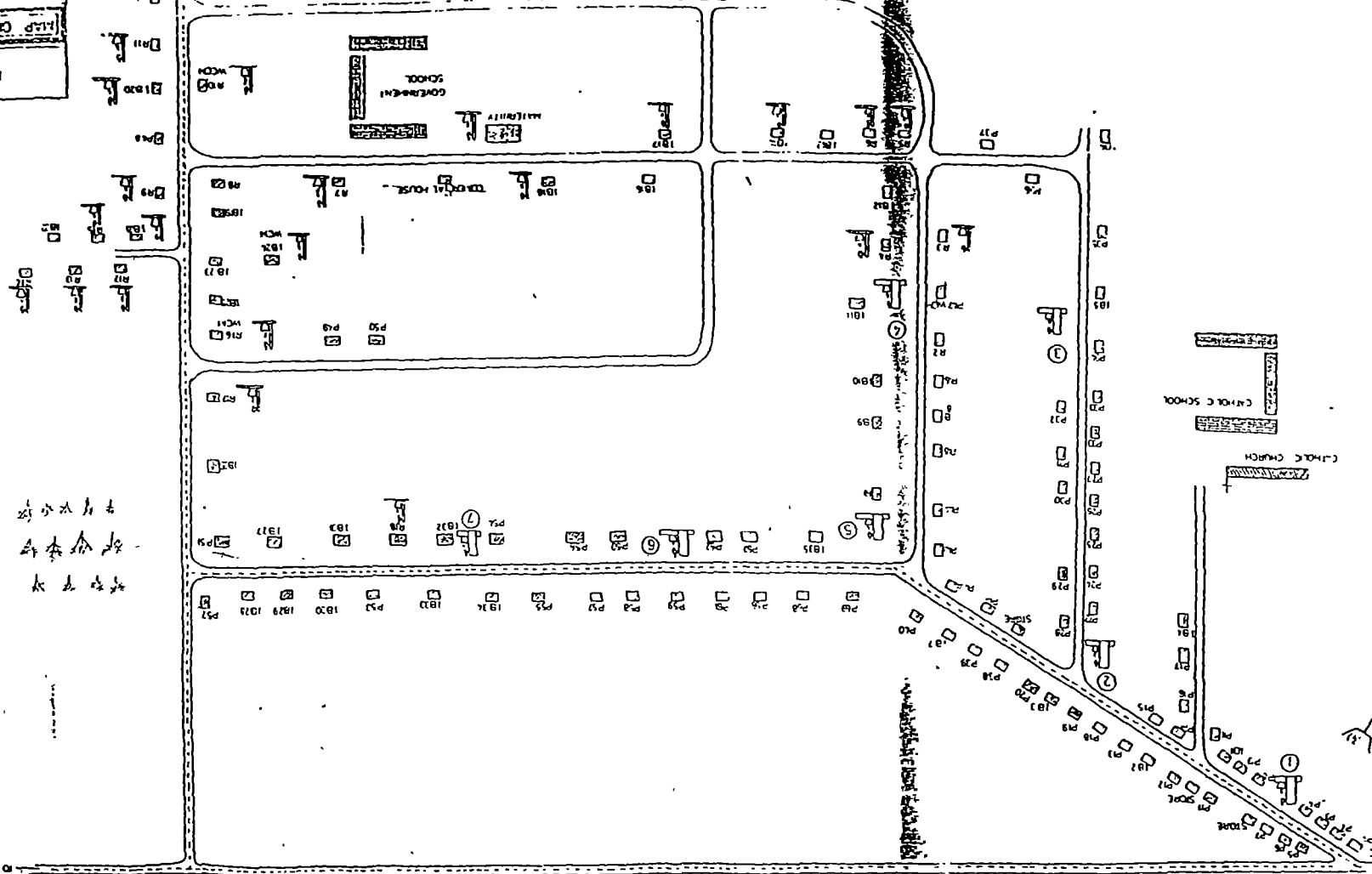
BRIDGE	
RD-0	
LANE	
HOUSES/HOLES	
SO-COL	
SPRING	
STREAM	
PUBLIC STAND POST	
PRIVATE STAND POST	
CROP FIELD	
WATER COMMITTEE MEMBER	
TO IN FIELD PIED	

HELVE TAS CAMEROON
BAMENOA

MAP OF QUARTERS 155 IN BOLIFAMBA

NOT TO SCALE

BONADIKOMBO



HELVECIAS CAMEROON	
BAMENDA	
HALF OF MILE 5 QUARTERS BONADIKOMBO	
ROAD	
LANE	
COURSES/HOUSES	
MATERIAL	
CHURCH	
SCHOOL	
SPRINK	
PUBLIC STAND POST	
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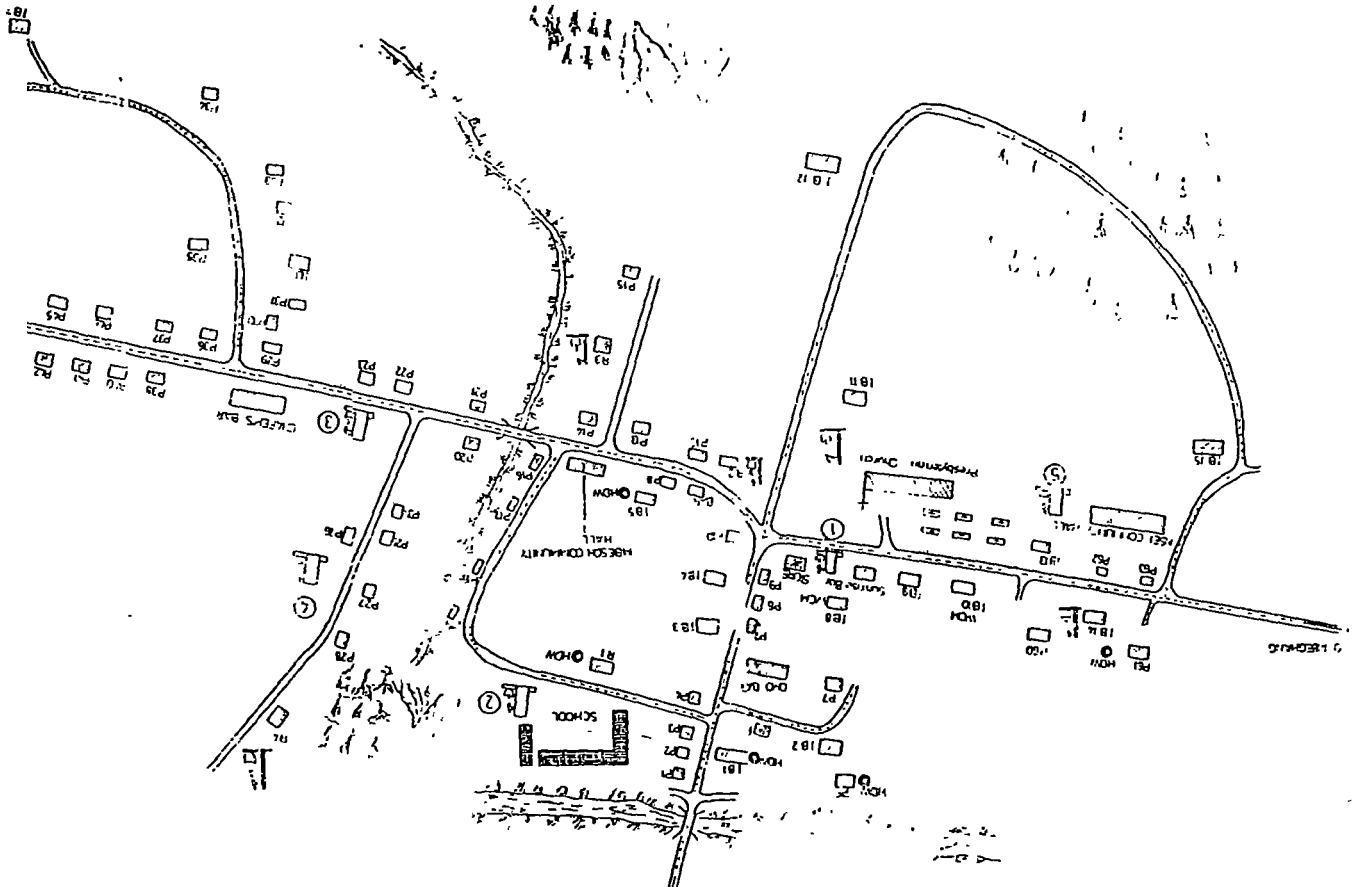
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MBESOH-NSEI

TO HIGHWAY BARRIERS - ROAD



MAP OF MBESOH COMMUNITY IN NSEI
 HELVETIAS CAMEROON
 BAMBANDA

LEGEND	
	BRIDGE
	ROAD
	LANE
	PATH
	HOLES/HOUSES
	CHURCH
	CEMETARY
	HILLS
	RIVER
	STREAM
	HAND DUG WELL
	PRIVATE STAND POST
	PUBLIC STAND POST
	CROP FIELD
	SCHOOL
	WATER COMMITTEE MEMBERS
	RICH MEMBERS
	POOR MEMBERS
	IN BETWEEN

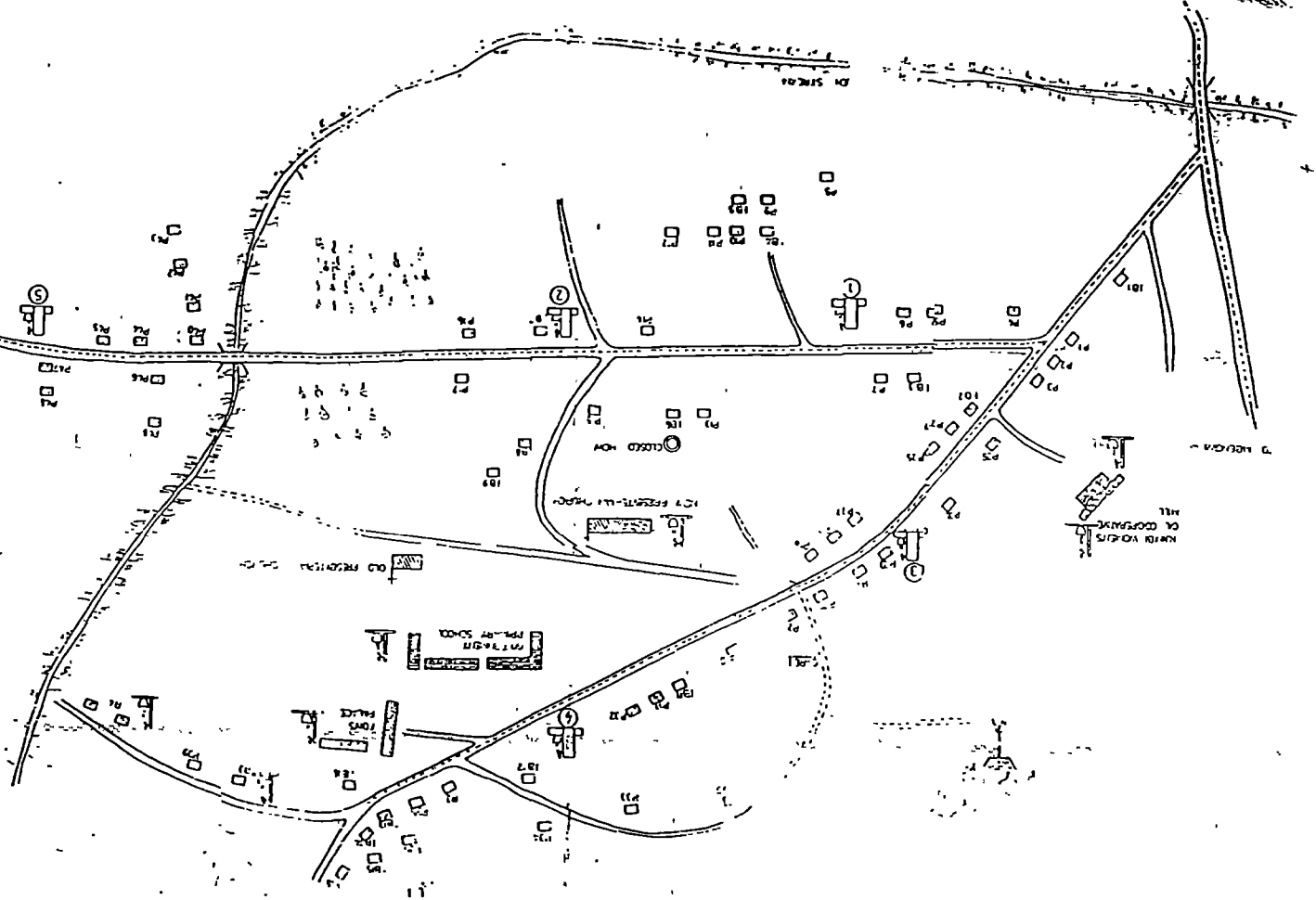
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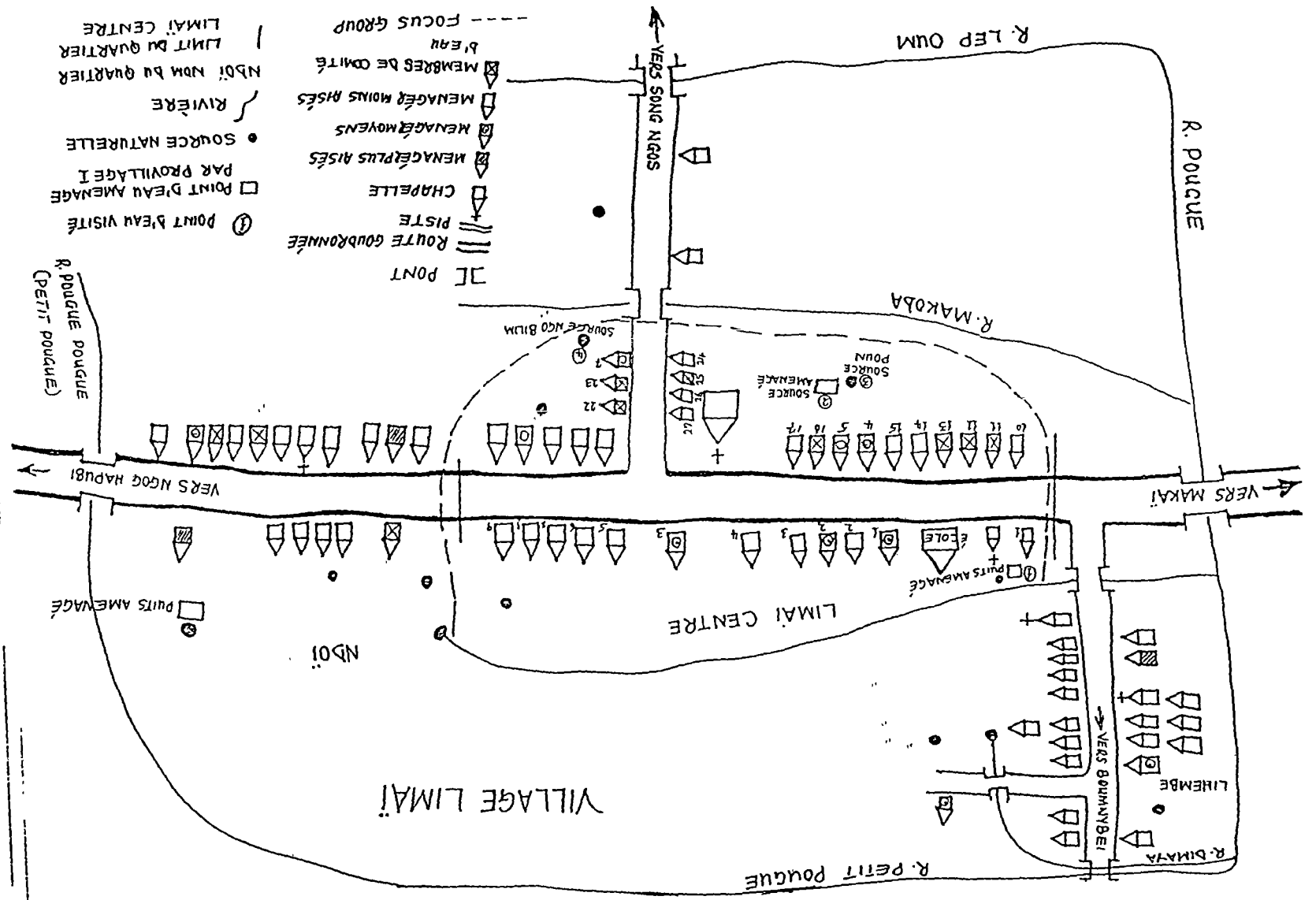
HELVETIAS CAMEROON
BAKENDA

MAP OF HELVETIAS, REPAIRS & GUARD COMPANIES
IN NUNIBI
NO. 242

	ROAD		
	TRACK		
	FENCE		
	FOOTPATHS		
	SCHOOL		
	HOUSE		
	WELL		
	PUBLIC STRUCTURE		
	PRIVATE STRUCTURE		
	HAND PUMP WELL		
	SPRING		
	STREAM		
	CROP FIELD		
	FOREST		

LEGEND





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- POINT D'EAU AMENAGE PAR PROVILLAGE I
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- ┌┐ PONT
- ≡≡≡ ROUTE GOUBRONEE
- ▬▬▬ PISTE
- ▭ CHAPELLE
- ▭ MENAGES PLUS RISQUES
- ▭ MENAGES MOYENS
- ▭ MENAGES MOINS RISQUES
- ▭ MEMBRES DE COMITE
- FOCUS GROUP

R. POUQUE
 (PETIT POUQUE)

PUITS AMENAGE

NBOTI

LIMAI CENTRE

VILLAGE LIMAI

R. PETIT POUQUE

VERS BOUANYBEI

LHEMBE

R. DIMATA

VERS MAKAI

R. MAKOKA

VERS SONG NGOS

R. LEP OUM

R. POUQUE

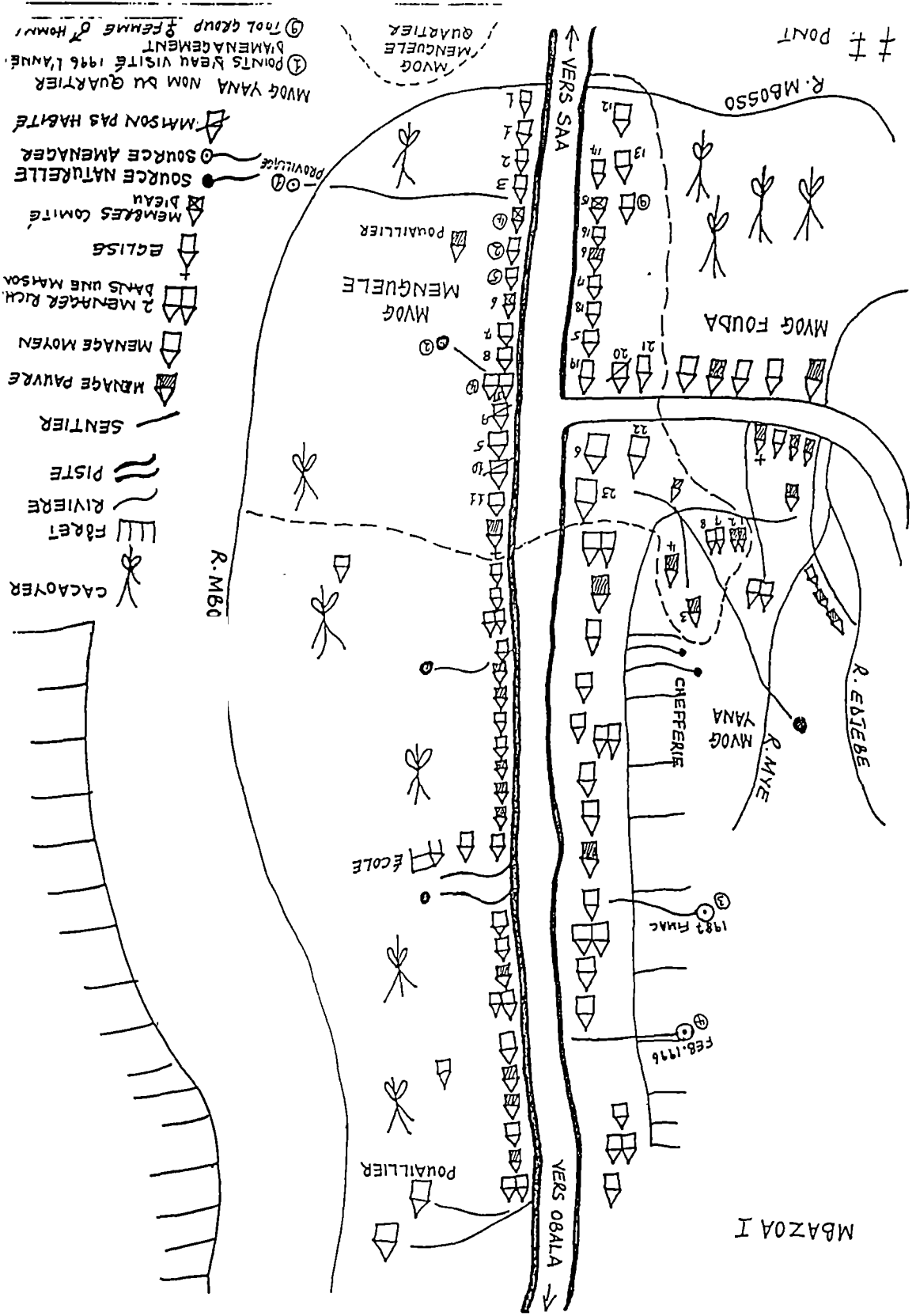
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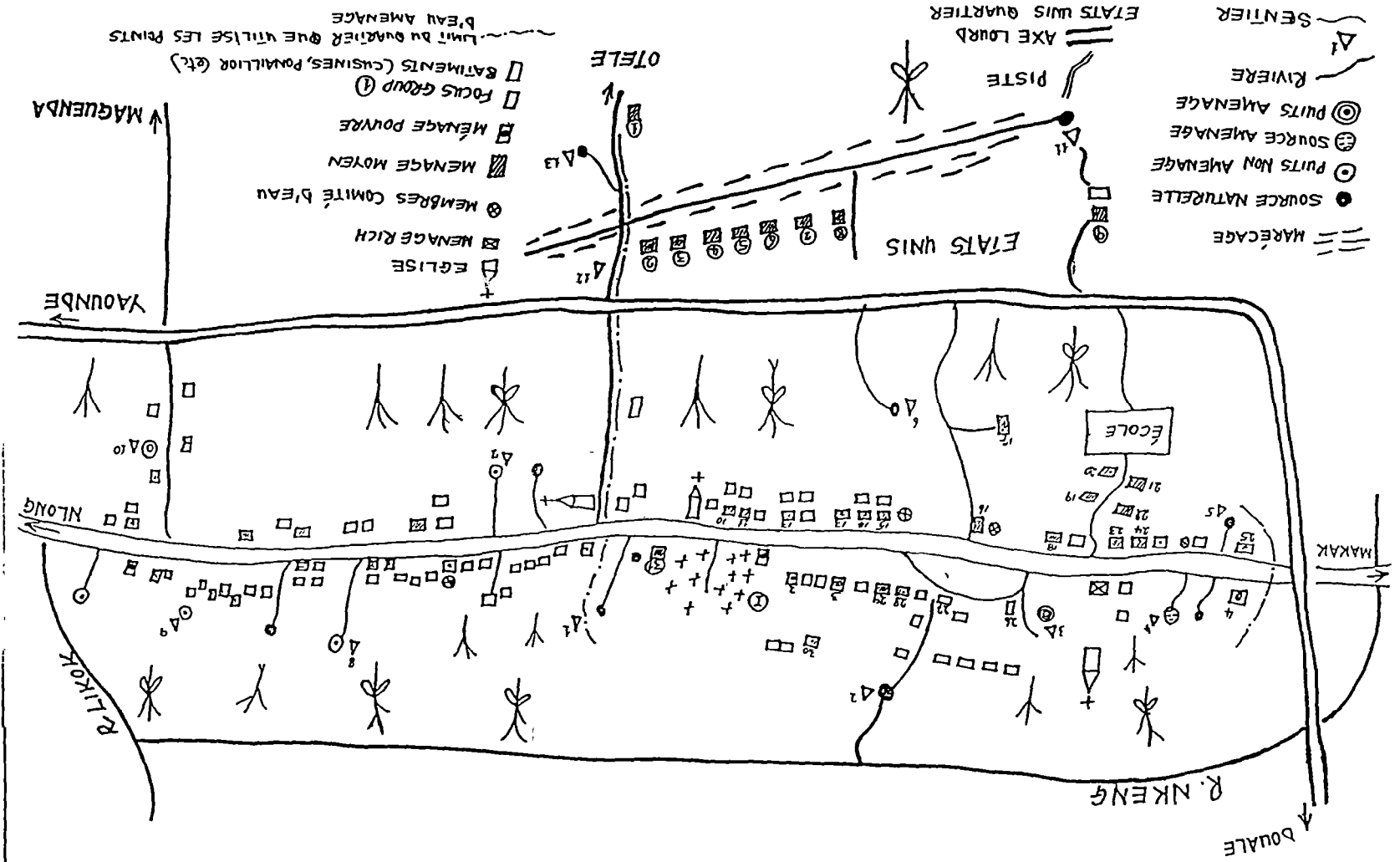
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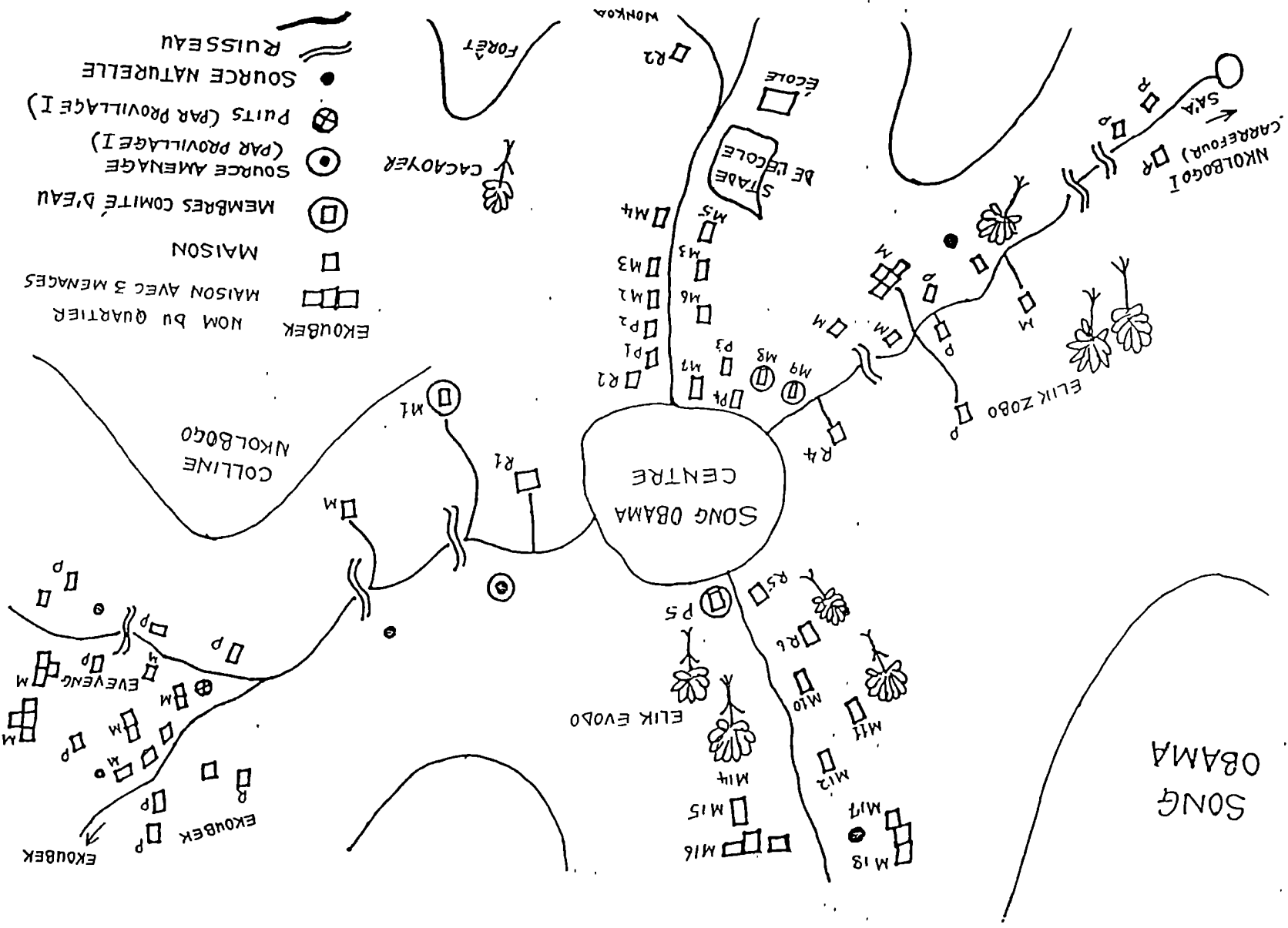
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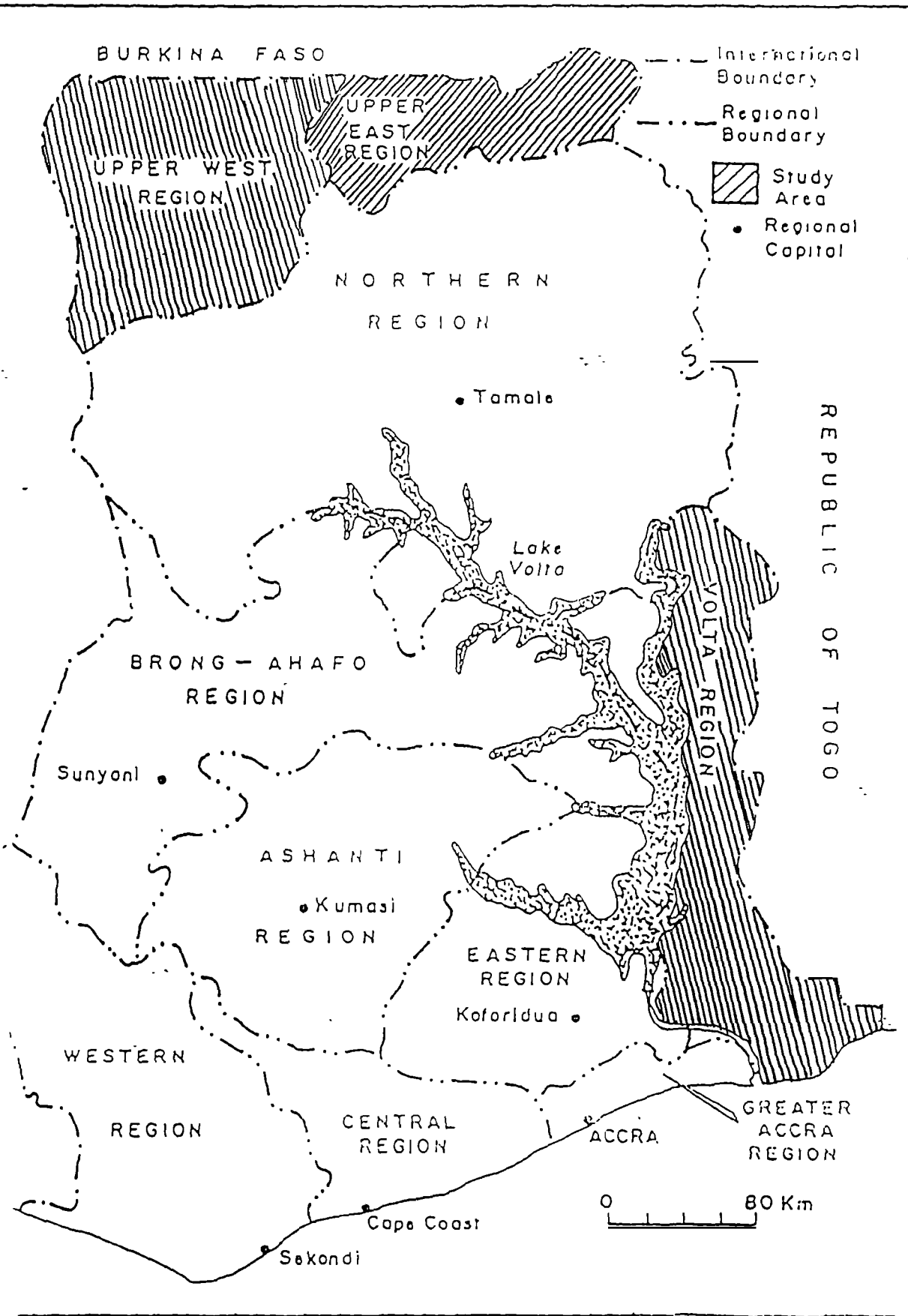
VILLAGE NKENGLIKOK

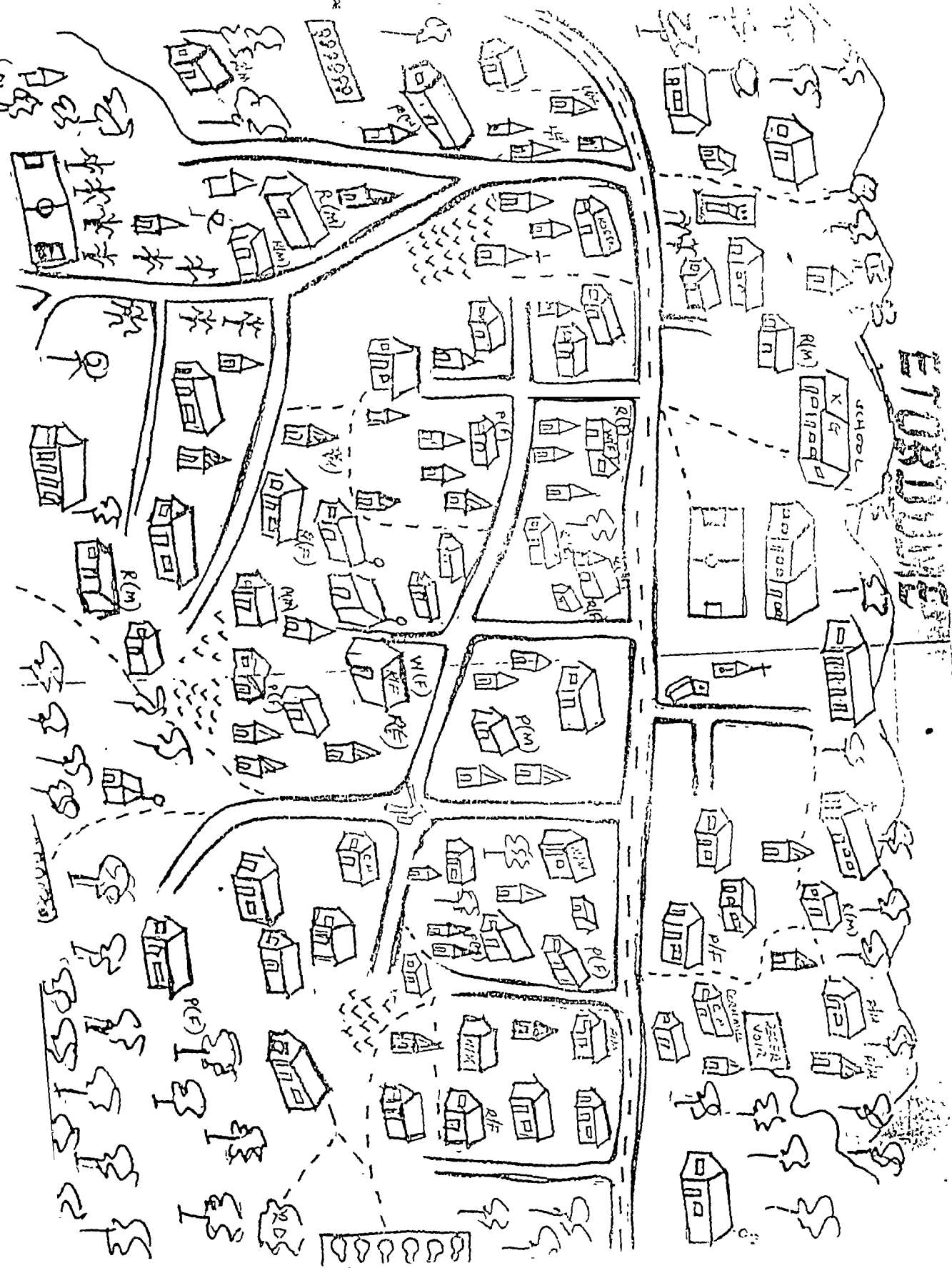


SONG
OBAMA



1: THE ADMINISTRATIVE REGIONS OF GHANA





SCHOOL

R(M)

R(L)

R(F)

R(W)

R(S)

R(N)

R(P)

R(A)

R(I)

R(O)

R(U)

R(D)

R(C)

R(B)

R(T)

R(V)

R(X)

R(Y)

R(Z)

R(1)

R(2)

R(3)

R(4)

R(5)

R(6)

R(7)

R(8)

R(9)

R(0)

R(10)

R(11)

R(12)

R(13)

R(14)

R(15)

R(16)

R(17)

R(18)

R(19)

R(20)

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R(81)

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R(84)

R(85)

R(86)

R(87)

R(88)

R(89)

R(90)

R(91)

R(92)

R(93)

R(94)

R(95)

R(96)

R(97)

R(98)

R(99)

R(0)

R(1)

R(2)

R(3)

R(4)

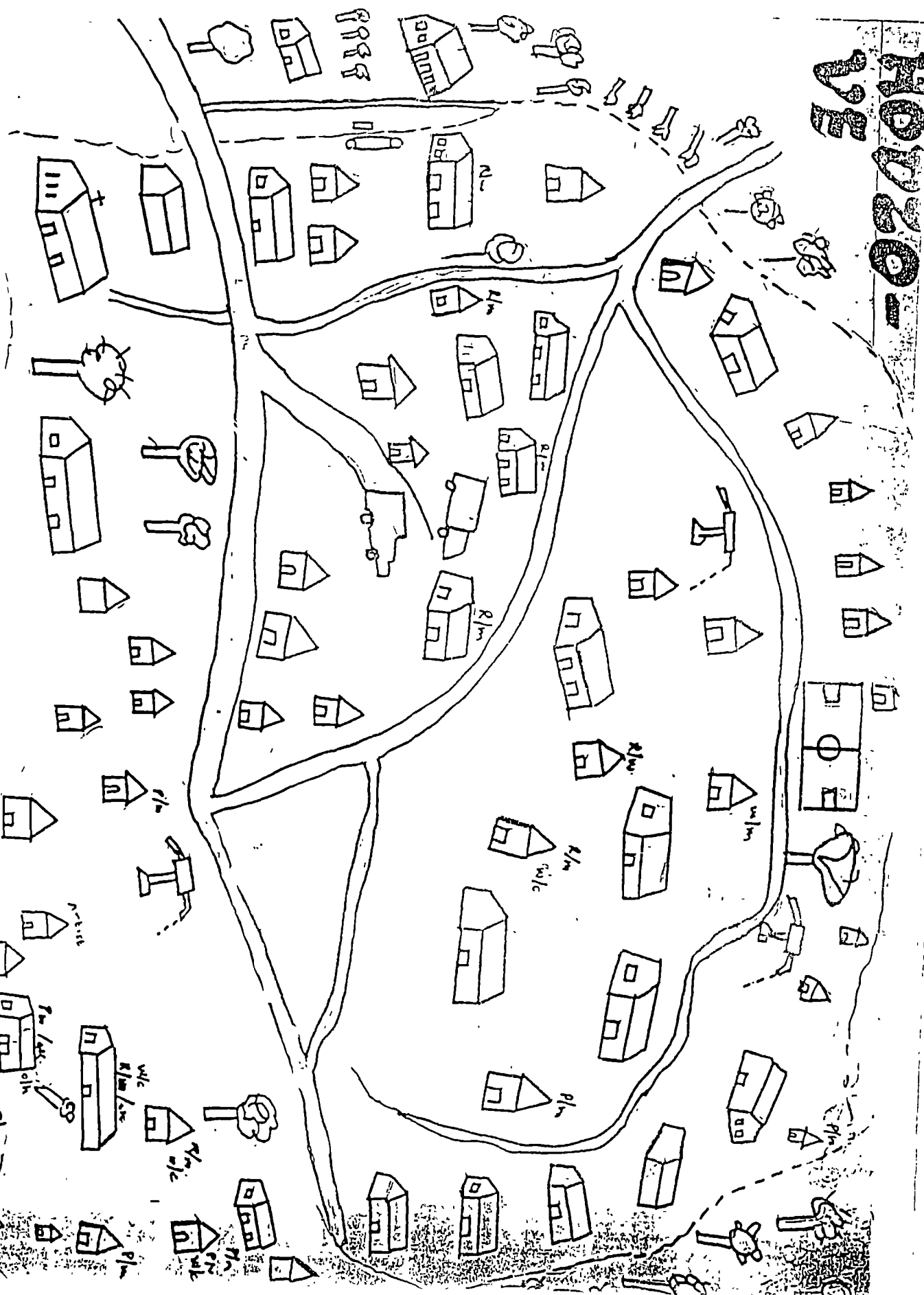
R(5)

R(6)

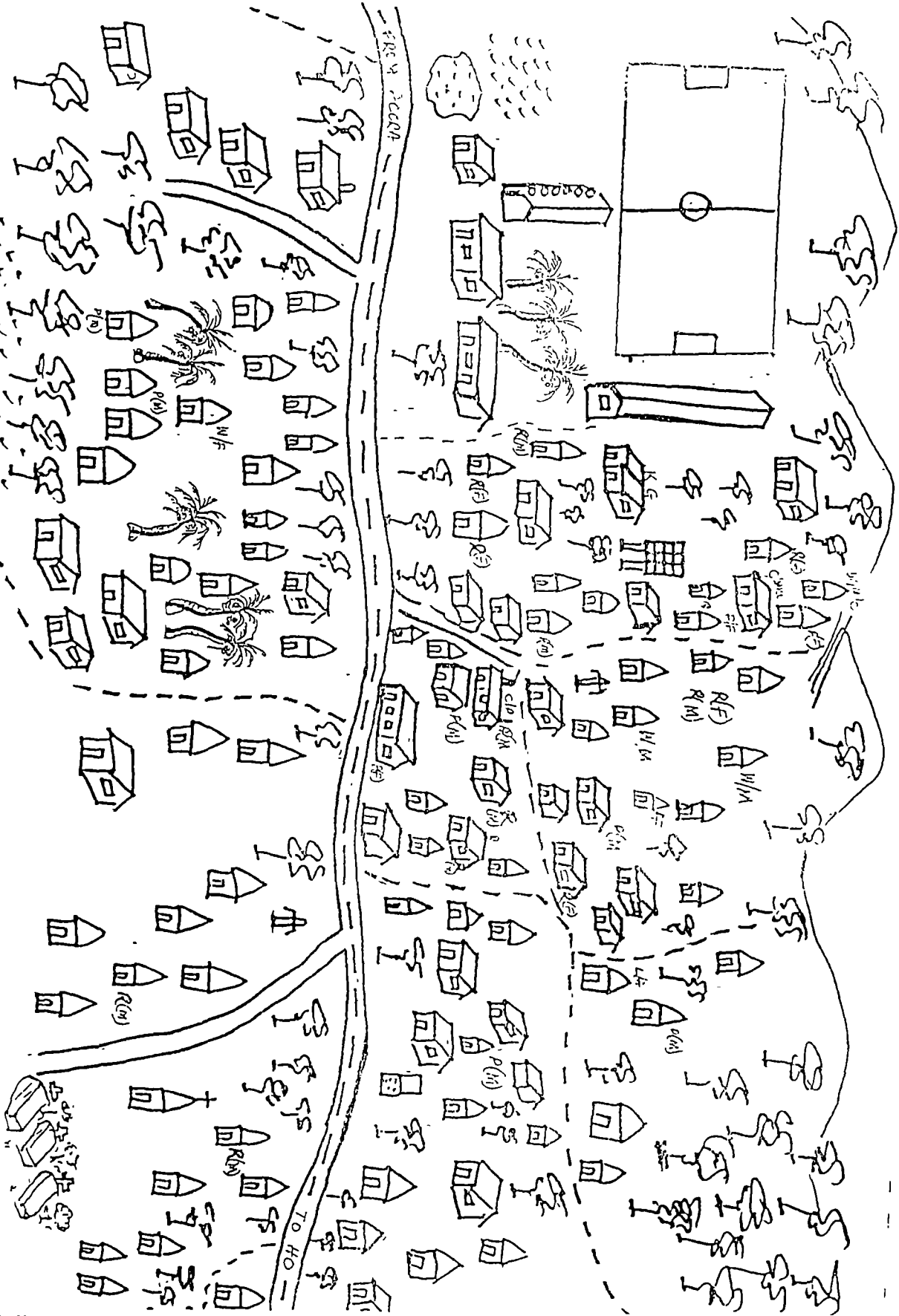
R(7)

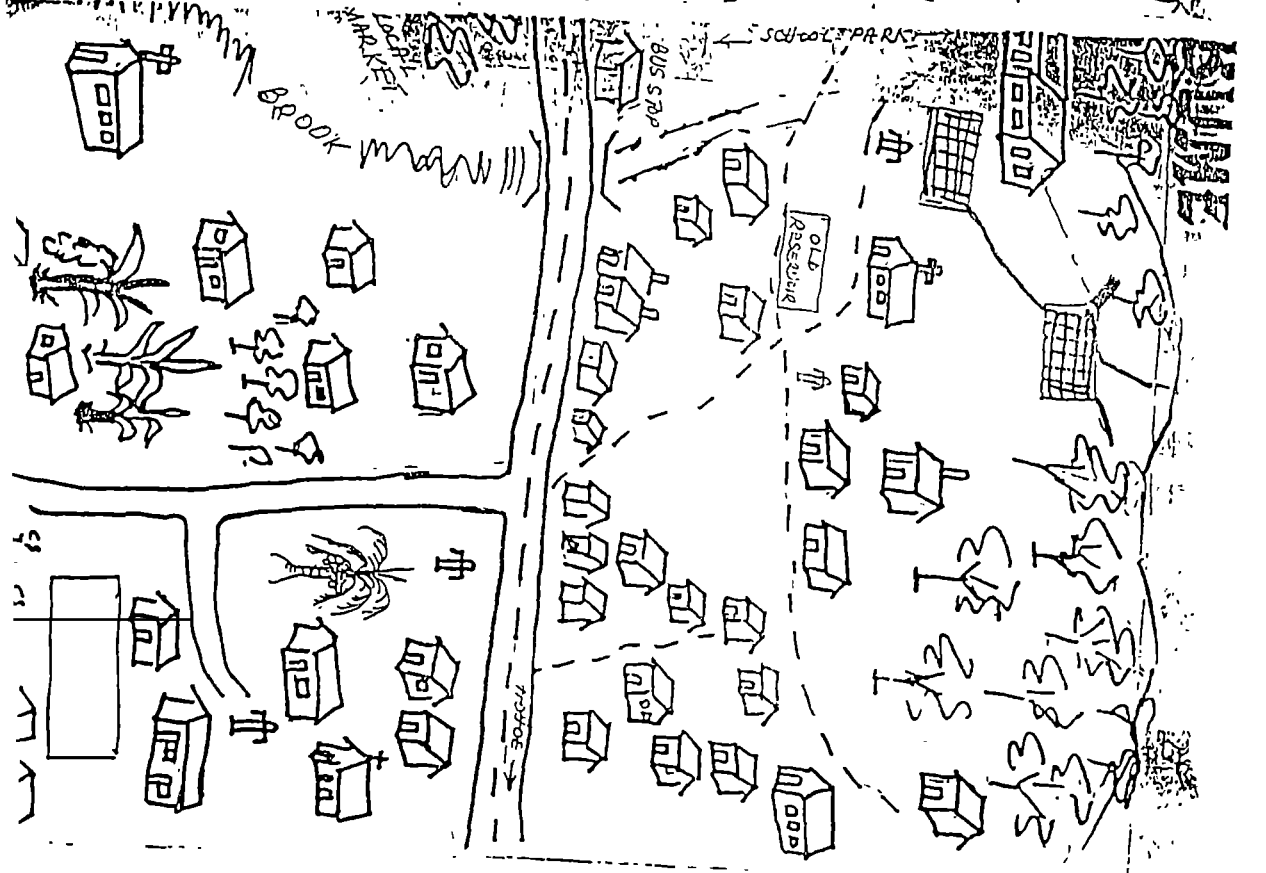
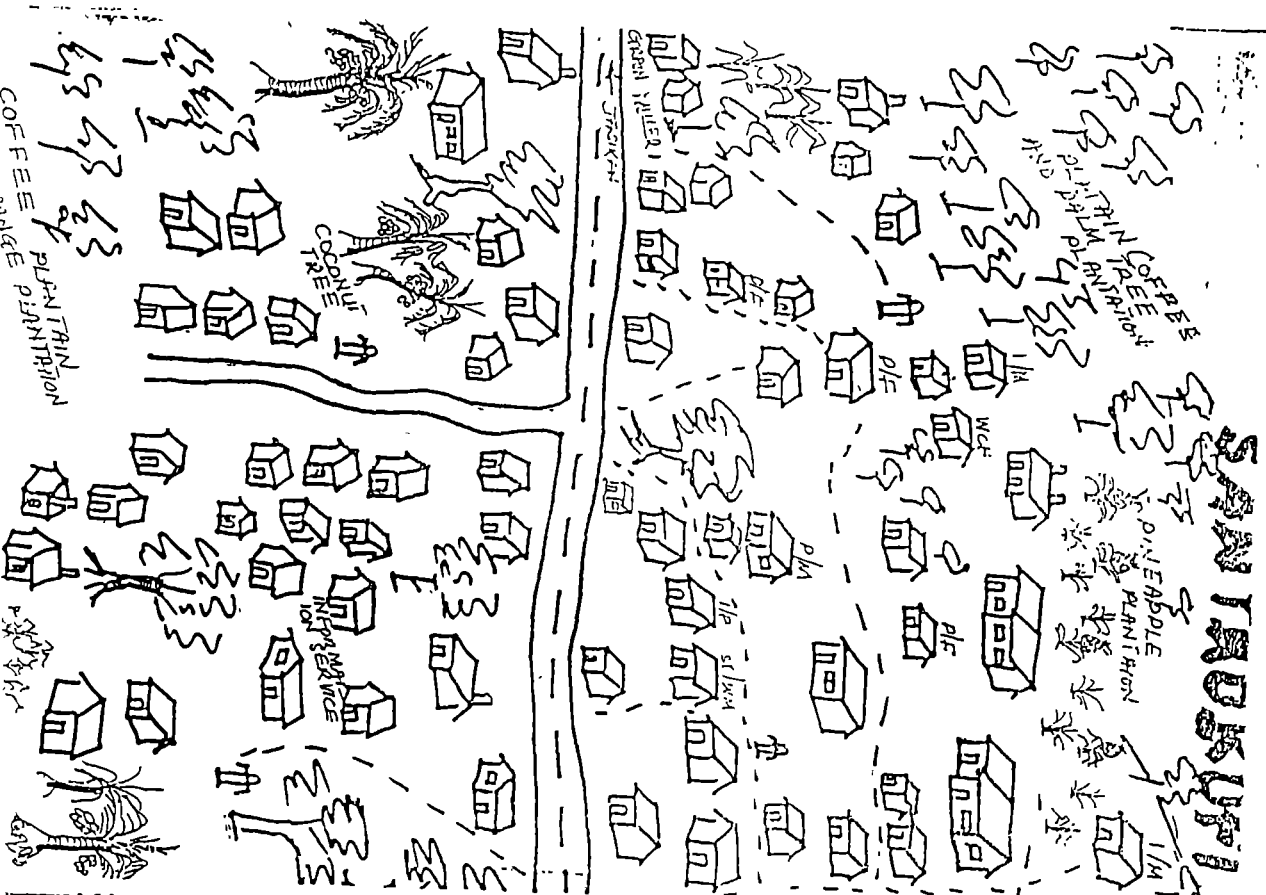
R(8)

HOUSING - 02020



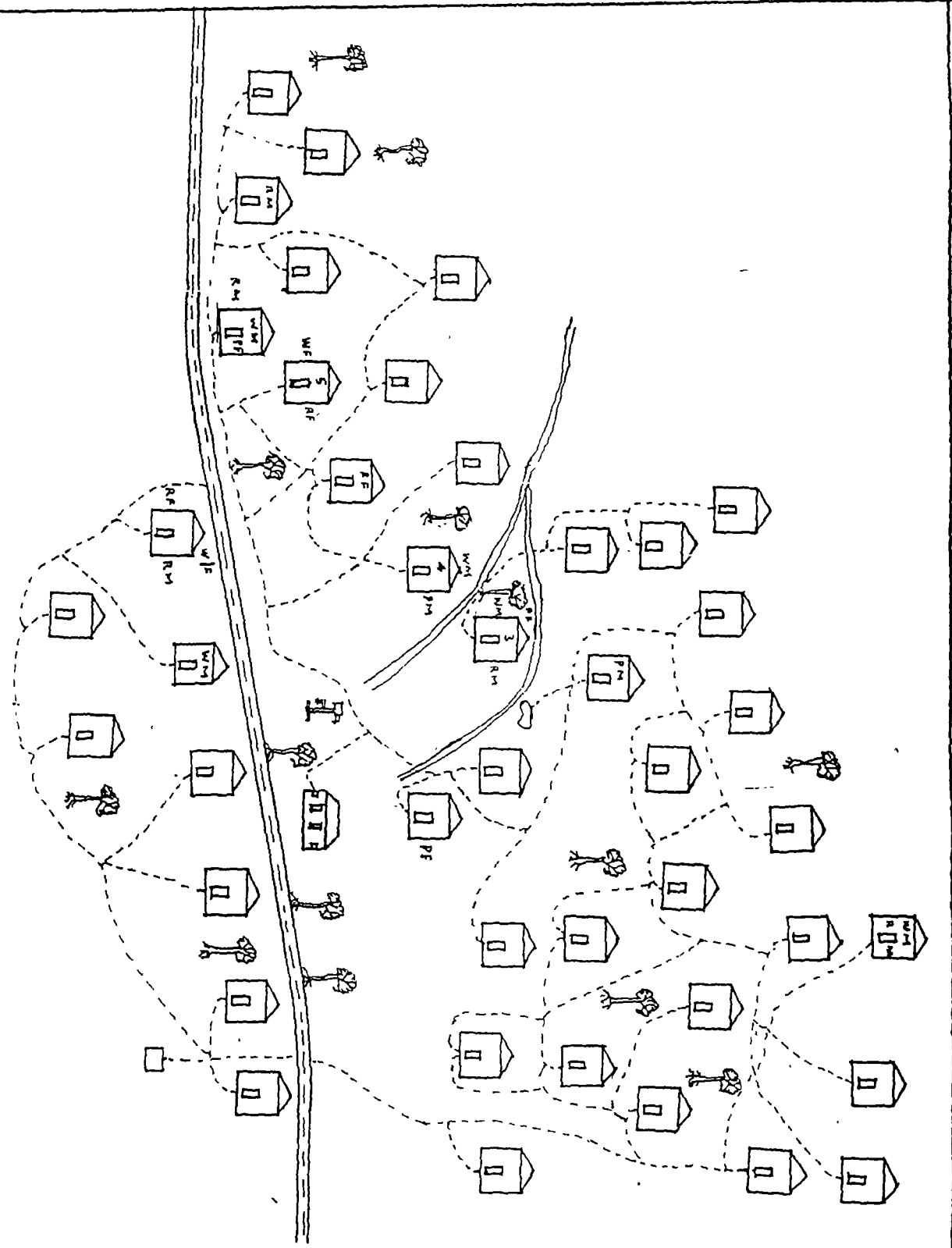
SANGLA














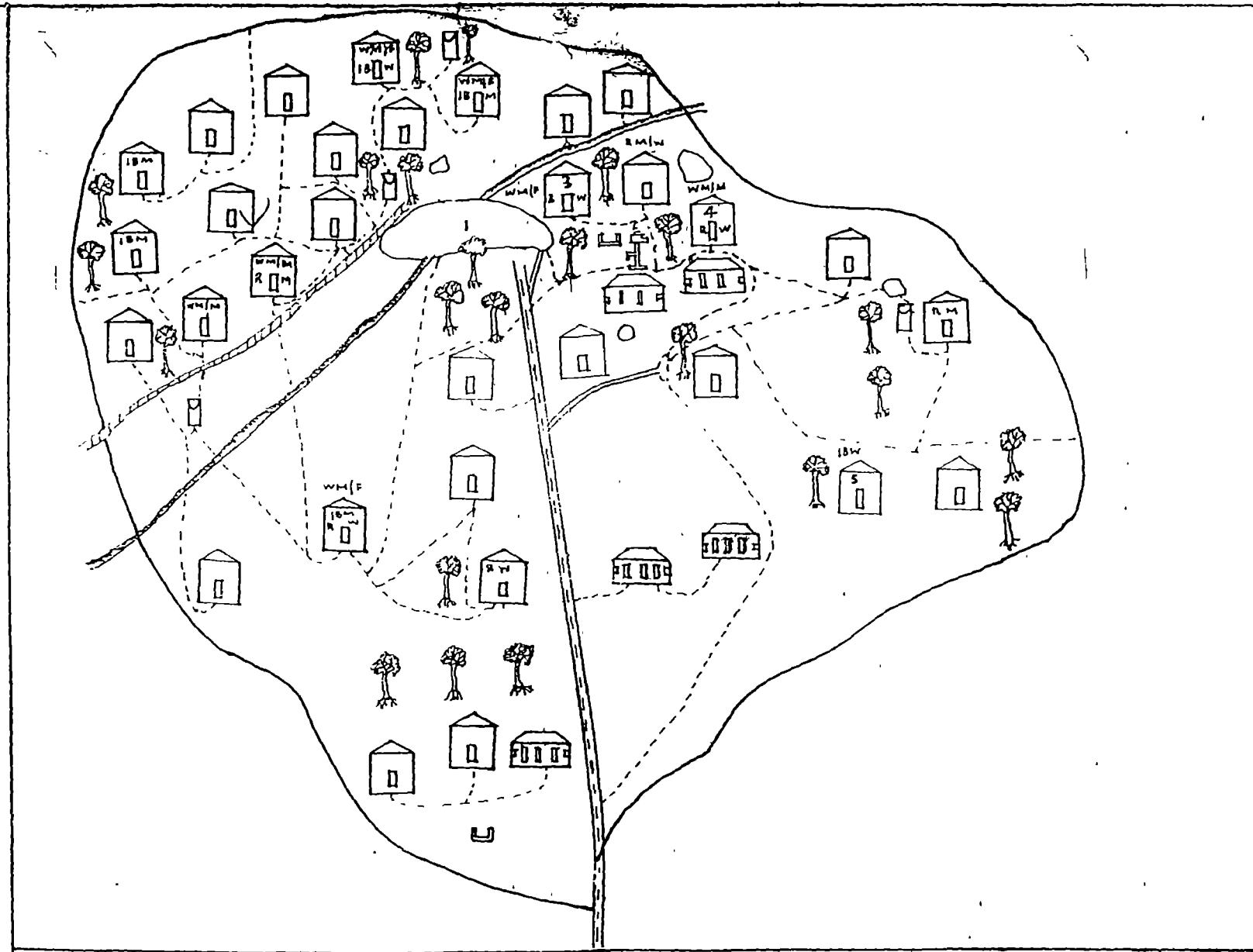
XX ~~AX~~













CHUCHULIGA YI PAALA N° II



LEGEND

-  HOUSE
-  SCHOOL
-  HAND PUMP
-  ROAD
-  DUG-OUT
-  MARKET
-  TREE
-  STREAM
-  FOOT PATH





LEGEND	
	HOUSE
	SCHOOL
	HAND PUMP
	ROAD
	FOOT PATH
	CATTLE PATH
	WATER WAY
	BATH HOUSE
	WELL
	SHRUB
	DAM
	POND


KALJIISA COMMUNITY NO TT


Map


LEGEND


HOUSE 


SCHOOL 


HAND PUMP 


ROAD 

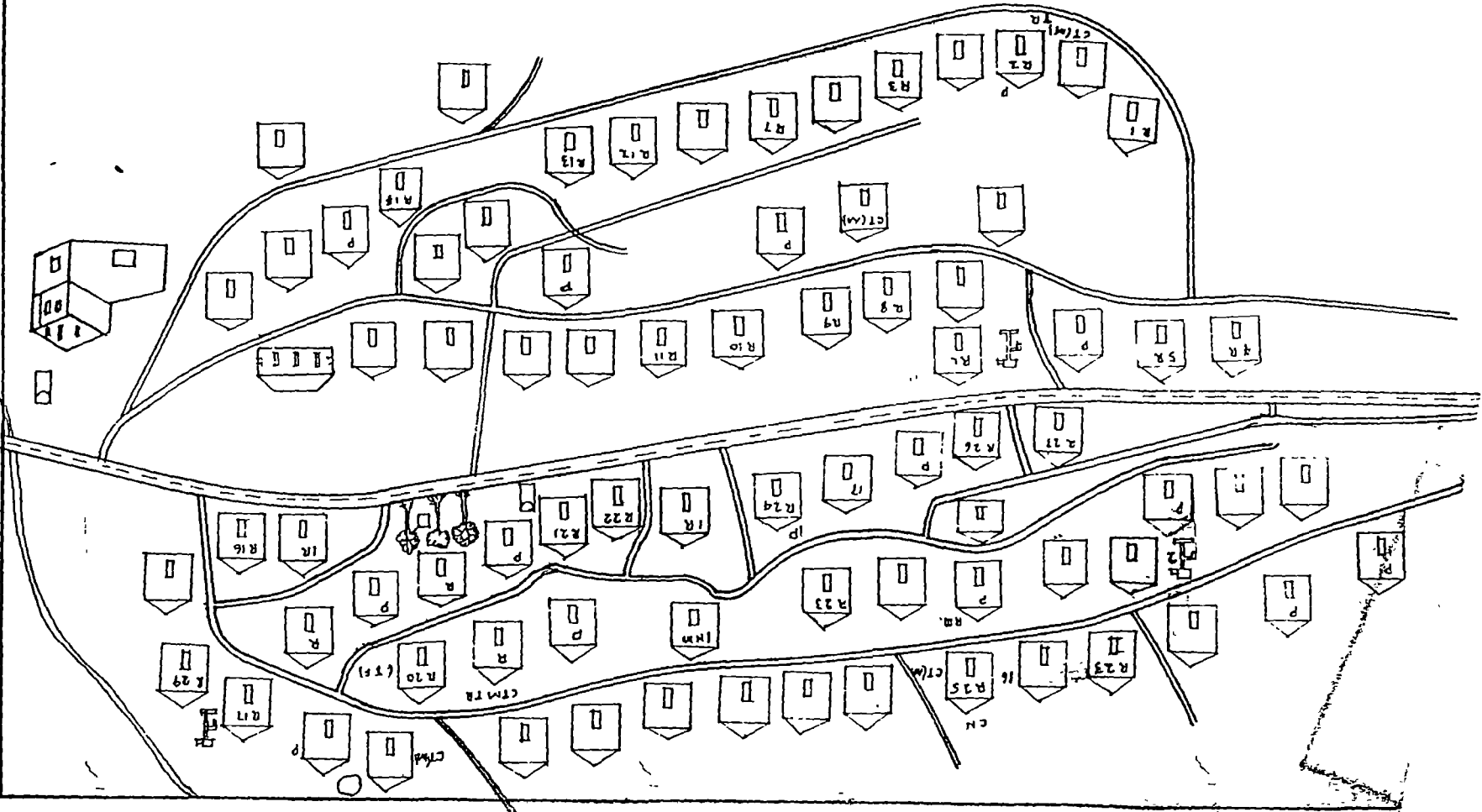
LANE 

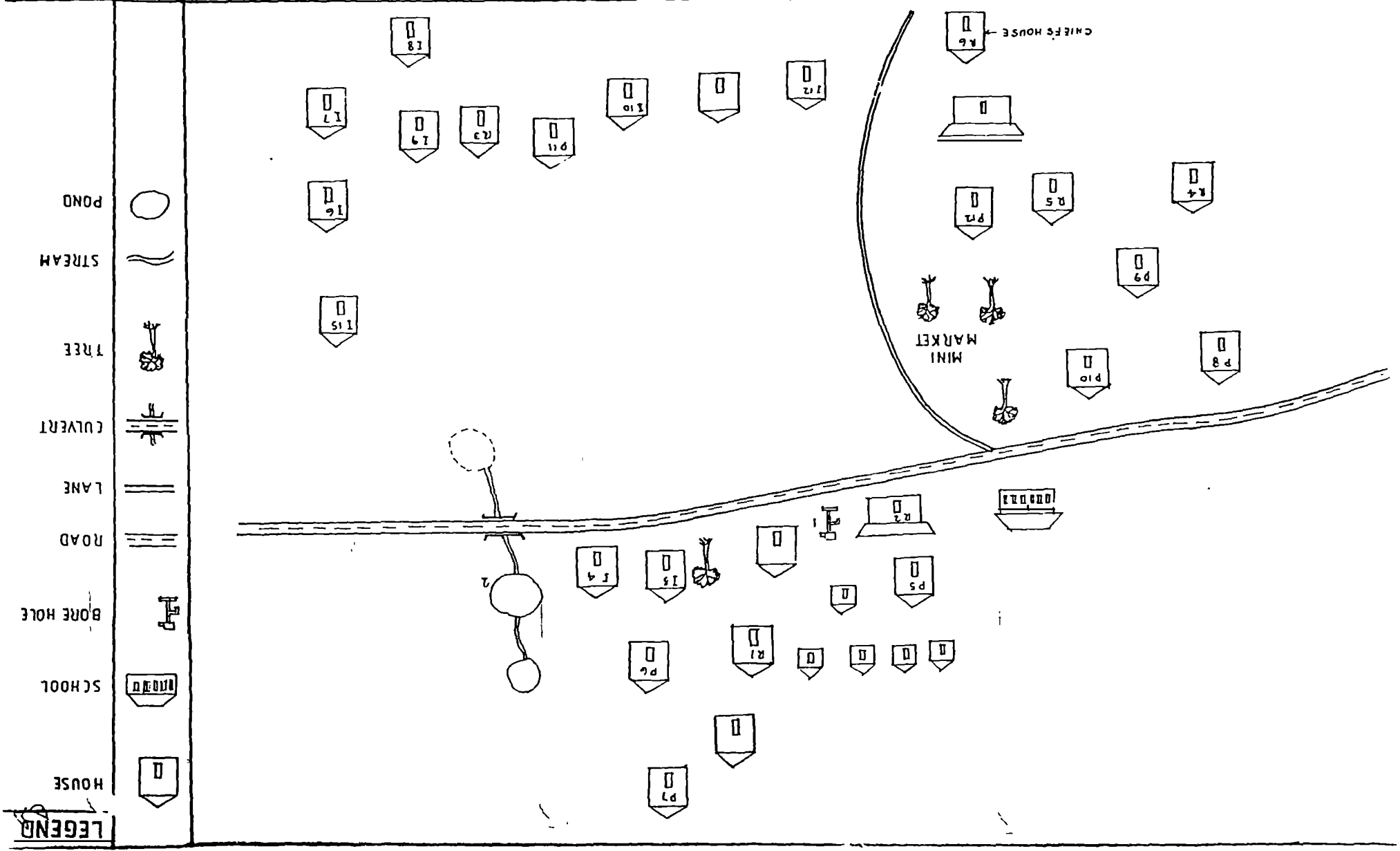
WELL 

MARKET 

CHURCH 

TREE 





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