

824

MZ 88

WATER SUPPLY AND SANITATION

IN MOZAMBIQUE

presented by World Health Organization, Maputo

INTER-AGENCY MEETING ON WATER SUPPLY AND SANITATION
JOINT PLANNING 28 - 30 NOVEMBER 1988 - HARARE

824-7922

TABLE OF CONTENTS:

WATER SUPPLY AND SANITATION IN MOZAMBIQUE
THE PROBLEMATIC OF ~~ANALYSIS~~^{WATER} AND SANITATION IN MOZAMBIQUE

INTRODUCTION

Chapter I

WATER AND SANITATION - ANALYSIS OF THE SECTOR

1. STRUCTURES EXISTING IN MOZAMBIQUE
 - 1.1 At national level
 - 1.2 At provincial level
2. DEVELOPMENT POLICY AND SITUATION ANALYSIS
 - 2.1 Development policy
 - 2.2 Development situation until 1986
3. PROBLEMS

Chapter II

LOW COST SANITATION

1. GENERAL
2. NATIONAL PROGRAMME OF LOW COST SANITATION
 - 2.1 Organization
 - 2.2 Activities
 - 2.2.1 Specific activities
 - 2.2.2 Units of Latrines Construction and Production
 - 2.3 Sector development policy
 - 2.3.1 Recovery of cost
 - 2.3.2 Donors community (88/90)
 - 2.3.3 Financing
 - 2.4 Other activities to be carried out presently

ISN 7922
824 M288

2.5 Goals and Objectives

2.6 Necessary resources

2.7 Main restrictions and priorities of the Sector

- ANNEX :
- (1) Intersectoral relations in the water supply and sanitation sector
 - (2) Map of Maputo with the Construction Units of Improved Latrines
 - (3) Map of Mozambique with the Construction Units of Improved Latrines in the provinces
 - (4), (5), and (6) Type-projects.

THE PROBLEMATIC OF WATER AND SANITATION IN MOZAMBIQUE

INTRODUCTION

The water supply and correct disposal of the human excreta are very important aspects for improving the living conditions of the population. The improvement of these conditions creates a favourable status to the social development.

In the colonial period, the water supply and sanitation of the cities was treated in an autonomous way by the so called Municipal Councils. The operation and maintenance were carried out by technicians, mainly of portuguese nationality. In these systems, there was a contrast between the good service supplied to the "cement city", where the colonial population was living, and the peripheral zones, where the majority of the mozambicans were living, there were a considerable reduced number of public water standposts. In the rural zone there was no water supply programme (except some isolated initiatives).

With the National Independence, the departure of technicians and the dismantlement of the colonial structures caused an abandonment of the urban and semi-urban water supply and sanitation systems.

In 1977 the National Directorate for Water Affairs was created with the aim of taking responsibility of the overall management of the water resources and to start a general approach and coordination of the sector.

This report presents a summary of the development of water and sanitation activity in Mozambique, where the development policy, the present situation and the main difficulties for its implementation has been approached.

In the second part the low cost sanitation component is presented.

Presently, a document is being elaborated at the level of the National Directorate for Water Affairs, in which an analysis has been made on the water supply and the sanitation section, as well as the development perspectives for the next 5 years.

This document is not accessible yet because it has to be officially approved.

.../...

Chapter I

WATER AND SANITATION - ANALYSIS OF THE SECTOR

1. STRUCTURES EXISTING IN MOZAMBIQUE

The water supply and sanitation is managed by the following institutions:

1.1 At national level

- Ministry for Construction and Water (M.C.A.)
with the executive organism of
 - . National Directorate for Water Affairs (D.N.A.)
divided in the
 - .. Water and Sanitation Department (D.A.S.) and in the
 - .. National Programme for Rural Water Supply (PRONAR)

Functions: - Planning and establishment of overall policies of water and sanitation sector

- Support the promotion of the National Programme of Low Cost Sanitation as a component of the water and sanitation sector at national and international levels.

- Ministry of Health (MISAU)
with the

- . National Directorate of Health (D.N.S.)
divided in the
 - .. Hygiene and Environment Department (D.H.A.) and
 - .. Education Centre and Public Health (C.E.S.P.)

Functions: - The D.N.S. has the responsibility of promotion, education and control in the aspects of water supply and sanitation.

.../...

- National Planning Commission
with the
 - . National Institute of Physical Planning (I.N.P.F.)
 - .. National Programme of Low Cost Sanitation.

Functions: - Supervision and promotion of low cost sanitation besides
the management of resources, training and control.

1.2 At provincial level

- At provincial level are responsible the Provincial Directorates (D.P.)
 - . for Construction and Water
 - . for Health and
 - . for Planning (Provincial Service of Physical Planning)
- and the Executive Councils of the Cities

Annex 1 : Intersectoral relations in the Water Supply and
Sanitation Sector

2. DEVELOPMENT POLICY AND SITUATION ANALYSIS

2.1 Development policy

The main lines of action in the water supply and sanitation sector are:

- The development, that is, the extension of water supply network and correct disposal of excreta.
- The operation and maintenance of the systems.

The objectives contained in the Indicative Prospective Plan (P.P.I.) for the 1981 - 1990 decade are:

- 1.- Guarantee drinking water to 75% of the urban population (piped water)
 - Guarantee drinking water to 75% of the rural population (1 standpost for 100 families in a distance of 500 m).
- 2.- Assure that 50% of the population who already has piped water in the house be connected to the sewage system.
 - Assure an additional 30% of the population with a system of excreta disposal by septic tanks or by improved latrines.
- 3.- Extension of the excreta disposal systems to all the rural population living in communal villages (about 70% of the total rural population).

.../...

2.2 Development situation until 1986

The following table shows the percentage of the population served of water, conventional and low cost sanitation in the urban and rural zones, as well as the country average:

	% of served population					
	urban (1)		rural (2)		Total	
	1980	1986	1980	1986	1980	1986
Water supply	48	50	6	12	7	19
Conventional sanitation	25	25	-	-	4	5
Low Cost Sanitation	47	55	43	40	44	43

- (1) Estimated figures: rate of increasing of population of 4,5% a year
From 85, a rate of 8% a year
⇒ coverage in 1988 of about 35%
- (2) 1980/81 survey of the small water supply systems to the villages and district headquarters representing about 3% out of 6% of coverage rate in 1980.

.../...

3. PROBLEMS

The main problems of the water supply and sanitation sector are:

1. Low coverage of rural population in adequate and safe water supply
2. Low coverage of peri-urban population in adequate and safe water supply
3. Low progress in the coverage of rural population in adequate latrines since 1980
4. Low level of understanding by the beneficiaries of water and sanitation programme of rural population. Little motivation to participate in the programmes of this area.
5. Low disponibility in the sector, of qualified technicians, mainly of superior level.
6. Weak management, operation and maintenance capacity of the authorities at provincial level and very weak at district level (essential for the progress in the rural zones).
7. Non-existence of the minimum of basic water infrastructures and disposal of excreta for the displaced populations in the war affected zones.

.../...

Chapter II

LOW COST SANITATION

1. GENERAL

Mozambique is one of the poorest African country, with a big percentage of urban population (about 16 - 20% of population) of which the majority live in the peripheral zones of the cities in alarming sanitary conditions.

In 1976 was launched the first National Campaign of Environmental Sanitation, following the Government instruction of giving priority importance to Preventive Medicine and the main objectives were the construction of latrines and sanitary education of the population.

The general census in 1980 shows that the population coverage with several sanitation systems was:

- in the urban zones ^{47%} 72%
- in the rural zones 44%

Trying to research appropriate technical know-how and organizational methods in latrine construction, a study of the socio-economic feasibility of this kind of sanitation was initiated, and it was found that the main problem was the construction of the piped^t and the slab of the latrines as the traditional ones presented problems:

- the lifetime of the latrine
- the quality of material use
- the hygienic aspect of the latrine.

.../...

2. NATIONAL PROGRAMME OF LOW COST SANITATION

2.1 Organization

In 1979 was created the Improved Latrines Project

The National Programme of Low Cost Sanitation is conceived as a group of several local projects in an integrated work of three National Structures:

- . I.N.P.F. of National Planning Commission
- . D.N.S. of Ministry of Health
- . D.N.A. of Ministry for Construction and Water

2.2 Activities

2.2.1 Specific activities

The specific activities of the Programme are:

- management of resources
- professional training

}	technical staff of the programme cooperativists health staff (activists)
---	--
- supplies and delivery of materials
- survey and development of new technologies for special areas
- mobilization and education of the population
- management of the pilot Maxaquene workshop in Maputo City

2.2.2 Latrines Construction and Production Units

It is presented in the following table the distribution of the construction units of the improved latrines in the peri-urban zones of the capital and in the following provincial cities:

.../...

		COOPERATIVES	WORKSHOP	STAFF (**)	PRODUCTION OF LATRINES
MAPUTO	CAPITAL	13 (*)	1		40'000
BEIRA	PROVINCIAL CITIES	3	1		5'000
CHIMOIO			3		
QUELIMANE			1		
NACALA			1		
PEMBA			1		
TOTAL		16	8	250	45'000

See Annex 2 : Map of Maputo City (Localization of cooperatives)

Annex 3 : Map of the country (Localization of the projects in the cities)

* The 13 cooperatives of construction of the Improved Latrines are joined in an Intercooperative.

** Includes all the cooperativists and projects technicians.

This number of latrines already serve an estimated population of 225'000 persons.

The programme will be expanded soon for two more provincial cities, namely:

- Xai-Xai and
- Inhambane

2.3 Policy of development of the sector

2.3.1 Recovery of cost

Presently, the objective of the National Programme of Improved Latrines is to assure the current expenses of the Programme, through the incomes from the selling of latrines. The expansion costs are subsidised by the state and donor community.

2.3.2 Donors community (88/90)

Organizations	Support to	Amount (US\$)
1. UNDP	. The central nucleus of the Programme . The activities existent in other cities . Expansion of the Programme for two more cities: Xai-Xai Inhambane	600'000
2. CUSO/SUCO -Canada-(1)	. The cooperatives of Maputo city with material	50'000
3. UNICEF	. The survey of type-latrines in the schools in peripheral zones of the cities	64'000
4. S.A.H. -Swiss-(2)	. Human and material resources to I.L. project in Chimoio	35'000
5. Netherlands Government	. Material for the I.L. project of Beira	36'000
6. WHO/Swiss Government	. 1 consultant for 2 years	

NOTE: It should be pointed out that the Programme has received support from several International Organizations, since several years ago.

(1) - Canadian NGO

(2) - Swiss NGO

.../...

2.3.3 Funding

The National Programme of Low Cost Sanitation has been benefitting from several fundings for until 1989, having, however, supports are still necessary in specific areas.

2.4 Other activities to be carried out presently

Other Programme activities include:

- Septic ventilated latrine (LSV)
a new type of latrine for the zones with high populational density and for multifamiliar zones.
- Development of the construction and evaluation of the new kind of latrine for the schools.
- Development of the improved latrines in the rural zones with local materials.

2.5 Goals and Objectives

The objective in the area of low cost sanitation is to construct:

- . in the peri-urban zones
70'000 improved latrines until the end of 1990, increasing the coverage until approximately 85% from which 35% with improved latrines.
- . in the rural zones:

increase the present coverage and
improve the quality of traditional latrines, when possible,
with basic local construction materials.

.../...

The objective in the conventional sanitation sector would be:

- of maintaining the level of the existing service through the expansion of the systems
- of assuring the management of the existing systems, in order to maintain their functioning.

2.6 Necessary Resources

For the low cost sanitation sector necessary resources for the expansion of the programme in the other provinces, as well as to allow the maintenance of the already existing systems, are needed:

Needs on material resources:

- cement
- means of transport and
- spare parts

Needs on human resources:

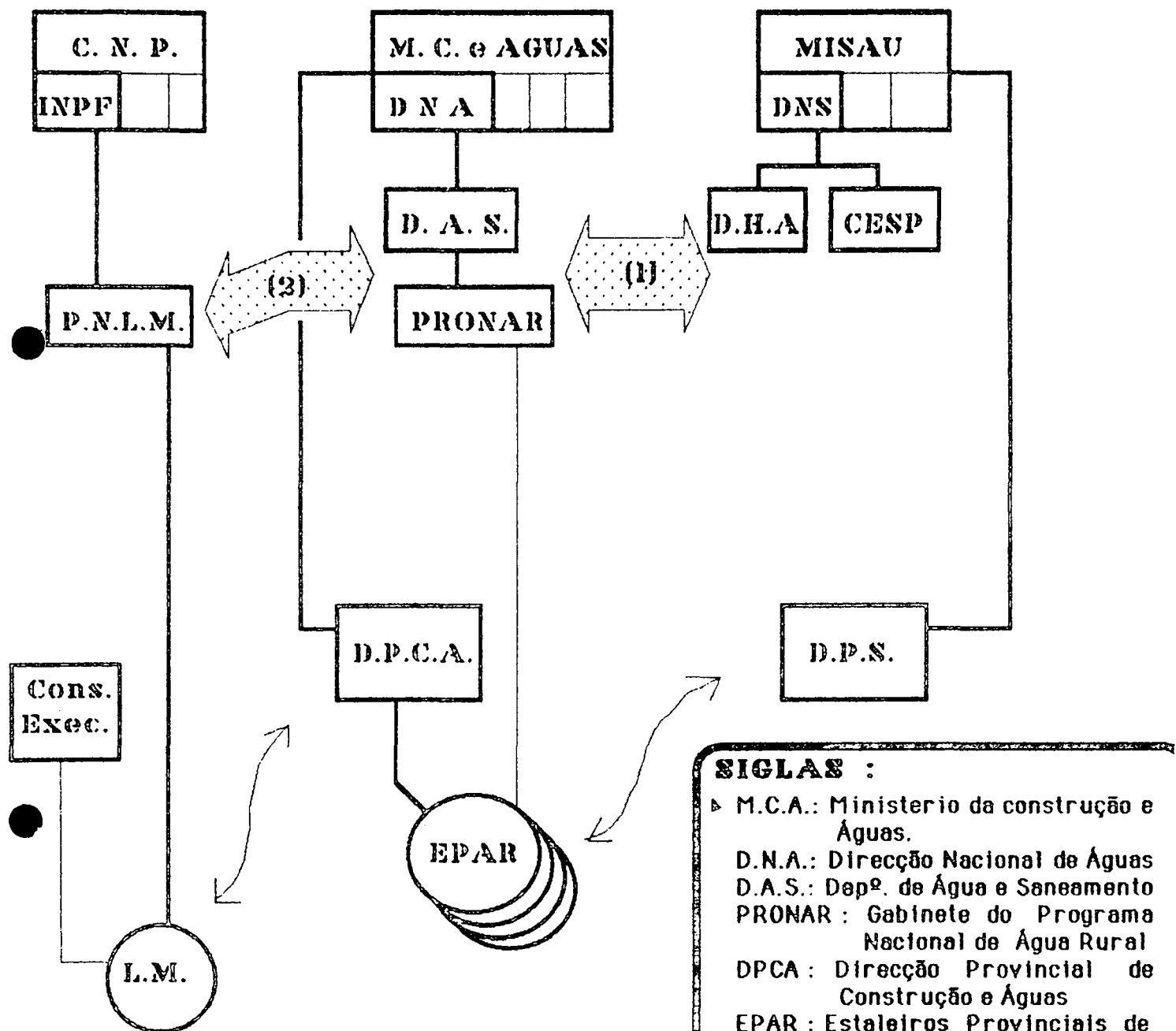
- to set up the management staff in the medium level
- support to the central programme

.../...

2.7 Main Restrictions and Priorities of the Sector

	Sanitation		
	Conventional urban	Low cost urban	Rural
Main restrictions	Missing: funds and staff for the repairing and management of existing systems.	Difficulty of working in certain zones due to density and non-organized settlement.	Difficulty of access to carry out permanent works, due to insecurity and instability of the rural communities, both due to the war situation.
Priorities	<ul style="list-style-type: none"> . Rehabilitation of the existing systems . Creation of management structures . Obtention of financial means necessary for its operation. 	<ul style="list-style-type: none"> . Resolution of the specific problems in the zones of high living density and for the groups as: <ul style="list-style-type: none"> - schools - health posts - hospitals . Promotion of better sanitary habits in particular regarding the using of latrines by child . Continuation of the programme expansion for other cities. 	Pilot working programmes to improve the coverage and quality of the sanitation systems in use.

RELAÇÕES INTERSECTORIAIS NO SECTOR DE ABASTECIMENTO DE AGUA E SANEAMENTO

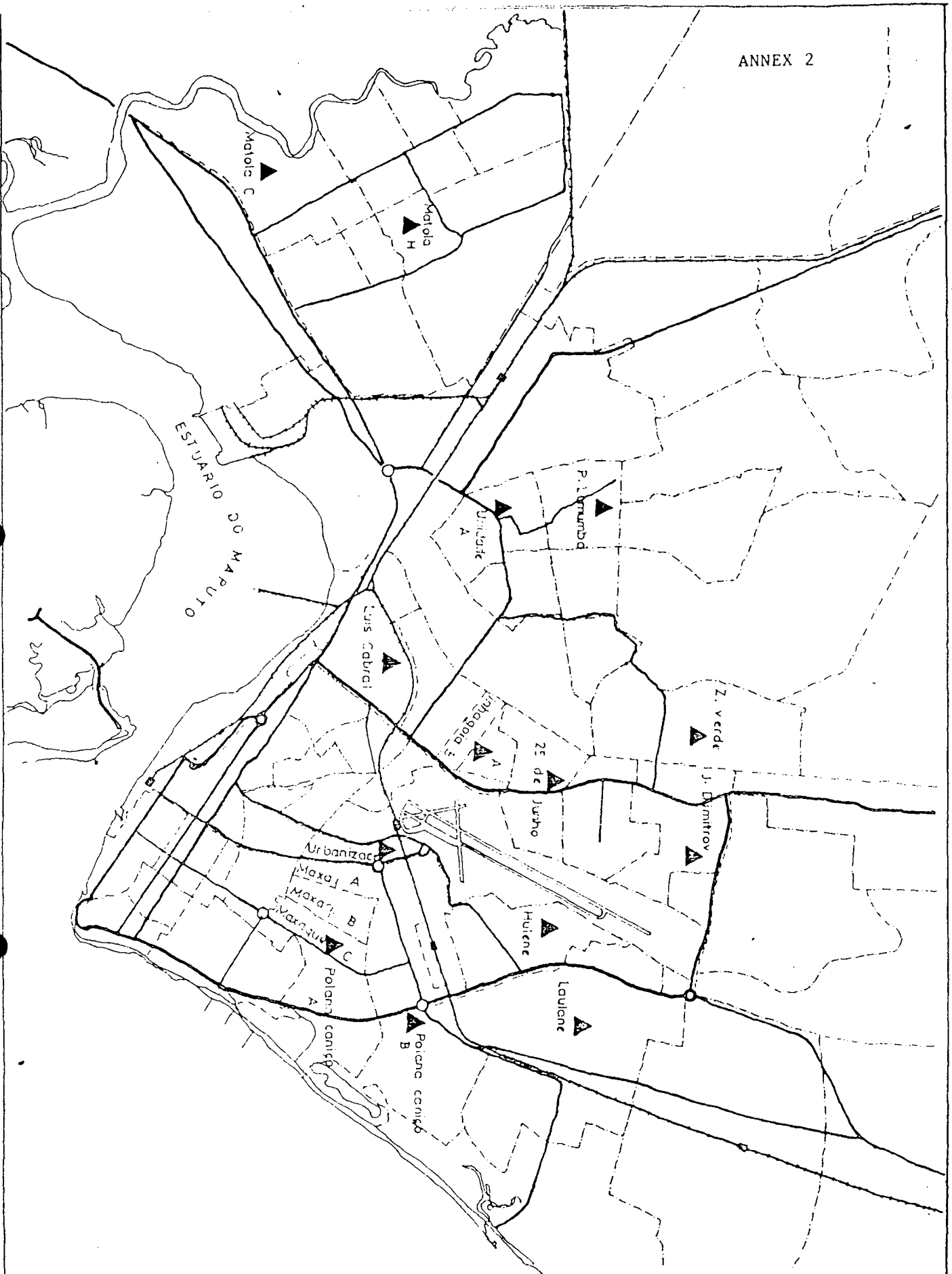


- (1) - Promoção do saneamento do meio, control da qualidade de água, e educação sanitaria.
- (2) - Planeamento geral dos sistemas de disposição de excreta em meio urbano - soluções de baixo custo.

SIGLAS :

- ▶ M.C.A.: Ministerio da construção e Águas.
- D.N.A.: Direcção Nacional de Águas
- D.A.S.: Dep^o. de Água e Saneamento
- PRONAR : Gabinete do Programa Nacional de Água Rural
- D.P.C.A.: Direcção Provincial de Construção e Águas
- EPAR : Estaleiros Provinciais de Água Rural
- ▶ C.N.P. : Comissão Nacional do Plano
- I.N.P.F.: Instituto Nacional de Planeamento Físico.
- PNLM : Programa Nacional de Latrinas Melhoradas
- ▶ MISAU: Ministerio da Saúde
- D.P.S.: Direc. Provincial de Saúde

- D.N.S. : Direcção Nacional de Saúde
- D.H.A. : Departamento de Higiene e Ambiente
- CESP : Central de Educação Sanitária



Instituto Nacional de Planeamento Físico | C. N. P.

PROGRAMA NACIONAL DE LATRINAS MELHORADAS

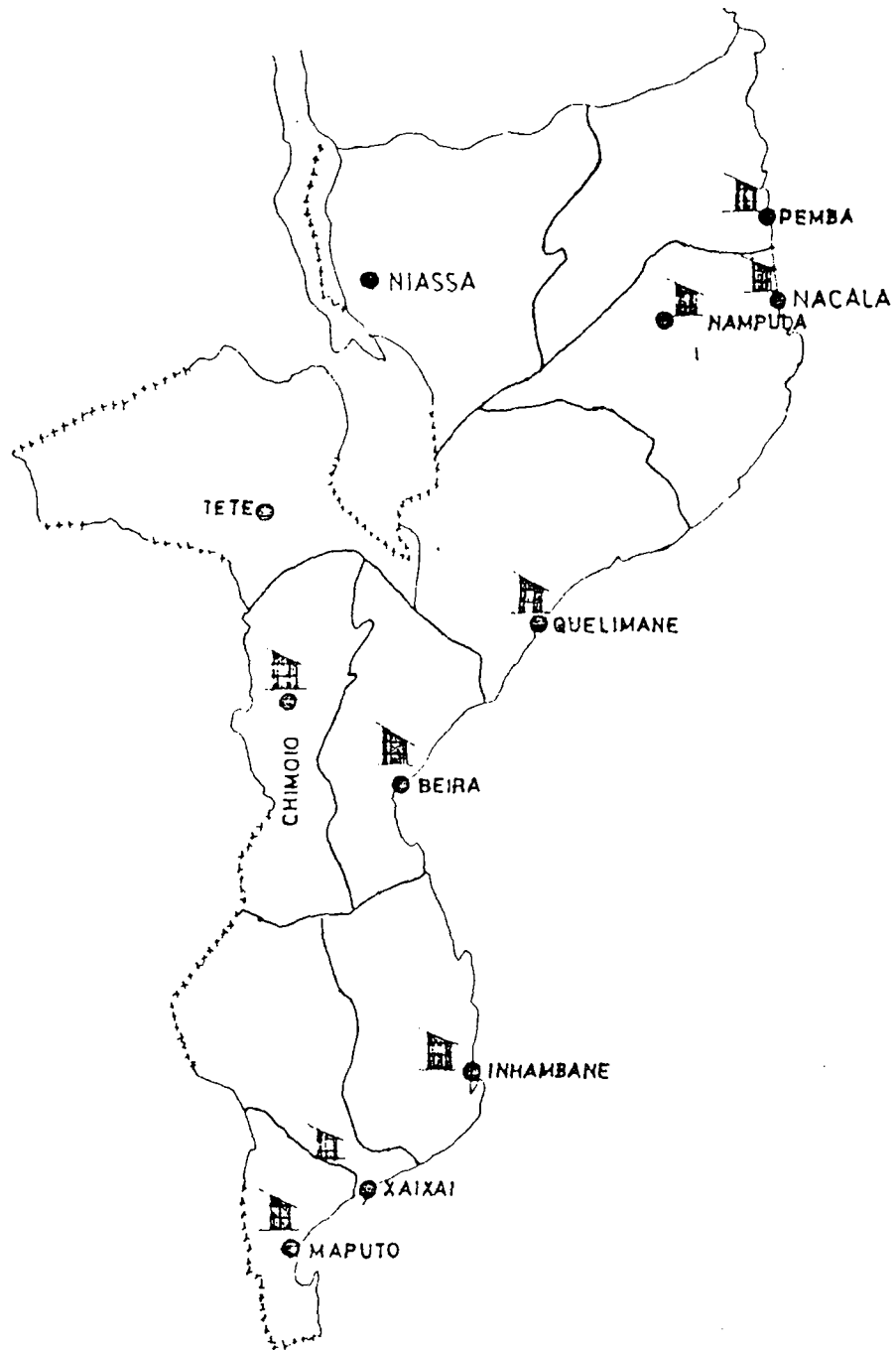
RESPONSÁVEL DO PROJECTO

LOCALIZAÇÃO DOS ESTALEIROS NA CIDADE DE
MAPUTO

DATA 12/7/88

DESENHOU

ESCALA



Instituto Nacional de Planeamento Físico		C. N. P.
PROGRAMA NACIONAL DE LATRINAS MELHORADAS		
RESPONSÁVEL DO PROJECTO	LOCALIZAÇÃO DOS PROJECTOS NAS PROVÍNCIAS	DATA 16 / 7 / 88
DESENHOU		ESCALA