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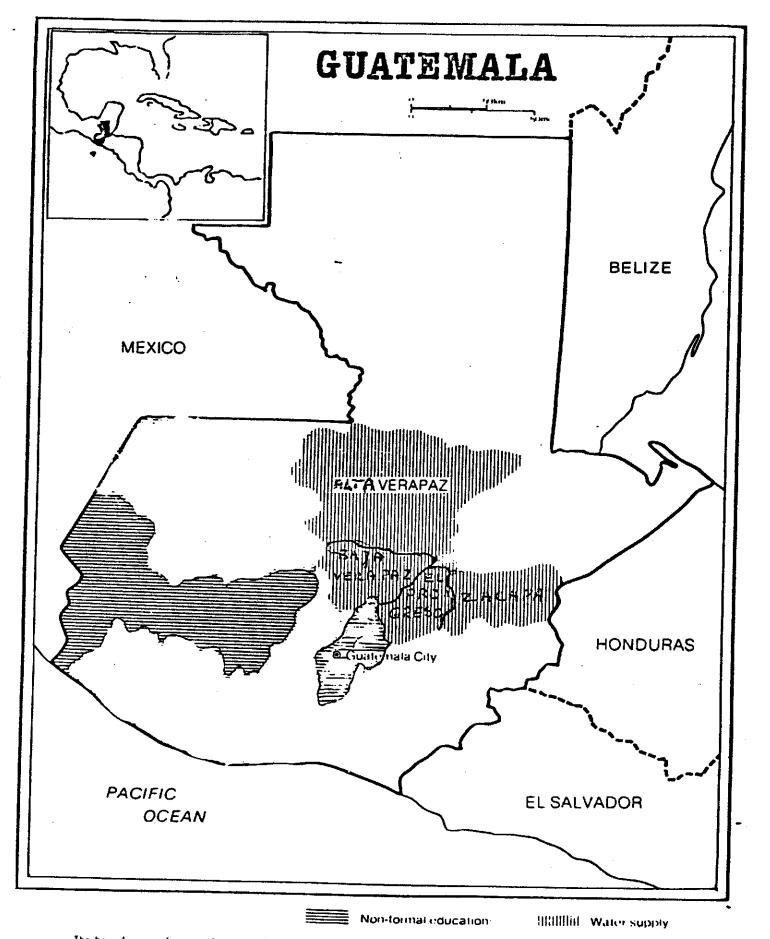
FOR SOCIAL DEVELOPMENT

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# Water and Sanitation

UNICEF Guatemala Area Office -1981-

1, 20<sup>1</sup> F/ P/L.1946(EVC) Phglish Page 2



The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations

# WATER AND SANITATION

# GUATEMALA

If one looks at the global estimates of shortage of drinking water and sanitation, Guatemala fits the profile almost to perfection.

In 1977 the rural population with access to water represented 14.2% of the total. The sanitary facilities were available to 17% of the rural families. The mortality for age group 0-5 years reached 79.9 per thousand.

With the 1977 GNP of \$5.3 billion and per capita average of \$830, the national poverty is not the reason for the social ills of the population. Within the Latin American countries, while Guatemala is rated among the strongest economically, it is among the poorest in the social sectors of health and education coverage. Some 78% of the rural population belongs to the category of extreme poverty (annual income of \$200 per person), with corresponding consequences in the standard of living.

### BASIC DATA

### Country MSA/UNICEF Group II

Area (1978):	108,889 sq. km.
Population density (1978):	61/sq. km.
Total population (1980 est.):	7,262,000
Children 0-15 (1980 est.):	3,367,000
Children 0-6 (1980 est.):	1,689,000

The country has some 17,000 villages with population up to 500 each; these groups became the target population for water supply and sanitation, under the mandate of the Ministry of Health and its Division of Environmental

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Sanitation. The country is divided into 24 areas of health services. Two of these areas, equal to two regions, have become the main targets of the water supply and sanitation project (see map).

### OBJECTIVES

The main objective is the provision of sanitary conditions essential to health and nutrition. Through a community effort to provide water and sanitation, the community would next become involved in organizing other activities beneficial for them. In all, some 35,000 people in 160 villages would benefit from the project, with the installations completed in two years.

## ACTION

The governor and regional health director receive UNICEF visit, during which the project is discussed and the action outlined. Next, the governor informs his municipalities about the project. The health director instructs all district inspectors to gather information on the possibility of water installation. Such possibility has to meet certain conditions, which are to be discussed with the village representatives.

The region has suffered from the February 1976 earthquake which destroyed homes, schools and the church. The people took charge of rebuilding through organizing themselves into reconstruction committees. With minimal help from outside, they would first rebuild the church and only then the home, followed by repairs of the school. The latter would receive some outside assistance either from the authorities or massive foreign aid. To all practical purposes, it could be said that the rural community thus had its first experience in common action.

The water and sanitation project had all the characteristics of community action. In order to qualify, the following conditions had to be met:

- the water source had to become a common property
- the people had to provide labour and tools
- the documentation of the project had to be dully legalized.

In the meantime, the government established an administrative unit in the regional capital's health centre. A small warehouse receives the equipment from Guatemala. UNICEF trucks bring the tubes, pipes and accessories. Government's main contribution is the cement for water taps and construction of latrines. An assistant field engineer is hired by the government to help the UNICEF sanitary engineer in organizing the work. Each village is visited to examine its topography and design the workplan, calculating the availability of water against the standard requirements for the village population. The number of homes and their location from the water determine how many pipes to how many outlets will have to be laid in order to provide a water tap for an average of three houses each.

The villagers have already organized into a group, working in turns on the project and other days tending to their family plots. No mechanical equipment of any kind is provided; the men use their picks and shovels to dig the soil, build the captation and distribution tanks, supervised by technicians. In some families men dig a well which will be covered by a Dempster pump. But these are less popular than a water tap enclosed in a cement stand, where a woman just twists the knob to fill the jug. The region's mountains provide the gravity which allows for most of the mountain springs to reach the village. As a rule, the village school receives water in the first place.

### The Role of Women

There are no women included in the community participation at this stage. Their role is limited to the home and family, with the major traditional task of fetching water from whatever the source. She spends most of her time walking as many times as necessary or possible to bring enough for drinking and cooking. Her laundry is done at the water source: a stream, a river or a muddy puddle, sometimes a trickle of water down the mountainside. Her children are helping as soon as able to carry a jug, otherwise staying home to care for younger brothers and sisters. Needed more for such tasks, the parents will send them to school only when they are not needed at home; many children never go to school.

The installation of water is inaugurated by the whole village. While men organize the official ceremony for the visitors, the women prepare and serve a lavish reception. There they are, shaping and baking the tortillas by the hundreds, cooking meats and rice, serving the guests and husbands without joining the party at the table. Only afterwards do they eat, sharing the food with the children swarming around. They are grateful for the water, showering God's blessing on their benefactors and very proud that their men accomplished all this work to help them eliminate the drudgery of carrying water.

# Village Records

Detailed records of the project are kept for each community. These show the name of the village, size of the population, characteristics of the terrain, its agriculture, the distance of water source and the name of the donor from whom the water source has been granted for the common use. The cost of the project is calculated:

- the number of workdays spent by the community in building the system received a value of \$1.50 per working day per person, plus purchase of small items by the local water Committee
- the value of government's administrative and technical costs plus the value of cement, etc.
- the value of UNICEF contribution in technical and supply assistance
- the value of "others" which mainly represents the cost of food-for-work donated by the Federal Republic of Germany on a bilateral aid basis.

The report is read during the inauguration ceremony, entered into the village records, signed by the present government officials, UNICEF,

and the chairman of the Water Committee.

Next day, week or month the event is repeated in another village: between January 1979 and December 1980, 44,513 people in 214 communities received clean water. Some 500 km of tubing led to 1,500 water taps fed by 111 gravity systems, also 112 manual pumps covered that many water wells dug out manually.

# New Type of Latrine

In a village the sanitation means latrine. A bulky cement unit is produced by the government and installed on family's ground. This, however, is not an automatic conversion of the family from the age-long customs. More often than not the latrine is not being used for its purpose, despite the educational efforts by the health and social workers. In order to experiment with an easier system, UNICEF introduced 1,000 plastic latrines known in Laos and other Asian countries. These are very light to transport, cost less than the cement unit and have a more attractive appearance. Although the sanitary engineers are enthusiastic about the plastic unit and think about local manufacturing, it is too early to evaluate the merits on the basis of its utility where it really counts, namely by the family acceptance.

The association of clean water and sanitation with health aspects does not exist among the rural population. Getting water close to home and in abundance means lightening the woman's burden, a chance to feed the animals, raise poultry, grow vegetables and flowers around the house. The woman or her daughter has more time to do other things around the house and will want to learn to do something useful: to cook better, to sew and knit for her family. There are no health dispensaries in the village which means taking a sick child miles away to the nearest health centre, usually walking a whole day. And last but not least, if all goes well, the woman also claims her right to relax a little.

### Still Contamination Problems

The water coming out of the pump or water spout is pure and unpolluted. Yet we are told that the same water is contaminated when used at home. The jug or bucket is not properly cleaned between use, becoming a breeding ground for bacteria from an unwashed hand or a dirty pitcher; then come the unwashed dishes and spoons to keep the gastro-intestinal problems active.

By organizing to build its water supply, the community has learned to work together and now is ready to do more: they ask for a health post; they speak about the young girl who finished the elementary school and wants to learn something useful, more than her mother can teach her at home. They solemnly pledge to work hard to get these privileges. So,UNICEF starts to plan and deliver, but that's another story...

# COMMUNICATION AND INFORMATION INPUTS

The national recognition of water problem has received a fairly wide attention in the press, radio and television.

In 1979 the Guatemala IYC commission organized a national seminar on water and sanitation, with participation of national authorities, the international, bilateral and NGO institutions. The World Bank sent a special delegate to this event, first of its kind in Central America. UNICEF's assistance received particular attention; since that time many contacts have been established at national level and several activities developed jointly.

Guatemala is also a member of the "Asociación Interamericana de Ingeniería Sanitaria" established in 1940 and created for reasons of high infant mortality caused by water shortage. In March 1981 AIDIS is holding its XIII Congress in Guatemala for Central American countries, in which UNICEF is participating through sponsoring some delegates associated with the projects as well as the presence of UNICEF consultant on water and sanitation policy and programming.

6.

The International Decade for Water and Sanitation has received due attention in Guatemala. Against the Decade's goal "Water for all by year 1990" the government pledges to provide water and sanitation to 50% of rural and 100% of urban population.

In rural projects of water supply the newspapers occasionally carry news items on some of the particular water inaugurations; these rather small articles do not always mention UNICEF. One interview with the UNICEF sanitary engineer has been published in a provincial newspaper.

One of the village inaugurations received the national TV coverage through a brief interview with the programme officer (The TV team has been transported by UNICEF).

In early 1979 a group of film makers came from New York to document the water project assisted by UNICEF. The result is the UNICEF film "Water Means Life", in which the Guatemalan episode is shown in the beginning and at the end of the film. Copies in Spanish have been distributed to the Ministry of Health, the national educational TV channel and the region of Baja Verapaz where the film has been made.

At least in Baja Verapaz, the film produced many results. It has been shown in towns and villages of the region, creating interest in the subject. When the film was shown in the village where the filming team was remembered, the recognition of their own faces became cause for another celebration and gratitude to the already dedicated and dynamic governor whose personal intervention at all stages of the project made a difference between the progress or problems in the implementation.

The most precious possession to a farmer is water on his land. It becomes more valuable when in the village only one of the family owns the rights to the water spring. When a water project is contemplated in a village, the owner has to yield his rights to the community. Miles of trenches have to be dug out to carry the pipes across private property of several owners. Very often a lot of interventions are needed before an owner agrees to start the project. Thus, at one time, eight villages could not get the project approved, because the families owning water and land refused to cooperate. The owners were pleaded with, coaxed and called to the governor's office many times, always without result. One day the governor started the projector, left them alone in the office, refraining from arguments. All eight men signed the papers immediately after seeing the movie and their communities now have the water.

One rural teacher wrote a poem to UNICEF, delivered by a pupil during the water inauguration, both in Spanish and Mayan. The event has received a national TV coverage. The poem has also been published in "UNICEF Waterfront" No. 21.

Finally, the UNICEF news issue 103/1980/1 on Water and Sanitation carried an article "Guatemala: Exploiting a Natural Gift", written by the Programme Officer, Zofia Sierpinski.

# PROFESSIONALS BEHIND THE PSC

The Guatemala Area Office had a JPO Information Officer, Aina Bergvall, since 1978 until early 1980. There are no ready references on this project's communication and information inputs made by the staff member.

The UNICEF Sanitary Engineer, Alejandro Amoretti, uses his own camera, and trained the UNICEF driver to take pictures of the projects as they progress. UNICEF provides the cost of negatives and developing.

The Programme Officer, Zofia Sierpinski, uses her personal cameras, including Polaroid, for two-fold purposes: trying to capture the mood and scenery of the woman and child as related to water; also to show the magic of instant photo, leaving it to the picture subjects to remember the moment when the water becomes available. The negatives are provided by UNICEF.

### TRAINING

At the stage in which this particular project is concerned, training of community development surges out when the same community becomes organized to work for the water. All other aspects of development follow, to be assisted by the health and social workers, also the rural teachers especially trained

8.

in rural development. These educators come from the government, the NGO's and the Peace Corps.

As for the mechanisms used to monitor the education inputs and outputs, these remain to be developed in a comprehensive manner.

# BUDGET

Within the total programme budget, the allocation for communication and information does not appear, unless the standard audio-visual items provided to the government for staff training can be so qualified.

#### SUMMARY

The programme objectives with regard to the number of beneficiaries and communities have been considerably exceeded as far as the provision of water supply is concerned: the plan called for a coverage of 160 communities with a total of 35,000 people to receive water supply during 1979-1980. Actual results show that 214 communities with over 44,500 people have received water during the period.

The main problems remaining to be solved are: the sanitation and health education, leading to a decrease in infant mortality and morbidity rate.

The predominant issue is the government's ability to extend the provision of water supply and sanitation to all the population. This issue is tied directly to the government's financial and technical size of the commitment, which is far below the requirements.

The perspectives for the solution of the clean water and sanitation shortages can be seen in a more positive light than in the past:

- more of the world-wide recognition of water and sanitation related problems creates a certain degree of pressure on the

government's decisions to take appropriate action

- recent political unrest has been recognized to be a result of social inequality; as a consequence, social development has become the government's main concern
- apart from UNICEF's interest to continue the project assistance, other external assistance is available in the country to provide the population with drinking water and sanitation.