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## XIV Regional Committee Meeting



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REPORT ON THE STATUS OF THE CONTINENTAL PLAN OF COMMUNITY  
WATER SUPPLY AND SEWAGE DISPOSAL

(Document presented by the Government of Mexico)

"REPORT ON WATER SUPPLY AND SEWERAGE SYSTEMS BUILT IN THE  
REPUBLIC OF MEXICO FROM 1 SEPTEMBER 1958 TO 30 JUNE 1962"

REPORT ON WATER SUPPLY AND SEWERAGE SYSTEMS BUILT IN THE REPUBLIC  
OF MEXICO FROM 1 SEPTEMBER 1958 TO DATE

I

BACKGROUND

1. Brief History

Water supply for population centers has been the concern of man since time immemorial. Water is needed not only to quench thirst but also for cleanliness, and should therefore be readily available in suitable quantities. Mexico is no exception, and even before the Spanish conquest the Aztecs, the Mayas, and others had already built numerous hydraulic works. To mention but a few, there were the aqueducts that brought water from Chapultepec and the five sources of Coyoacan to supply the capital city, then known as Tenochtitlan, and the aqueduct of Cholula in Puebla State.

Under Spanish colonization, almost every new city founded was provided with a suitable water supply because the Spaniards were aware of its importance. The works they built included catchworks, large masonry dikes, basins with the dual purpose of storage and sedimentation, and enclosed aqueducts of great length with long stretches of beautiful arches to maintain the hydraulic gradient over gorges and low terrain. These works were for the most part carried out by the religious orders and include the aqueducts of Cempoala in Hidalgo State, Queretaro in the State of the same name, Morelia in Michoacan State, Tepeapulco in Hidalgo State, Santa Fe in Mexico State, Oaxaca in the State of the same name, and so forth. One of the most outstanding works of that epoch is the stretch of Nochistongo, the construction of which was begun in 1607 and was the first attempt at draining the Valley of Mexico.

In the first sixty years of Mexico's independence, little was done in the way of water supply beyond keeping the works built in colonial times in good repair. Consequently, the health situation worsened, because with the increase in population there was proportionately less water available.

Subsequently, between 1866 and 1900, the Great Drainage Canal and the Tequisquiatic Tunnel were built with the main objective of receiving the discharge of the Mexico City sewers and drawing it by gravity out of the valley.

After the revolution of 1910, the Government realized the importance to economic development of using hydraulic resources, among which the supplying of water held first place. The following agencies were engaged in this task: (1) The General Department of Sanitary Engineering of the Secretariat of Public Health and Welfare; (2) the National Urban Mortgage and Public Works Bank; (3) the Bureau of Inter-American Cooperation in Public Health, which was a partial subsidiary of the Secretariat of Public Health and Welfare; (4) the Boards of Material Improvements and other

local agencies such as welfare societies and administrative boards of water supply and sewerage works; (5) the State and municipal governments through their own funds or through private banking; and (6) certain contracting firms in direct contact with State or municipal governments, or even without such contact, all of which engaged in studying and planning such works, financing and building them, but without the supervision of an authority.

There would have been no objection to the number of different agencies engaged in promoting the construction of these works if there had been proper coordination among them, but the lack of it and the difficulty of achieving it, led frequently to tremendous waste of the country's economic resources.

On 7 December 1946 a new law on State Secretariats was promulgated and approved by Congress, at the initiative of the President, and by this means the present Secretariat of Hydraulic Resources was established.

In conformity with that law, the new department was made responsible for all matters relating to the country's hydraulic resources, in cooperation with the following government agencies:

- I. National Irrigation Commission, under the Department of Agriculture and Development.
- II. General Department of Sanitary Engineering, under the Secretariat of Public Health and Welfare.
- III. General Water Department, under the Secretariat of Agriculture and Development.
- IV. Department of Hydraulic Works, under the Secretariat of Communications and Public Works.

## 2. Demographic Data

Data taken from the censuses show that the population of Mexico is widely dispersed in a large number of population centers. According to the 1950 census there were 98,280 communities (the figure according to the 1960 census is not yet known) grouped by number of inhabitants as follows:

| <u>Population</u> |                |
|-------------------|----------------|
| over 50,000       | 23 communities |
| 10,000 to 50,000  | 135 "          |
| 2,500 to 10,000   | 824 "          |
| under 2,500       | 97,298 "       |

This means that a large part of the population lives in settlements so small that they have been unable to develop economically to the point of enjoying not only water supplies but also the other essential requirements of modern living.

### 3. Construction Plan of the Secretariat of Hydraulic Resources

When the number of inhabitants to be served and their distribution throughout the country learned, the Secretariat of Hydraulic Resources divided the population into the following main groups:

(a) Rural centers with up to 500 inhabitants

The Secretariat provides technical and material assistance, especially pipe, and the community provides the labor. The service is provided through public hydrants and the federal investment is not repayable.

(b) Rural centers with from 500 to 2,500 inhabitants

The Secretariat provides 50 per cent of the cost of the works, without expecting reimbursement, and the community furnishes the other 50 per cent. Water is supplied through public hydrants or home connections, depending on the population. Whenever the federal investment exceeds 50 per cent of the cost, the excess is repayable.

(c) Urban centers with over 2,500 but under 30,000 inhabitants

The Secretariat contributes in the same way as in (b), but the service is provided through home connections.

(d) Centers with over 30,000 inhabitants

The Secretariat of H.R. contributes only a third of the cost and the community furnishes the other two thirds. Service is provided through home connections.

Almost all cities with more than 10,000 inhabitants obtain their shares through loans granted by the National Urban Mortgage and Public Works Bank; since their financial means are superior, they are able to guarantee their loans.

This, then, is how the Ministry of Hydraulic Resources has been carrying out the work of water supply and sewerage systems.

## II

### STATUS OF WATER SUPPLY AND SEWERAGE WORKS UP TO 31 AUGUST 1958

In July 1958 the estimated population of the country was 32,281,913; of this, 10,372,824 had modern supply services with water delivered through pipelines, while 21,909,089 either lacked any regular supply or had only rudimentary facilities such as cisterns and draw-wells. The former figure included the 4,311,970 inhabitants of the Federal District, for which the water and sewerage systems are built by the Federal District Department of Public Works. Excluding the Federal District population, there were, therefore, 6,060,854 persons, or 21.66 per cent of the country's population, with water supply services. (See Graph 1).

At that time, according to the available data, the number of inhabitants enjoying sewerage systems was 2,597,383, again excluding the Federal District, and represented 9.29 per cent of the country's population. (See Graph 2).

It should be noted, that the figures for both water supply and sewerage, refer only to works that were completed and in operation, not to works under construction.

The amount invested in the construction of works from 1947 to August 1958 was 943,298,362.07 pesos, divided as follows:

|  |                      |   |
|--|----------------------|---|
| Investment by the Federal Government                             | 517,910,008.62 pesos |   |
| Contribution of consumers and State and<br>municipal governments | 232,972,770.19       | " |
| Funds in escrow, National Mortgage Bank                          | 192,415,583.26       | " |
|  | <hr/>                |   |
|  | 943,298,362.07       | " |

## III

## WORKS BUILT FROM 1 SEPTEMBER 1958 TO DATE

Under the foregoing standards and financing methods, the Secretariat of Hydraulic Resources completed 459 water supply projects, serving 964,531 people, from 1 September 1958 to date. Of these, 366 were built in rural areas, benefiting 326,022 inhabitants, and 93 in urban areas, benefiting 638,509. Tables 1, 2, and 3 show the works constructed, by years, in each of the federal divisions of the country.

In addition, 144 works are under construction (many of them about finished by now) to serve a population of 1,555,152. Of these, 76 are in the rural areas, for a population of 78,814, and 68 in the urban area, for a population of 1,476,338. (See Table 4).

Considering that on 31 August 1958 water supply service was available to 32.13 per cent of the population and that at present, despite the population increase (4,895,531 from 1 September 1958 to 31 August 1962), 37.63 per cent have it, a slight improvement is readily apparent. However, it must not be forgotten that, despite the progress made, there still remain 23,187,982 inhabitants - 62.37 per cent of the country's population - for whom it has not been possible to provide this service. (See Graph 3).

As regards sewerage, during the same period, 19 works were completed, serving a population of 258,854, and another 32 are under way, which when completed will serve 913,685 (See Table 5).

As of 1 September 1958, 9.9 per cent of the country's population, excluding the Federal District, had sewerage services; at present, the percentage is 11.87 per cent. Considering the population increase from 1958 to date, there has been a slight increase in the percentage (See Graph 4).

IV

WORKS BUILT BY THE SECRETARIAT OF PUBLIC HEALTH AND WELFARE  
FROM 1958 TO DATE

Under the sanitation program it carries out in the rural areas of all the States, the Secretariat of Public Health and Welfare has also built water supply works, giving them high priority. Hence, the figure of 134,645 inhabitants in Graph 3 includes those with piped-in water service, supplied mostly through hydrants, but not those who benefit from partial works, which generally consist of protecting such water sources as springs or wells and installing hand pumps.

Taking together all water supply works built by both the Secretariat of Hydraulic Resources and the Secretariat of Public Health and Welfare, the total number of persons benefited during the period covered by this report is 2,654,328, or 37.99 per cent of the country's population, which leaves 23,053,337 or 62.1 per cent without modern water supply.

In addition, some villages have been provided with water works by State or municipal governments or by the communities themselves, but these have not been included owing to lack of adequate information.

V

BRIEF DESCRIPTION OF THE PLAN FOR SOLVING THE PROBLEM  
BY 1980

The problem facing Mexico at present is to supply drinking water to 23 million inhabitants living in a large number of communities, but because the population is constantly increasing, there will be more and more people to be served. It is the aim of the Government to provide drinking water services to all communities with over 500 inhabitants by 1980 and to the greatest possible number with under 500 as well. Judging by the present rate of growth, the 1980 population is estimated at 64,400,000, and to attain the goal it will therefore be necessary to build water works for 19,800,000 inhabitants in urban communities, for 14,000,000 in rural communities of over 500, and for as many as possible of the remaining 10,000,000 who live in rural communities of under 500 inhabitants.

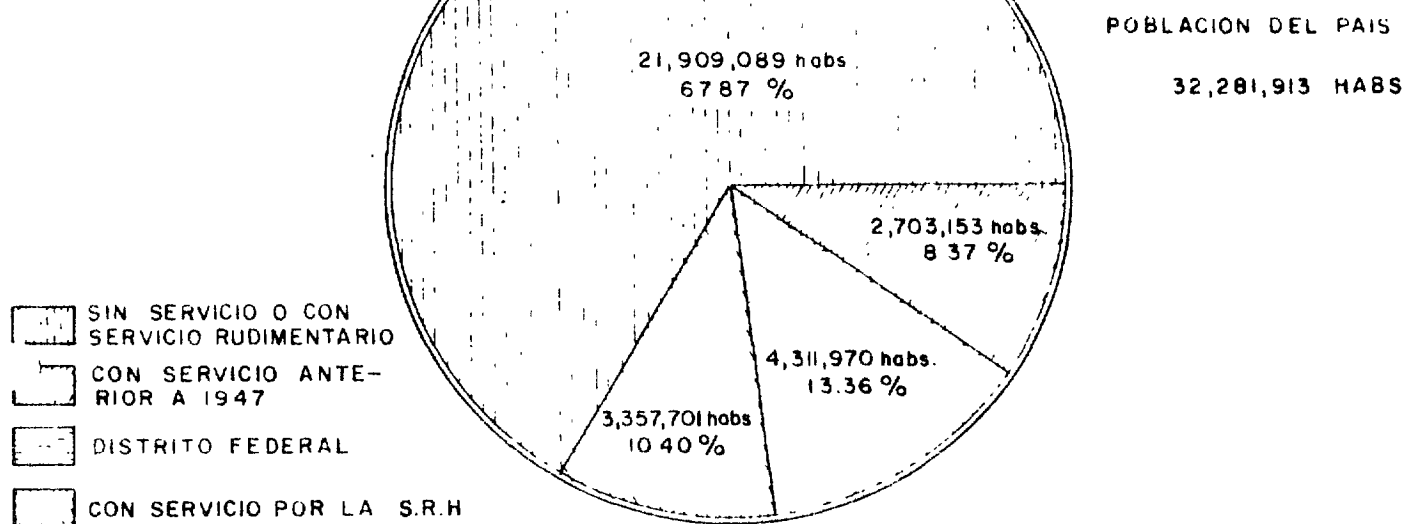
In accordance with the upward trend of per capita costs in recent years, in both urban and rural areas, it is estimated that to achieve the goal by 1980 will require an investment of 5,500,000,000 pesos divided into increasing annual allotments starting with 168,000,000 pesos in 1963 and rising to 375,000,000 in 1980. A similar plan for sewerage systems is now under consideration.

Annexes



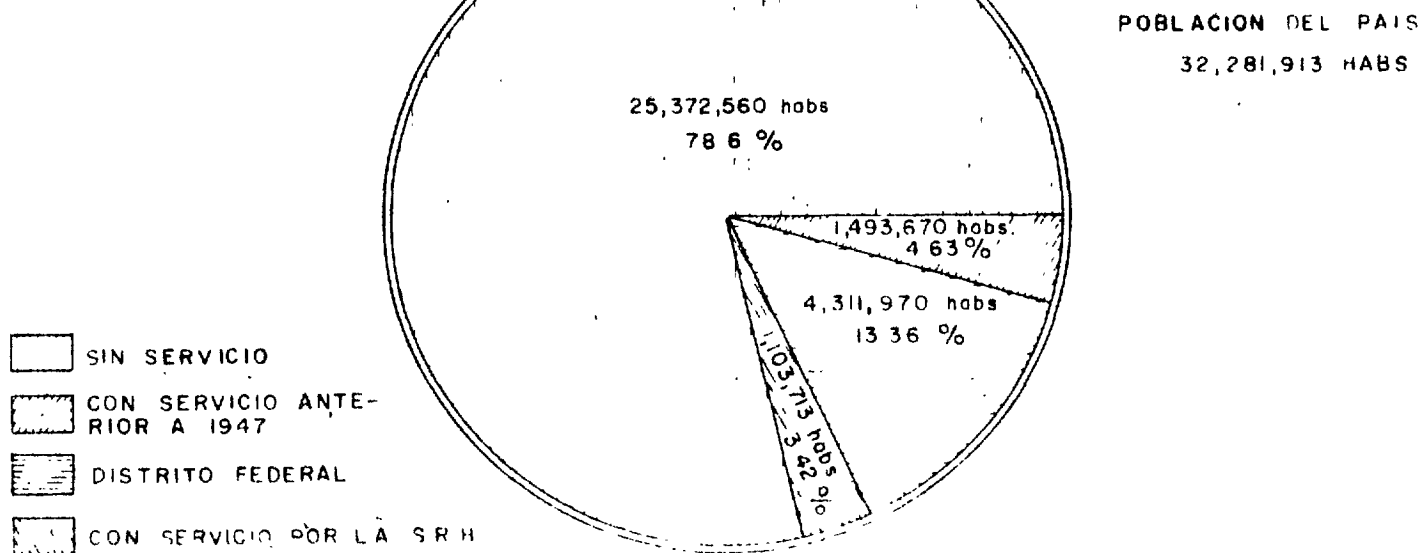
# HABITANTES BENEFICIADOS CON OBRAS DE ABASTECIMIENTO DE AGUA, TERMINADAS HASTA AGOSTO DE 1958

GRAFICA. 1



# HABITANTES BENEFICIADOS CON OBRA DE ALCANTARILLADO, TERMINADAS HASTA AGOSTO DE 1958

GRAFICA. 2



SECRETARÍA DE SALUBRIDAD Y ASISTENCIA  
MEXICO

DIRECCION DE INGENIERIA SANITARIA

POBLACIONES CON OBRAS DE ABASTECIMIENTO DE AGUA POTABLE, TERMINADAS.

PERIODO: Sept. 1958 - Agosto 1959

| E S T A D O           | DE 1 A 100 HABTS |          | DE 101 A 2,500 HABTS |          | DE 2,501 o MAYORES |          | TOTALES |          |
|-----------------------|------------------|----------|----------------------|----------|--------------------|----------|---------|----------|
|                       | No POB           | No HABTS | No POB               | No HABTS | No POB             | No HABTS | No POB  | No HABTS |
| AGUASCALIENTES        |                  |          | 1                    | 246      |                    |          | 1       | 246      |
| BAJA CALIFORNIA NORTE |                  |          |                      |          |                    |          |         |          |
| BAJA CALIFORNIA SUR   |                  |          |                      |          |                    |          |         |          |
| CAMPECHE              |                  |          | 2                    | 2,525    |                    |          | 2       | 2,525    |
| COAHUILA              |                  |          | 6                    | 3,737    |                    |          | 6       | 3,737    |
| COLIMA                |                  |          |                      |          |                    |          |         |          |
| CHIAPAS               |                  |          | 5                    | 3,226    | 1                  | 6,345    | 6       | 9,571    |
| CHIHUAHUA             |                  |          | 1                    | 789      |                    |          |         | 789      |
| DURANGO               |                  |          | 14                   | 6,758    | 1                  | 2,875    | 15      | 9,633    |
| GUANAJUATO            |                  |          |                      |          | 1                  | 7,415    | 1       | 7,415    |
| GUERRERO              |                  | 91       | 1                    | 414      | 1                  | 2,628    | 3       | 3,133    |
| HIDALGO               |                  |          | 2                    | 1,077    |                    |          | 2       | 1,077    |
| JALISCO               |                  |          | 2                    | 2,058    | 3                  | 17,150   | 5       | 19,208   |
| MEXICO                | 1                | 83       | 3                    | 3,006    | 3                  | 12,796   | 7       | 15,885   |
| MICHOACAN             |                  |          |                      |          | 2                  | 9,00     | 2       | 9,00     |
| MORELOS               |                  |          | 2                    | 2,938    | 2                  | 6,365    | 4       | 9,303    |
| NAYARIT               |                  |          | 3                    | 3,750    |                    |          | 3       | 3,750    |
| NUEVO LEON            |                  |          | 3                    | 4,346    |                    |          | 3       | 4,346    |
| OAXACA                |                  |          | 3                    | 1,661    | 1                  | 2,865    | 4       | 4,526    |
| PUEBLA                |                  |          |                      |          | 3                  | 14,507   | 3       | 14,507   |
| QUERETARO             |                  |          |                      |          |                    |          |         |          |
| QUINTANA ROO          |                  |          |                      |          |                    |          |         |          |
| S LUIS POTOSI         |                  |          | 1                    | 1,030    |                    |          | 1       | 1,030    |
| SINALOA               |                  |          |                      |          |                    |          |         |          |
| SONORA                |                  |          |                      |          |                    |          |         |          |
| TABASCO               |                  |          |                      |          |                    |          |         |          |
| TAMAULIPAS            |                  |          |                      |          |                    |          |         |          |
| TLAXCALA              |                  |          | 6                    | 6,881    | 1                  | 2,655    | 7       | 9,536    |
| VERACRUZ              |                  |          |                      |          |                    |          |         |          |
| YUCATAN               |                  |          | 3                    | 1,237    |                    |          | 3       | 1,237    |
| ZACATECAS             |                  |          | 1                    | 1,890    |                    |          | 1       | 1,890    |
| TOTALES               | 2                | 74       | 59                   | 47,569   | 19                 | 84,602   | 80      | 132,345  |

**SECRETARIA DE SALUBRIDAD Y ASISTENCIA  
MEXICO  
DIRECCION DE INGENIERIA SANITARIA  
POBLACIONES CON OBRAS DE ABASTECIMIENTO DE AGUA POTABLE, TERMINADAS.  
PERIODO: Sept. 1959 — Agosto 1960**

| E S T A D O           | DE 1 A 100 HABTS. |           | DE 101 A 2,500 HABTS. |            | DE 2,501 ó MAYORES |           | T O T A L E S |            |
|-----------------------|-------------------|-----------|-----------------------|------------|--------------------|-----------|---------------|------------|
|                       | No. POB           | No. HABTS | No. POB               | No. HABTS. | No. POB            | No. HABTS | No. POB       | No. HABTS. |
| AGUASCALIENTES        | 1                 | 25        | 5                     | 3,703      | 1                  | 4,257     | 7             | 7,985      |
| BAJA CALIFORNIA NORTE |                   |           |                       |            |                    |           |               |            |
| BAJA CALIFORNIA SUR   |                   |           | 1                     | 1,500      |                    |           | 1             | 1,500      |
| CAMPECHE              |                   |           | 5                     | 4,381      |                    |           | 5             | 4,381      |
| COAHUILA              | 3                 | 218       | 33                    | 21,773     |                    |           | 36            | 21,991     |
| COLIMA                |                   |           |                       |            | 2                  | 6,088     | 2             | 6,088      |
| CHIAPAS               |                   |           |                       |            |                    |           |               |            |
| CHIHUAHUA             |                   |           |                       |            |                    |           |               |            |
| DURANGO               |                   |           | 19                    | 11,344     | 1                  | 2,875     | 20            | 14,219     |
| GUANAJUATO            |                   |           |                       |            | 2                  | 15,090    | 2             | 15,090     |
| GUERRERO              |                   |           | 6                     | 7,079      | 2                  | 7,508     | 8             | 14,587     |
| HIDALGO               |                   |           | 7                     | 3,659      | 1                  | 6,634     | 8             | 10,293     |
| JALISCO               |                   |           | 1                     | 1,851      | 6                  | 30,244    | 7             | 32,095     |
| MEXICO                |                   |           | 16                    | 19,393     | 3                  | 15,503    | 19            | 34,896     |
| MICHOACAN             |                   |           | 6                     | 8,791      | 1                  | 4,892     | 7             | 13,683     |
| MORELOS               |                   |           | 2                     | 2,966      |                    |           | 2             | 2,966      |
| NAYARIT               |                   |           | 6                     | 8,351      | 1                  | 3,154     | 7             | 11,505     |
| NUEVO LEON            |                   |           | 5                     | 9,935      | 1                  | 2,529     | 6             | 12,464     |
| OAXACA                |                   |           | 7                     | 6,384      | 1                  | 2,560     | 8             | 8,944      |
| PUEBLA                |                   |           | 11                    | 12,226     | 4                  | 35,004    | 15            | 47,230     |
| QUERETARO             |                   |           | 3                     | 4,398      |                    |           | 3             | 4,398      |
| QUINTANA ROO          |                   |           |                       |            |                    |           |               |            |
| S. LUIS POTOSI        |                   |           | 1                     | 400        |                    |           | 1             | 400        |
| SINALOA               |                   |           | 1                     | 1,396      |                    |           | 1             | 1,396      |
| SONORA                |                   |           | 1                     | 1,383      | 6                  | 79,860    | 7             | 81,243     |
| TABASCO               |                   |           |                       |            |                    |           |               |            |
| TAMAULIPAS            |                   |           | 6                     | 8,304      |                    |           | 6             | 8,304      |
| TLAXCALA              |                   |           | 1                     | 1,359      |                    |           | 1             | 1,359      |
| VERACRUZ              |                   |           | 7                     | 9,354      | 7                  | 31,516    | 14            | 40,870     |
| YUCATAN               |                   |           | 2                     | 879        |                    |           | 2             | 879        |
| ZACATECAS             |                   |           | 6                     | 3,371      |                    |           | 6             | 3,371      |
| T O T A L E S         | 4                 | 243       | 158                   | 154,180    | 39                 | 247,714   | 201           | 402,137    |

**SECRETARIA DE SALUBRIDAD Y ASISTENCIA  
MEXICO  
DIRECCION DE INGENIERIA SANITARIA**

**POBLACIONES CON OBRAS DE ABASTECIMIENTO DE AGUA POTABLE TERMINADAS.**

**PERIODO: Sept. 1960 — Agosto 1961.**

| E S T A D O           | DE 1 A 100 HABTS |           | DE 101 A 2,500 HABTS |           | DE 2,501 Y MAYORES |          | T O T A L E S |           |
|-----------------------|------------------|-----------|----------------------|-----------|--------------------|----------|---------------|-----------|
|                       | Nº POB           | Nº HABTS. | Nº POB               | Nº HABTS. | Nº POB.            | Nº HABTS | Nº POB        | Nº HABTS. |
| AGUASCALIENTES        |                  |           | 3                    | 2,255     |                    |          | 3             | 2,255     |
| BAJA CALIFORNIA NORTE |                  |           |                      |           |                    |          |               |           |
| BAJA CALIFORNIA SUR   |                  |           | 1                    | 1,409     | 2                  | 20,031   | 3             | 21,440    |
| CAMPECHE              |                  |           |                      |           |                    |          |               |           |
| COAHUILA              |                  |           | 16                   | 9,802     |                    |          | 16            | 9,802     |
| COLIMA                |                  |           | 2                    | 1,672     |                    |          | 2             | 1,672     |
| CHIAPAS               |                  |           |                      |           |                    |          |               |           |
| CHIHUAHUA             |                  |           | 2                    | 2,802     | 3                  | 92,928   | 5             | 95,730    |
| DURANGO               |                  |           | 19                   | 8,917     | 3                  | 11,828   | 22            | 20,745    |
| GUANAJUATO            |                  |           |                      |           |                    | 12,142   | 1             | 12,142    |
| GUERRERO              |                  |           | 1                    | 1,954     | 1                  | 10,025   | 2             | 11,979    |
| HIDALGO               | 3                | 132       | 19                   | 13,694    | 1                  | 18,543   | 23            | 32,369    |
| JALISCO               |                  |           | 8                    | 8,801     | 4                  | 16,849   | 12            | 25,650    |
| MEXICO                |                  |           | 18                   | 20,937    | 3                  | 11,094   | 21            | 32,031    |
| MICHOACAN             |                  |           | 10                   | 4,498     |                    |          | 10            | 4,498     |
| MORELOS               |                  |           | 8                    | 7,777     | 2                  | 8,820    | 10            | 16,597    |
| NAYARIT               |                  |           | 4                    | 5,136     | 1                  | 24,600   | 5             | 29,736    |
| NUEVO LEON            |                  |           |                      |           | 1                  | 10,399   | 1             | 10,399    |
| OAXACA                | 1                | 71        | 4                    | 5,542     | 1                  | 3,034    | 6             | 8,647     |
| PUEBLA                |                  |           | 5                    | 7,552     | 2                  | 13,089   | 7             | 20,641    |
| QUERETARO             |                  |           |                      |           |                    |          |               |           |
| QUINTANA ROO          |                  |           |                      |           |                    |          |               |           |
| SAN LUIS POTOSI       |                  |           |                      |           |                    |          |               |           |
| SINALOA               |                  |           | 3                    | 5,862     | 1                  | 4,199    | 4             | 10,061    |
| SONORA                |                  |           |                      |           |                    |          |               |           |
| TABASCO               |                  |           |                      |           |                    |          |               |           |
| TAMAULIPAS            |                  |           | 4                    | 3,334     |                    |          | 4             | 3,334     |
| TLAXCALA              |                  |           | 5                    | 5,352     | 5                  | 31,308   | 10            | 36,660    |
| VERACRUZ              |                  |           | 1                    | 464       | 1                  | 2,852    | 2             | 3,316     |
| YUCATAN               |                  |           | 4                    | 2,217     |                    |          | 4             | 2,217     |
| ZACATECAS             |                  |           | 2                    | 3,676     | 3                  | 14,452   | 5             | 18,128    |
| T O T A L E S         | 4                | 203       | 39                   | 123,653   | 35                 | 306,193  | 178           | 430,049   |

SECRETARIA DE SALUBRIDAD Y ASISTENCIA  
MEXICO  
DIRECCION DE INGENIERIA SANITARIA  
OBRAS DE AGUA POTABLE ACTUALMENTE EN CONSTRUCCION

| E S T A D O           | DE 1 A 100 HABTS |          | DE 101 A 2,500 HABTS. |          | DE 2,501 o MAYORES |          | T O T A L E S |           |
|-----------------------|------------------|----------|-----------------------|----------|--------------------|----------|---------------|-----------|
|                       | Nº POB           | Nº HABTS | Nº POB                | Nº HABTS | Nº POB             | Nº HABTS | Nº POB        | Nº HABTS  |
| AGUASCALIENTES        |                  |          | 3                     | 3,430    |                    |          | 3             | 3,430     |
| BAJA CALIFORNIA NORTE |                  |          |                       |          | 1                  | 18,140   | 1             | 18,140    |
| BAJA CALIFORNIA SUR   |                  |          |                       |          |                    |          |               |           |
| CAMPECHE              |                  |          | 2                     | 737      |                    |          | 2             | 737       |
| COAHUILA              |                  |          | 9                     | 8,410    | 5                  | 119,758  | 14            | 128,168   |
| COLIMA                |                  |          | 1                     | 317      | 1                  | 3,322    | 2             | 3,639     |
| CHIAPAS               |                  |          |                       |          |                    |          |               |           |
| CHIHUAHUA             |                  |          | 1                     | 1,362    | 6                  | 254,193  | 7             | 255,555   |
| DURANGO               |                  |          | 16                    | 9,673    | 2                  | 8,953    | 18            | 18,626    |
| GUANAJUATO            |                  |          | 1                     | 1,121    | 5                  | 196,022  | 6             | 197,143   |
| GUERRERO              |                  |          | 2                     | 3,499    | 1                  | 7,333    | 3             | 10,832    |
| HIDALGO               |                  |          | 3                     | 4,637    |                    |          | 3             | 4,637     |
| JALISCO               |                  |          | 2                     | 4,816    | 1                  | 2,668    | 3             | 7,484     |
| MEXICO                |                  |          | 2                     | 2,826    | 3                  | 58,333   | 5             | 61,159    |
| MICHOACAN             |                  |          |                       |          | 5                  | 47,552   | 5             | 47,552    |
| MORELOS               |                  |          | 3                     | 4,471    | 3                  | 38,107   | 6             | 42,578    |
| NAYARIT               | 1                | 75       |                       |          |                    |          | 1             | 75        |
| NUEVO LEON            |                  |          | 2                     | 2,960    | 2                  | 5,714    | 4             | 8,674     |
| OAXACA                |                  |          | 3                     | 1,864    | 5                  | 73,006   | 8             | 74,870    |
| PUEBLA                |                  |          |                       |          |                    |          |               |           |
| QUERETARO             |                  |          | 5                     | 6,810    |                    |          | 5             | 6,810     |
| QUINTANA ROO          |                  |          | 1                     | 657      | 1                  | 7,247    | 2             | 7,904     |
| SAN LUIS POTOSI       |                  |          | 1                     | 1,030    | 4                  | 153,015  | 5             | 154,045   |
| SINALOA               |                  |          | 2                     | 2,342    | 2                  | 54,828   | 4             | 57,170    |
| SONORA                |                  |          | 1                     | 153      |                    |          | 1             | 153       |
| TABASCO               |                  |          |                       |          |                    |          |               |           |
| TAMAULIPAS            |                  |          | 2                     | 3,804    | 6                  | 228,282  | 8             | 232,086   |
| TLAXCALA              |                  |          | 7                     | 7,098    | 2                  | 5,423    | 9             | 12,521    |
| VERACRUZ              |                  |          | 4                     | 5,223    | 11                 | 184,840  | 15            | 190,063   |
| YUCATAN               |                  |          | 2                     | 1,499    | 1                  | 6,337    | 3             | 7,836     |
| ZACATECAS             |                  |          |                       |          | 1                  | 3,265    | 1             | 3,265     |
| T O T A L E S         | 1                | 75       | 75                    | 78,739   | 68                 | 1476,338 | 144           | 1,555,152 |

a. a parra

CSP16/32 (Eng.)  
ANNEX V

SECRETARIA DE SALUBRIDAD Y ASISTENCIA  
MEXICO  
DIRECCION DE INGENIERIA SANITARIA  
OBRAS DE ALCANTARILLADO

POBLACIONES CON ALCANTARILLADO TERMINADOS EN EL PERIODO SEPTIEMBRE 1958 - AGOSTO 1959

| E S T A D O   | DE 1 A 100 HABITANTES |              | DE 101 A 2,500 HABITANTES |              | MAYORES DE 2,500 |              | T O T A L E S |              |
|---------------|-----------------------|--------------|---------------------------|--------------|------------------|--------------|---------------|--------------|
|               | Nº de Pob.            | Nº de Habits | Nº de Pob.                | Nº de Habits | Nº de Pob.       | Nº de Habits | Nº de Pob.    | Nº de Habits |
| MEXICO        |                       |              | 2                         | 3,260        |                  |              | 2             | 3,260        |
| NUEVO LEON    |                       |              | 1                         | 1,053        |                  |              | 1             | 1,053        |
| T O T A L E S |                       |              | 3                         | 4,313        |                  |              | 3             | 4,313        |

POBLACIONES CON ALCANTARILLADO TERMINADOS EN EL PERIODO SEPTIEMBRE 1959 - AGOSTO 1960

|                |  |  |   |       |   |         |    |         |
|----------------|--|--|---|-------|---|---------|----|---------|
| AGUASCALIENTES |  |  | 2 | 3,206 | 1 | 2,998   | 3  | 6,204   |
| GUANAJUATO     |  |  |   |       | 3 | 37,279  | 3  | 37,279  |
| MEXICO         |  |  | 1 | 1,629 |   |         | 1  | 1,629   |
| NUEVO LEON     |  |  |   |       | 1 | 5,560   | 1  | 5,560   |
| SONORA         |  |  |   |       | 1 | 43,516  | 1  | 43,516  |
| VERACRUZ       |  |  |   |       | 2 | 106,821 | 2  | 106,821 |
| T O T A L E S  |  |  | 3 | 4,835 | 8 | 196,174 | 11 | 201,009 |

OBRAS DE ALCANTARILLADO TERMINADAS EN EL PERIODO SEPTIEMBRE 1960-AGOSTO 1961

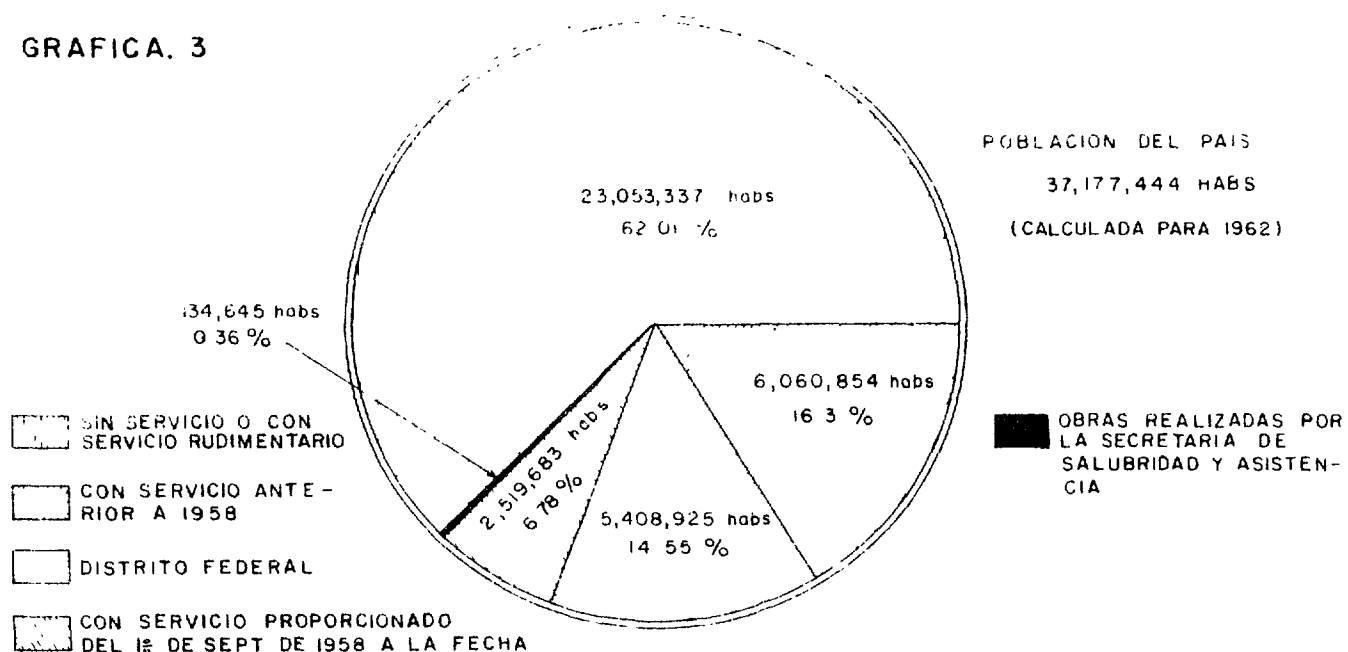
|               |  |  |  |  |   |        |   |        |
|---------------|--|--|--|--|---|--------|---|--------|
| COAHUILA      |  |  |  |  | 1 | 18,546 | 1 | 18,546 |
| GUANAJUATO    |  |  |  |  | 1 | 13,250 | 1 | 13,250 |
| NUEVO LEON    |  |  |  |  | 1 | 6,675  | 1 | 6,675  |
| SONORA        |  |  |  |  | 1 | 10,508 | 1 | 10,508 |
| ZACATECAS     |  |  |  |  | 1 | 4,573  | 1 | 4,573  |
| T O T A L E S |  |  |  |  | 5 | 53,532 | 5 | 53,532 |

OBRAS DE ALCANTARILLADO INICIADAS O CONTINUADAS ACTUALMENTE

|                       |  |  |   |       |    |         |    |         |
|-----------------------|--|--|---|-------|----|---------|----|---------|
| AGUASCALIENTES        |  |  | 1 | 193   | 1  | 93,363  | 2  | 93,556  |
| BAJA CALIFORNIA NORTE |  |  |   |       | 2  | 78,190  | 2  | 78,190  |
| BAJA CALIFORNIA SUR   |  |  |   |       | 1  | 13,081  | 1  | 13,081  |
| COAHUILA              |  |  |   |       | 1  | 11,355  | 1  | 11,355  |
| CHIHUAHUA             |  |  |   |       | 4  | 32,001  | 4  | 32,001  |
| GUANAJUATO            |  |  |   |       | 1  | 18,197  | 1  | 18,197  |
| MEXICO                |  |  |   |       | 1  | 52,968  |    | 52,968  |
| NAYARIT               |  |  |   |       | 1  | 24,700  | 1  | 24,700  |
| NUEVO LEON            |  |  |   |       | 1  | 10,399  | 1  | 10,399  |
| OAXACA                |  |  |   |       | 2  | 5,120   | 1  | 5,120   |
| PUEBLA                |  |  |   |       | 1  | 4,276   | 1  | 4,276   |
| QUERETARO             |  |  | 2 | 3,360 |    |         | 2  | 3,360   |
| SAN LUIS POTOSI       |  |  |   |       | 1  | 125,660 | 1  | 125,660 |
| SINALOA               |  |  |   |       | 1  | 48,963  | 1  | 48,963  |
| TAMAULIPAS            |  |  |   |       | 4  | 251,201 | 4  | 251,201 |
| TLAXCALA              |  |  | 1 | 1,945 | 1  | 5,071   | 2  | 7,016   |
| VERACRUZ              |  |  | 1 | 1,930 | 3  | 88,879  | 4  | 90,809  |
| YUCATAN               |  |  |   |       | 1  | 42,833  | 1  | 42,833  |
| T O T A L E S         |  |  | 5 | 7,428 | 27 | 906,257 | 32 | 913,685 |

# HABITANTES BENEFICIADOS CON OBRAS DE ABASTECIMIENTO DE AGUA, TERMINADAS O EN CONSTRUCCION DEL 1º DE SEPTIEMBRE DE 1958 A LA FECHA

GRAFICA. 3



# HABITANTES BENEFICIADOS CON OBRAS DE ALCANTARILLADO, TERMINADAS O EN CONSTRUCCION DEL 1º DE SEPTIEMBRE DE 1958 A LA FECHA

GRAFICA. 4

