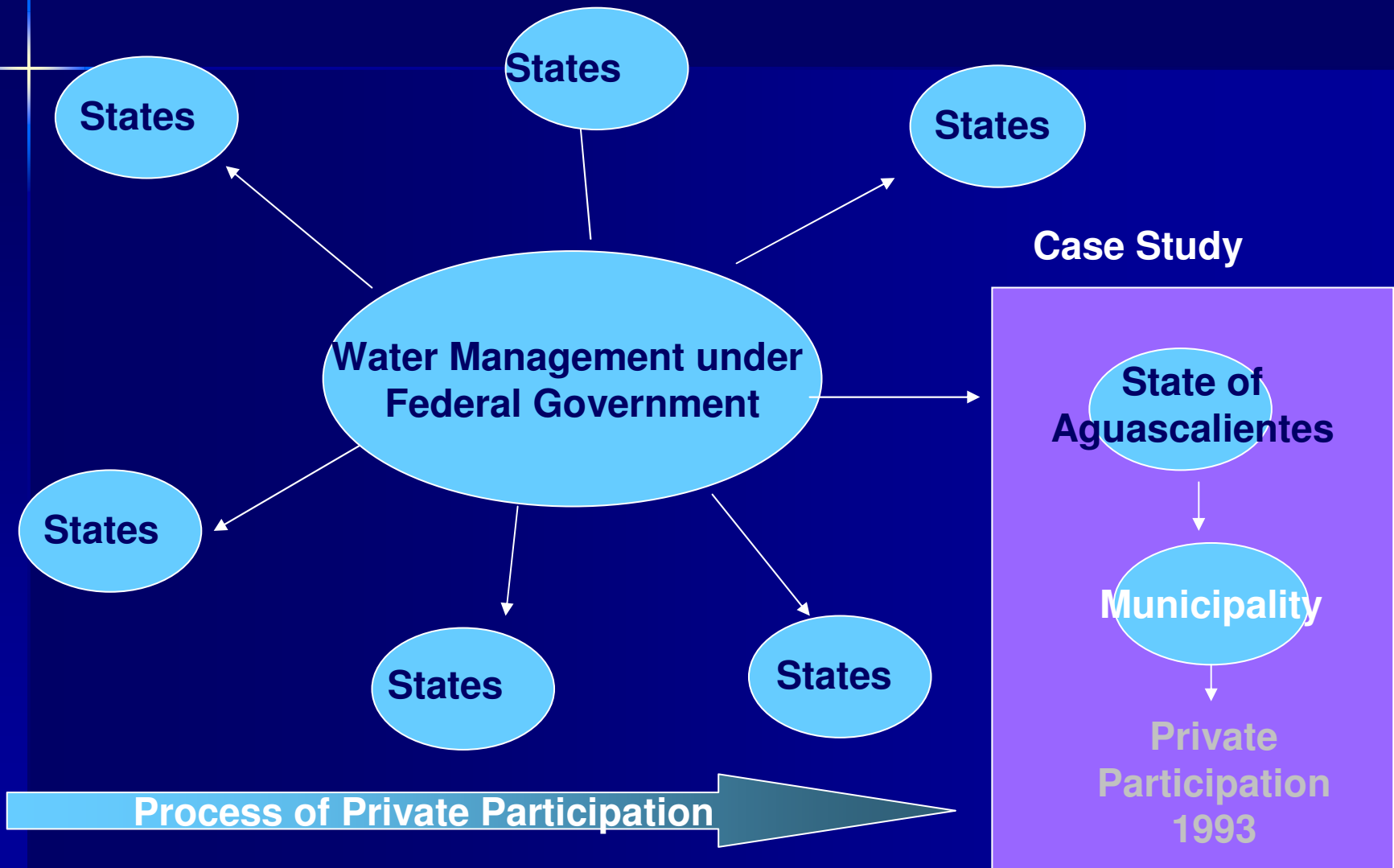


# **LESSONS LEARNED IN THE AGUASCALIENTES CASE**

Oxford – June, 2004

# Process of Decentralization of Water Management

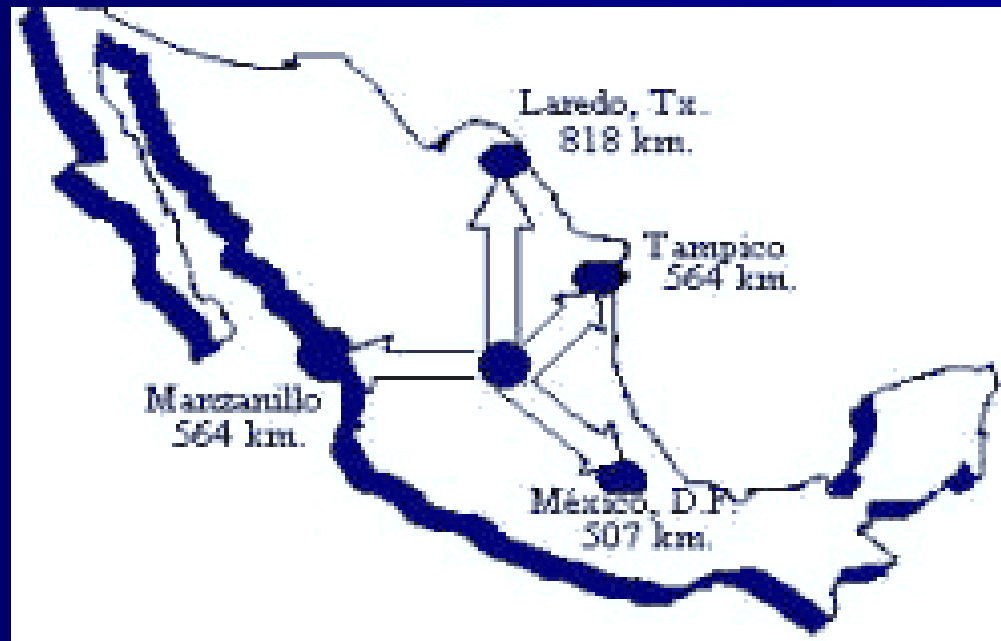


# Private Participation Experiences in Mexico

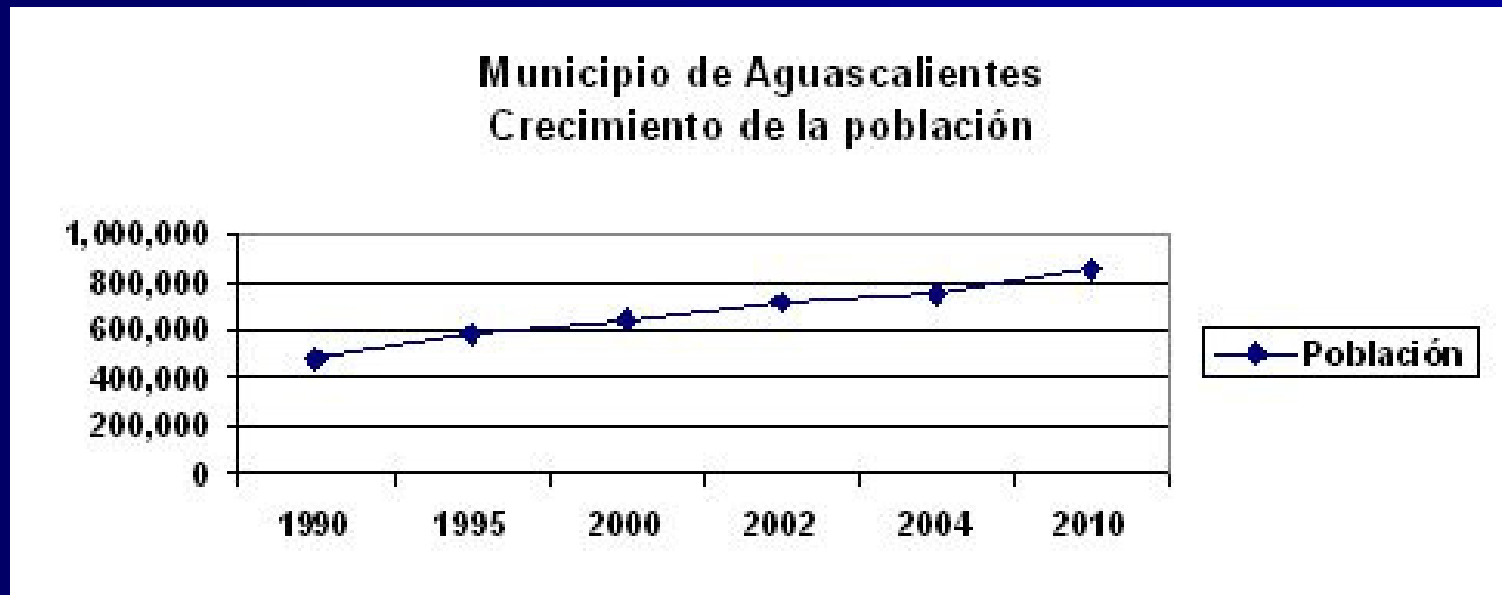
1991-1993	Construction of treatment plants in Puerto Vallarta, Toluca, Ciudad Juárez, Chihuahua	
1993	Aguascalientes	} Contract for Integral Concession of Services
1993	Cancún	
1993	México City	} Contract for Providing Services
1998	Puebla	
2002	Saltillo	} Municipally Owned Company

# Context of Private Participation in Aguascalientes

Map of Aguascalientes



# Context of Private Participation: Urban Population Growth



Urban growth puts pressure on resources.

# Context of Private Participation: Industrial Growth

## Perspectives on Growth, 2000-2004

National Place	State	Rate of Growth GDP
1°	Aguascalientes	6.6%
2°	Chihuahua	5.9%
3°	Coahuila	5.8%
4°	Tamaulipas	5.8%
5°	Baja California	5.7%

National Average: 5.1%

**Source:** Sistema de Información Regional de la Economía Mexicana abril 2001, SIREM

## Gross Domestic Product, 1994-2004

Year	Rate of Mean National Growth %	Rate of Mean State Growth %	Level of Participation %
1994	4.42	7.67	1.01
1995	-6.17	-3.31	1.08
1996	5.15	8.96	1.10
1997	6.78	9.10	1.14
1998	5.02	6.42	1.15
1999	3.75	3.26	1.15
2000	6.9	9.8	-
2001*	3.1	4.6	-
2002*	5.0	6.0	-
2003*	5.2	6.1	-
2004*	5.3	6.3	-

Base Year 1993.

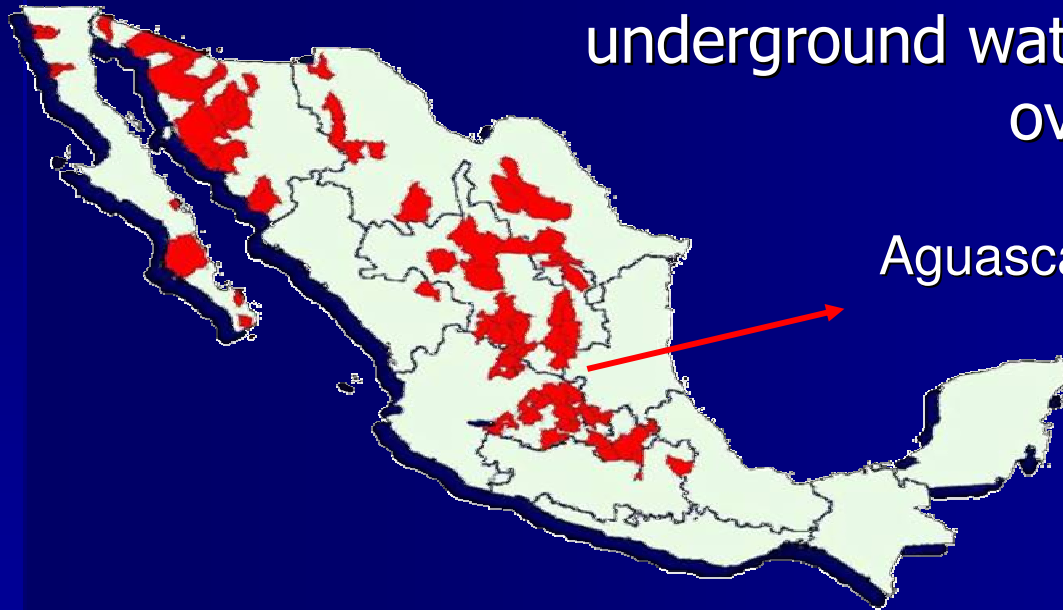
SOURCE: "Sistema de Cuentas Nacionales de México", Producto Interno Bruto por Entidades Federativa 1993 -1999, del INEGI.

\*Sistema de Información Regional de la Economía Mexicana (SIREM).

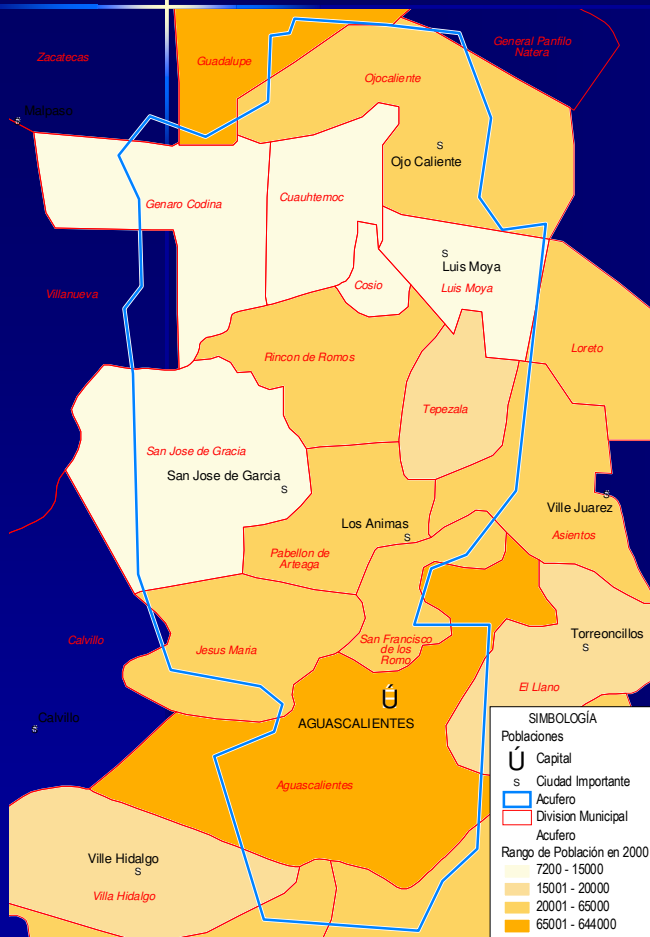
# Context of Private Participation: Overexploitation of Aquifers

In México 50% of the volume of underground water used comes from overexploited aquifers

Aguascalientes is no exception



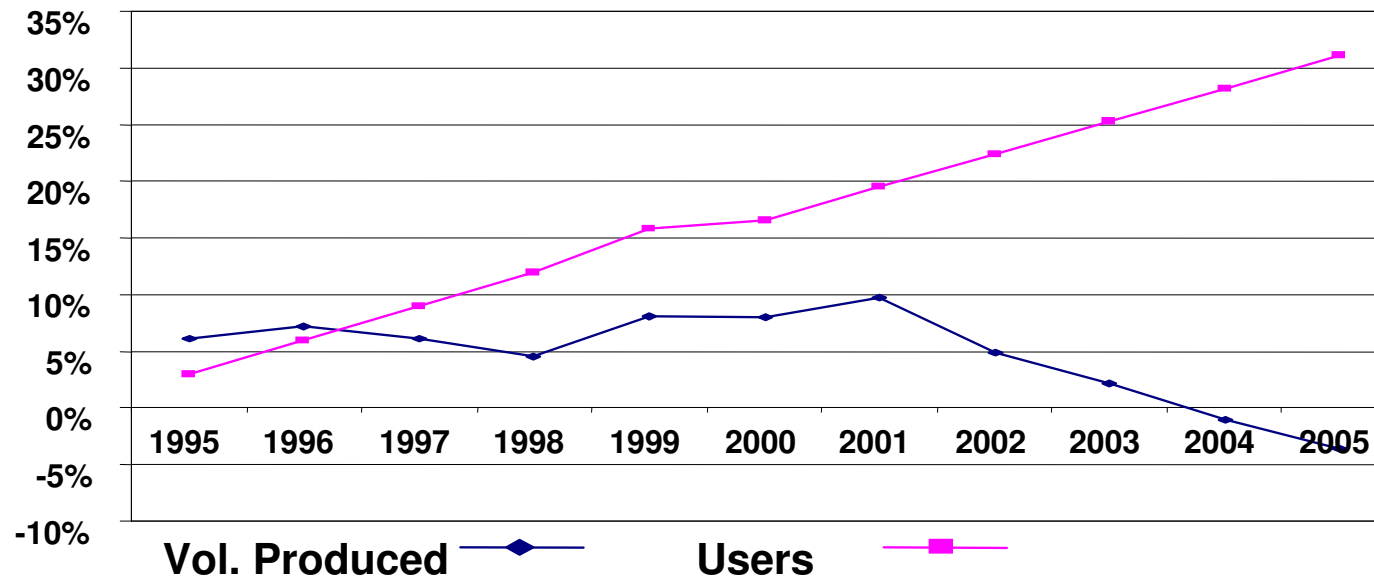
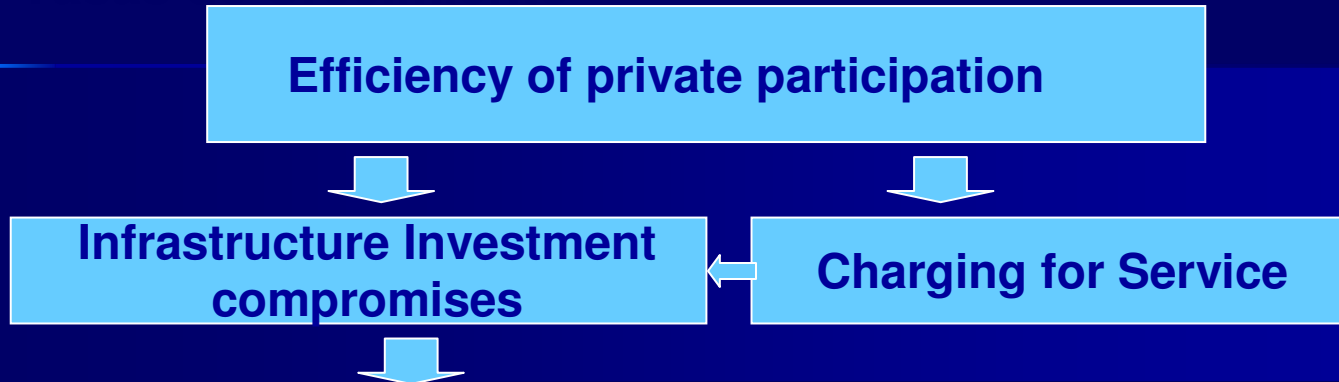
# Context of Private Participation: The Aguascalientes Valley Aquifer



- This aquifer has a surface area of 4 738 km<sup>2</sup>, of which the state of Aguascalientes occupies 62 percent.
- In the aquifer there are 3 045 wells, of which a little less than half (1 422) are for agricultural use (using 67.8% of the hm<sup>3</sup> extracted) and 1 294 for public urban use (the rest, 329 wells, are for other uses).
- The aquifer is mainly used for production of fodder for the milk industry, using more than half the water extracted from the aquifer, and representing 70 percent of the value of agriculture production, but only 7 percent of the regional GDP.

10. Rangos de población en 2000 para los municipios del Sistema Acuífero Valle de Aguascalientes

# Premises of Concession I



# **Premises of Concession II**

**The political-administrative schedules would not interfere in the continuity of programs.**

**The lack of continuity in programs because of high rotation of technical and administrative directive boards in municipal operating organisms generated difficulties in administration of public services.**

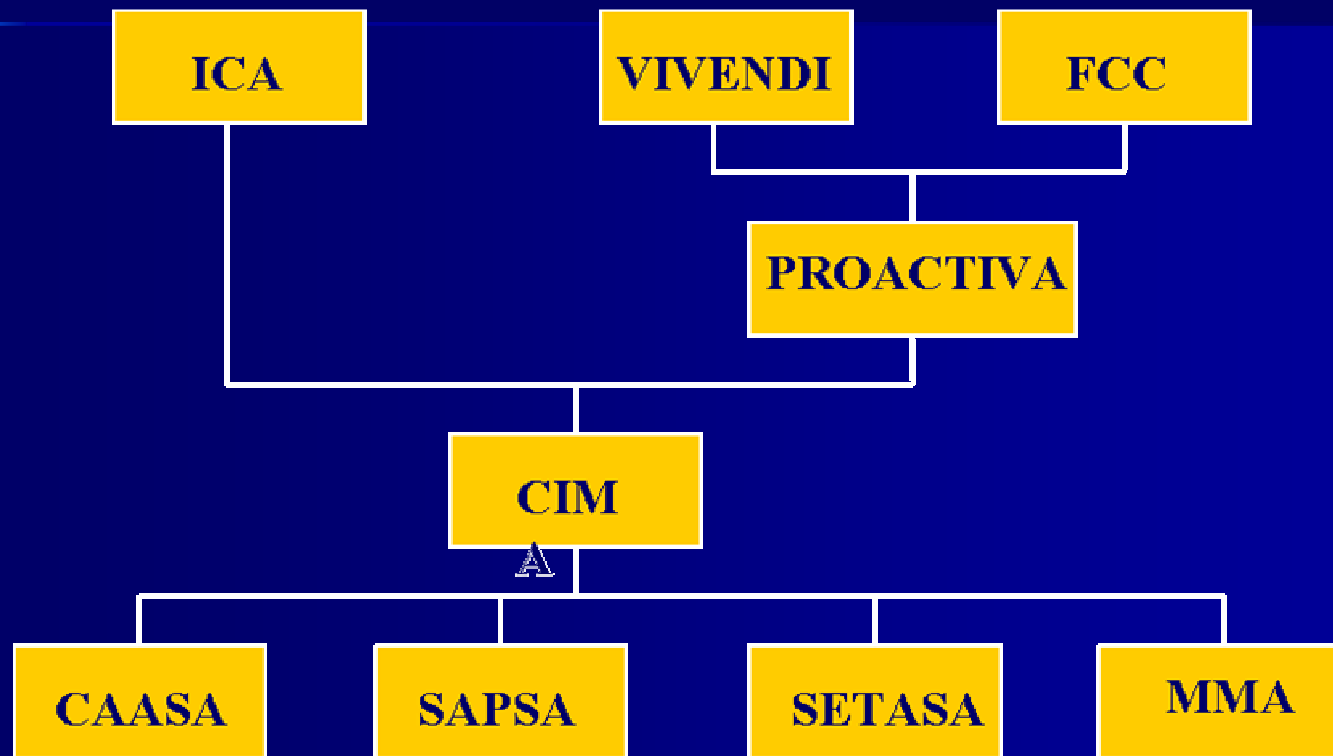
# Concession of the Service

Under these suppositions, in 1993 concession of the service was granted by direct assignment to a consortium made up of:



ICA: Ingenieros Civiles Asociados  
CAASA: Concesionaria de Agua de Aguascalientes S.A. de C.V.  
Banamex: Banco Nacional de México

# International Environment Consortium:



**ICA:** Ingenieros Civiles Asociados

**FCC:** Fomento de Construcciones y Contratos

**CIMA:** Consorcio Internacional del Medio Ambiente

**CAASA:** Concesionaria de Agua de Aguascalientes S.A. de C.V.

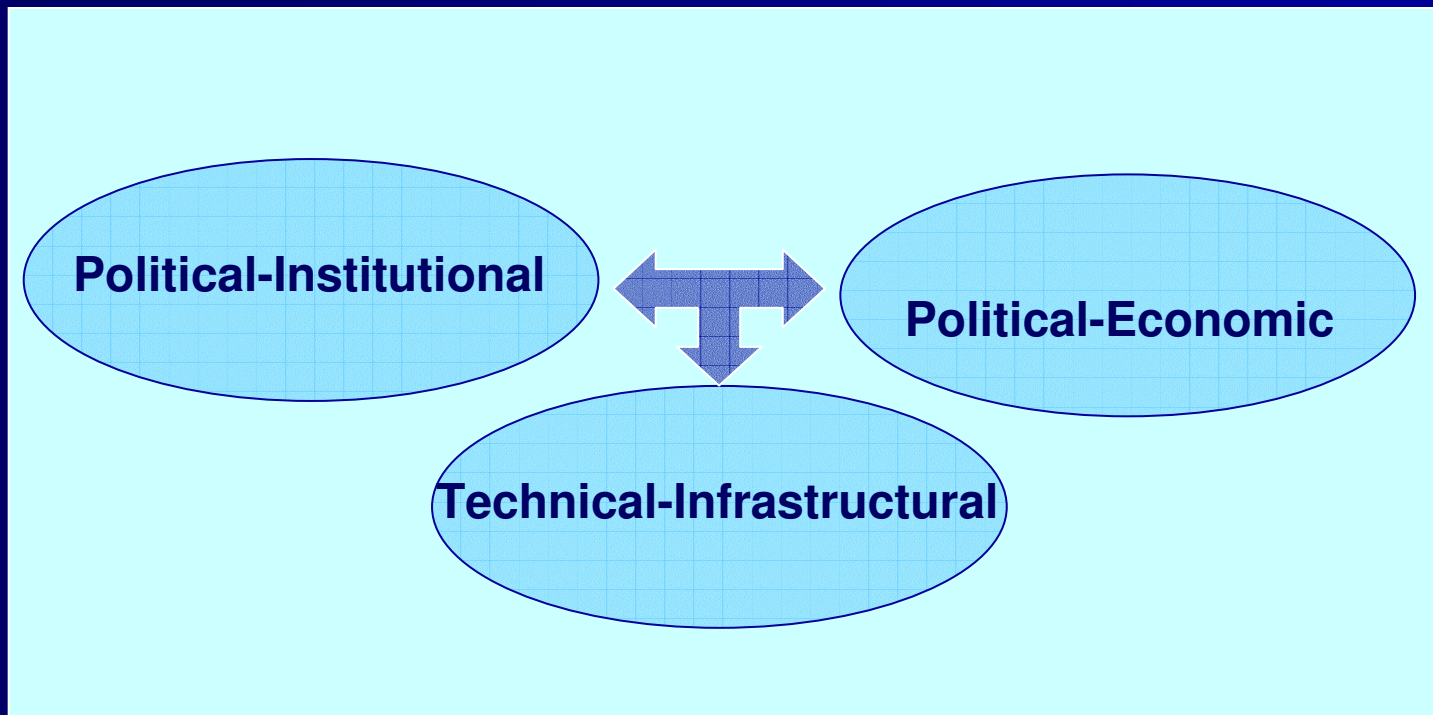
**SAPSA:** Servicios de Agua Potable, S.A. de C.V.

**SETASA:** Servicios de Tecnología Ambiental, S.A. de C.V.

**MMA:** Mexicana de Medio Ambiente, S.A. de C.V.

# LESSONS

We took into account three of the dimensions involved:



# Political-Institutional Dimension

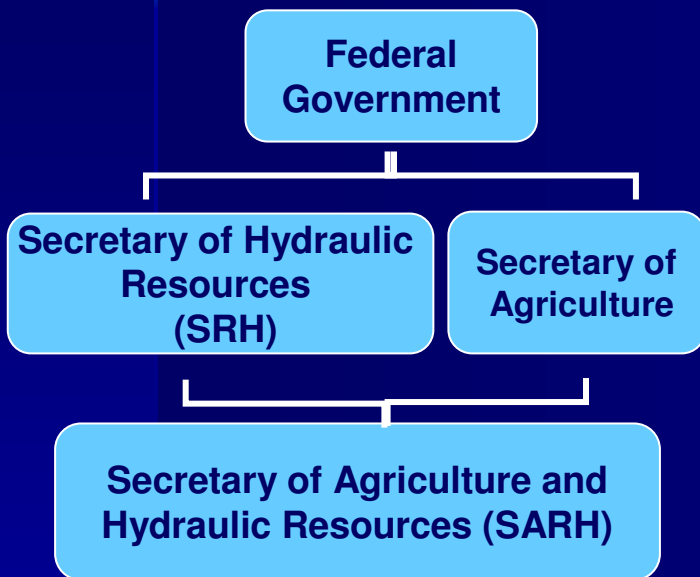
Crisis of the 80's initiated two processes:

- Decentralization to states and municipal governments
- Private participation

The new state-society relationship made citizen participation a legal obligation for the new form of government, creating innumerable organizations for “citizen control”.

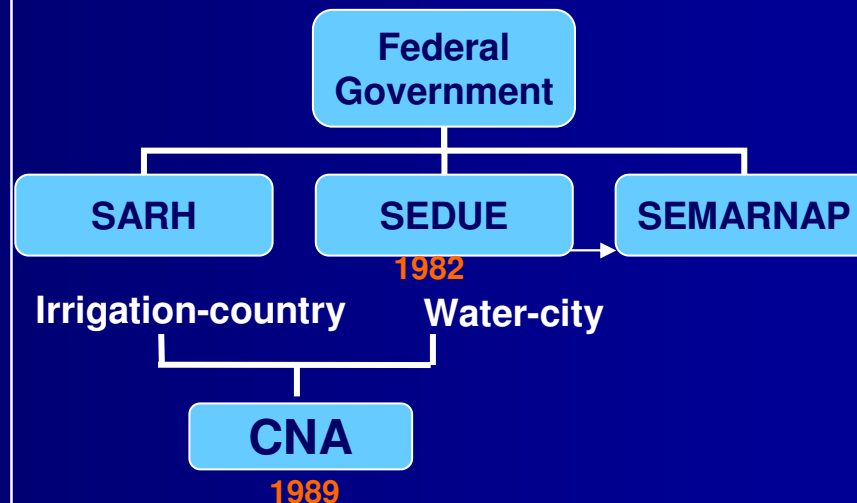
# Political-Administrative Reforms

Before 1982



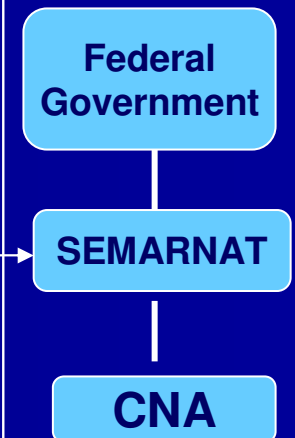
water

Between 1982 and 1989



water

After 1992



water

# Federal Legislative Reforms

- |   |  |
|---|--|
| <b>1983</b>                               | <b>Article 115 Reform. Decentralization.</b> Water and sewerage systems transferred to municipal governments.                        |
| <b>1986</b><br><b>1990</b><br><b>1991</b> | <b>Water rates adjusted by reforms to the Federal Law of Fees.</b>   |
| <b>1992</b>                               | Art. 27 of the Constitution reformed. Market for land and water.   |
| <b>1992</b>                               | National Water Law. Allowing private participation.<br>Creation of new administrative levels. Watershed Councils                     |
| <b>2004</b>                               | Reform to National Water Law. Watershed Organisms created and the total or partial concession to private participation consolidated. |

# Reforms to State Legislation

- 1993** **Legal framework** that makes possible the transference of water and sanitation systems to the state of *Aguascalientes*. It also establishes the legal framework for private participation. Reform of the Water Law of the State of *Aguascalientes*.
- 1993** **Decree 32** authorizes the Mayor of the city of *Aguascalientes* to grant concession of the management of the water, sewerage and sanitation to private companies. One day later WSS in *Aguascalientes* are granted concession.
- 2000** **Creation of INAGUA** (Water Institute of *Aguascalientes* ) through the amendment to the Potable Water, Sewerage and Sanitation Law and Reforms to the Water Law of the state of *Aguascalientes*.
- 2002** **Prohibition of suspension of water service** because of debt, established in the law since 1993. The amendment establishes that the Congress of the State of *Aguascalientes* must approve modifications in fees for water service.

# Lessons

**The process of decentralization was carried out alongside political-administrative and legal reforms for the incorporation of private participation in water and sewerage supply, which caused the following:**

- With the decentralization and the transfer of administration of potable water and sewerage services, the municipal government had a political, administrative and financial weakness since it had historically been dependent on the central power.**
- In the same way as local government, Mexican society was not consolidated in civil society because of a clientelistic corporate form of access to services.**
- The process of private participation was carried out without any real participation of civil society, still incipient and dependent on one political party which, in consequence, provoked the absence of a representative plural congress that would balance the process.**

# Lessons

The process of decentralization was carried out alongside political-administrative and legal reforms for the incorporation of private participation in water and sewerage supply

## Falta de contrapeso en el proceso de participación privada



**municipal government weak**

political and administrative weakness  
(falta de personal suficiente y adecuado, inexperiencia en la gestión)

Financial weakness (endeudamiento y falta de recursos )



**Mexican society was not consolidated in civil society**

# **Political-Economic Dimension**

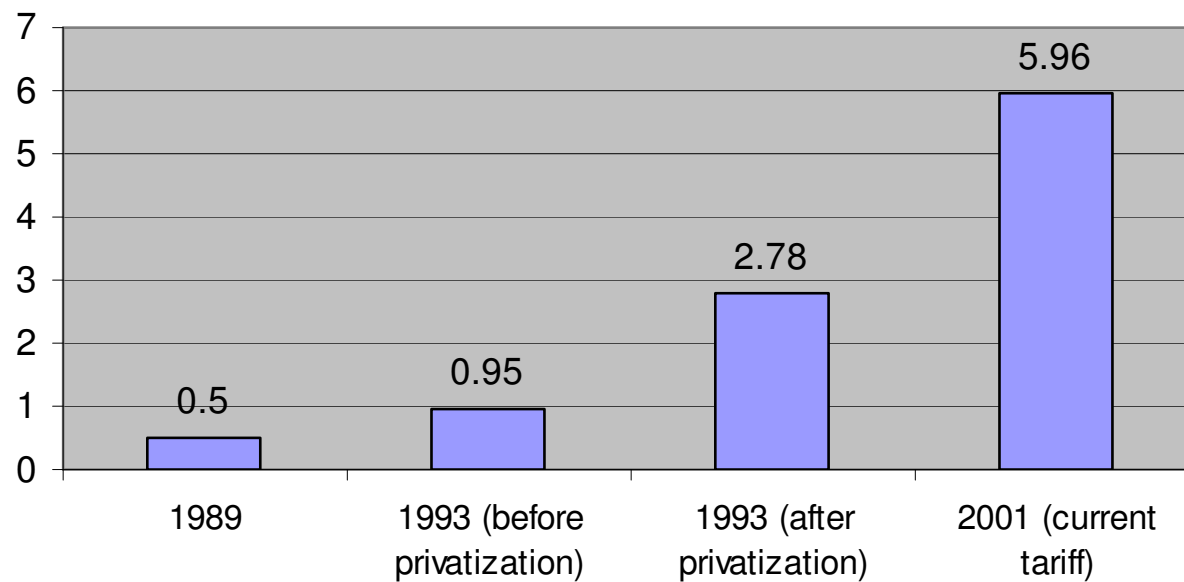
**High political, economic and social vulnerability**

**Strong impact of economic crisis of 94-95**

**Politicization of tariffs**

# Tariffs Increased

**Evolution of the Price of Water  
Aguascalientes 1989-2001**



# Politicization of Tariffs

- ✦ Increase in tariffs provoked citizen protests in the context of electoral campaigns.
- ✦ Opposing political parties took on the decrease in tariffs and remunicipalization of the service as their political banner.
- ✦ This promise gave the opposition party an important weight in the elections for governor and municipal president.
- ✦ This situation destabilized and weakened private management.

# Commercial Efficiency

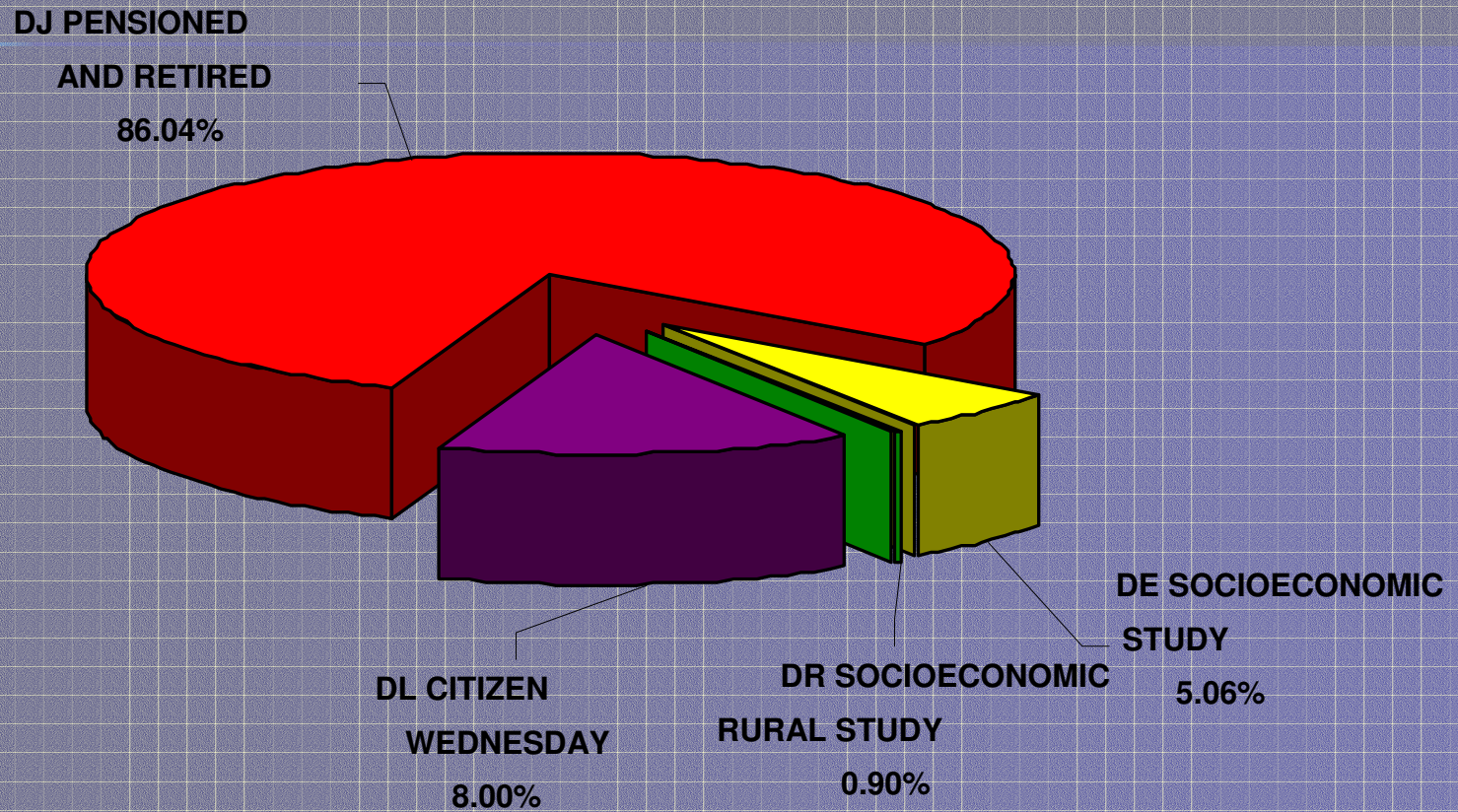


Source: CAASA

# Fund for Social Support

July 2002

Integration



Source: CAASA

# Lessons

**An important problem in this experience was that the social and cultural conditions in operation were not considered when establishing tariffs. It is not possible to go from non-payment to minimum payment of a tariff that represents practically 566% more than what was paid before.**

**No one took into account that in Mexico, for an important part of the population the access to services, more than a civic right, is payment as political clientele, a practice taken over by the company with Citizen Wednesday.**

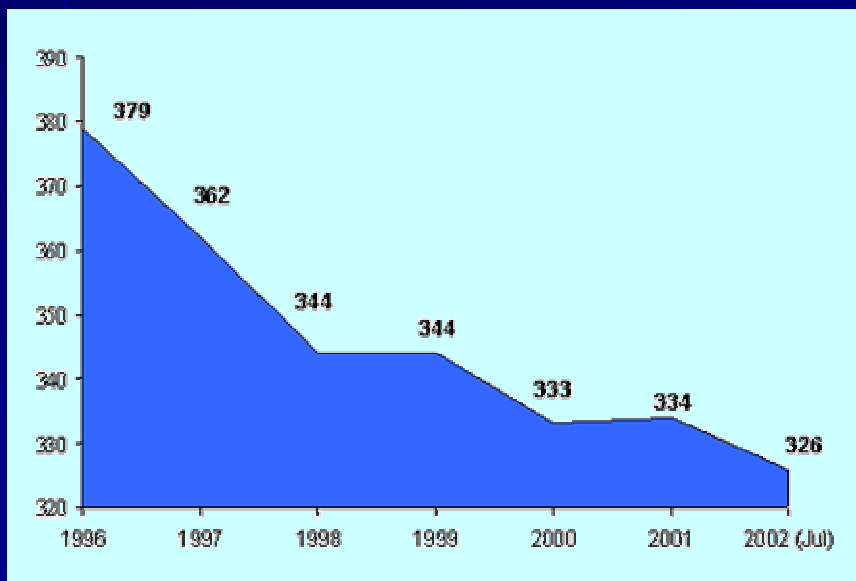
**Additionally, all responsibility was given to the company to decide on increase in tariffs and suspension of service for lack of payment, later modified in the renegotiation of the contract and transferred to the State Congress.**

# Infrastructure

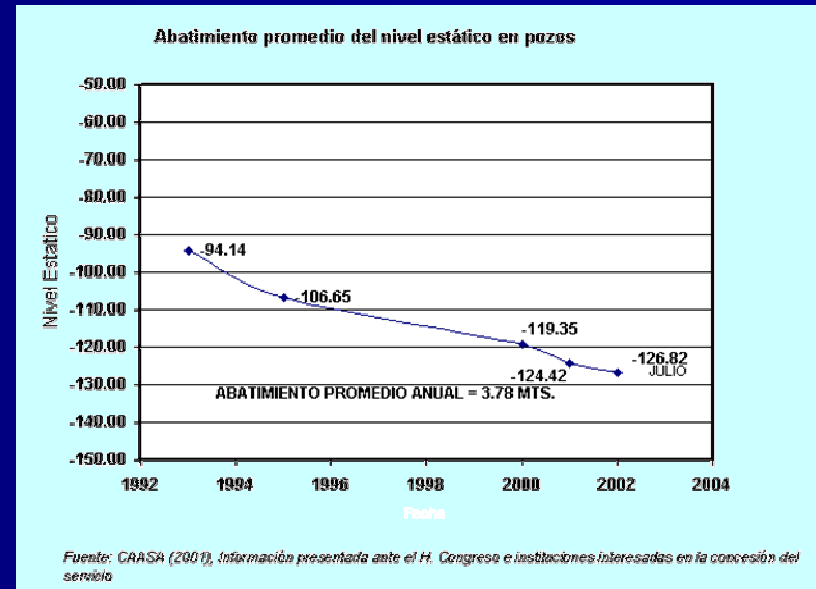
- **The material structure taken over by the private company has not been substantially transformed.**
- **Efficiency of conduction has not been significantly modified.**
- **System efficiency is still approximately 50%.**
- **The new contract only commits the company to repair leaks, not to restore or extend the network.**

# Deficiencies in infrastructure: Problems of overexploitation

## Daily Supply



## Drawdown of Wells



There is an overexploitation originating in the annual drawdown of more than 3 meters (in the city of Aguascalientes, 4 meters/yr) and an extraction of more than 150 meters.

# Municipality of Aguascalientes: Availability of Water in Homes

**Municipality of Aguascalientes. Percentage of Private Inhabited Homes  
According to Availability of Piped Water, 1959- 2000**

	1970	1980	1990	2000
<b>Aguascalientes</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
With piped water on property	79.9	89.4	96.5	97.9
-Within home	70.4	82.4	88.9	94.1
-Outside home	9.5	7.0	7.6	3.8
With transported piped water	7.5	1.4	0.6	0.7
Without piped water	12.5	8.6	2.5	0.8
Unspecified	0.0	0.6	0.3	0.6
	100	100	100	100

*Sources: INEGI, IX, X, XI, XII Censos de Población y Viviendas – Aguascalientes*

# Municipality of Aguascalientes: Availability of Drainage in Homes

## Municipality of Aguascalientes. Percentage of Private Inhabited Homes According to Availability of Drainage

### By year

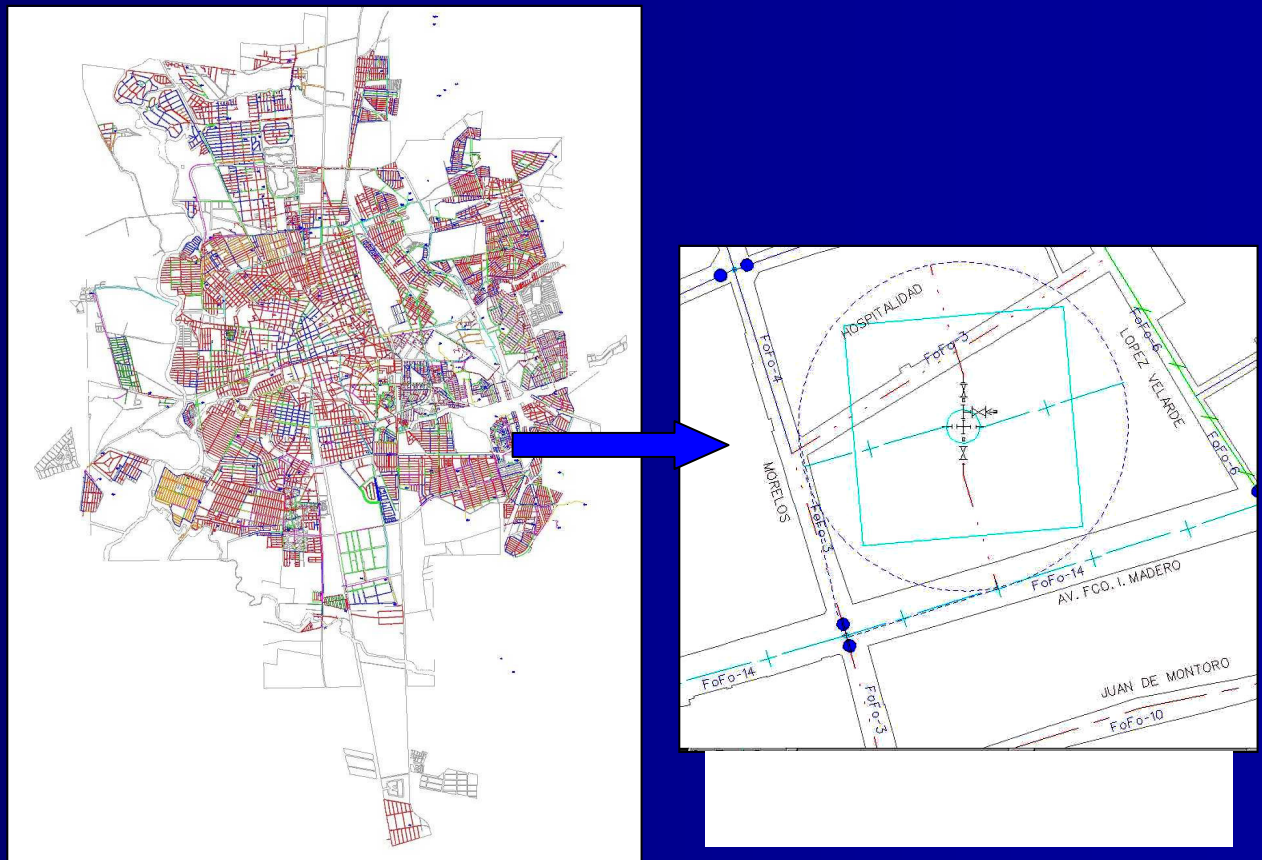
	1970	1980	1990	2000
With drainage	68.5	83.0	92.9	97.3
Without drainage	31.5	15.0	6.5	2.2
Unspecified	0.0	1.9	0.6	0.4
Total	100	100	100	100

Sources: INEGI, IX, X, XI, XII Censos de Población y Viviendas -  
Aguascalientes

# Results

Efficiency in coverage of service, in installation of meters and in charging and billing

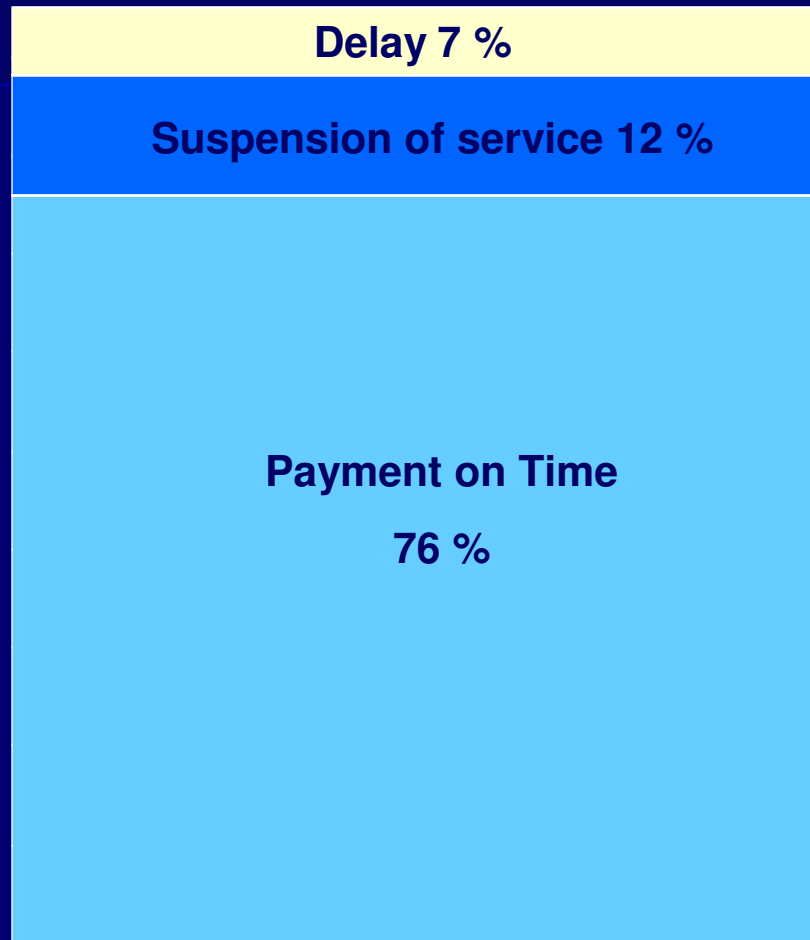
Applied Technology:  
Digitalization of the database  
Geodisa Meters  
Etc.



Source: CAASA (2001), Información presentada ante el H. Congreso e instituciones interesadas en la concesión del servicio

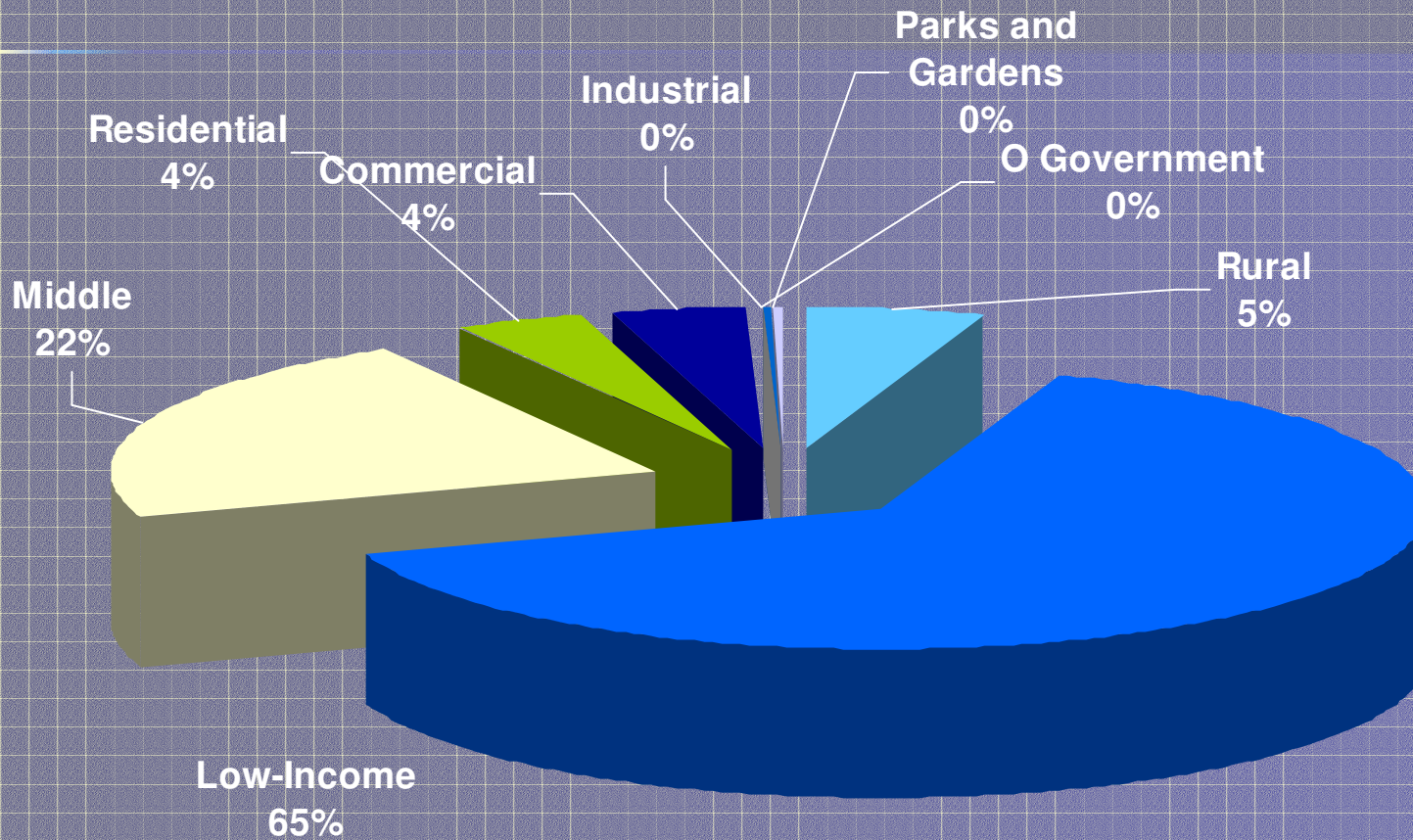
# Commercial Efficiency

**Integration by  
Concept**



**Source: CAASA**

# User Database



Source: CAASA

# Lessons

**In the case of societies such as Mexico, with a highly economically vulnerable population, 65% classified as urban low-income, the system's self sufficiency and growth can not be sustained by charging tariffs alone.**

**The investments needed for sustainability of the system can only be transferred to private companies if there are a series of mechanisms which make this possible and economically viable.**

# Conclusions

**The case of Aguascalientes showed us very clearly that for the process of political-administrative decentralization and private participation in management of public services to be efficient, the determination of international financial organisms and political will to carry the process out is not enough. Historic social conditions to make this possible are indispensable.**

**In the particular case of Mexico, 70 years of central federal operation of services and clientelistic access to them could not be the best conditions to create strong municipal governments and citizens active enough to receive potable water and sewerage systems that they would be capable of regulating and demanding an efficient service independently of the public or private character of the company in charge.**