



Technical Discussions



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TECHNICAL, FINANCIAL, AND ADMINISTRATIVE ASPECTS OF WATER
SUPPLY IN THE URBAN ENVIRONMENT IN THE AMERICAS

GENERAL COMMENTS ON THE TOPIC

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TECHNICAL, FINANCIAL, AND ADMINISTRATIVE ASPECTS

A. Technical Aspects

Although in this aspect there is room for improvement in both the quantity and the quality of the human element, I do not believe that to be the most important. We have sufficient qualified personnel to cope with the problem successfully under present conditions. At the moment what we need is not so much to refine techniques as to supply sufficient water of acceptable quality. This should be our objective; the rest will come later, following a natural process of improvement. Present conditions are so deplorable that we should not allow technical standards to stand in our way, standards that, under different circumstances, would be reasonable but that for the time being would be over-refined for us. There is the danger — and this can be noted in many instances in our Americas — of falling into what might be called "technical pretentiousness".

B. Financial and Administrative Aspects

It is difficult to consider these aspects separately. I believe it appropriate to study, discuss, and, if possible, accept the following considerations:

1. The advisability of providing water to the most densely populated communities and of having the program progress from the most to the least densely populated ones. Forget the idea that urban areas solve the problem by themselves; experience has shown the opposite to be true. Likewise, the "rural psychosis" of which Professor Wolman speaks should be dropped, as a sentimental or political attitude assumed by the public authorities that in reality is a stumbling-block to the execution of water-supply programs. We should analyze the problem objectively, and if we do so, I believe that we cannot help but adopt such a criterion. The reasons are so obvious that I do not believe it worth while to dwell on them (greater return per unit of effort, greater acceptance on the part of the consumer, because of his cultural and economic level; much greater need for the service, as an immediate result of its increased scope, etc.).
2. That the financing of the water works be so planned that the services will be maintained indefinitely and all economic-administrative requirements (interest, amortization, expansion, emergencies, etc.) will be met. That is, that undertakings be planned on the basis of a sound financial policy.
3. Private enterprise versus the State. The State is generally recognized as a poor administrator and any enterprise under its auspices is, in the long run, expensive. I shall give below some of the reasons for this opinion:
 - a) Personnel selected on the basis of political party affiliation, personal or family friendship, etc., and not on the basis of ability.
 - b) Excessive number of personnel. Bureaucracy (the plague of modern states).
 - c) Large amount of free services to privileged persons.
 - d) Inability of public health authorities to apply the standards. Decisions in litigations of State versus State can never be enforced, and are always "tabled".
 - e) Contradiction of democratic ideology: centralization of functions and powers leads the States to autocracy or totalitarianism.
4. Private capital should be taken very much into account in programs of this type, and it should be used by keeping it in circulation. In this manner, public resources can be used in works of a purely governmental type. Furthermore, it is most desirable to have community participation in the work.

5. Private enterprises should be aided with subsidies, tax exemptions, favorable loans, etc. and, above all, permanence of ownership should be guaranteed them. No expropriation of property.
6. Both private and public enterprises should be assisted also in the study of the over-all project, including fair rates that will ensure the solvency of the enterprise indefinitely.
7. In both cases I suggest the advisability, if a loan has played a part in financing the enterprise, of having a competent and reliable administrative auditing service, either local or international, according to the source of the loan.

I believe it appropriate to point out that the empresas aguadoras (a Nicaraguan expression I should like to use, if I may) or water-supply enterprises in our principal cities were founded at the end of the last century with private capital and that they carried out their commitment relatively well, paying dividends and being self-supporting until they were either expropriated or bought by State agencies. The water situation was, without question, better 50 years ago than it is now, despite technological progress, foreign technical assistance, international economic aid, the standard of living demanded, etc.

8. Program for promoting public or private water-supply enterprises by means of appropriate agencies of ministries of public health. An active, intelligent, and well-supported promotion campaign I believe to be essential for the success of this program or any other, whatever its type. Promotion should start at high levels, utilizing international personnel; then, in the event the idea is sold to high-ranking officials of the government, to civic and scientific associations, etc., this activity should be turned over to specialized agencies.

FINANCIAL GUIDE FOR PROJECTS

* Total per capita cost of the investment	\$ 50.00	--	70.00
Monthly rate per capita	\$ 0.75	-	1.25
** Operation costs, per year, per capita	\$ 2.00	-	
Depreciation costs, per year, per capita	\$ 1.00		
Personnel required for its operation	1/1000		
*** Cost of distribution system	66% of total cost		
Cost of pipe lines	80% of distribution cost = 55% of total cost		
Weight of cast iron pipe per 1,000 inhabitants	275 - 300 tons		

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- * This cost per unit could even be reduced to \$40.00 or \$35.00, perhaps, in easy or simple cases.
 - ** Not taking depreciation into account.
 - *** In simple systems it can be increased up to 80%.

I suggest that the concept or definition of "urban" and "rural" be clarified and standardized, because the way they are used is confusing and misleading. As a matter of fact, the concept has become generalized in a sense quite different from the original concept.

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Technical Discussions: Technical, Financial and Administrative Aspects
of Water-Supply in the Urban Environment in the
Americas

AVAILABILITY OF INTERNATIONAL FINANCING AND
POLICIES AND CRITERIA APPLIED WITH RESPECT
TO WATER-SUPPLY SYSTEMS by Mr. PEDRO IRANETA

(To be distributed shortly)