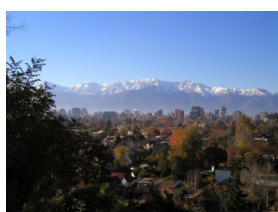


Regulating Public and Private Partnerships for the Poor



REGULATING PRIVATE PROVIDERS: Santiago

During the late 1980s Chile began reforming water and sanitation services. Initially there was a phase of commercialisation, monitored by the new economic regulator and then in the late 1990s most urban services were privatised. A key point about the urban water sector in Chile is that a high level of access to water has long been achieved. In 1990 urban water supply coverage was already at 98%. Prior to the reform process tariffs were considerably below operating costs. The reform process did lead to increased efficiency among the water providers but the need to establish cost-reflective tariffs led to concerns about affordability of services. This issue was addressed by developing a nationwide subsidy for water and sanitation services applicable to both urban and rural residents. The subsidy is only provided to individuals that have been means tested and meet several other criteria. There are currently around 620,000 households receiving the subsidy.

“regulation applies equally to private and public companies ”

DFID

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Cranfield
UNIVERSITY

Case Study:

CHILE

KEY FACTS

Population

15.8 million

Urban population

86.6 %

GDP per capita 2002

9,820 US\$

HDI rank

43/177

Population living < \$2/day

9.6%

Exchange rate

\$1 = 567 Chile Pesos

Urban household water connections

99%

Urban improved sanitation

96%

Water Poverty Index

68.9

Study city

Santiago

Population

4,655,000

Regulator

Superintendencia de Servicios
Sanitarios (SISS)

Service Provider

Aguas Andinas

Research Partners



Urmila Brighu, Malaviya National Institute of Technology, Jaipur, India



JAKARTA WATER SUPPLY REGULATORY BODY Alizar Anwar, Technical Manager, Indonesia



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Research Summary

Economic regulation of water and sanitation services has proven to be a powerful tool for improving water services in high-income countries. Regulators determine water prices ('price cap') relative to a required level of outputs (service standards). Total revenue requirement (from which the price cap is derived) is determined by adding anticipated operating expenditure to planned capital expenditure (for capital maintenance as well as for improvements in quality, security of supply, service standards and service extensions) plus an allowed cost of capital. Following the incentive based approach, companies are allowed to retain efficiency savings in both opex and capex for an agreed period (five years for example) which motivates them to achieve higher efficiency before the benefits are shared with customers in reduced prices.

This model has been adapted under a number of variations around the world but, until recently, has tended to be reactive instead of proactive regarding early service to the poor in low and middle-income countries.

The purpose of this research project is to give water regulators the necessary technical, social, financial, economic and legal tools to require the direct providers to work under a Universal Service Obligation, that is including service to the poorest, even in informal, unplanned and illegal areas, as a primary duty in lower-income countries.

Adequate government legislation is a prerequisite for this achievement, as are appropriate pro-poor policies with regard to service and pricing differentiation. The research recognises that the role of small scale, alternative providers also needs to be recognised in the regulatory process. Customer involvement at an appropriate level is seen as the third critical aspect of regulation and in this context, we are looking at mechanisms for poor customers and potential poor customers to achieve a valid input.

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The Water Sector and Institutional Framework

Chile began to overhaul its water and sewerage sector in the late 1980s. An important component of this process was a decision to increase tariffs to a level where they reflect the true cost of providing services. It is estimated that before the reform process tariffs covered less than 50% of operating costs. In some regions where operating costs are very high, the tariff was only covering about 20% of costs. Necessarily coinciding with the tariff reform process was the creation of the national water regulator for urban areas, the Superintendencia de Servicios Sanitarios (SISS) to ensure any tariff increases were justified. Laws creating SISS were passed in 1988 and 1989, though SISS was not formally established until 1990. In the first tariff-setting process in 1990-91, the average increase was 75.7% though the range was from 7.3% to 463%. For small companies the rates increased very substantially, particularly in the high-cost operating regions of the country.



Juan Eduardo Saldivia,
Superintendente de Servicios Sanitarios

In the second tariff-setting process in 1995-96 the tariff rise was more modest, averaging 6.9%. However, in 2000-02 tariff increases were higher, averaging 16%, because of the development of wastewater treatment plants. During the 1990s tariffs doubled for the customers of the service provider in Santiago, Empresa Metropolitana de Obras Sanitarias (EMOS). This state-owned company was privatised in 1999 when Spain's Grupo Agbar joined forces with France's Suez to pay US\$ 1.1 billion for 51% of the shares. There were 50% staff reductions after one year of the concession, though the company states that redundant workers were generously paid-off. Initially the new privatised company continued to be known by its pre-privatisation name of EMOS but changed in 2001 to the presumably more 'brandable' name of Aguas Andinas. This was in part intended as a public image measure to give the company a more local-sounding name. By the time the company was privatised Santiago already had almost universal coverage of water and sewerage services but very little capacity for treatment of wastewater. The new owners have invested \$ 600 million, much of it in wastewater treatment. Waste

water treatment coverage in Santiago was between 5 and 7% in 1999, and it is now 75% in 2004. It is planned that it should be 100% in Santiago by 2009.

Nationally, the regulator SISS has awarded 45 concessions which between them are responsible for a total of 340 water and wastewater systems. The time period for a concession in Chile is unlimited (BOTs are limited to 30 years). There are nine relatively large private companies that provide services to 71.8% of the urban population. Other categories of regulated services providers include state owned companies, municipal companies and cooperatives. Between 1990 and 1997 there was a period of evaluation to determine whether the legislation governing the engagement of SISS in the sector was appropriate. In the late 1990s several laws (and several statutory instruments) were introduced to modify how the regulatory framework functioned. These changes led to a more open and effective framework which also allowed greater participation of the private sector but restricted the accumulation of capital in private hands.

An interesting mechanism used in the tariff-setting process by SISS is known as the *Empresa Modelo* or Model Company. The model company is used to judge efficient costs, and takes into account operations costs (though not bad debts), investment in capital maintenance and new works and a reasonable profit. The initial rounds of tariff-setting simply aimed at establishing average costs and setting tariffs to reflect those costs. Now, however, the real companies must compete against the model company as an incentive to become more efficient. An allowance of 15% is made for unaccounted for water, which is judged to be 'efficient'. Aguas Andinas criticises the use of the model company because it assumes that service providers must be self financing from cash flow. This assumption is not realistic in the commercial world where companies must borrow money from the financial markets.



SISS HQ, top floor multi-storey car park above and



Aguas Andinas HQ, right tower block (pictured right)

Service to the Poor and USO

With the significant increases in tariffs in the late 1980s and 1990s it was realised that there was a need to provide a mechanism that enabled the urban poor to be able to afford a reasonable level of consumption. This led to the introduction of the subsidy programme in the early 1990s. Essentially the government reimburses the water companies on the basis of the amount of water consumed. The subsidy can cover between 25 and 85% of a household's water and sewerage bill up to a maximum consumption of 15m³ per month. Above 15m³ households must pay the full amount.

The subsidy programme is organised by the Ministry of Interior, and the Ministry of Planning (MIDEPLAN), though it is managed at the municipality level. Funding for the programme comes from central government. Each year MIDEPLAN determines how many subsidies are to be granted to each region of the country. This is done through using household survey information and water and sewerage tariffs from each service provider. This enables MIDEPLAN to calculate how many households will need the subsidy and the overall amount

required. The subsidy is intended to cover the shortfall between household ability to pay and actual consumption. The ability to pay is based on the idea that no more than 3% of household income should be spent on water and sewerage. The benchmark figure

used by the Pan-American Health Organization is that the water bill should not exceed 5%. In the subsidy programme it was decided to use the 3% figure because of the aim to support the poorest households.

Households apply for the subsidy at their local municipality or water company and as a first step complete an application form that records general household details. Eligibility for the subsidy is based on several criteria, the most important of which is what is known as the CAS score. The CAS score is determined through an interview with the head of household, undertaken by the municipality, and is carried out at the residence.

The questionnaire contains 50 questions concerning

household size and age, living conditions, occupation and income and other socio-economic indicators. The interview process may be outsourced to private companies but the municipality always calculates the CAS score to reduce the opportunity for collusion between the household and interviewer. The CAS score is valid for two years and can be used as the basis for applying for other subsidised services such as health, family support, and pensions. In addition to the CAS interview, the household must demonstrate that it has no arrears with the water company, and provide documentation to demonstrate socio-economic circumstances. Subsidies are issued according to the CAS scores, prioritising the neediest households, and are normally renewed on an annual basis for up to three years. A household may then reapply for the subsidy. Similarly there are several criteria that will lead to the municipality withdrawing the subsidy from a household. For example, three months arrears means the subsidy to the household is cancelled and they must reapply. Other reasons for withdrawing the subsidy include:



Low-income housing. There is only about 1% 'informal housing' (i.e. no slums) in Santiago. A water tower of SMAPA, a municipally owned water supplier in the south west of the city, is in the background.

Service to the Poor and USO

- Moving out of the municipality
- Not informing the municipality of change of address (within the same municipality) at least 30 days in advance
- Change in socio-economic circumstances
- Voluntarily giving up the subsidy
- Completion of the three-year subsidy period

The subsidy reduces a customer's bill by a percentage, leaving the customer to pay the balance. The requirement that a customer must not be in arrears encourages the development of good payment habits among customers. The bill provided to the customer is net of the subsidy, and the municipality pays the water company the subsidised amount. Water companies bill the respective municipalities the cumulative total subsidy. Should the municipality fail to pay on time it can be charged interest, and even more critically the water company can bill the household the full amount in the next payment period. However, the water company cannot cancel the subsidy – this can only be done by the municipality.

The level of subsidy is not the same in all parts of the country. This is because it is recognised that costs of production vary greatly, so subsidies can be higher in one region than another. For example, in Valparaiso there are eight tariff bands, all of which are the highest in the country because of the number of small towns and higher cost of producing water.

Both rural and urban poor have equal rights to the subsidy, though it is forecast that by the end of 2005 the subsidy will be mostly directed towards rural populations. By 2005 it is anticipated that there will also be 100% coverage of water in rural areas (still catching up on urban areas) but not sewerage or waste water treatment.

In July each year MIDEPLAN has to propose to the Treasury the regional budget required for subsidy on a cubic metre per



household basis. In December the funds are sent to the region to then distribute to the municipalities in that region. Another responsibility of MIDEPLAN is to develop methodologies for identifying levels of poverty, and discovering ways of trying to avoid favouritism or political parties capturing the subsidy. There have been cases where money has not been well spent and MIDEPLAN has intervened because it is held responsible to ensure that funds are directed to the most needy families and to carry out constant monitoring. Currently there are 340 municipalities receiving subsidies out of a total 345, and there are 620,000 households receiving subsidies.

In 2001 an evaluation of the programme by an independent commission (consultants) made



USO, Tariffs and Legal Issues

The need to meet the universal service obligation is no longer an issue in urban areas of Chile. There is still a need to provide further coverage in rural communities (defined as having populations of between 150 to 3,000 people, or 15 houses per kilometre), though there is optimism that rural access should reach close to 100% by the end of 2005. An obvious question to ask is whether the subsidy system is sustainable? In 1998 it is reported that the subsidy system cost a total of \$33.6 million, which was considerably less than the previous universal subsidy scheme. In the same year water providers made net profits of \$107 million and presumably corporate taxation is contributing to the overall cost of the subsidy system.

The advisory unit to the Ministry of Economic Affairs is responsible for analysing the impact the proposed new tariffs will have on the population. During the preparation of new tariffs by SISS the advisory unit is involved in the discussion of new levels so is familiar with it when it is formally presented. The advisory unit prepare a commentary on what impact the proposed tariffs would have on the poorest consumers and this information is shared with MIDEPLAN. There is a 30-day period in which the Minister should sign the proposed tariffs and although he may be unhappy with some increases he must sign the approval new tariffs. There have been occasions when the Minister has

In the 1990-9901 price review, the average price rise was 75.7%, with a range between 7.3% and 463%! This latter increase was introduced over five years in stages. In 1995-1996 the average price rise was 6.9% with a range between -1.2% and 24%. 2000- 2002 price rise averaged 16% which represented increased waste water treatment. However Aguas Andinas was only awarded 2% and neighbouring company ESVAL 0%. There are inflation rises under an indexation formula, when inflation reaches 3%.

reportedly been 'too busy' to sign off on the new tariffs which has postponed their introduction.

However, service providers can retrospectively charge the new tariff and collect interest.

The Ministry for Economic Affairs has responsibility and involvement in the law setting the tariffs, and within that actually detailing the process. It can also change what 'articles' say to have influence on how tariffs are calculated. The articles are all about determining or explaining how the law is fulfilled. For example, how should 'capital' be calculated as this might lead to excessive tariffs but these guidelines cannot be changed too often. Two or three years ago, the Ministry and SISS proposed changes to articles in the tariff law but the private companies were not in agreement and the proposal went no further.

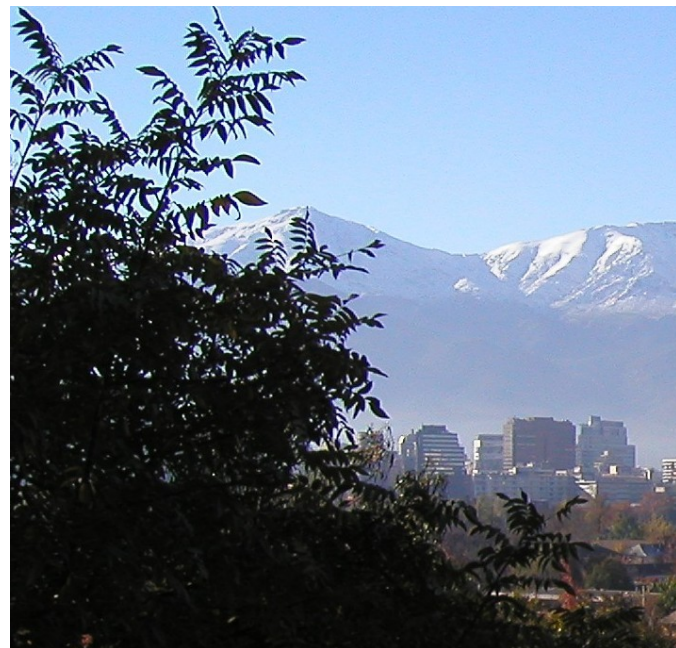
Lower house OKs plan for new sanitation commission - Chile Published : Friday, January 14, 2005 *Business News America*

Chile's lower house has approved the creation of a congressional investigating commission to analyze whether privately operated sanitation companies comply with government regulations, the house reported.

Thirteen representatives will form the commission, which will serve the lower house and not the senate, a congressional source told BNamericas. The commission likely will be formed in seven to 30 days, approximately.

The commission will analyze whether sanitation companies that have private capital comply with investment commitments established in service contracts. The commission also will act as an industry watchdog, keeping an eye on changes in service rates.

Further, the commission will work to ensure that sanitation companies comply with fines or sanctions if they fail to meet contract guidelines. Making sure public entities properly regulate sanitation companies will fall under the commission charter.



Customer Involvement

With respect to tariff setting, SISS makes public the tariffs that it proposes to impose, stating what it will take into consideration. The companies are then allowed to respond and there is an exchange of calculations on the part of SISS and the service provider. If there is no agreement then the case goes to the expert commission. Although the general public is not represented on the commission it is involved in setting the terms of reference.

Unlike in other countries no customer committee was contemplated in the laws creating SISS. Although there was some consideration of establishing a customer service committee during the review of the legislation in 1996-7 in the end it was not incorporated. It is recognised by some that customer rights and representation are generally weak and limited in their scope. SISS does not have authority to establish a customer service committee so it is an issue that will have to be considered in further legislative development.

SISS is obliged to deal with customer complaints within 10 days and SISS monitors its own performance in this respect. SISS also uses indicators similar to those used by Ofwat, the water and sewerage regulator for England and Wales. There have been complaints surrounding charges made for wastewater treatment on a catchment basis. Some customers are paying for wastewater treatment even though they are not yet served in their district of the catchment. The regulator is not 'accountable' in law, and there is no formal procedure of reporting to anyone- not to Congress or the Ministry but the President is said to be 'observing' the

regulator. It is the President who appoints the regulator and can also remove him at any time.

There are few other entities to which the public may turn for assistance in consumer rights. SERNAC (Servicio Nacional del Consumidor) is the national consumer service and states its mission as to educate, inform and protect consumers in Chile. SERNAC is linked to the Ministry of Finance and has authority to mediate in disputes between customers and suppliers. There is a view in SERNAC that most people in Chile think consumer protection is a bad thing or doesn't even exist. Nevertheless SERNAC has arrangements with each regulator and consumers are able to seek help, and it has a weekly spot on television to discuss consumer rights. The whole area of consumer rights appears to be a slowly developing feature in Chilean culture.



The customer centre for SISS, on the ground floor of their offices in central Santiago, which receives complaints and provides information to customers



Conclusions

The water and sewerage sector in Chile has reached very high service standards. The urban population, which represents the vast majority of citizens, has water and sewerage coverage of 99% and 98% respectively. The country is pressing forward to provide wastewater treatment, representing very large investments (see picture below) and it is anticipated that in Santiago all wastewater will be treated by 2009. Other Chilean cities are also pursuing similarly ambitious service level targets. Even smaller municipal companies demonstrate an impressive professionalism in providing water and sewerage services.

In Chile the question of universal service obligation is largely redundant with the exception of the small rural population, and even there it is expected to catch up with urban areas in terms of water supply coverage by 2005. Regulation of public and private partnerships in this particular socio-economic context is delivering. Service providers are making modest profits and continue to invest in further improvement. It is interesting to speculate to what extent the targeted subsidy programme has contributed to the current high levels of service. The poorest, most vulnerable urban residents are provided with a 100% subsidy for the first 15m³ of water per month under the *Chile Solidario* programme which assists around 100,000 people who are considered to be very poor indeed. Other poor households can be subsidised on their first 15m³ to a level of between 25% and 85%. However,



Above: New waste water treatment plant, Santiago

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Tariff Setting and Investment

“We are going to have to reconsider some investment that we need to make,” the company’s secretary general Joaquin Villarino told local media. Villarino said Aguas Andinas, Chile’s biggest water company could still meet its obligations with the Water Services Superintendent (SISS) by using cheaper technology to treat wastewater, although he did not expand further. Building the Los Nogales plant is expected to cost Aguas Andinas \$210 million, but SISS officials say it could be built for as little as \$126 million.

The SISS blames Aguas Andinas for overspending on two wastewater treatment plants – El Trebal, at a cost of \$150 million and La Farfana, at \$315 million, more than the regulator had recommended – but the company says that running the two plants is now not profitable because of low tariffs. (Global Water Intelligence, March 2005)

all households consuming more than this quantity are expected to pay the balance of the water and sewerage bill. Given that the subsidy is funded by central government, and is considerably more economic than a previous universal scheme, it is assumed to be an economically sustainable measure. There is some criticism that the mechanism of transferring subsidy funds from central government to municipalities is slow because of bureaucracy but so far this does not appear to have strained the system.

It is noteworthy that one of the adjoining companies (Valparaiso) is not only implementing the *Chile Solidario* programme but is proactively talking to its customers who are in debt and going so far as to invite debtors in to a special programme where they are taught how to change a washer on a dripping tap so as to reduce wasteful consumption in the future.

If there is an issue where it can be seen that further development is warranted, it is to do with the customer representation in the regulatory process. Although in theory the ordinary man or woman can participate, in practice this is not the case. The *Comision Defensoria*, ‘not yet an ombudsman but moving in that direction’, believes it has a role ‘against SISS, on behalf of the public. SISS is not in the middle between the company and the consumer, it is not really taking necessary action, consumers are coming to the commission.’ Protecting consumer rights and raising awareness among the public of their existence is a task that will take time.