United Nations Research Institute for Social Development
"Social policies and private sector participation in water supply - the case of Hungary"

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## 1. Introduction

After more than a decade with experimenting with $\mathrm{PSP}^{1}$ in the water sector, we still do not have a clear picture about the privatization process in Hungary and its impact. This chapter will try to provide an in-depth analysis on some of the results achieved so far.

The Hungarian water sector has gone through a major transition influencing both its economic and social performance and the democratic accountability of the system since the early 1990s. Before the 1990s drinking water provision had been the responsibility of the state. State managed companies had only very little incentives to follow the profit logic, their main goal being to get enough subsidies from the government and to meet the goals set out by the economic plans. The New Economic Mechanism introduced in 1968 was unique in the socialist region in terms of the space in provided for private incentives in the operation of the companies. However, water provision and management was the sole responsibility of the few state operated utilities.

During the socialist era household water and sanitation services were free of charge ${ }^{2}$ This was changed only after the 1990 regime change, when fees had been gradually introduced. Water and sanitation prices have been steadily increasing in real terms over the past 15 years. However, the prices are kept arbitrary low by the local governments. The reason is that people were used to free water and therefore making them pay for the water and sanitation services is still a politically sensitive issue.

The local government act (1990) transferred the responsibility of water provision to the local governments, declaring water provision as mandatory, sewage and drainage as nonmandatory tasks. In 1991 and 1992 the 33 water companies were replaced by five regional and a vast number of local companies owned by the local governments. However, municipalities had the right to refuse the transfer and in some cases it indeed happened. In some places the state ownership remained, just like in the case of the five regional companies. Thus the changes resulted in a mixed ownership structure (about $20 \%$ of the water companies are still state-owned) and a highly fragmented structure, with altogether 369 companies supplying drinking water and/or sewerage service by the end of 2001. Around half of the water companies run water services in only one town or village. The process of decentralization was also strengthened by the raise in operational costs and water prices. Those utilities that could provide water from local water-sources got decoupled from the regional companies (Somlyódy et al. 2002). A further complication in management was created by starting privatization in 1994 in the water sector at local level and the concession agreements signed for management purposes.

Hungary has been leading in Central and Eastern Europe in terms of privatization of public services: the entire energy sector and many of the waterworks have been privatized. Today about $40 \%$ of the water is distributed by private companies/joint ventures; and about $20 \%$ of the water companies are privatized. Some companies are Hungarian, but the wellknown multinational companies have also been very active in Hungary: Veolia, SUEZ, RWE, E-on, and Berlinwaters, among others. The fact that different types of ownership are present in Hungary makes room for a comparative analysis.

The intention of this paper is to investigate how private sector participation (PSP) in the water supply industry impacts upon the poverty-related issues of equity, access and affordability and how social policies are designed to help the poor. We investigated the

[^0]national level framework, sketched up the functioning of the regulatory institutions, quantitatively analyzed the involvement of the private sector. The backbone of the study is based on a dataset provided by the Hungarian Waterworks Association ${ }^{3}$. The database contains data about some 120 water and sewage companies from 1995 to 2004. In our analysis we used only data from water companies, around 90 companies. In terms of the number of Hungarian water companies our database represents less than one third of the total number of waterworks, since in Hungary 369 water and sewage companies exist (state of Summer 2005). However, the database contains data about the members of the Hungarian Waterworks Association, which are basically the largest water companies. Therefore the companies covered by the database actually provide more than $90 \%$ of the water produced in Hungary, serving about 9.5 million people (total Hungarian population is 10.2 million people). A great number of the Hungarian waterworks are extremely small village waterworks, and many of them are not members of the Association.

The structure of the paper is as follows. First, we provide a general description about the Hungarian water sector, including data about access to, and affordability of, water. Second, we provide a presentation of the Hungarian social policies concerning water. Third, we present an outline about the trends of water privatization in Hungary. Here we include the results of data analysis on private sector involvement and water price.

## 2. Characteristics of the Hungarian water sector

### 2.1. The meaning of access and affordability

### 2.1.1. Access

Access to water in Hungary is not a problem by international standards. The World Health Organization requires that people have access to safe drinking water within the reach of 200 meters from their home. Hungary meets this requirement. Piped water is available to almost all of the settlements ( $99.7 \%$ of the settlements), and where it is not, or quality problems impede water consumption, water is transported. Public fountains free of charge are provided in towns and villages. Water provision is a compulsory task for local governments. The provision of public services is basically defined as part of the tasks of local municipalities by the Act on local municipalities and other laws.

The fact that piped water is available in almost every settlement suggests that if people are not connected to the pipeline, it is not because of physical, but financial constraints. Indeed, important inequalities still exist in terms of connectedness, as the data of Table 1 below clearly show. Even by now only $81 \%$ of the poorest families have tap water in their house, and this ratio was only $75.5 \%$ in 1992. Almost all of the families of the richest income groups have piped water in their home, although data are striking in showing that piped water coverage is not $100 \%$ even for these groups.

[^1]Table 1: Proportion of dwellings supplied with piped water by income groups (\%) and the change between 1992 and 2003 (\%)

| Year | Income groups |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| 1992 | 75.5 | 82.3 | 86.1 | 88.0 | 89.7 | 90.7 | 93.2 | 93.6 | 96.8 | 97.6 | 89.3 |
| 1993 | 73.4 | 82.8 | 85.9 | 88.2 | 88.7 | 89.7 | 92.9 | 95.5 | 96.6 | 98.3 | 90.2 |
| 1994 | 79.0 | 85.3 | 86.6 | 88.9 | 91.0 | 89.9 | 92.2 | 94.4 | 96.6 | 98.3 | 91.0 |
| 1995 | 75.8 | 84.9 | 86.8 | 87.0 | 89.8 | 93.0 | 93.3 | 93.9 | 97.3 | 97.9 | 91.0 |
| 1996 | 76.4 | 86.5 | 90.3 | 91.5 | 90.6 | 91.7 | 93.7 | 95.6 | 96.8 | 98.1 | 92.1 |
| 1997 | 73.3 | 86.1 | 90.5 | 90.1 | 90.7 | 91.4 | 92.5 | 95.9 | 97.7 | 98.7 | 91.8 |
| 1998 | 79.1 | 87.5 | 90.3 | 89.8 | 91.9 | 93.9 | 94.1 | 94.7 | 96.7 | 98.6 | 92.6 |
| 1999 | 77.6 | 85.9 | 89.2 | 90.7 | 92.6 | 93.7 | 94.1 | 96.6 | 97.3 | 98.9 | 92.8 |
|  | $1^{\text {st }}$ | $1^{\text {st }}$ |  |  | 3 rd |  |  | $5^{\text {th }}$ | $10^{\text {th }}$ |  |  |
|  | dec | quintile | $2^{\text {nd }}$ quintile | quintile | $4^{\text {th }}$ quintile | quint | dec | Average |  |  |  |
| 2000 | 80.7 | 85.7 | 92.0 |  | 93.9 | 97.2 | 99.0 | 99.4 | 94.4 |  |  |
| 2001 | 77.8 | 84.2 | 93.8 |  | 95.9 |  | 98.0 |  | 99.4 | 99.4 | 95.1 |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| 2002 | 79.1 | 90.8 | 92.5 | 94.5 | 95.5 | 96.8 | 97.0 | 98.5 | 98.5 | 99.3 | 95.2 |
| 2003 | 80.7 | 91.0 | 92.7 | 95.8 | 95.2 | 96.7 | 97.3 | 98.6 | 98.5 | 99.4 | 95.5 |
| $\%$ |  |  |  |  |  |  |  |  |  |  |  |
| $2003 / 1992$ | 107 | 110 | 107 | 108 | 106 | 106 | 104 | 105 | 101 | 101 | 107 |

Source: Hungarian Central Statistical Office
We could eventually redefine the question of access to piped water as an affordability question. It is not the physical and spatial marginalization of whole social groups (or regions) that creates inequalities in terms of access in the first place. It is more about the limited financial capacities of people to pay for the costs connection (and after for the water - which is now available for them from public fountains free of charge). In other words, connection charges hampers access.

The hypothesis that the question of access is indeed a question of affordability is reinforced by data as well. Although access data show variation across the years, and the general trend is more about a slow, gradual increase in terms of access for each income groups, the rate of growth slightly speeded up after 2000. And 2000 was the first year after 1995 when overall household expenditures grew in real terms. This is also the year when water consumption started to increase after seven years of decrease. This suggests that connections maybe determined by the relative income positions of households. If people have better financial status, than they are willing to spend on water connection and related infrastructure (bathroom, or non-essential uses).

Inequalities in terms of access to tap water in the house are important: the difference is almost $20 \%$ between the poorest and the richest income group. However, inequalities are slowly decreasing. Over the period 1992-2003 the first six income groups saw their connection rates growing around or above the national average, while this growth has been slower for the four richest income groups (because most of them have already a connection).

As one would expect, inequalities exist also in regional terms and by type of settlements. Table 2 below shows that villages lag considerably behind towns and the capitol city. Combined with the table above we can conclude that most of the poor people in Hungary live in villages - and this is indeed the case. In Hungary the distribution of household income shows strong correlation with the population size of the settlements.

Table 2: Rate of flats supplied with piped water by settlements type (\%)

|  |  | 1992 | 1995 | 1998 |
| :---: | :--- | :--- | :--- | :--- |
| Rate of flats connected <br> to public water supply <br> of this: Budapest <br> other towns | 89 | 91 | 92 | 94 |
| Villages | 98 | 98 |  | 99 |

*With Budapest
Source: Hungarian Central Statistical Office

### 2.1.2. Affordability

We use household expenditure data provided by the Central Statistical Office to assess the amount a household spends on water. We observe that for all the income groups the amount spent on water compared to household expenditures grew between 1992 and 1995. during this period there was an economic recession in Hungary: GDP dropped by about $15 \%$. Revenues were shrinking even more abruptly. Household expenditures for the first income group dropped by $13 \%$ from 1992 to 1993 in nominal terms. However, after 1995 we can distinguish three groups in terms of the trends in spending on water.

Table 3: Affordability of water: water bills (without sewerage charges) according to income groups for Hungary (\% of yearly household expenditure)

| Year | Income Groups |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1992 | 1.1 | 1.2 | 1.1 | 1.1 | 1.1 | 1.0 | 0.9 | 0.9 | 0.9 | 0.8 |
| 1993 | 1.2 | 1.2 | 1.3 | 1.2 | 1.3 | 1.2 | 1.3 | 1.2 | 1.0 | 0.8 |
| 1994 | 1.2 | 1.3 | 1.3 | 1.2 | 1.2 | 1.3 | 1.2 | 1.1 | 1.0 | 0.8 |
| 1995 | 1.5 | 1.5 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.3 | 1.1 | 0.9 |
| 1996 | 1.4 | 1.5 | 1.5 | 1.4 | 1.4 | 1.3 | 1.4 | 1.2 | 1.2 | 0.9 |
| 1997 | 1.4 | 1.6 | 1.5 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.2 | 0.9 |
| 1998 | 1.4 | 1.4 | 1.3 | 1.4 | 1.4 | 1.3 | 1.2 | 1.3 | 1.1 | 0.9 |
| 1999 | 1.5 | 1.5 | 1.4 | 1.5 | 1.4 | 1.5 | 1.3 | 1.2 | 1.2 | 0.9 |
|  | 1 st decile | 1st quint | 2nd quint | 3rd quintile | $4^{\text {th }}$ quintile | 5 th quint | 10 th dec |  |  |  |
| 2000 | 1.5 | 1.5 |  | 1.5 |  | 1.5 |  | 1.3 | 1.0 | 0.9 |
| 2001 | 1.4 | 1.4 |  | 1.4 |  | 1.3 |  | 1.2 | 0.9 | 0.8 |
| 2002 | 1.5 | 1.5 |  | 1.4 |  | 1.3 |  | 1.2 | 0.9 | 0.8 |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2003 | 1.5 | 1.5 | 1.5 | 1.4 | 1.4 | 1.3 | 1.3 | 1.2 | 1.1 | 0.8 |

Source: Hungarian Central Statistical Office
The first five income groups saw their water spending stabilizing around $1.4-1.5 \%$ of the household expenditure between 1995 and 2003. This means a $36 \%$ increase in water expenditure as percentage of overall household expenditure for income groups 1 and 3 , and an increase about $26 \%$ for income groups 2, 4 and 5 for the whole period. Income groups 6-9 experienced a slow decrease of water spending in their household expenditures from 1995 to

2003．Water spending from household expenditures peaked around 1996－1997 and after it has been slowly decreasing．For the whole period this means an increase in spending around $30 \%$ （groups 6 and 8 ）， $44 \%$（group 7）and $22 \%$（group 9）．The members of the richest social group have been spending almost the same on water throughout the whole period．In 2003 they spent $0.8 \%$ of their expenditures on water－the same percentage as in 1992.

We can say that these figures are not high enough to cause a burden on households．Of course，it is difficult to decide what is the benchmark，but Fitch and Price（2002）propose the threshold of $3 \%$ of the income spent on water services（water and sanitation together）to define water poverty．This threshold has been widely used since．

Table 4：Affordability of water：water bills and sewerage charges according to income groups for Hungary（\％of yearly household expenditure）

| Year | Income Groups |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1995 | 1.98 | 1.94 | 1.87 | 1.84 | 1.79 | 1.96 | 1.81 | 1.77 | 1.56 | 1.30 |
| 1996 | 1.87 | 2.03 | 2.05 | 1.83 | 1.96 | 1.96 | 1.97 | 1.74 | 1.68 | 1.36 |
| 1997 | 1.81 | 2.15 | 2.05 | 1.88 | 1.93 | 1.94 | 1.92 | 1.99 | 1.79 | 1.40 |
| 1998 | 2.05 | 1.90 | 1.87 | 1.87 | 1.89 | 1.84 | 1.83 | 1.96 | 1.71 | 1.43 |
| 1999 | 2.10 | 2.20 | 1.96 | 2.16 | 2.01 | 2.14 | 2.04 | 1.90 | 1.94 | 1.44 |
|  | 1st decile | 1st quint | $2^{\text {nd }}$ quint |  | 3rd quintile |  | 4th quintile |  | 5th quint | 10th dec |
| 2000 | 2.29 | 2.30 | 2.39 |  | 2.37 |  | 2.22 |  | 1.80 | 1.64 |
| 2001 | 2.22 | 2.15 | 2.20 |  | 2.23 |  | 2.04 |  | 1.60 | 1.45 |
| 2002 | 2.01 | 1.95 | 2.29 |  | 2.24 |  | 2.13 |  | 2.17 | 1.53 |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2003 | 2.47 | 2.63 | 2.62 | 2.53 | 2.45 | 2.38 | 2.42 | 2.21 | 2.07 | 1.72 |

Source：Hungarian Central Statistical Office
Table 4 above refers to expenditure data instead of income．The combined water and sewerage expenditures do not reach the $3 \%$ even in the case of the poorest income groups． This implies that water affordability does not seem to be a problem in Hungary．However， water consumption data suggest that people were feeling the burden of increasing water price． As water price increased sharply in real terms all over the 1990s，water consumption decreased to the $87 \%$ of the 1995 consumption level at the end of the 1990 s．This is a considerable fall in water consumption．（See Figure 1 below．）


[^0]:    ${ }^{1}$ When we refer to "privatized water companies" we mean a partially privatized companies owning a long-term management rights.
    ${ }^{2}$ This was a general policy during the socialist era: the prices of public services were kept artificially low (or they were non-existent). This was a social transfer (welfare measure) which partly compensated people for low salaries.

[^1]:    ${ }^{3}$ The database was provided by the Hungarian Waterworks Association (Magyar Vízközmű Szövetség). We would like to thank the Association, and in particular dr. Mária Papp, the President of the Association for the help given to our project.

