

# **Two-page Summaries of Innovative Practices**

**Securing Stable Financial Resources for Sewage Treatment  
Facilities**

## **Republic of Korea**

Contact Person: LEE Young-Kee  
E-mail: [youngkee@me.go.kr](mailto:youngkee@me.go.kr)  
Tel.: 82-2-2110-6544

## Securing Stable Financial Resources for Sewage Treatment Facilities

### Description of Initiative

The Republic of Korea has accomplished the formidable task of doubling the proportion of people with access to sewage treatment facilities in just 10 years (1992: 38% → 2002: 76%). By institutionalizing innovative and effective financing for domestic sewage treatment facilities, Korea has progressed towards achieving sustainable development goals. This financing initiative involves both the transfer of liquor tax revenues from the national government to local governments, called the *Local Subsidy Program*, and the establishment of the *Sanitation Facilities Private Investment Project*.

First, in the *Local Subsidy Program*, effective since 1992, a portion of the national liquor tax is used to finance specific projects to promote equitable economic growth across the country. Currently, the following types of projects are being financed by this subsidy: road maintenance, rural (farming and fishing areas) development, water pollution prevention, youth advocacy, regional development, and others.

The main source of funding for the *Local Subsidy Program* is derived from the national liquor tax. Since 2000, the total revenue from liquor tax has amounted to three to four trillion Won annually and 46.6% of this revenue, equal to at least one trillion Won (1 USD = 1,200 Won) has been annually allocated to the Ministry of Environment (MOE), the administrative body for the initiative. During the entire period of this initiative thus far, from 1992 onward, the total investment accrued is 7.4 trillion won. With this budget, the MOE further allocates funds to local governments implementing the initiative according to the size and need of the local government (mega-cities: 10%, cities: 50%, counties: 70%). In other words, from 10% to 70% of the total expenditures in implementing the sewage treatment facilities initiative is provided through the transfer of national liquor tax revenues to local governments.

#### <Local Subsidy Projects & Source of Financing>

Project	Administrative Body	Source
Road Maintenance	Ministry of Government Administration and Home Affairs (MOGAHA)	<ul style="list-style-type: none"> <li>• 81/1000 of total liquor tax</li> <li>• Sum total of transportation tax</li> </ul>
Rural Community Development	Ministry of Agriculture and Forestry & MOGAHA	<ul style="list-style-type: none"> <li>• 141/1000 of total liquor tax</li> </ul>
Water Pollution Prevention	Ministry of Environment	<ul style="list-style-type: none"> <li>• 466/1000 of total liquor tax</li> </ul>
Youth Advocacy	Ministry of Culture and Tourism	<ul style="list-style-type: none"> <li>• 12/1000 of total liquor tax</li> </ul>
Regional Development	Ministry of Government Administration and Home Affairs (MOGAHA)	<ul style="list-style-type: none"> <li>• 300/1000 of total liquor tax</li> </ul>

#### <Current Rate of Investment of Local Subsidy Program into Sewage Treatment Facilities>

	Total Investment	1992-1994	1995-1997	1998-2000	2001-2003
Sum	7432.7	588.5	1168.2	1964.2	3711.8
Final Sewage Treatment Plant	4502.8	512.3	738.7	1150.3	2101.5
Maintenance of Sewage Pipes	2328.8	76.2	264.5	690.2	1297.9
Sewage Works in Rural Areas	601.1	-	165.0	123.7	312.4

(Unit: billion Won, Note: 1 USD = 1,200 Won)

Second, the *Sanitation Facilities Private Investment Project* was instituted in order to enable local governments lacking funds in their internal budget to cover the rest of the expenditures in implementing the initiative not provided by the *Local Subsidy Program*. As of the end of 2002, 1.142 trillion won in private capital has been secured for 83 sewage treatment plants out of 313 plants currently under construction.

In summary, the Republic of Korea was able to achieve a significant expansion of sewage treatment facilities throughout the country within 10 years by 1) providing funds for sewage treatment facilities through the *Local Subsidy Program* and helping relieve the fiscal pressures in local governments, 2) attracting private capital through the *Sanitation Facilities Private Investment Project* in order to cover the rest of the total expenditures and 3) actively supporting the donor community, i.e. private investors, through systematically ensuring a set level of financial returns from sewage treatment facility operation revenues.

<Growth in Distribution Rates for Sewage Treatment Facilities & Pipes >

		1992	1995	1998	2002
Sewage Treatment Plants	<i>Number</i>	26	71	114	207
	<i>Capacity (1,000 tons/ day)</i>	5,815	9,653	16,616	20,233
	<i>Service rate (% population)</i>	38.8	52.6	68.4	75.8
Sewage Pipes	<i>Length (km)</i>	46,111	52,784	62,330	75,859

Furthermore, in response to the high cost of constructing small capacity sewage treatment plants that are necessary in surrounding areas of multipurpose dams, an unmanned automatic system has been introduced through a computerized network connecting the main sewage treatment plant to the nearby small capacity plants. This system was established through the cooperation of local government and the Environmental Management Corporation, a subsidiary agency of the Ministry of Environment, and resulted in a dramatic cut in both construction and operational costs.

In light of the impressive achievements made through this initiative, the Republic of Korea has demonstrated that committed national efforts can lead to the fulfillment of Millennium Development Goals and WSSD goals related to water and sanitation by 2015. The Republic of Korea projects that through sustained implementation of the initiative on Stable Financial Resources for Sewage Treatment Facilities, everyone in the country will be able to enjoy the benefits of efficient sewage services before 2015.

**Mainstreaming/ Sustainability**

With the enactment of the Special Act on Balanced National Development in January 2004, the law on the *Local Subsidy Program* has been abrogated. Instead, provisions have been made so that funds equivalent to what was provided through liquor tax revenues will be earmarked directly from the national general budget from the year 2005 onward.

The financial viability for this initiative has been secured by 1) enacting relevant legal mechanisms to provide a stable source of funding for sewage facilities to local governments, 2) providing differentiated rates of support from the national treasury based on the fiscal conditions of the local government, 3) attracting private investors in order to relieve the pressures of financially strained local governments, and 4) institutionally guaranteeing financial returns to the private investors. Furthermore, user fees have been gradually increased within an affordable range to establish a stable flow of revenues from sewage treatment facilities to local governments.

### **Replicating the Initiative**

This example of drastically expanding sewage treatment facilities and improving public health within a short time period shows that the first consideration in such efforts needs to be the acquisition of stable funding sources.

During the 1960s and 1970s when the Republic of Korea underwent rapid industrialization, national policies prioritized economic development and urbanization, while placing the requisite expansion and improvement of sewage treatment facilities lower on the political agenda. As a result, tremendous economic costs are being experienced to this day, due to the inevitable rise of land prices, the degradation of aquatic ecosystems, and most of all, the difficulty in installing sewage treatment facilities (e.g. sewage pipes) after urban infrastructure such as buildings and roads have been constructed. Developing countries, in their pursuit of achieving Millennium Development Goals and WSSD goals, are urged to learn from Korea's experience along the path of development and realize the importance of designing and implementing integrated policies that address environmental and economic concerns in a mutually supportive manner, as early on as possible.