

#### PRESS RELEASE

July 31, 2015 LIXIL Corporation

## LIXIL and JICA to collaborate further on water conservation in Kenya

# Project to Promote Micro Flush Toilet System for Watershed Management and Improvements to the Water Environment in Urban Areas

**Tokyo, Japan –** LIXIL Corporation ("LIXIL"), a global leader in housing and building materials, products and services, today announced that it has received backing from the Japan International Cooperation Agency ("JICA") to promote its micro flush toilet system for watershed management and improvement to the water environment in urban areas in the Republic of Kenya. LIXIL's proposals were selected following the fourth call for proposals for JICA's collaboration program with the private sector to disseminate Japanese technology for the social and economic development of developing countries.

This will be the second initiative that LIXIL has collaborated on with JICA in Kenya under the public-private partnership program. The first aims to promote the use of waterless, ecological toilets in non-urban areas, where sewer systems are not in place. Both projects are expected to support Kenya's efforts to improve its water environment and water conservation, outlined in the country's national, long-term development blueprint, "Kenya Vision 2030."

According to monitoring programs in 2012<sup>1</sup>, access to safe water supply throughout Kenya is only 59% and access to improved sanitation just 32%. Kenya remains a chronically water-scarce country that has limited water resources, but at the same time is witnessing rapid population growth and urbanization. Social infrastructure, including water and sewer systems, has not kept pace, causing many problems related to water and sanitation. With frequent water supply disruptions, residents are forced to fetch water from water storage tanks and even groundwater.

Despite this situation, most toilets marketed in Kenya are older models that require large amounts of water per flush, and in many cases require two or three flushes to fully clear waste. In response, LIXIL proposed a program to verify the benefits of Japanese highly water-efficient toilets compared to conventional models, and promote the use of these toilets in Kenya.

The project aims to conserve water resources and improve sanitation in urban areas. Making use of expertise and technologies LIXIL has developed over many years, the company hopes to contribute to Kenya's economic development.

\_

<sup>&</sup>lt;sup>1</sup> Source: water.org -- <a href="http://water.org/country/kenya/">http://water.org/country/kenya/</a>

## Supplementary Information

## Collaboration program with the private sector to disseminate Japanese technology for the social and economic development of developing countries

In fiscal 2013, JICA launched a new public-private partnership program that aims to promote understanding of some of the advanced products, technologies and systems of Japanese companies, and to explore the possibility of adopting them to meet the needs of developing countries. Under this program, training sessions, seminars and demonstrations for government officials from developing countries are held in Japan or a counterpart country. By soliciting project proposals from private companies, JICA takes on the expenses of up to 20 million yen for selected projects in the main program category. For the fourth call for proposals, a special health and medical care category was established for the first time. Based on the supplementary budget for fiscal 2014, up to 50 million yen will be provided to support a successful proposal in this new category. By supporting projects that cover medical services, equipment and systems, JICA aims to help introduce the Japanese healthcare model to developing countries, thereby contributing to development of the country in the health and medical care sector. (Source: JICA website)

#### Brief description of LIXIL's proposal

By spreading the highly water-efficient toilet system (Micro Flush Toilet System) in Kenya, LIXIL can help to mitigate problems related to water resources and the environment in urban areas, where the population is rapidly increasing. From a cost perspective, the dramatic decrease in flush water usage will lead to the reduction not only of water bills, but also of maintenance costs for septic tanks due to the need for less frequent sludge removal.

#### **Micro Flush Toilet System**

The Micro Flush Toilet System is a highly water-efficient toilet that uses only one sixth of the flush water used in conventional toilet systems (flush toilet + septic tank). This toilet does not have a conventional water trap, but instead uses a flapper valve at the bottom of the bowl that opens and closes by operating a lever. The valve is usually closed. Before using the toilet, the user operates the lever to keep water in the bowl. Pushing the lever in the reverse direction after use then opens the flapper to enable approximately 0.4 liters of water to flush away the waste.

#### **Expected Benefits**

#### 1) Effective use of water resources

In Kenya, a country facing chronic water scarcity, the growing urban population and increased standards of living have led to wider use of flush toilets. The proposed toilet system will significantly reduce the amount of flush water used, enabling more effective use of water resources (for drinking water, and agricultural and industrial uses).

#### 2) Lower sewage treatment costs

With centralized sewage treatment, less water for toilet flushing means less wastewater in the treatment plant. By reducing the use of pumps and sewage lines, and decreasing the capacity of the sewer system infrastructure, the costs of wastewater treatment will be cut dramatically. With on-site sewage treatment, the waste removal cost that the user must bear can be cut by approximately 25% due to lower frequency of removal.

#### 3) Improved urban environment

The proposed toilet can also mitigate factors impacting water quality since the volume of wastewater treated in the sewer system will be reduced. In addition, the reduction in the amount of water used for flushing will

lead to decreases in power consumption for water use. This energy saving feature, which helps reduce greenhouse gas emissions, will further contribute to improving the urban environment.

#### 4) Job creation

Since a company will be set up in Kenya to manage operations under this project, it will support job creation for local people. As sales volumes increase, the toilets may be produced locally, which will create more jobs, further contributing to Kenya's economic development.

#### 5) Trial calculation of expected benefits

If this toilet system is installed in 100,000 households in the city of Mombasa, each year 2.5 million tons of water can be saved, equivalent to 11% of the total volume of water supplied to the city.

\*\*\*\*

#### Contact:

LIXIL -- Global External Communications

John Short john.short@lixil.com / Tel: +81-3-6268-8801

Miyuki Otomo miyuki.otomo@lixil.com / Tel: +81-3-6268-8801

### **About LIXIL Group Corporation**

**LIXIL Group Corporation** (TSE Code: 5938) is the listed holding company containing LIXIL Corporation, LIXIL VIVA CORPORATION and LIXIL Housing Research Institute, Ltd. The Group is involved in a broad spectrum of housing-related businesses, ranging from the manufacture and sales of building materials and housing equipment to the operation of home centers and a network of homebuilding franchises, and a comprehensive real estate service. Led by President and CEO Yoshiaki Fujimori, the Group posted 1.6 trillion JPY in consolidated sales in FY March 2015.

For more information about LIXIL Group and LIXIL, please visit: <a href="http://www.lixil-group.co.jp/e/">http://www.lixil-group.co.jp/e/</a>

#### **About LIXIL Corporation**

Headquartered in Tokyo, **LIXIL Corporation** is a global leader in housing and building materials, products and services business. The foundation of LIXIL's success is our constant investment in technological innovation to improve people's lives. Drawing on a heritage of over 100 years of technological innovation, LIXIL is grouped into four technology businesses, LIXIL Water Technology (brands include: LIXIL, INAX, GROHE, American Standard, and JAXSON), LIXIL Housing Technology (includes Tostem, Shinnikkei, and TOEX brands, etc.), LIXIL Building Technology (including the Permasteelisa Group) and LIXIL Kitchen Technology. LIXIL Japan Company is the fifth business of the LIXIL Corporation and operates as a customer-focused sales organization with the most comprehensive range of products and services from all four technologies to customers and business partners in Japan. LIXIL produces some of the world's most fundamental and innovative products and services, and our solutions are an integral part of some of the world's most iconic and cutting-edge living and working spaces LIXIL brands are present in 150 countries and our businesses employ more than 70,000 people worldwide. LIXIL brings together technology, quality, design and sustainability to enhance people's lives around the world.