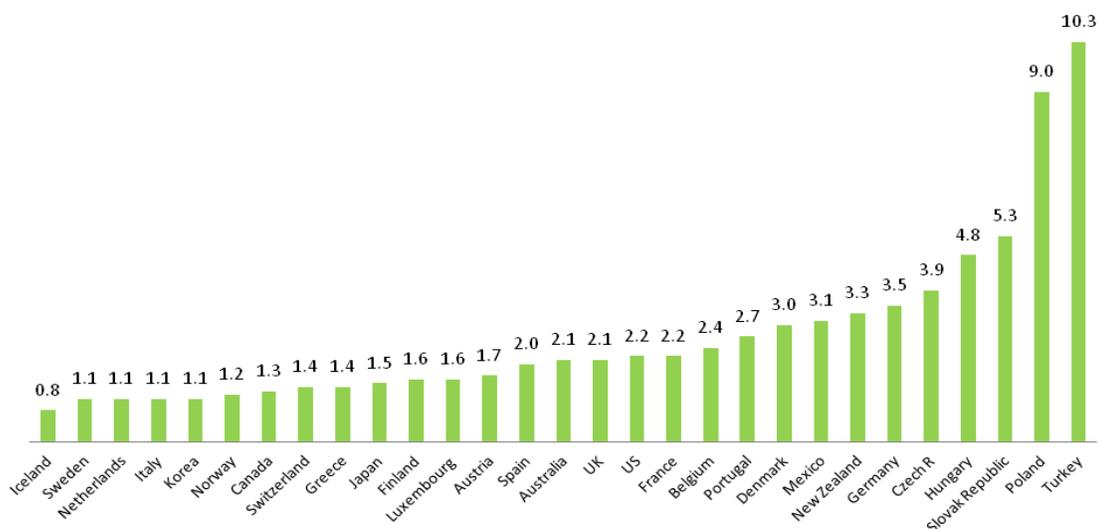
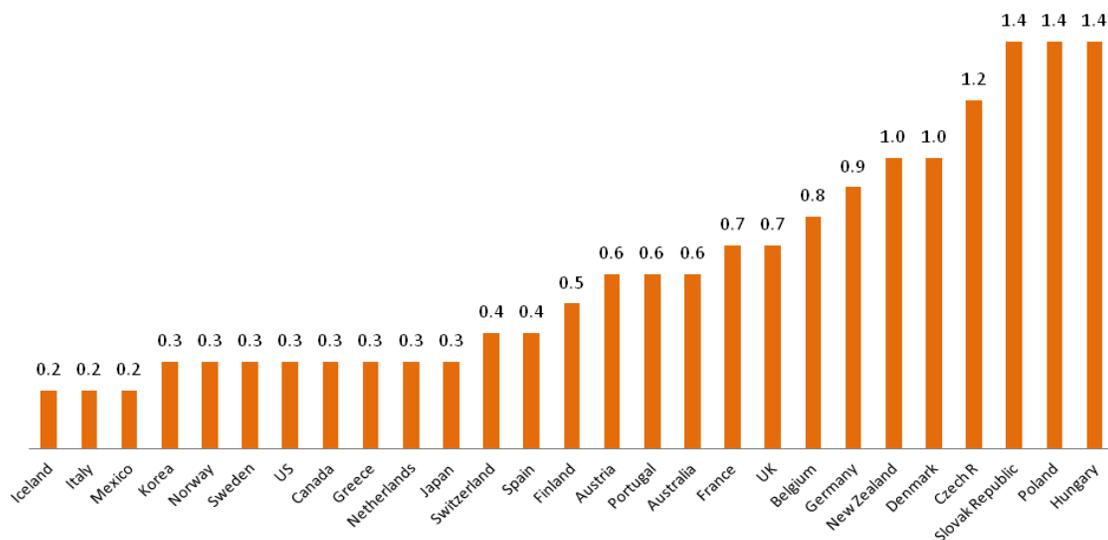


Average water and wastewater bills as a share of income of the lowest decile of the population (USD)<sup>1</sup>



Average water and wastewater bills as a share of average net disposable income (USD)<sup>2</sup>



1. Data for water and wastewater bills as detailed in Note 1 of Figure 3.2. Income data is for 2005 and is in USD at the OECD exchange rates adjusted for purchasing power parity. Figures are rounded to the nearest decimal point.
2. Data for water and wastewater bills are per capita figures based on a tariff that was computed by GWI for a household consuming 15 m<sup>3</sup>/month; and a level of per capita consumption that assumes an average three-person household. Bills are in local currency for 2008 and were converted into USD using OECD's 2007 exchange rate adjusted for consumption purchasing power parity. Data for net disposable income per capita refer to 2006 and are expressed in USD using the OECD exchange rate adjusted for consumption purchasing power parity. Figures are rounded to the nearest decimal point.

Prepared by	UNDESA
Example	<b>WWDR2, Chapter 12, Figure 12.5</b>
Rationale	Water charges are seen as an important economic instrument for improving water use efficiency, enhancing social equity and securing financial sustainability of water utilities and operators.
Position in DPSIR chain	Driver, Response
Definition of indicator	This indicator shows how much water and sanitation charges constitute of various household income groups.
Underlying definitions and concepts	The indicator is based on the following definitions. <i>Expenditure on Water Charges of a Given Household Income Group:</i> Actual monetary amount paid by households in a given income group to the water operator in return for receiving water supply and sanitation services. <i>Household Income of a Given Household Income Group:</i> It is defined as the total amount of income of households in a given income group received by all persons living in the same household. This includes, but is not limited to, wages or salary income; net self-employment income; interest, dividends, or net rental or royalty income or income from estates and trusts etc.
Specification of determinants needed	Household expenditure on water supply and sanitation services of the households representing a given income bracket. Household income
Computation	The indicator can be computed as: $(EW_{ph} / HI_{ph})$ $(EW_{mh} / HI_{mh})$ $(EW_{rh} / HI_{rh})$ Where: EW <sub>ph</sub> , EW <sub>mh</sub> or EW <sub>rh</sub> = the total amount spent on water supply and sanitation by households in the poorest 20% of the households, the median, and in the richest 20% of the households. HI <sub>ph</sub> , HI <sub>mh</sub> , or HI <sub>rh</sub> = total household income in the poorest 20% of the households, the median, and in the richest 20% of the households
Units of measurements	Indicator measured as a percentage. Determinants measured in national currency.
Data sources, availability and quality	Income and expenditure data on water and sanitation is usually available from household income and expenditure surveys. Such surveys are undertaken by Governments at an interval of 3-5 years. The data might also be available from representative surveys undertaken as part of water demand studies or other relevant research undertaken by policy research institutions and municipalities. A disaggregation between sanitation and water can be useful to show respective gaps and progress.  OECD, 2009. Managing Water for All: An OECD Perspective on Pricing and Financing, Available on <a href="http://www.oecd.org/dataoecd/0/34/44476961.pdf">http://www.oecd.org/dataoecd/0/34/44476961.pdf</a> (Accessed 25 October 2011)
Scale of application	Mainly national, but also local if surveys are project related. Depending on data availability, comparisons between provinces, districts, or municipalities might be possible.
Geographical coverage	Global
Interpretation	Poor households are less likely to be connected to the water supply in comparison with wealthier households. The reliance of poor households on alternative vendors often results in high prices paid for safe water. A strong difference of the percentage of household income spent among the different income brackets in a country suggests that water tariffs may be adapted to favor and possibly cross-subsidize the connection of poor households to the water supply. In addition a low percentage of household income spent on water and sanitation services suggests little incentive to use water efficiently. It also indicates

	<p>potential for generating additional resources to improve access to water services. It also presents an opportunity to address equity aspects by adapting the tariff structure according to each level of services and to different consumption levels.</p>
Linkage with other indicators	<p>This indicator bears an indirect relationship with the previous four indicators. A low value will indicate potential to mobilize additional resources for increasing investments in the water supply and sanitation sectors.</p>
Alternative methods and definitions	<p>Definition problems could arise in both variables. On the expenditure side, if water supply from public network is insufficient, the consumer might incur an additional amount on purchasing water from private sources. This may be particularly the case for the lower income households. Such expenditures are often not adequately captured in the household expenditure survey. Similarly, income side does not adequately capture income from all sources. Therefore, necessary adjustments will be needed in the data being used to estimate this indicator.</p>
Related indicator sets	<p>United Nations Statistics Division, National Accounts Main Aggregates Database, Available on <a href="http://unstats.un.org/unsd/snaama/Introduction.asp">http://unstats.un.org/unsd/snaama/Introduction.asp</a> (Accessed 25 October 2011)</p> <p>United Nations Statistics Division, Social indicators, Available on <a href="http://unstats.un.org/unsd/demographic/products/socind/">http://unstats.un.org/unsd/demographic/products/socind/</a> (Accessed 25 October 2011)</p> <p>World Bank, 2011, “World Development Indicator”, <a href="http://data.worldbank.org/data-catalog/world-development-indicators">http://data.worldbank.org/data-catalog/world-development-indicators</a> ( Accessed 25 October 2011)</p>
Sources of further information	<p>Berg, Caroline van den and Danilenko, Alexander, (2011) <i>The IBNET Water Supply and Sanitation Performance Blue Book :The International Benchmarking Network for Water and Sanitation Utilities Databook</i>, The World Bank, page 2, Available on <a href="http://tinyurl.com/6eprest">http://tinyurl.com/6eprest</a> (Accessed 25 October 2011)</p> <p>The International Benchmarking Network for Water and Sanitation Utilities (IBNET), Available on <a href="http://www.ib-net.org/">http://www.ib-net.org/</a> (Accessed 25 October 2011)</p> <p>Global Water Partnership: Tool Box for Investment policy, Available on <a href="http://www.gwptoolbox.org/">http://www.gwptoolbox.org/</a> (Accessed 25 October 2011)</p> <p>Smets, Henri,(2009) Access to drinking water at an affordable price In developing countries, Available on <a href="http://ressources.ciheam.org/om/pdf/a88/00801180.pdf">http://ressources.ciheam.org/om/pdf/a88/00801180.pdf</a>(Accessed 25 October 2011)</p>
Other institutions involved	<p>National Statistical Bureaus Ministries of Finance, Planning and Development Public and Private Water Utilities</p>