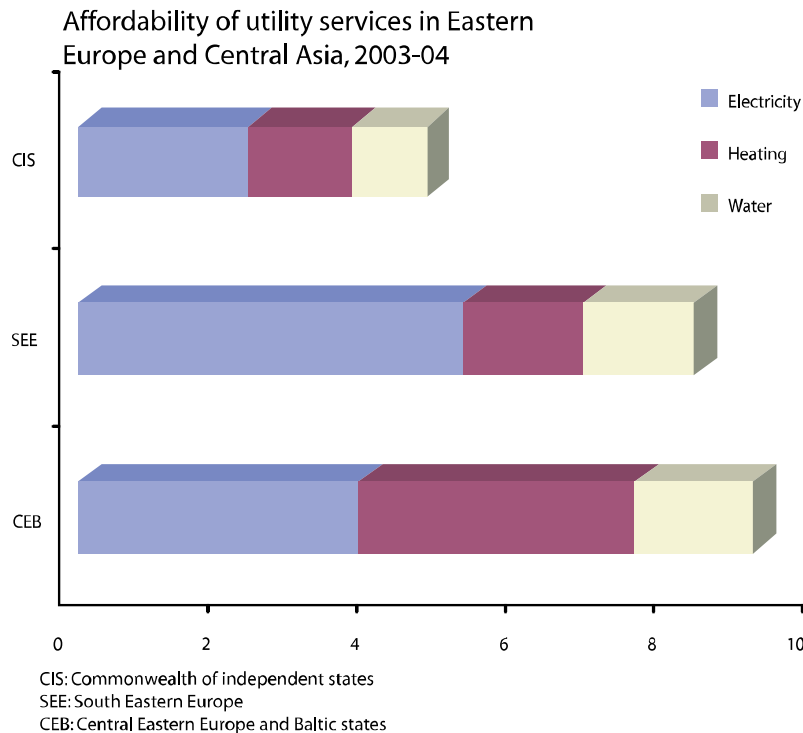


Indicator name **Water and sanitation charges as percentage of various household income groups**



Prepared by	UNDESA
Example	WWDR2, Chapter 12, Figure 12.5
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: $100 (EW_{ph} / HI_{ph})$ $100 (EW_{mh} / HI_{mh})$ $100 (EW_{rh} / HI_{rh})$ Where: EW _{ph} , EW _{mh} or EW _{rh} = 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 _{ph} , HI _{mh} , or HI _{rh} = 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.
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 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.
Linkage with other indicators	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.
Alternative methods and definitions	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.
Related indicator sets	United Nations Common Database (UNCDB) http://unstats.un.org/unsd/cdb/cdb_help/cdb_quick_start.asp (Accessed 02 March 2009) Social Indicators http://unstats.un.org/unsd/demographic/products/socind/default.htm (Accessed 02 March 2009) World Bank Group - World Development Indicators http://www.worldbank.org/data/wdi2004/cdrom/loi.html (Accessed 02 March 2009)
Sources of further information	Global Water Partnership: Tool Box for Investment policy. http://www.gwptoolbox.org/ (Accessed 02 March 2009)
Other institutions involved	National Statistical Bureaus Ministries of Finance, Planning and Development Public and Private Water Utilities