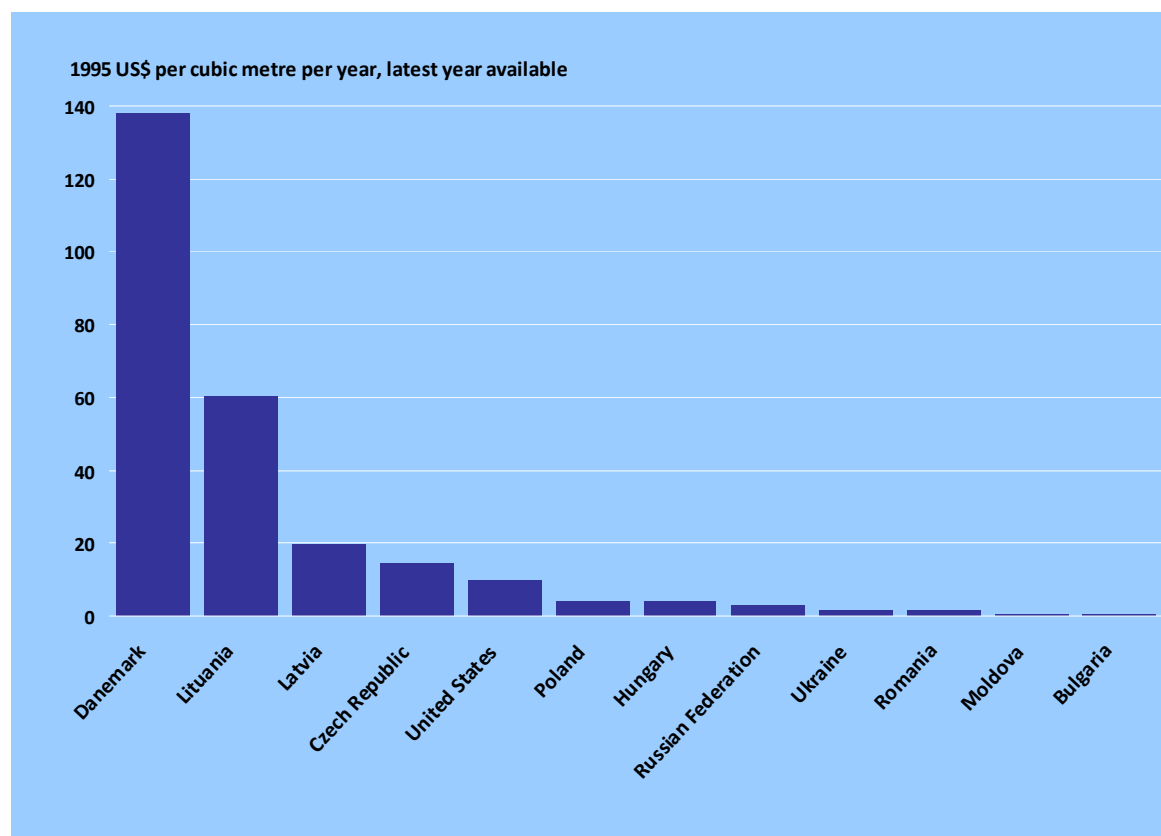


Indicator name **Industrial water productivity**



Prepared by	UNIDO
Example	<b>WWDR3, Chapter 7, Figure 7.8</b> <b>WWDR2, Chapter 8, Table 8.4</b>
Rationale	The productivity of water used in industry, in terms of the economic value added by industrial production based upon the water withdrawn.
Position in DPSIR chain	Response
Definition of indicator	Economic value added (in US\$) per cubic meter of water withdrawn by industry
Underlying definitions and concepts	Productivity of water in value added (in US\$) per cubic meter of water withdrawn Total industrial value added (in US \$), by country Annual industrial water withdrawal, by country
Specification of determinants needed	Total annual industrial value added $V_i$ by country (US \$/year) Annual industrial water withdrawal $W_i$ by country ( $m^3$ /year)
Computation	Water productivity in the industrial sector can be calculated as : $P_i = V_i / W_i$
Unit(s) of expression	US \$/m <sup>3</sup>
Data sources, availability and quality	World Resources Institute (WRI); World Development Indicators (World Bank): data patchy for certain countries, up to 2006 only. FAO's AQUASTAT, up to 2006 UNIDO, United Nations Industrial Development Organization, 2007
Scale of application	National
Geographical coverage	Global
Interpretation	As industrial technology improves and as water-saving measures are applied, industrial water productivity rises. Hence it is a measure of the socio-technological response to water scarcity. Low levels of industrial water productivity indicate countries where water is undervalued, and used for low value purposes, or simply where water is abundant. A higher tariff for

	industrial water would encourage improvements in industrial water productivity in these countries. Industrial water productivity is highest where there is a high level of water recirculation and reuse within and between industries, as in this situation water withdrawals are minimized.
Linkage(s) to other indicators	This indicator links with sectoral water use, and if possible it would be very useful to compare water productivity measured in other sectors, especially agriculture.
Alternative methods and definitions	It is possible to represent industrial water productivity as the industrial value added per unit of water consumed by industry (i.e. using the national data for industrial water consumption rather than industrial water withdrawals). However, this would make it more difficult to compare productivity figures with agricultural water productivity, which is based upon water withdrawals.
Related indicator sets	World Bank : World Development Indicators OECD: Industrial Statistics. UNECE: Water use statistics (Regional Implementation Forum on Sustainable Development, 2003). FAO's AQUASTAT; UNEP's GEO-GRID; World Resources Institute's Earthtrends database
Sources of further information	World Bank, OECD
Other institutions involved	World Bank, UNECE, UNESCO, UNIDO