



**Specialist Group**  
Statistics and  
Economics

# International Statistics for Water Services

Information every  
water manager  
should know about

Montreal 2010

This leaflet on International Statistics for Water Services is prepared for you by the IWA Specialist Group on Statistics and Economics.

**T**he International Water Association (IWA) is a network of water professionals worldwide, that aims to exchange the scientific and professional knowledge of academics and water managers, covering all aspects of the water cycle. To reach this goal IWA organises conferences supported by specialist groups and technical and scientific task forces throughout the world.

The Statistics and Economics Specialist Group provides a forum to discuss the ways in which utilities are financed, the variety of water tariff structures and the ways to measure performance. As part of this service, the group provides statistics of the water industries, like tables and figures for abstraction, consumption, tariffs, and data on sewerage and wastewater treatment.

This International Statistics for Water Services publication is part of a series of documents circulating at IWA World Water Congresses (also available on <http://www.iwahq.org/Home>).

The prices compared in the report are presented from the point of view of the domestic customer, whose main interest is the amount of the water bill. Such a comparison allows the actual charges to be compared in relation to the GDP of each country.

The prices do not necessarily reflect the full costs of water services, because some costs may be covered from sources other than the customer. In some cases there can be political motivation to ensure that water is supplied at a socially acceptable price. There are many other

factors affecting relative price levels, but these have not been considered in this survey.

New in this "Montreal edition" is that the water bills refer to an annual consumption of 100m<sup>3</sup> AND 200 m<sup>3</sup> per year, to facilitate comparison on city scale.

The prices refer to 2009 figures, are quoted in US\$ as at 31 December 2009 and even reflect the differences in exchange rates against the figures represented in the last International Statistics for Water Services publication. The other quantitative information refers to 2008 figures.

Thanks to all water professionals who were very helpful to obtain the data for the survey. They are listed on the back page. The database was closed on June, 30th of 2010. More recent valuable data could not be incorporated in this leaflet any more, but will be integrated in the next leaflet.

When information is compared to previously published brochures, trends can be observed. Further useful statistics and information may also be found on [www.iwahq.org](http://www.iwahq.org)

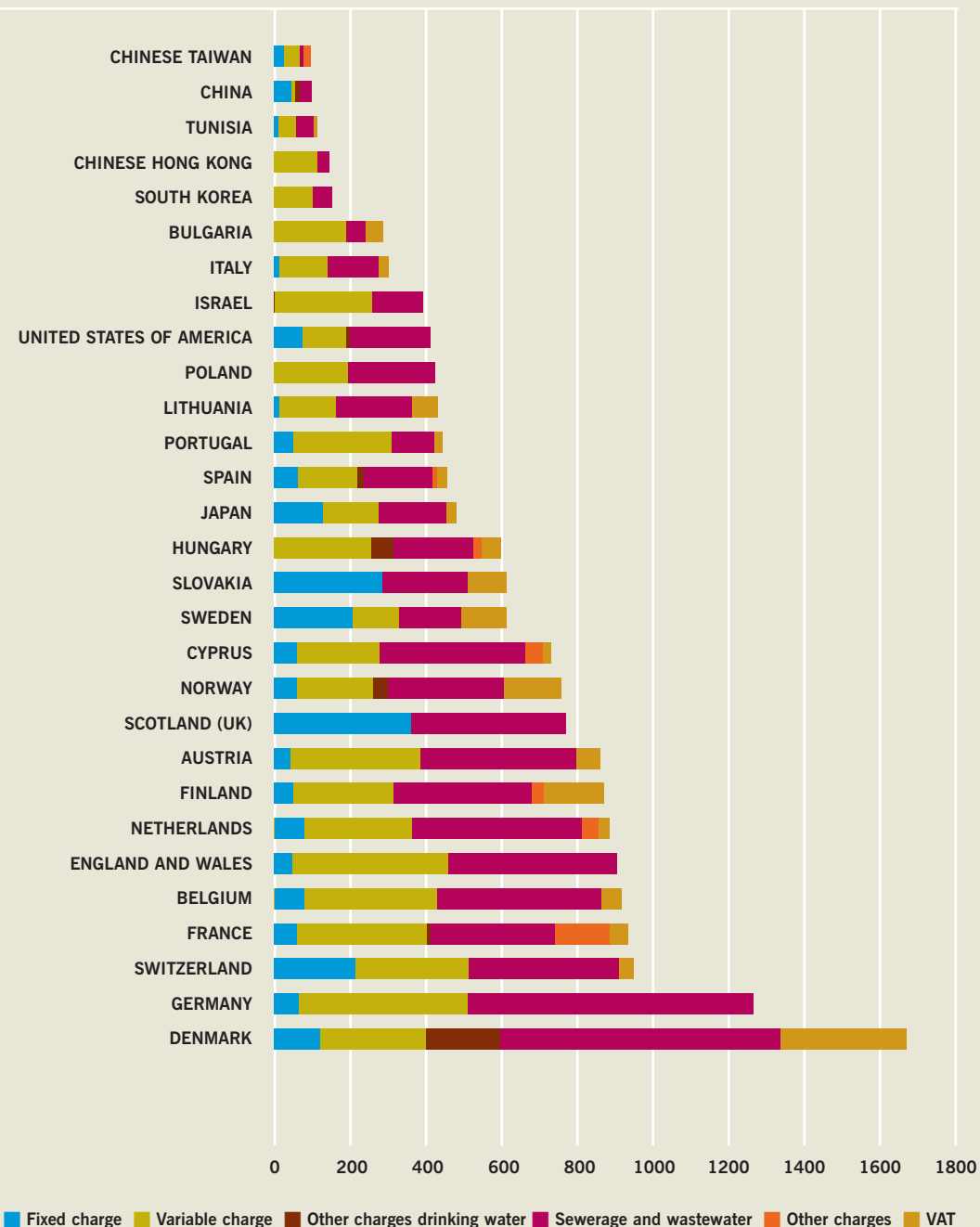
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**Specialist Group**  
Statistics and  
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**AVERAGE ANNUAL WATER BILL OF MAJOR CITIES 2009\***

IN US\$ / 200M<sup>3</sup>

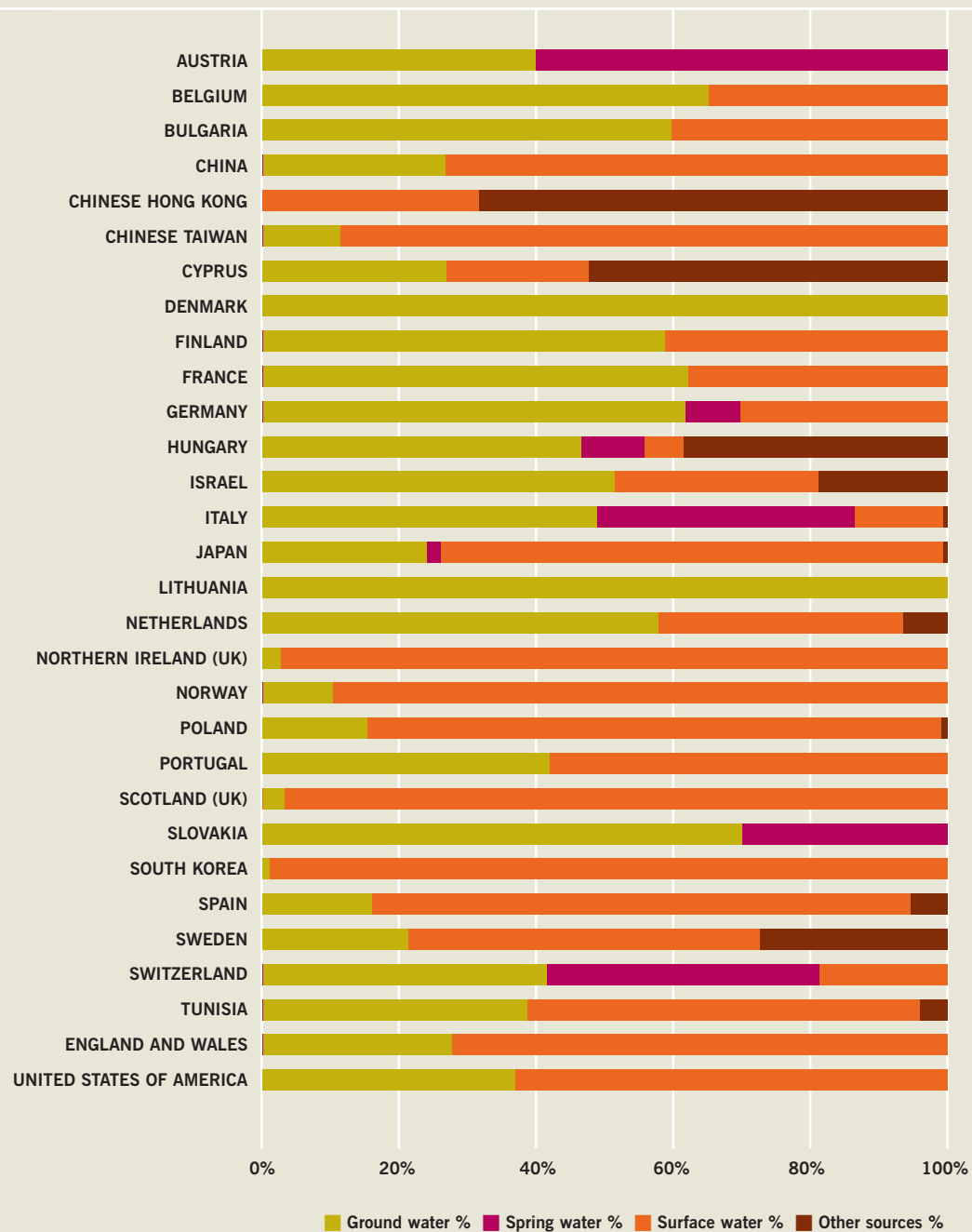


\* Average volume of considered main cities in the country

## ABSTRACTION FOR WATER SUPPLY ACCORDING TO SOURCE 2008 IN MIO M<sup>3</sup> / YEAR

COUNTRY	TRUE GROUND WATER		SPRING WATER		SURFACE WATER		OTHER SOURCES		TOTAL WATER ABSTRACTION	
	2006	2008	2006	2008	2006	2008	2006	2008	2006	2008
AUSTRIA	315	314	481	469	1	0	0	0	797	783
BELGIUM	472	461	0	0	258	249	0	0	730	710
BULGARIA	n/a	598	n/a	0	n/a	398	n/a	0	n/a	996
CHINA	n/a	30,295	n/a	0	n/a	84,315	n/a	0	n/a	114,610
CHINESE HONG KONG	0	0	0	0	319	303	617	653 a	936	956
CHINESE TAIWAN	551	437	0	6	2,693	3,529	0	0	3,245	3,972
CYPRUS	24	19	0	0	35	15	26	37	85	71
DENMARK	395	378	0	0	0	0	0	0	395	378
FINLAND	256	256	0	0	180	180	0	0	437	437
FRANCE	3,847	3,847	0	0	2,358	2,358	0	0	6,205	6,205
GERMANY	3,525	3,125	414	410	1,363	1,520	0	0	5,302	5,055
HUNGARY	301	315	67	62	37	38	264	260	668	674
ISRAEL	754	1,064	0	0	684	625	0	387 b	1,438	2,076
ITALY	4,441	4,233	3,463	3,249	1,215	1,158	27	69	9,147	8,709
JAPAN	3,954	3,856	323	305	11,892	11,831	23	31	16,192	16,023
LITHUANIA	140	133	0	0	0	0	0	0	140	133
NETHERLANDS	716	686	0	0	424	429	61	76 c	1,201	1,191
NORWAY	75	82	0	0	758	753	0	0	833	835
POLAND	n/a	1,649	n/a	0	n/a	9,023	n/a	80 d	n/a	10,752
PORTUGAL	371	405	0	0	570	567	10	0	950	972
SLOVAKIA	n/a	190	n/a	81	n/a	0	n/a	0	n/a	271
SOUTH KOREA	n/a	90	n/a	0	n/a	9,822	n/a	0	n/a	9,912
SPAIN	501	826	199	0	3,922	4,209	128	270	4,750	5,305
SWEDEN	169	183	0	0	480	454	219	238 e	868	875
SWITZERLAND	416	405	372	394	192	181	0	0	980	980
TUNISIA	n/a	183	n/a	0	n/a	275	n/a	18 f	n/a	477
UNITED KINGDOM	3,855	1,811	0	0	11,352	4,818	1,246	0	16,452	6,629
UNITED STATES OF AMERICA	n/a	22,107	n/a	0	n/a	37,720	n/a	0	n/a	59,827

## ABSTRACTION SOURCE FOR DRINKING WATER SUPPLY 2008



1 Figures for England, Wales, Scotland and Northern Ireland  
a Importation b Recycled & Brackish Water c River-ground Water  
d Drainage Water from Mines and Buildings e Artificial Infiltration f Desalination

## COMPARISON OF ANNUAL WATER CYCLE CHARGES 2009

RELATED TO A CONSUMPTION OF 200M<sup>3</sup> IN US\$

COUNTRY	TOWN/CITY	GDP PER CAPITA IN US\$	FIXED CHARGE	VARIABLE CHARGE	OTHER CHARGES DRINKING WATER	TOTAL CHARGE DRINKING WATER	SEWERAGE*	WASTE WATER TREATMENT*	OTHER CHARGES	VAT & OTHER TAXES	TOTAL ANNUAL CHARGES	AVERAGE FIXED CHARGE	AVERAGE VARIABLE CHARGE	AVERAGE OTHER CHARGE D. WATER	AVERAGE DRINKING WATER CHARGE	AVERAGE SEWAGE WASTE.W CHARGE	AVERAGE OTHER CHARGES	AVERAGE VAT AND OTHER TAXES	AVERAGE TOTAL CHARGE	WATER RATE DESIGN FOR DOMESTIC USE											
																				FLAT RATE UN-METERED	UNI-FORM RATE	DE-CREASING BLOCK	IN-CREASING BLOCK	FIXED OR SERVICE CHARGE	UNIQUE TARRIF	OTHER					
AUSTRIA	Graz	40,800	80.57	397.71	0.00	478.29	0.00	282.86	0.00	73.54	834.69	40.89	346.29	0.00	387.17	414.86	0.00	54.03	856.06												
	Innsbruck		18.86	374.29	0.00	393.14	0.00	500.00	0.00	39.31	932.46										x										
	Linz		60.00	248.57	0.00	308.57	0.00	100.00	0.00	30.86	439.43																				
	Salzburg		22.39	373.71	0.00	396.10	0.00	682.86	0.00	39.61	1118.57																				
	Vienna		22.63	337.14	0.00	359.77	0.00	508.57	0.00	86.83	955.17																				
BELGIUM	Louvain	36,600	62.89	319.64	0.00	382.53	249.43	249.43	0.00	52.89	934.27	76.08	353.97	0.60	430.65	430.30	0.00	51.66	912.60		x						x				
	Genk		62.89	255.36	0.00	318.24	249.43	249.43	0.00	49.03	866.13											x					x				
	Kortrijk		62.89	339.29	0.00	402.17	249.43	249.43	0.00	54.06	955.09											x					x				
	Antwerp		125.71	251.79	0.00	377.50	302.86	248.57	0.00	55.74	984.67															x					
	Brussels		25.50	397.47	0.00	422.97	119.20	96.93	0.00	38.34	677.44															x					
BULGARIA	Liege		116.63	560.29	3.57	680.49	0.00	317.66	0.00	59.89	1058.03																				
	Sofia	12,600	0.00	119.27	0.00	119.27	23.50	27.88	0.00	34.16	204.82	0.00	191.15	0.00	191.15	47.65	0.00	47.74	286.54		x	x						x			
	Burgas		0.00	141.61	0.00	141.61	26.28	67.15	0.00	47.01	282.04																		x		
	Pleven		0.00	183.94	0.00	183.94	14.60	11.68	0.00	42.04	252.26																		x		
	Razgrad		0.00	275.91	0.00	275.91	10.22	14.60	0.00	60.00	360.73																		x		
CHINA	Stara Zagora		0.00	235.04	0.00	235.04	11.68	30.66	0.00	55.47	332.85																		x		
	Beijing	6,600	49.56	0.00	36.73	86.30	0.00	30.32	0.00	0.00	116.62	43.59	7.43	13.78	64.80	27.99	3.06	0.00	95.85												
	Shanghai		38.78	0.00	0.00	38.78	0.00	31.49	0.00	0.00	70.26																				
	Tianjin		30.61	29.74	18.37	78.72	0.00	23.91	11.08	0.00	113.70																				
	Shenzhen		55.39	0.00	0.00	55.39	0.00	26.24	1.17	0.00	82.80																				
CHINESE HONG KONG	Hong Kong	42,700	0.00	113.71	0.00	113.71	0.00	30.26	0.00	0.00	143.97	0.00	113.71	0.00	113.71	30.26	0.00	0.00	143.97										x		
CHINESE TAIWAN	Taipei	30,200	34.48	29.62	0.00	64.10	0.00	0.00	1.24	3.21	68.55	23.59	42.81	0.00	66.39	9.33	14.77	3.32	93.82										x		
CYPRUS	Kaohsiung		12.69	55.99	0.00	68.68	0.00	18.66	28.30	3.43	119.08																		x		
	Larnaca	21,200	60.00	182.86	0.00	242.86	108.57	257.14	64.29	12.14	685.00	58.05	220.39	0.00	278.45	382.95	49.80	13.92	725.11										x		
	Lefkosia		48.69	455.57	0.00	504.26	117.14	307.14	0.00	25.21	953.76																			x	
	Lemesos		54.96	78.29	0.00	133.24	108.57	305.71	56.34	6.66	610.53																			x	
DENMARK	Paphos		68.57	164.86	0.00	233.43	111.43	216.07	78.57	11.67	651.17																		x		
	Aalborg	36,200	192.68	190.75	192.68	576.11	0.00	867.05	0.00	360.89	1804.05	119.42	281.85	192.68	593.95	738.88	0.00	333.22	1666.05		x								x		
	Aarhus		81.50	294.41	192.68	568.59	9.63	791.52	0.00	342.39	1712.14																			x	
	Copenhagen		67.63	504.82	192.68	765.13	11.56	691.71	0.00	367.05	1835.45																			x	
	Esbjerg		162.81	205.39	192.68	560.89	8.86	526.78	0.00	274.18	1370.71																			x	
FINLAND	Odense		92.49	213.87	192.68	499.04	12.72	774.57	0.00	321.58	1607.90																			x	
	Espoo	34,900	27.43	309.13	0.00	336.56	0.00	374.71	41.14	165.53	917.94	47.45	266.98	0.00	314.43	364.40	32.84	156.57	868.24		x								x		
	Helsinki		40.13	173.30	0.00	213.43	0.00	285.71	60.23	123.06	682.43																				x
	Oulu		38.44	290.40	0.00	328.84	0.00	400.47	0.00	160.44	889.76																				x
	Tampere		62.70	238.87	0.00	301.57	0.00	348.94	62.81	156.93	870.26																				x
FRANCE	Turku		68.57	323.19	0.00	391.76	0.00	412.17	0.00	176.87	980.80																			x	
	Bordeaux	32,800	88.40	304.14	74.00	466.54	0.00	361.11	44.29	47.96	919.90	58.97	338.19	14.80	411.96	326.32	146.07	48.64	932.99		x									x	
	SEDIF		36.51	437.63	0.00	474.14	0.00	402.31	210.00	59.76	1146.21																				x
	Lille		46.97	335.86	0.00	382.83	0.00	372.40	151.31	49.86	956.40																				x
	Lyon		94.77	309.94	0.00	404.71	0.00	227.54	114.74	41.09	788.09																				x
GERMANY	Paris		28.17	303.40	0.00	331.57	0.00	268.23	210.00	44.54	854.34																			x	
	Country Average	34,200	62.29	447.71	0.00	510.00	35.71	714.29	0.00	0.00	1260.00	62.29	447.71	0.00	510.00	750.00	0.00	0.00	1260.00											x	
HUNGARY	Budapest	18,800	9.53	191.11	45.15	245.78	241.59	0.00	34.22	62.06	583.65	2.38	253.47	57.57	313.42	213.39	17.74	52.01	596.55		x										
	Debrecen		0.00	231.87	52.17	284.04	174.70	0.00	9.53	41.45	509.71																			x	
	Miskolc		0.00	257.38	57.91	315.30	197.99	0.00	16.62	48.29	578.20																			x	
ISRAEL	Pécs		0.00	333.51	75.04	408.55	239.28	0.00	10.59	56.22	714.64																			x	
	Jerusalem	28,400	0.00	254.09	0.00	254.09	137.20	0.00	0.00	0.00	391.29	0.00	254.09	0.00	254.09	137.20	0.00	0.00	391.29											x	

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US\$ as per 31 December 2009

\* If sewerage and wastewater are charged by a unique tariff it's allocated as sewerage

## COMPARISON OF ANNUAL WATER CYCLE CHARGES 2009 RELATED TO A CONSUMPTION OF 200M<sup>3</sup> IN US\$

COUNTRY	TOWN/CITY	GDP PER CAPITA IN US\$	FIXED CHARGE	VARIABLE CHARGE	OTHER CHARGES DRINKING WATER	TOTAL CHARGE DRINKING WATER	SEWERAGE *	WASTE WATER TREATMENT*	OTHER CHARGES	VAT & OTHER TAXES	TOTAL ANNUAL CHARGES	AVERAGE FIXED CHARGE	AVERAGE VARIABLE CHARGE	AVERAGE OTHER CHARGE D. WATER	AVERAGE DRINKING WATER CHARGE	AVERAGE SEWERAGE WASTE.W CHARGE	AVERAGE OTHER CHARGES	AVERAGE VAT AND OTHER TAXES	AVERAGE TOTAL CHARGE	WATER RATE DESIGN FOR DOMESTIC USE								
																				FLAT RATE UN-METERED	UNI-FORM RATE	DE-CREASING BLOCK	IN-CREASING BLOCK	FIXED OR SERVICE CHARGE	UNIQUE TARRIF	OTHER		
ITALY	Bologna	30,200	16.47	200.43	0.00	216.90	39.76	107.13	0.00	36.39	400.17	11.71	126.81	0.00	138.52	133.14	0.00	27.17	298.82				x	x				
	Milan		3.99	29.20	0.00	33.19	26.31	73.79	0.00	13.33	146.61										x	x						
	Naples		11.96	168.53	0.00	180.49	27.00	76.99	0.00	28.44	312.91										x	x						
	Rome		16.53	101.37	0.00	117.90	37.89	109.26	0.00	26.50	291.54													x	x			
	Turin		9.60	134.53	0.00	144.13	45.71	121.86	0.00	31.17	342.87													x	x			
JAPAN	Nagoya	32,600	90.99	129.06	0.00	220.05	165.20	0.00	0.00	19.26	404.51	127.37	146.97	0.00	274.34	177.88	0.00	22.54	474.75		x				x			
	Osaka		122.61	83.46	0.00	206.07	123.47	0.00	0.00	16.30	345.84										x				x			
	Hiroshima		110.99	104.54	0.00	215.53	195.53	0.00	0.00	20.48	431.53										x				x			
	Fukuoka		109.70	151.97	0.00	261.67	242.37	0.00	0.00	25.10	529.15											x				x		
	Sapporo		170.36	172.94	0.00	343.30	135.25	0.00	0.00	23.88	502.43											x				x		
	Sendai		161.33	262.42	0.00	423.75	177.91	0.00	0.00	30.09	631.75											x				x		
	Tokyo		151.00	124.33	0.00	275.33	195.31	0.00	0.00	23.40	494.04											x				x		
	Yokohama		101.96	147.04	0.00	249.00	188.00	0.00	0.00	21.79	458.79											x				x		
LITHUANIA	Kaunas	15,000	16.25	145.00	0.00	161.25	162.50	0.00	0.00	63.67	387.42	12.63	147.83	0.00	160.46	200.33	0.00	70.57	431.37								x	
	Klaipeda		19.60	137.50	0.00	157.10	195.00	0.00	0.00	69.25	421.35																x	
	Panevezys		12.85	139.17	0.00	152.02	265.00	0.00	0.00	82.01	499.03																x	
	Siauliai		14.45	185.00	0.00	199.45	220.83	0.00	0.00	82.65	502.94																x	
	Vilnius		0.00	132.50	0.00	132.50	158.33	0.00	0.00	55.26	346.09																x	
NETHERLANDS	Amsterdam	39,000	60.21	360.00	0.00	420.21	197.90	222.69	44.00	27.86	689.97	75.79	286.30	0.00	362.09	451.91	44.00	24.37	882.37		x	x				x	x	
	Rotterdam		85.37	271.71	0.00	357.09	247.26	248.64	44.00	24.07	672.41										x	x				x	x	
	Den Haag		102.00	311.43	0.00	413.43	168.77	278.83	44.00	27.44	653.64											x				x	x	
	Utrecht		35.71	292.86	0.00	328.57	293.20	226.93	44.00	22.36	688.13												x			x	x	
	Eindhoven		95.66	195.51	0.00	291.17	194.29	181.03	44.00	20.11	549.57											x				x	x	
NORWAY	Bergen	55,907	112.06	198.96	95.16	406.17	268.97	0.00	0.00	168.79	843.93	59.58	198.34	40.99	298.91	305.43	0.00	151.09	755.43		x				x	x	x	
	Oslo		37.20	236.33	0.00	273.53	355.02	0.00	0.00	157.14	785.68											x			x	x		
	Trondheim		29.48	159.72	27.82	217.02	292.32	0.00	0.00	127.34	636.68										x	x			x	x		
PORTUGAL	Lisbon	21,700	68.29	131.87	0.00	200.16	75.00	0.00	0.00	13.76	288.92	49.33	261.76	0.00	311.09	111.88	0.00	16.95	439.92		x	x			x	x	x	
	Sintra		57.29	262.10	0.00	319.39	75.00	0.00	0.00	15.97	410.36													x	x			
	Porto		56.14	418.57	0.00	474.71	118.86	0.00	0.00	23.74	617.31													x	x			
	Loures		35.29	360.77	0.00	396.06	142.29	0.00	0.00	19.80	558.15													x	x			
	Braga		44.71	190.29	0.00	235.00	120.14	0.00	0.00	17.76	372.90													x	x			
	Coimbra		60.29	223.29	0.00	283.57	122.29	0.00	0.00	14.18	420.04													x	x			
	Faro		23.30	245.46	0.00	268.76	129.57	0.00	0.00	13.44	411.77													x	x			
POLAND	Bydgoszcz	17,800	0.00	248.95	0.00	248.95	0.00	272.73	0.00	0.00	521.68	0.00	193.57	0.00	193.57	229.23	0.00	0.00	422.80		x							
	Wroclaw		0.00	195.10	0.00	195.10	0.00	188.11	0.00	0.00	383.22											x						
	Radom		0.00	176.92	0.00	176.92	0.00	192.31	0.00	0.00	369.23												x					
	Bialystok		0.00	181.82	0.00	181.82	0.00	188.81	0.00	0.00	370.63												x					
	Tarnow		0.00	165.03	0.00	165.03	0.00	304.20	0.00	0.00	469.23												x					
SCOTLAND (UK)	Scotland: Band A	35,400	198.68	0.00	0.00	198.68	0.00	224.52	0.00	0.00	423.19	360.10	0.00	0.00	360.10	406.94	0.00	0.00	767.04								x	
	Scotland: Band B		231.79	0.00	0.00	231.79	0.00	261.94	0.00	0.00	493.73																x	
	Scotland: Band C		264.90	0.00	0.00	264.90	0.00	299.35	0.00	0.00	564.26																x	
	Scotland: Band D		298.02	0.00	0.00	298.02	0.00	336.77	0.00	0.00	634.79																x	
	Scotland: Band E		364.24	0.00	0.00	364.24	0.00	411.61	0.00	0.00	775.85																x	
	Scotland: Band F		430.47	0.00	0.00	430.47	0.00	486.45	0.00	0.00	916.92																x	
	Scotland: Band G		496.69	0.00	0.00	496.69	0.00	561.29	0.00	0.00	1057.98																x	
	Scotland: Band H		596.03	0.00	0.00	596.03	0.00	673.55	0.00	0.00	1269.58																x	

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US\$ as per 31 December 2009

\* If sewerage and wastewater are charged by a unique tariff it's allocated as sewerage  
1 Water rate design use portion is incomplete, data is from previous year

## COMPARISON OF ANNUAL WATER CYCLE CHARGES 2009

RELATED TO A CONSUMPTION OF 200M<sup>3</sup> IN US\$

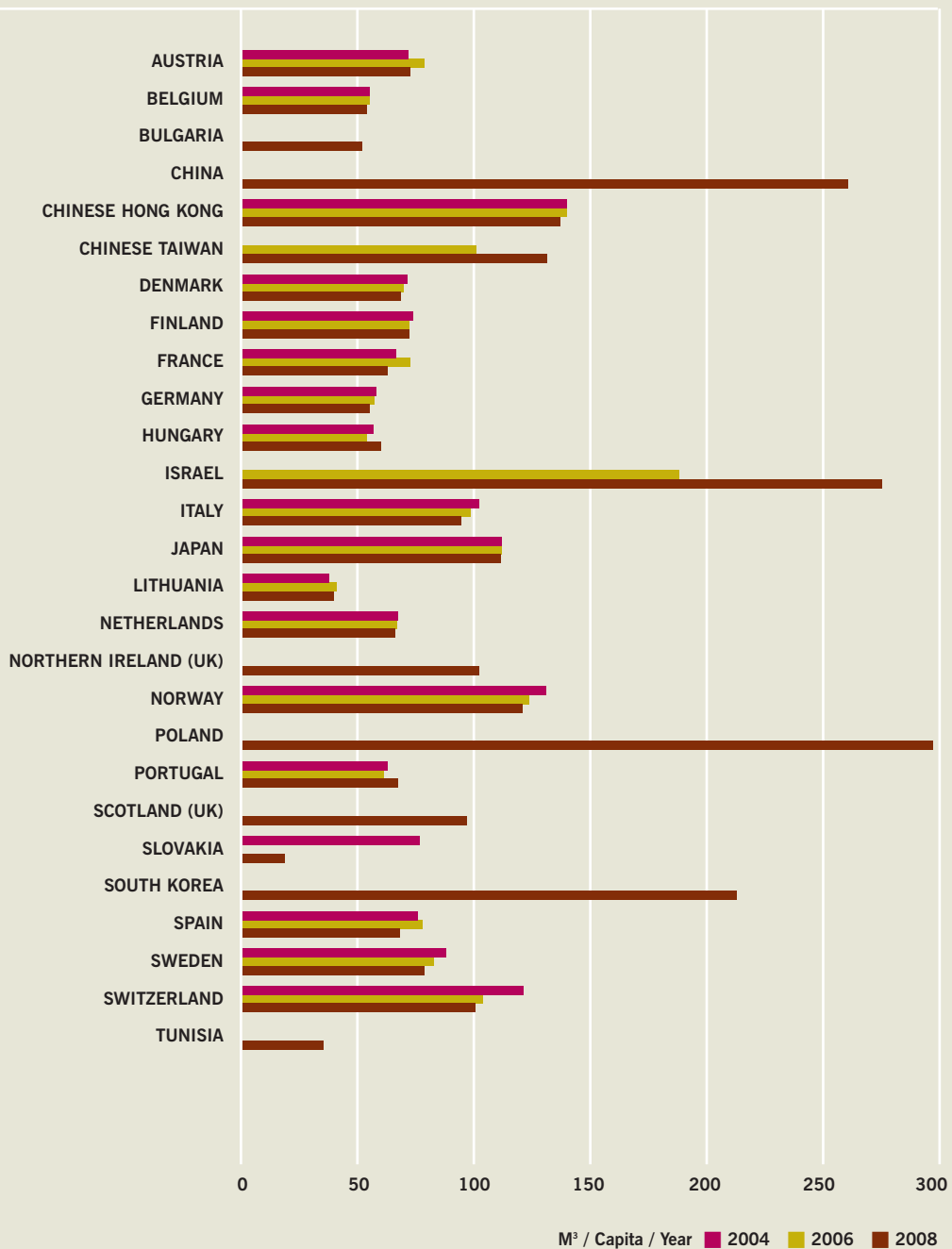
COUNTRY	TOWN/CITY	GDP PER CAPITA IN US\$	FIXED CHARGE	VARIABLE CHARGE	OTHER CHARGES DRINKING WATER	TOTAL CHARGE DRINKING WATER	SEWERAGE *	WASTE WATER TREATMENT*	OTHER CHARGES	VAT & OTHER TAXES	TOTAL ANNUAL CHARGES	AVERAGE FIXED CHARGE	AVERAGE VARIABLE CHARGE	AVERAGE OTHER CHARGE D. WATER	AVERAGE DRINKING WATER CHARGE	AVERAGE SEWAGE WASTE.W CHARGE	AVERAGE OTHER CHARGES	AVERAGE VAT AND OTHER TAXES	AVERAGE TOTAL CHARGE	WATER RATE DESIGN FOR DOMESTIC USE								
																				FLAT RATE UN-METERED	UNI-FORM RATE	DE-CREASING BLOCK	IN-CREASING BLOCK	FIXED OR SERVICE CHARGE	UNIQUE TARRIF	OTHER		
SLOVAKIA	Bratislava	21,100	237.14	0.00	0.00	237.14	237.14	0.00	0.00	91.43	565.71	282.86	0.00	0.00	282.86	226.67	0.00	101.90	611.43		x	x		x				
	Nitra		277.14	0.00	0.00	277.14	220.00	0.00	0.00	114.29	611.43										x	x		x				
	Košice		334.29	0.00	0.00	334.29	222.86	0.00	0.00	100.00	657.14										x	x		x				
SOUTH KOREA	Seoul	27,700	0.00	88.26	0.00	88.26	48.87	0.00	0.00	0.00	137.13	0.00	100.73	0.00	100.73	51.26	0.00	0.00	151.99		x							
	Busan		0.00	109.70	0.00	109.70	64.63	0.00	0.00	0.00	174.33										x							
	Daegu		0.00	93.11	0.00	93.11	50.63	0.00	0.00	0.00	143.74										x							
	Incheon		0.00	109.99	0.00	109.99	50.48	0.00	0.00	0.00	160.47											x						
	Gwangju		0.00	86.34	0.00	86.34	51.04	0.00	0.00	0.00	137.39											x						
	Daejeon		0.00	82.16	0.00	82.16	49.66	0.00	0.00	0.00	131.82											x						x
	Ulsan		0.00	131.24	0.00	131.24	52.49	0.00	0.00	0.00	183.73											x						
	Gyeonggi			105.00	0.00	105.00	42.30	0.00	0.00	0.00	147.31											x						
SPAIN	Barcelona	33,700	84.00	245.03	0.00	329.03	49.20	162.11	0.00	34.40	574.74	61.70	155.62	17.89	235.22	181.43	11.59	26.03	454.27							x	x	
	Bilbao		28.09	118.71	0.00	146.80	28.57	138.70	5.36	20.84	340.27															x	x	
	Madrid		91.41	137.49	0.00	228.90	35.37	109.37	0.00	26.16	399.80															x	x	
	Sevilla		45.63	137.49	28.94	212.06	74.43	83.21	52.57	29.56	451.83															x	x	
	Valencia		59.39	139.40	60.53	259.31	79.41	146.74	0.00	19.21	504.69											x						
SWEDEN	Stockholm	36,800	215.36	62.29	0.00	277.65	0.00	55.03	0.00	83.24	415.92	205.03	122.88	0.00	327.91	161.73	0.00	122.43	612.07			x				x	x	
	Göteborg		278.49	115.36	0.00	393.85	0.00	147.21	0.00	135.34	676.40											x				x	x	
	Malmö		230.17	90.78	0.00	320.95	0.00	96.51	0.00	104.33	521.79												x			x	x	
	Uppsala		0.00	229.75	0.00	229.75	0.00	344.55	0.00	143.58	717.88												x			x	x	
	Linköping		301.12	116.20	0.00	417.32	0.00	165.36	0.00	145.67	728.35												x			x	x	
SWITZERLAND	Geneva	41,600	240.00	242.31	0.00	482.31	268.08	0.00	0.00	31.95	782.34	212.52	298.46	0.00	510.98	394.77	0.00	42.27	948.02		x					x		
	Zurich		255.77	276.92	0.00	532.69	585.58	0.00	0.00	57.29	1175.56											x				x		
	Lausanne		278.37	375.00	0.00	653.37	230.77	0.00	0.00	33.22	917.36											x				x		
	Basel		173.08	280.77	0.00	453.85	375.00	0.00	0.00	39.39	868.24											x				x		
	Bern		115.38	317.31	0.00	432.69	514.42	0.00	0.00	49.48	996.60											x				x		
TUNISIA	Country Average	8,000	9.92	45.11	0.00	55.04	11.61	34.50	0.00	9.91	111.05	9.92	45.11	0.00	55.04	46.11	0.00	9.91	111.05					x		x		
ENGLAND AND WALES	Birmingham	35,400	38.19	419.55	0.00	457.74	382.11	0.00	0.00	0.00	839.85	45.33	411.23	0.00	456.55	448.12	0.00	0.00	904.67									
	Cardiff		51.61	441.00	0.00	492.61	604.56	0.00	0.00	0.00	1097.18																	
	London		41.94	364.94	0.00	406.87	255.68	0.00	0.00	0.00	662.55																	
	Manchester		48.39	441.61	0.00	490.00	515.81	0.00	0.00	0.00	1005.81																	
	Leeds		46.52	389.03	0.00	435.55	482.42	0.00	0.00	0.00	917.97																	
UNITED STATES OF AMERICA	New York	46,400	127.75	184.34	0.00	312.09	0.00	496.23	0.00	0.00	808.32	72.75	117.65	7.87	198.26	209.66	0.00	0.00	407.93		x	x				x	x	
	Washington D.C.		24.12	177.28	40.26	241.66	0.00	254.97	0.00	0.00	496.63											x				x	x	
	Los Angeles		228.00	10.43	0.00	238.43	0.00	209.61	0.00	0.00	448.04											x				x	x	
	Chicago		0.00	105.94	0.00	105.94	0.00	91.11	0.00	0.00	197.05											x				x	x	
	Denver		66.96	111.48	0.00	178.44	0.00	92.72	0.00	0.00	271.16											x			x	x	x	
	Miami		38.40	42.63	0.00	81.03	0.00	136.74	0.00	0.00	217.77														x	x	x	
	Minneapolis		24.00	191.42	14.84	230.26	0.00	186.25	0.00	0.00	416.51											x				x	x	

US\$ as per 31 December 2009

\* If sewerage and wastewater are charged by a unique tariff it's allocated as sewerage

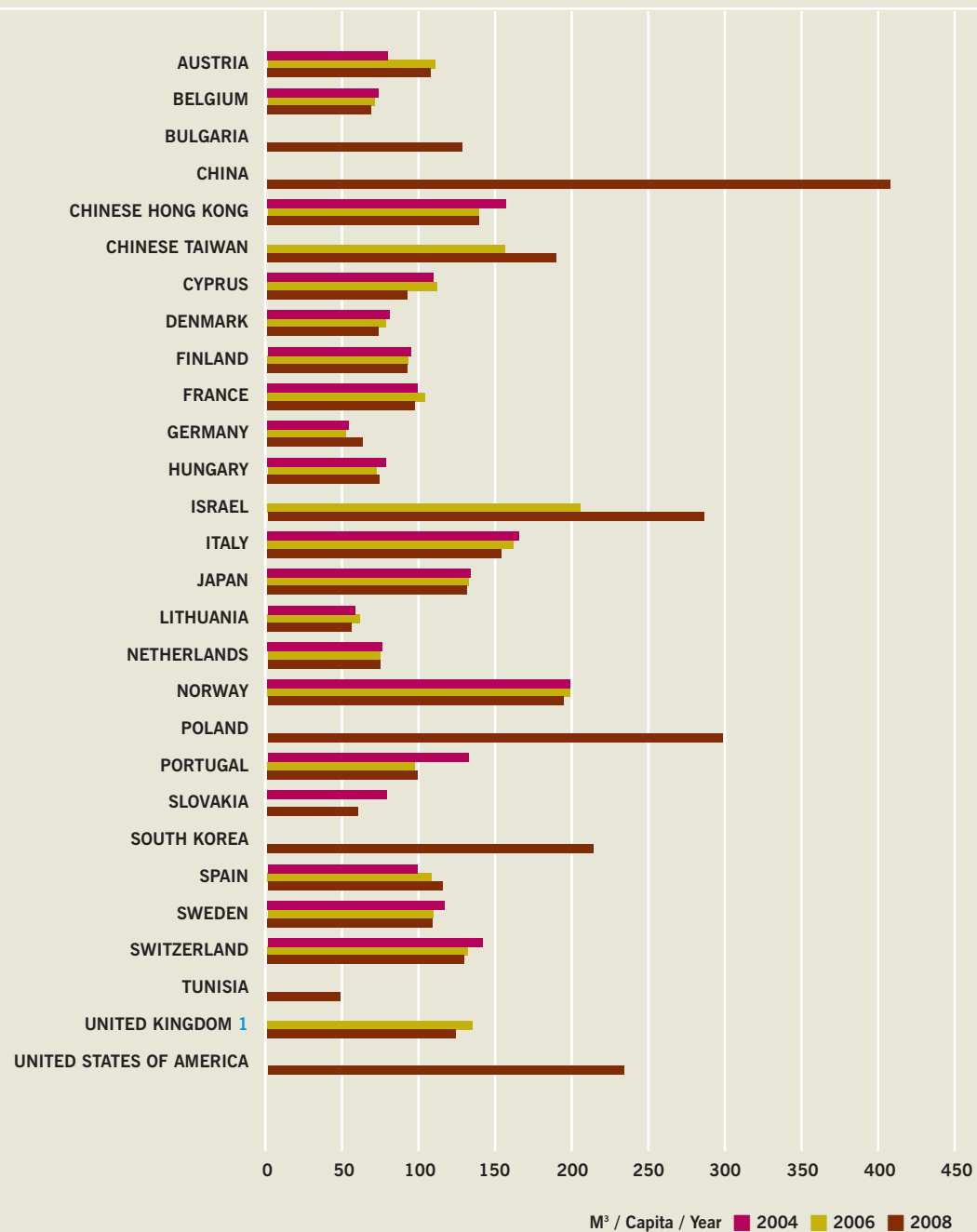
### TOTAL WATER DELIVERED IN M<sup>3</sup> / CAPITA / YEAR

TOTAL DELIVERY / POPULATION X SUPPLY RATE



### TOTAL ABSTRACTION FOR WATER SUPPLY IN M<sup>3</sup> / CAPITA / YEAR

TOTAL ABSTRACTION / POPULATION X SUPPLY RATE



1 figures for England, Wales, Scotland and Northern Ireland

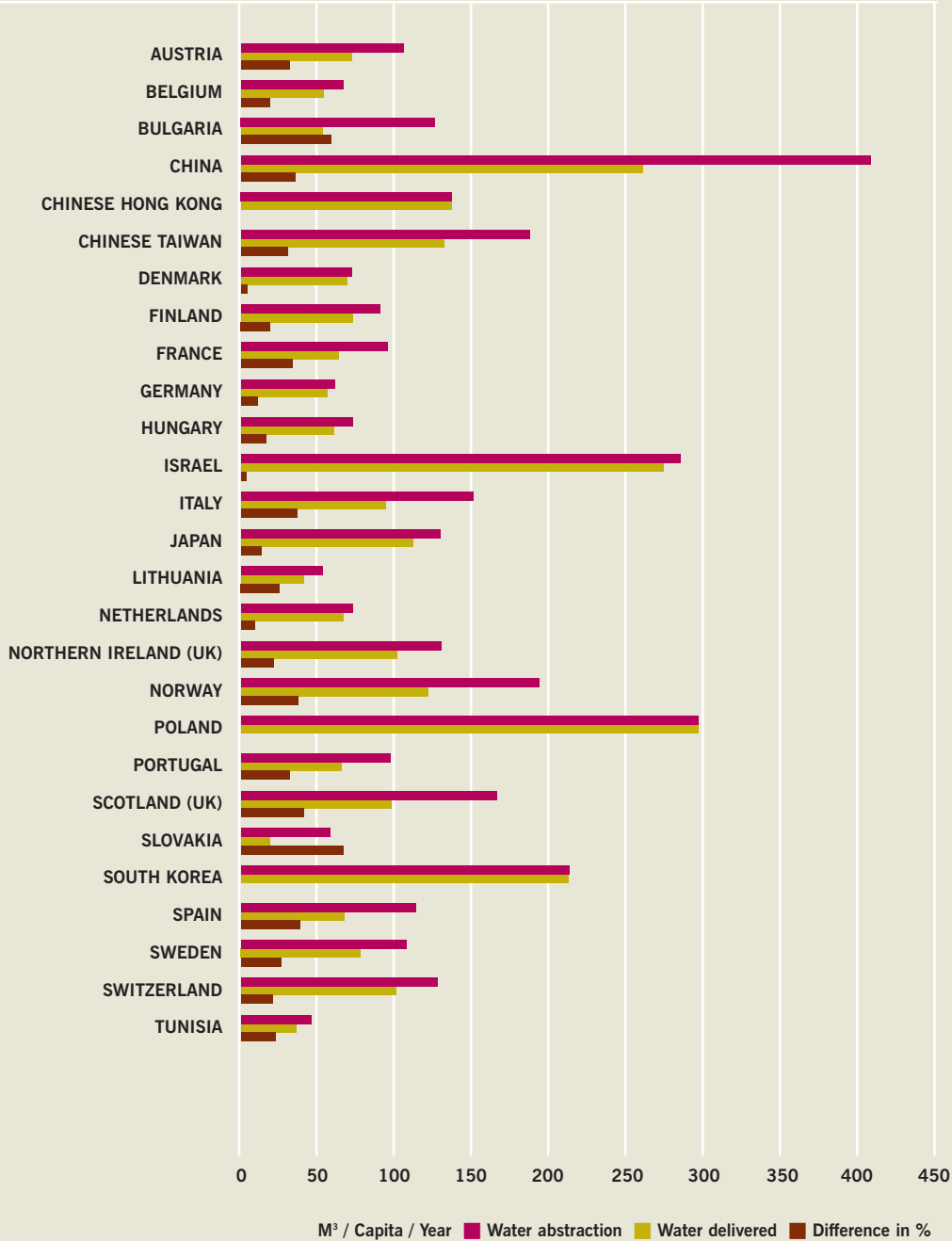
# WATER DELIVERED - POPULATION - SEWER CONNECTION - WASTE WATER CONNECTION IN MIO M<sup>3</sup> / YEAR 2008

## IN MIO M<sup>3</sup> / YEAR

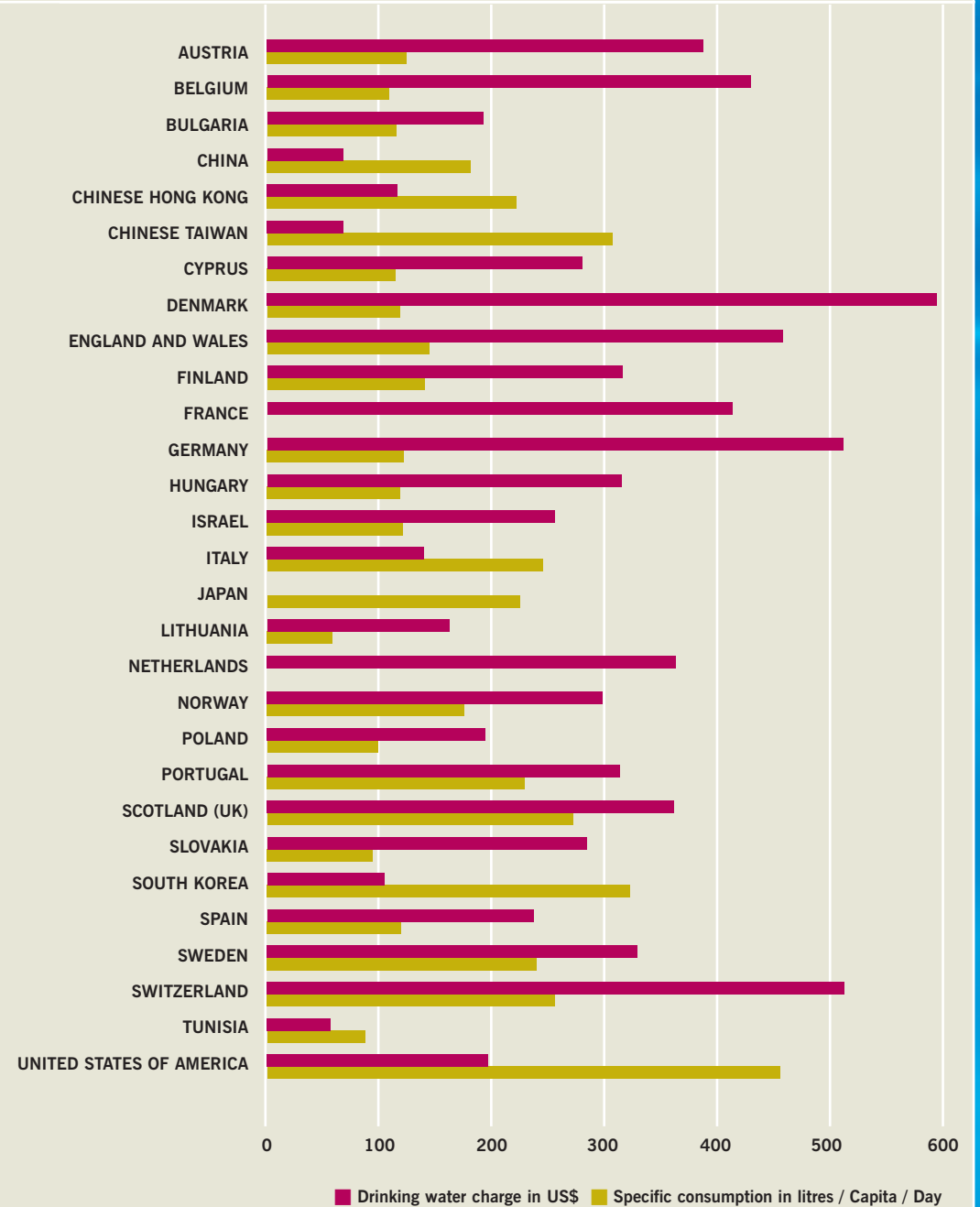
COUNTRY	IN MIO M <sup>3</sup>									POPULATION MIO INHABITANTS			SUPPLY RATE IN %			SEWER CONNECTION RATE %			WASTE WATER CONNECTION RATE %			DELIVERED IN M <sup>3</sup> /CAPITA/YEAR		
	HOUSEHOLD AND SMALL BUSINESSES			INDUSTRY AND OTHERS			TOTAL DELIVERY			2004	2006	2008	2004	2006	2008	2004	2006	2008	2004	2006	2008	2004	2006	2008
	2004	2006	2008	2004	2006	2008	2004	2006	2008	2004	2006	2008	2004	2006	2008	2004	2006	2008	2004	2006	2008	2004	2006	2008
AUSTRIA	n/a	485	438	n/a	100	104	511	585	542	8.18	8.27	8.33	87	89.1	89.2	88.9	90	92	88.9	90	92	72	79	73
BELGIUM	400	406	405	177	183	169	577	589	574	10.45	10.58	10.66	99	99.7	99.7	81.5	76	85	50	72	72	56	56	54
BULGARIA	n/a	n/a	308	n/a	n/a	103	n/a	n/a	408	n/a	n/a	7.93	n/a	n/a	99	n/a	n/a	64	n/a	n/a	33.19	n/a	n/a	52
CHINA	n/a	n/a	12,235	n/a	n/a	61,120	n/a	n/a	73,355	n/a	n/a	1,328	n/a	n/a	21.2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	261
CHINESE HONG KONG	n/a	756	760	n/a	207	196	968	963	956	6.90	6.86	6.99	100	99.99	100	95	93	93	95	93	93	140	140	137
CHINESE TAIWAN	n/a	1,840	1,870	n/a	289	916	n/a	2,129	2,786	n/a	22.88	23.11	n/a	91.86	91.53	n/a	15.6	22.5	n/a	85	47.54	n/a	101	132
DENMARK	244	323	313	129	41	48	374	364	361	5.40	5.43	5.48	96	96	96	90	90	90	90	90	90	72	70	69
FINLAND	298	298	298	53	53	53	350	350	350	5.23	5.30	5.33	89.8	90.53	90.11	81.1	81.37	81.25	81.1	81.37	81.25	74	73	73
FRANCE	n/a	n/a	n/a	n/a	n/a	n/a	4,000	4,450	4,100	60.00	61.00	65.00	100	100	100	95	95	95	76.2	95	95	67	73	63
GERMANY	3,753	3,703	3,590	977	957	900	4,730	4,660	4,490	82.50	82.32	82.00	99.2	99.2	99.2	96	96	96	94	94	95	58	57	55
HUNGARY	375	370	438	160	143	126	535	513	564	10.10	10.07	10.30	93.7	94.3	90.72	62.2	65.7	67	n/a	n/a	75.76	57	54	60
ISRAEL	n/a	733	759	n/a	593	1,242	n/a	1,326	2,001	n/a	7.05	7.30	n/a	100	100	n/a	90	96	n/a	0	96	n/a	188	274
ITALY	4,924	4,858	5,451	768	758	n/a	5,692	5,616	5,451	57.70	58.74	60.05	97.06	97	96	84	84	85	73	73	70.4	102	99	95
JAPAN	12,060	12,141	12,073	1,820	1,821	1,788	13,880	13,962	13,861	127.66	127.71	127.90	96.9	97.2	97.4	68.1	70.5	71.2	68.1	70.5	71.2	112	112	111
LITHUANIA	57	69	52	34	28	46	91	98	98	3.41	3.39	3.35	70	70	70	60	60	62	58	58	60	38	41	42
NETHERLANDS	930	926	940	172	176	153	1,103	1,102	1,093	16.20	16.35	16.43	100	100	100	98.6	99.3	100	98.6	99.3	n/a	68	67	67
NORTHERN IRELAND (UK)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	181	n/a	n/a	1.80	n/a	n/a	98.6	n/a	n/a	75.9	n/a	n/a	74.19	n/a	n/a	102
NORWAY	307	317	318	226	205	204	533	522	522	4.58	4.68	4.80	89	90	90	82	82	82	73	73	77	131	124	121
POLAND	n/a	n/a	2,104	n/a	n/a	8,648	n/a	n/a	10,752	n/a	n/a	38.10	n/a	n/a	95.2	n/a	n/a	86	n/a	n/a	86.9	n/a	n/a	296
PORTUGAL	412	521	547	211	92	112	623	613	659	10.53	10.60	10.63	93.3	93.3	92	n/a	76	80	n/a	n/a	70	63	62	67
SCOTLAND (UK)	n/a	n/a	315	n/a	n/a	169	n/a	n/a	484	n/a	n/a	5.17	n/a	n/a	96.6	n/a	n/a	91	n/a	n/a	91	n/a	n/a	97
SLOVAKIA	268	n/a	33	85	n/a	55	353	n/a	88	5.38	n/a	5.40	84.9	n/a	86	56.3	n/a	58	54.7	n/a	57	77	n/a	19
SOUTH KOREA	n/a	n/a	7,051	n/a	n/a	2,861	n/a	n/a	9,912	n/a	n/a	50.39	n/a	n/a	92.73	n/a	n/a	88.56	n/a	n/a	88.56	n/a	n/a	212
SPAIN	2,333	2,334	2,214	963	1,143	996	3,295	3,477	3,210	43.20	44.71	46.75	100	100	100	92	96	96	74	86	n/a	76	78	69
SWEDEN	565	559	536	125	112	106	690	670	642	9.01	9.11	9.26	87	89	88	85	89	87	85	89	87	88	83	79
SWITZERLAND	631	624	602	275	158	171	906	782	773	7.46	7.55	7.75	100	100	99	96.7	97	97	96.7	97	97	121	104	101
TUNISIA	n/a	n/a	302	n/a	n/a	60	n/a	n/a	362	n/a	n/a	10.32	n/a	n/a	97.8	n/a	n/a	59	n/a	n/a	51	n/a	n/a	36



### WATER ABSTRACTION - WATER DELIVERED IN M<sup>3</sup> / CAPITA / YEAR



### DRINKING WATER CHARGE - SPECIFIC WATER CONSUMPTION\* CHARGE IN US\$ FOR 200 M<sup>3</sup> AND CONSUMPTION IN LITRES / CAPITA / DAY



\* Average specific water consumption of considered main city/cities in the country

## SPECIFIC WATER CONSUMPTION 2008

### IN LITRES / CAPITA / DAY

COUNTRY	CITY	HOUSEHOLD AND SMALL BUSINESS	AVERAGE TOTAL	AVERAGE HOUSEHOLD	AVERAGE TOTAL
AUSTRIA	Graz	125	164	125	189
	Innsbruck	125	188		
	Linz	125	205		
	Salzburg	125	189		
	Vienna	125	198		
BELGIUM	Louvain	107	184	107	193
	Antwerp	138	445		
	Brussels	104	152		
	Liege	88	115		
	Kortrijk	91	117		
BULGARIA	Genk	111	145		
	Sofia	171	171	114	165
	Burgas	108	200		
	Pleven	94	124		
	Razgrad	84	84		
CHINA	Stara Zagora	110	246		
	Beijing	142	210	178	366
	Shanghai	244	528		
	Tianjin	119	274		
	Shenzhen	206	452		
CHINESE HONG KONG	Hong Kong	220	375	220	375
CHINESE TAIWAN	Taipei	340	414	306	530
CYPRUS	Kaohsiung	272	646		
	Larnaca	119	144	112	138
	Lefkosia	90	110		
	Lemesos	120	140		
	Paphos	117	156		
DENMARK	Aalborg	126	178	117	203
	Arhus	113	161		
	Copenhagen	113	279		
	Esbjerg	118	215		
	Odense	116	180		
FINLAND	Espoo	131	163	139	187
	Helsinki	155	201		
	Oulu	126	169		
	Tampere	143	204		
	Turku	139	198		
FRANCE	Bordeaux*	n/a	157	n/a	176
	SEDIF*	n/a	161		
	Lille*	n/a	132		
	Lyon*	n/a	185		
	Paris*	n/a	248		

COUNTRY	CITY	HOUSEHOLD AND SMALL BUSINESS	AVERAGE TOTAL	AVERAGE HOUSEHOLD	AVERAGE TOTAL
GERMANY	Germany Average	121	151	121	151
HUNGARY	Budapest	149	247	116	196
	Debrecen	120	162		
	Miskolc	79	136		
	Pécs	115	238		
	Jerusalem	119	188	119	188
ITALY	Bologna	156	n/a	243	322
	Milan	478	478		
	Naples	175	236		
	Rome	208	343		
	Turin	198	229		
JAPAN	Nagoya	223	331	223	320
	Osaka	243	435		
	Hiroshima	227	316		
	Fukuoka	202	271		
	Sapporo	200	263		
LITHUANIA	Sendai	218	303		
	Tokyo	236	337		
	Yokohama	235	307		
	Kaunas	62	127	56	130
	Klaipeda	58	149		
NORWAY	Panevezys	53	129		
	Siauliai	41	90		
	Vilnius	66	155		
	Bergen	173	495	174	397
	Oslo	197	350		
POLAND	Trondheim	153	345		
	Bydgoszcz	95	130	99	133
	Wroclaw	109	143		
	Radom	100	122		
	Bialystok	92	128		
PORTUGAL	Tamow	97	144		
	Lisbon	159	309	227	261
	Sintra	212	212		
	Porto	122	211		
	Loures	198	198		
	Braga	179	179		
	Coimbra	299	299		
	Faro	418	418		

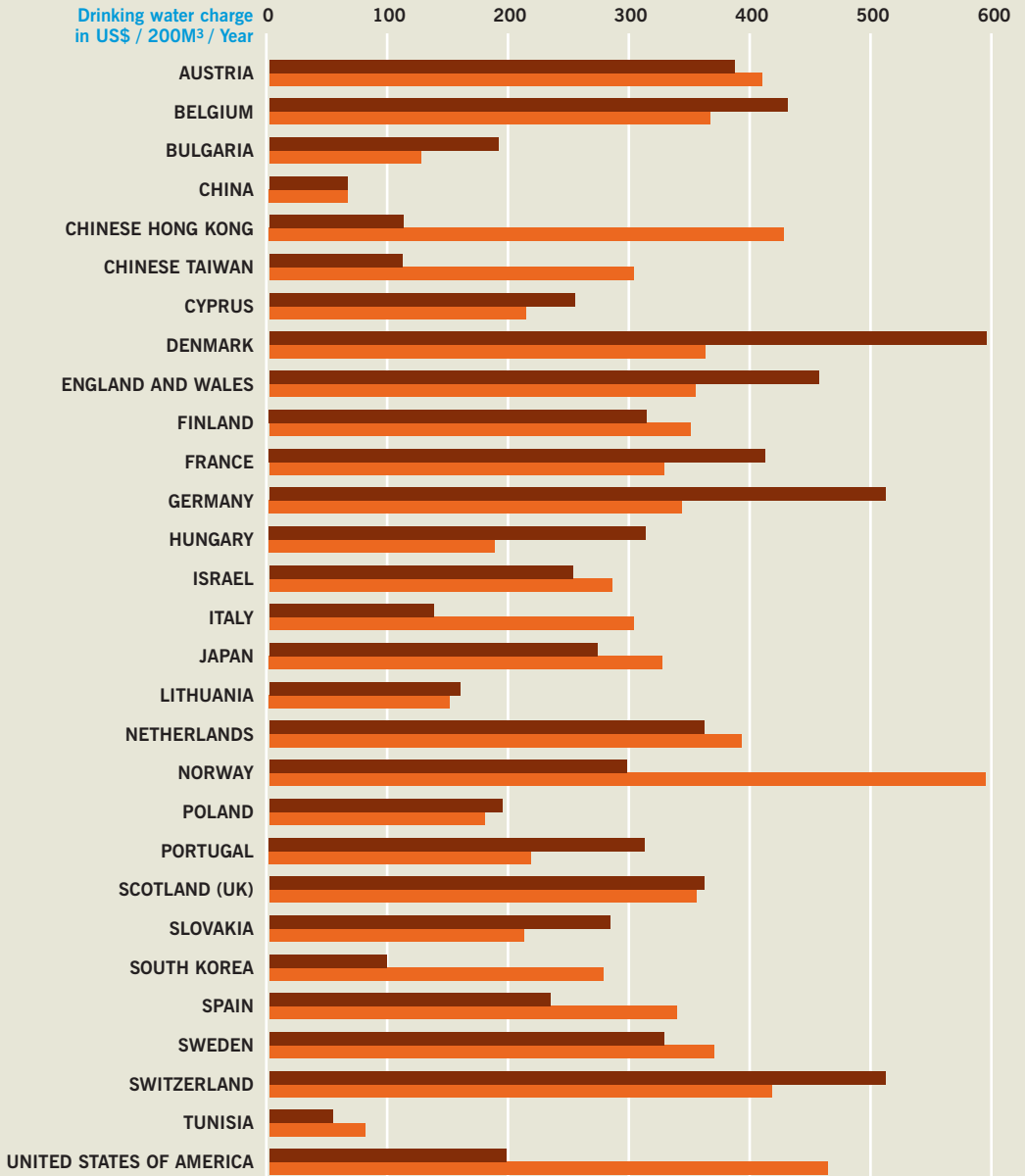
COUNTRY	CITY	HOUSEHOLD AND SMALL BUSINESS	AVERAGE TOTAL	AVERAGE HOUSEHOLD	AVERAGE TOTAL
SCOTLAND (UK)	Scotland Average	270	270	270	270
SLOVAKIA	Bratislava	96	n/a	92	n/a
	Nitra	88	n/a		
	Košice	92	n/a		
SOUTH KOREA	Seoul	311	311	320	320
	Busan	295	295		
	Daegu	323	323		
	Incheon	355	355		
	Gwangju	321	321		
SPAIN	Daejeon	334	334		
	Ulsan	305	305		
	Gyeonggi	319	319		
	Barcelona	110	165	118	176
	Bilbao	109	185		
SWEDEN	Madrid	131	189		
	Seville	126	178		
	Valencia	113	165		
	Stockholm	273	273	237	237
	Göteborg	244	244		
SWITZERLAND	Malmö	238	238		
	Uppsala	207	207		
	Linköping	223	223		
	Geneva	289	347	254	288
	Zurich*	n/a	273		
TUNISIA	Lausanne*	n/a	268		
	Basel	219	297		
	Bern*	n/a	253		
	Tunisia Average	85	113	85	113
	Birmingham	128	n/a	143	n/a
UNITED KINGDOM	Cardiff	153	n/a		
	London	158	n/a		
	Manchester	136	n/a		
	Leeds	138	n/a		
	New York	511	511	455	455
UNITED STATES OF AMERICA	Washington D.C.	150	150		
	Los Angeles	528	528		
	Chicago	389	389		
	Denver	721	721		
	Miami	428	428		

<sup>1</sup> Figures for England and Wales

\* No data available for household and small business

### GDP - DRINKING WATER CHARGE 2009\*

FOR 200 M<sup>3</sup> IN US\$

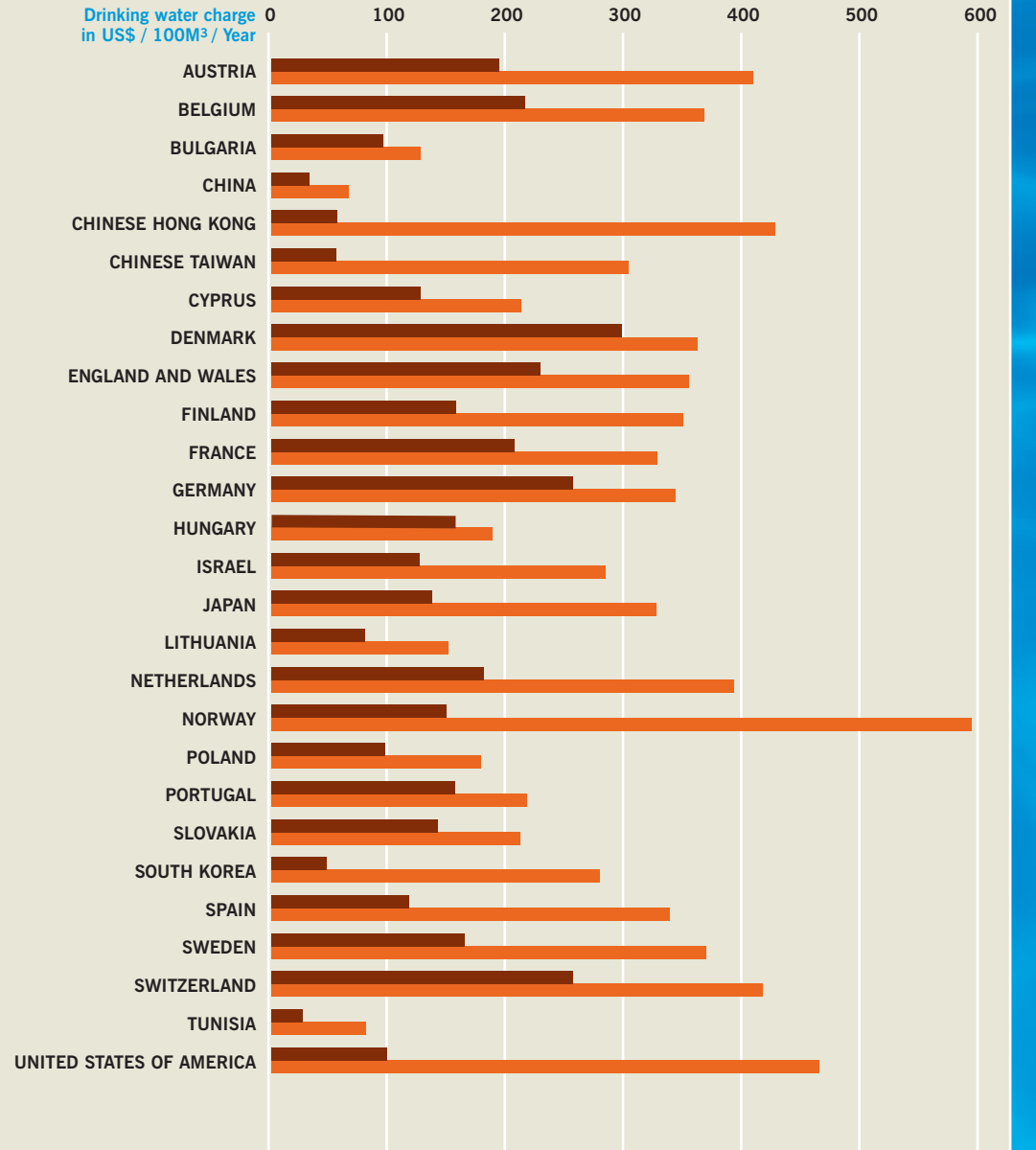


■ Drinking water charge\* ■ GDP

\* The average of considered main city/cities in the country

### GDP - DRINKING WATER CHARGE 2009\*

FOR 100 M<sup>3</sup> IN US\$



■ Drinking water charge\* ■ GDP

\* The average of considered main city/cities in the country





## COMPARISON OF ANNUAL WATER CYCLE CHARGES 2009

RELATED TO A CONSUMPTION OF 100M<sup>3</sup> IN US\$

COUNTRY	TOWN/CITY	GDP PER CAPITA IN US\$	FIXED CHARGE	VARIABLE CHARGE	OTHER CHARGES DRINKING WATER	TOTAL CHARGE DRINKING WATER	SEWERAGE *	WASTE WATER TREATMENT*	OTHER CHARGES	VAT & OTHER TAXES	TOTAL ANNUAL CHARGES	AVERAGE FIXED CHARGE	AVERAGE VARIABLE CHARGE	AVERAGE OTHER CHARGE D. WATER	AVERAGE DRINKING WATER CHARGE	AVERAGE SEWAGE WASTE.W CHARGE	AVERAGE OTHER CHARGES	AVERAGE VAT AND OTHER TAXES	AVERAGE TOTAL CHARGE	WATER RATE DESIGN FOR DOMESTIC USE						
																				FLAT RATE UN-METERED	UNI-FORM RATE	DE-CREASING BLOCK	IN-CREASING BLOCK	FIXED OR SERVICE CHARGE	UNIQUE TARRIF	OTHER
ENGLAND AND WALES	Birmingham	35,400	38.19	209.77	0.00	247.97	246.00	0.00	0.00	0.00	493.97	45.33	205.61	0.00	250.94	274.96	0.00	0.00	525.90							
	Cardiff		51.61	220.50	0.00	272.11	361.95	0.00	0.00	0.00	634.06															
	London		41.94	182.47	0.00	224.40	165.74	0.00	0.00	0.00	390.15															
	Manchester		48.39	220.81	0.00	269.19	326.45	0.00	0.00	0.00	595.65															
	Leeds		46.52	194.52	0.00	241.03	274.65	0.00	0.00	0.00	515.68															
UNITED STATES OF AMERICA	New York	46,400	127.75	92.17	0.00	219.92	0.00	349.67	0.00	0.00	569.59	72.75	54.73	3.80	131.28	122.12	0.00	0.00	253.40	x	x				x	x
	Washington D.C.		24.12	88.64	20.13	132.89	0.00	127.49	0.00	0.00	260.38														x	x
	Los Angeles		228.00	0.00	0.00	228.00	0.00	104.80	0.00	0.00	332.80														x	x
	Chicago		0.00	52.97	0.00	52.97	0.00	45.56	0.00	0.00	98.53														x	x
	Denver		66.96	55.74	0.00	122.70	0.00	46.36	0.00	0.00	169.06														x	x
	Miami		38.40	9.88	0.00	48.28	0.00	87.87	0.00	0.00	136.15														x	x
	Minneapolis		24.00	83.71	6.49	114.20	0.00	93.12	0.00	0.00	207.32														x	x

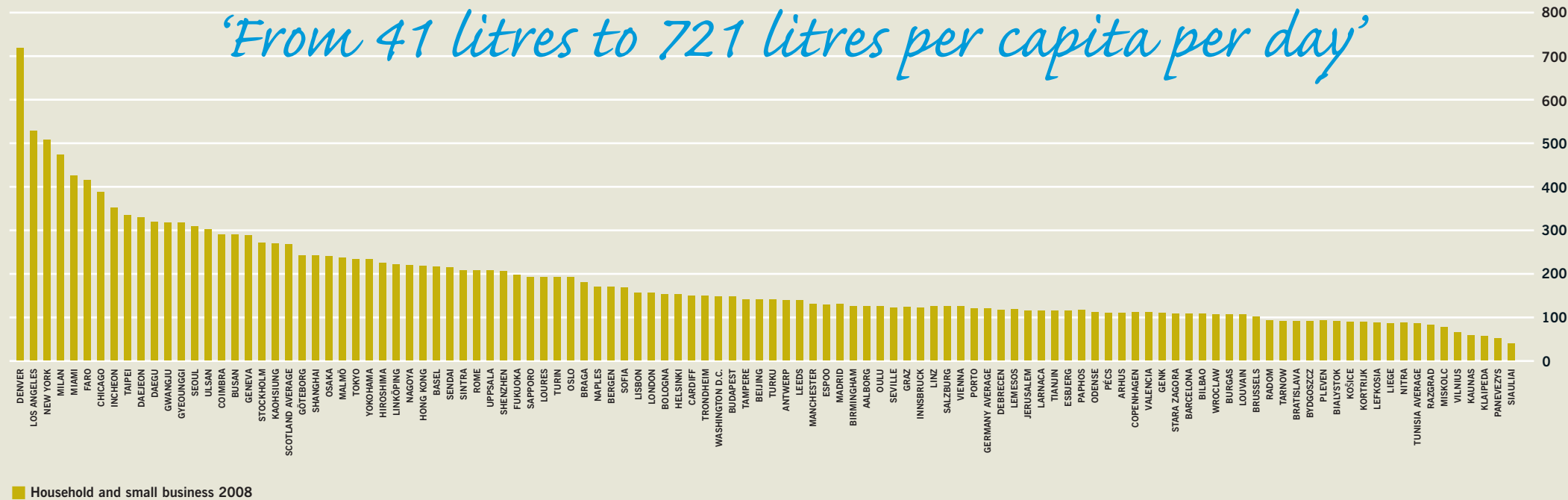
US\$ as per 31 December 2009

\* If sewerage and wastewater are charged by a unique tariff it's allocated as sewerage

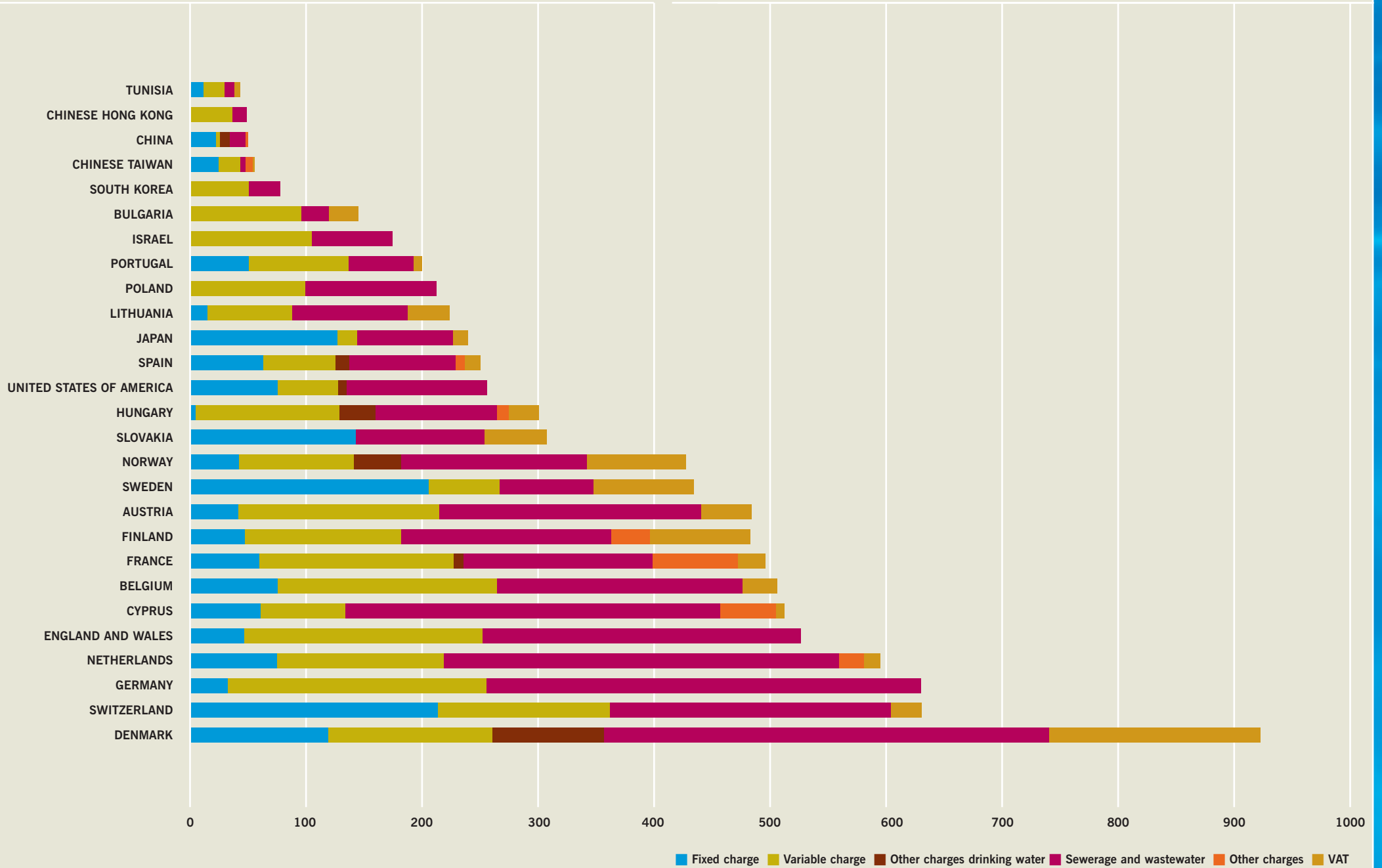
Source for exchange rates to US\$ as per 31 December 2009: [www.exchange-rates.org](http://www.exchange-rates.org) Source for GDP: World Fact Book [www.cia.gov/library/publications/the-world-factbook/](http://www.cia.gov/library/publications/the-world-factbook/)

## SPECIFIC WATER CONSUMPTION FOR HOUSEHOLDS AND SMALL BUSINESS 2008

IN LITRES / CAPITA / DAY



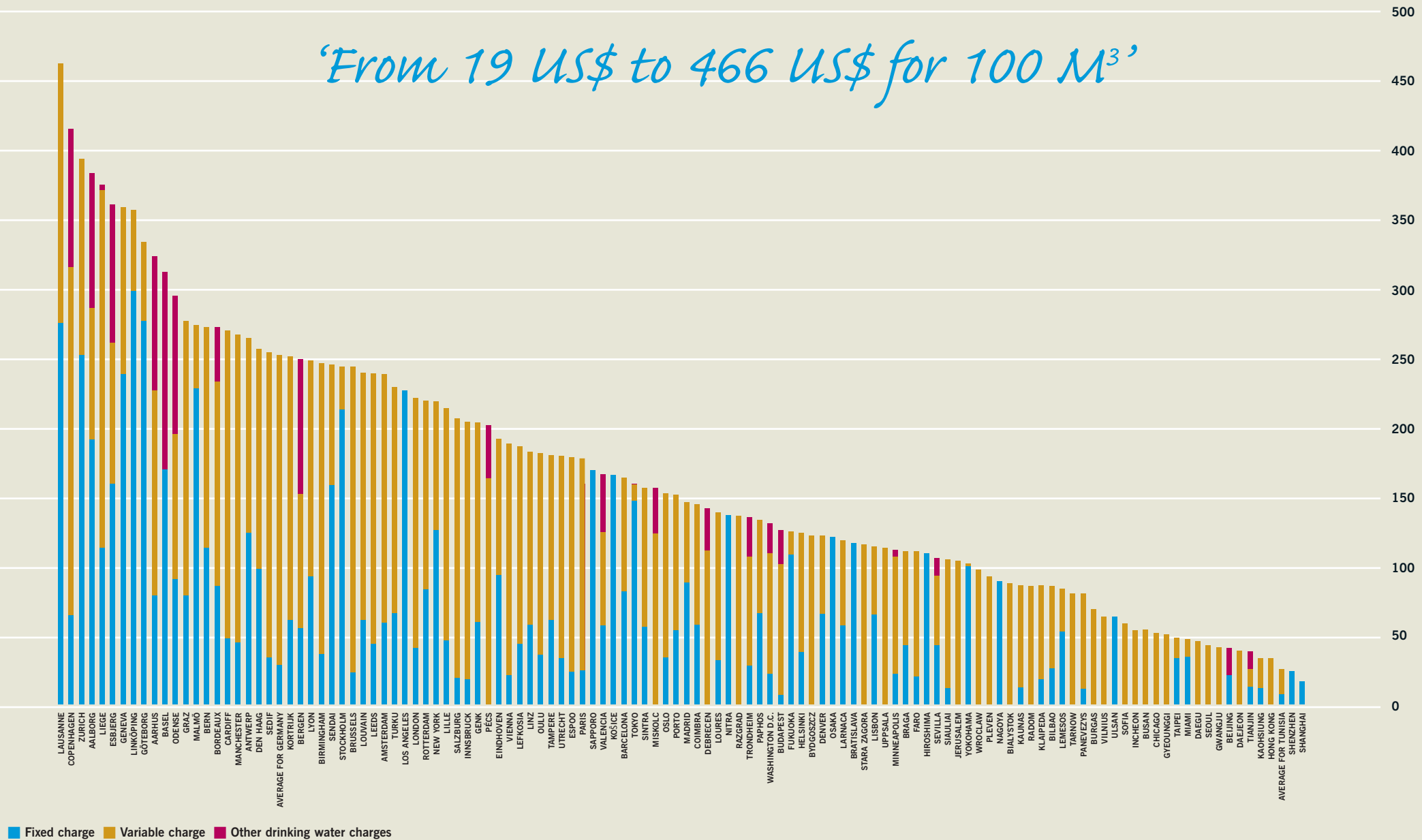
## AVERAGE ANNUAL WATER BILL OF MAJOR CITIES 2009\*

IN US\$ / 100M<sup>3</sup>

\* Average volume of considered main cities in the country

TOTAL CHARGE DRINKING WATER FOR MORE THAN 100 CITIES 2009  
IN US\$ FOR 100 M<sup>3</sup>

*'From 19 US\$ to 466 US\$ for 100 M<sup>3</sup>'*

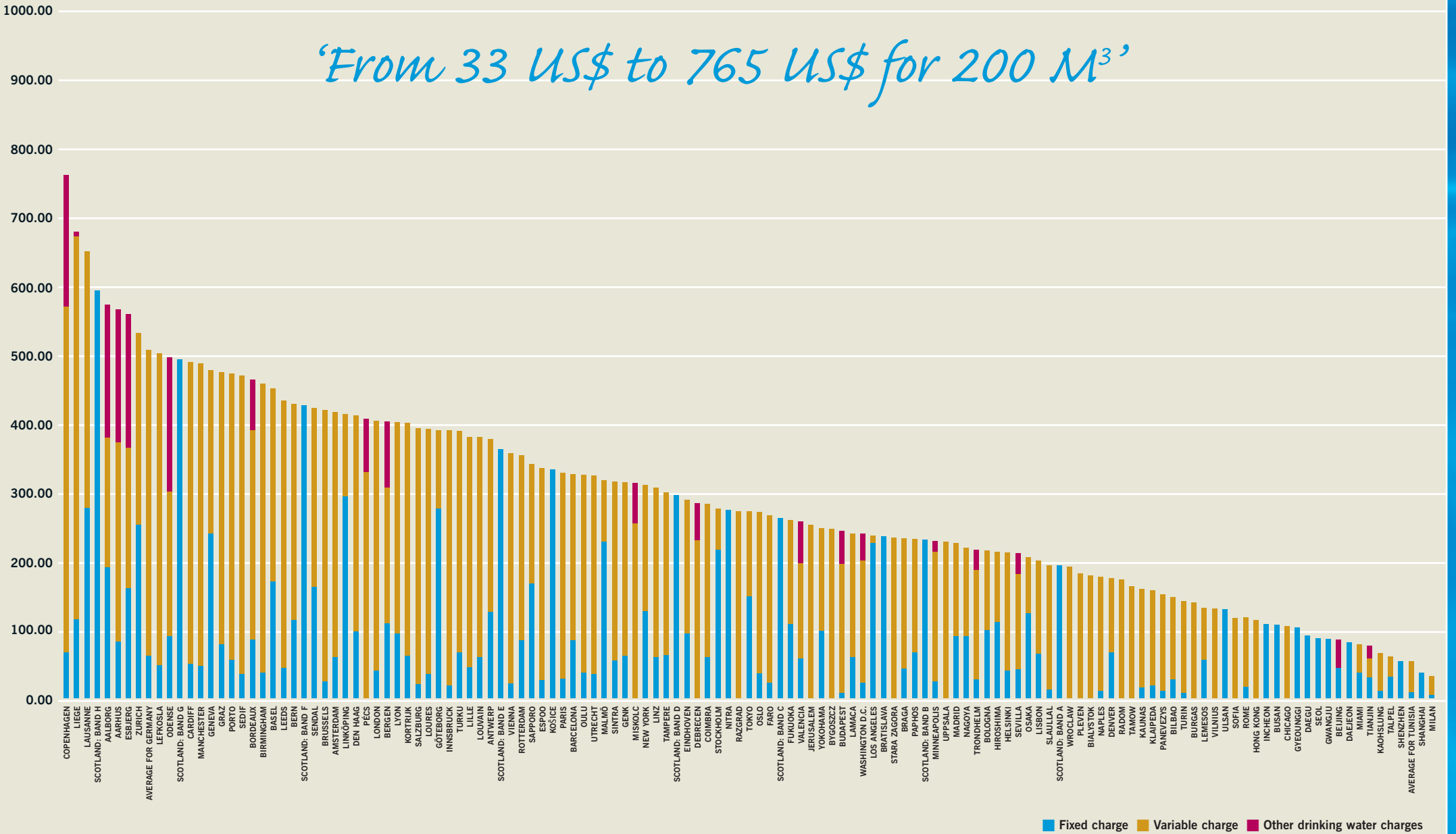




TOTAL CHARGE DRINKING WATER FOR MORE THAN 100 CITIES 2009

IN US\$ FOR 200 M<sup>3</sup>

*'From 33 US\$ to 765 US\$ for 200 M<sup>3</sup>'*



■ Fixed charge ■ Variable charge ■ Other drinking water charges

## WATER REGULATION

RESPONSIBILITIES	AUSTRIA	BELGIUM	BULGARIA	CHINA	CHINESE HONG KONG	CHINESE TAIWAN	CYPRUS	DENMARK	FINLAND	FRANCE	GERMANY	HUNGARY	ISRAEL	ITALY	JAPAN
<b>Who have the decisional power for:</b>															
organizing the water services	M	RG, M	M, S	M	RG	S	M, S	M	M	M	M, ME	M, S	S	M	2
fixing the price of water services	M	RG, M	S	RG	RG	S	M, S	M	M	M	M, ME	M, S	S	M	3
deciding about new investments and the way to finance them	WS, RWH	WS, RWH	WS, S	WS, RWH	WS	WS	WS, RWH, S	WS	WS	RWH	WS	RWH, S	S	WS, S	3
<b>Responsibilities which can be transferred to private operators: Can they yes/no?</b>															
water service operation	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No
customer relation management	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
electromechanical equipment renewal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
existing infrastructure renewal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
main infrastructure extension	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
research and development	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
others, please specify	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-
<b>Responsibilities which can be transferred to private operators: Do they exist yes/no?</b>															
water service operation	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No
customer relation management	No	No	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No
electromechanical equipment renewal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
existing infrastructure renewal	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
main infrastructure extension	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
research and development	n/a	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No
others, please specify	-	-	-	-	-	-	-	-	-	-	6	-	-	-	9
<b>What principles are used for fixing the price of drinking water? yes/no?</b>															
cost covering principles	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
inflation rate growth	Yes	n/a	No	Yes	Yes	No	No	No	No	Yes	No	Yes	Yes	Yes	No
annual price limits	No	n/a	Yes	Yes	Yes	No	No	No	No	No	Yes	No	Yes	Yes	No
general principle of price cap	No	n/a	No	Yes	Yes	No	No	No	No	No	No	No	No	Yes	No
others, please specify	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-
<b>ACCESS TO WATER AND SANITATION FOR LOW INCOME HOUSEHOLDS</b>															
<b>Satisfaction of people's basic needs when they do not have access to public water services: yes/no ?</b>															
public taps	Yes	Yes	No	Yes	Yes	No	-	-	No	Yes	No	Yes	-	Yes	No
private wells	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes	Yes	Yes	-	Yes	Yes
Decentralized Treatment	Yes	Yes	No	-	Yes	No	-	-	Yes	Yes	Yes	Yes	-	Yes	Yes
other, please specify	-	-	-	4	-	-	-	-	-	-	7	-	-	-	-
<b>Solidarity mechanism set up to facilitate access to water and sanitation:</b>															
please specify	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>How are they funded?: yes/no?</b>															
Water subscribers/consumers of the watercompanies	No	Yes	Yes	-	No	Yes	-	-	No	Yes	Yes	Yes	No	No	No
Local/National tax payer	Yes	n/a	Yes	-	Yes	No	-	-	Yes	Yes	No	No	Yes	No	No
other, please specify	-	-	-	5	-	-	-	-	-	-	-	-	-	-	10

### Water Regulation Appendice:

1. Data for England and Wales.
2. Assembly of Municipal & the Minister of Health, Labor and Welfare, Japan (authorization).
3. Assembly of municipal.
4. Boiling.
5. Local governments.
6. Management of surface waters, resource protection.
7. Septic systems.
8. Average tariff each year should cover operative costs, depreciation and capital revenue. At the same time tariffs increase year by year taking into account inflation rate, growth and a price limit. A group of operators (old contracts with transitory regulations by CIPE) are regulated by price cap principle.
9. Water Utilities have the responsibilities for whole management though some parts of the works are contracted out to the private sectors.
10. Grant from government for the expansion of water service.

11. The water supply and drinking water are strictly operated by the municipality and a public company, K-Water, as of 2009. However, private companies operate some of the sewer and sewage treatment plants, although major WWTPs and sewer systems are still controlled by the municipalities in Korea. Thus, the form of responsibilities for water service is mixed: water for public and sewerage for public and private.
12. The water fee in Korea can not cover the O/M cost for drinking water and sewerage(drinking water: less than about 80%, Sewage: less than 60%). Due to the political reason and intervention of NGOs, the water pricing does not reflect the actual O/M cost and inflation. The deficits of both water and sewerage are covered by the subsidies from local governments. However, private participation in sewerage works, except water supply, are now practiced.
13. EU funds.
14. Municipalities cover investments by raising sewerage taxes.
15. 100% access to piped drinking water supply.

	KOREA, SOUTH	LITHUANIA	NETHERLANDS	NORTHERN IRELAND (UK)	NORWAY	POLAND	PORTUGAL	SCOTLAND (UK)	SLOVAKIA	SPAIN	SWEDEN	SWITZERLAND	TUNISIA	UNITED KINGDOM 1	UNITED STATES OF AMERICA
	M, S	M	M	RG	M	RG, M	M, S	S	M	M	M	M	S	-	M
	M, S	M	M	RG	M	RG, M	M, S	S	M, S	RG, M	M	M	S	-	M
	WS, S	RWH, S	14	S	WS	RWH	WS, S	-	WS	WS, RWH, S	RWH	WS	S	-	WS
Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	No	Yes	Yes	n/a	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
No	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	-	25	16	-	-	-	-	-	-	-	-	-	-	-	-
Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Yes	No	Yes	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
No	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes
11	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-
No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
No	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	No	Yes
No	No	No	Yes	No	No	No	No	Yes	No	No	No	No	No	Yes	Yes
No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	No	No	No	No	No
12	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-
Yes	Yes	-	No	No	No	Yes	No	No	-	No	No	No	Yes	No	No
Yes	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes	Yes	Yes	-	Yes
-	-	15	17	-	-	-	-	-	22	-	23	-	-	24	-
-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-
No	Yes	-	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	-	Yes
No	Yes	-	Yes	No	Yes	-	No	-	-	No	No	No	Yes	-	No
-	13	15	18	-	-	-	21	-	-	22	-	-	-	-	-

16. NI Water can contract services out but as the sole water and sewerage undertaker in Northern Ireland it can not transfer responsibility for the provision of water and sewerage services.
17. Septic tanks, private treatment facilities and cesspools.
18. Connections for new and existing non-connected properties (for both Water and Sewerage) and septic tank desludging services are subsidized.
19. Principle of rate of return.
20. Social and large family special prices.
21. European funds in general with allocation of investments in less developed municipalities in particular.
22. 100% access to water services.
23. Own septic tank (often for agricultural use).
24. Septic tanks.
25. Final decision making and ultimate responsibility.

#### Responsibilities Key:

- G: Government
- M: Municipalities
- ME: Municipalities enterprises
- O: Operators
- O/WC: Owners/water companies
- RA: Regional Agency
- RG: Regional governments
- RM: Regulation ministry
- RWH: Regional water holdings
- S: State
- SH: Shareholders
- WC: Water companies
- WS: Water services

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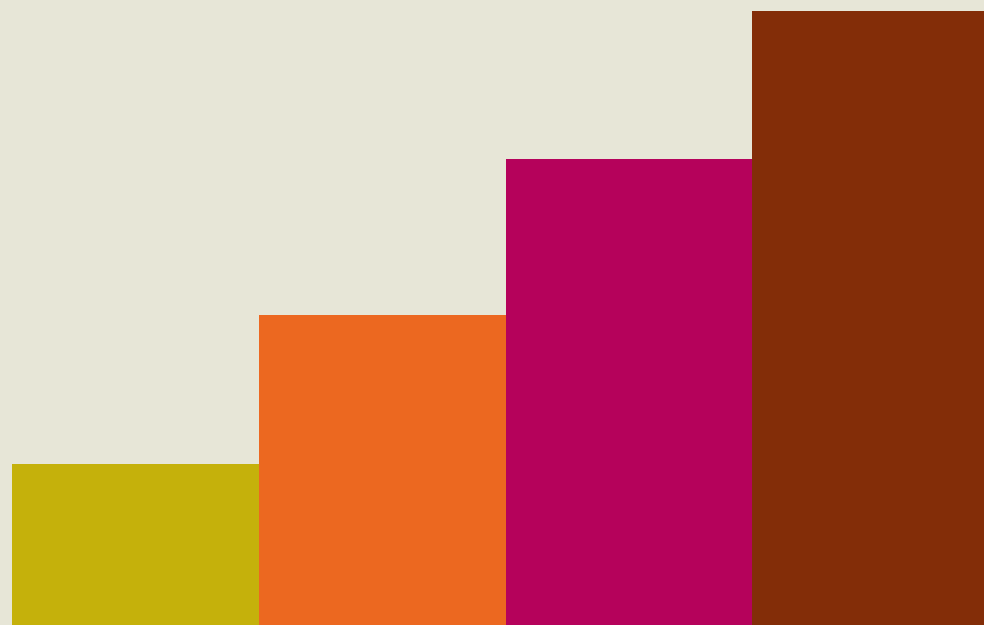
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