

THE ROLE OF THE PRIVATE SECTOR ON WATER GOVERNANCE

MADRID 1 DE JULIO
FUNDACION BOTIN

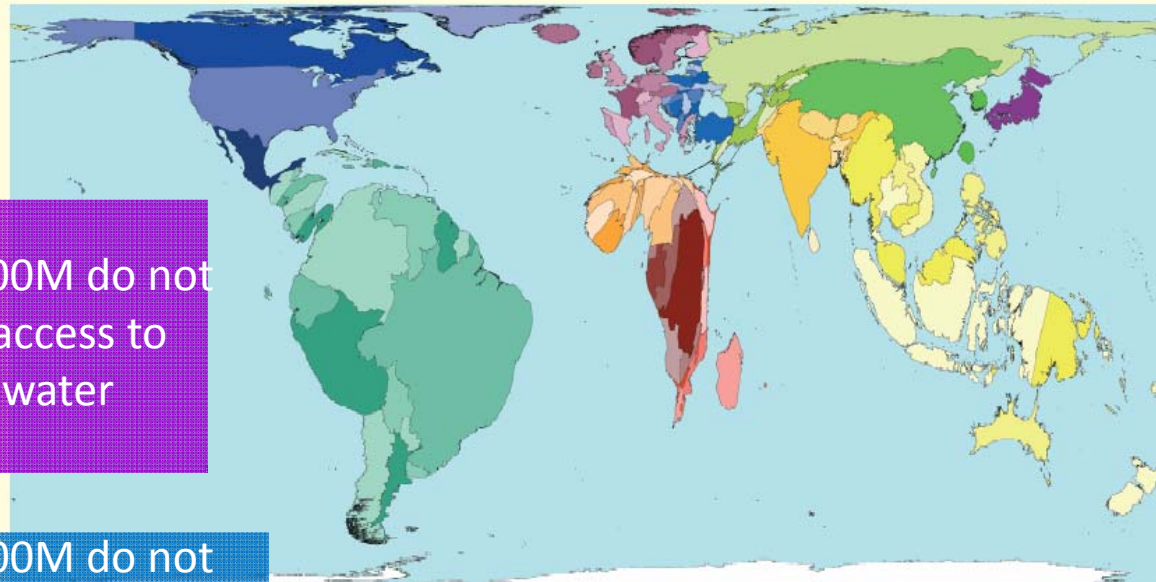


José Luís González Vallvé
General Director of AGA
President of the Board for External
Promotion of CEOE
SPAIN

Distorted World Map: Surfaces proportional to resource

A few months ago girl 7.000 million was born

Water Resources



+ -1000M do not have access to clean water

+ -2500M do not have access to sanitation

Water resources here include only freshwater, because saline (sea) water requires treatment before most uses.

Only 43 600 cubic kilometres of freshwater is available as a resource each year, despite more than twice this amount falling as precipitation (rain and snow). Much is lost through evaporation. Those countries with higher rainfall often have larger water resources. Of all the water available, the regions of South America and Asia Pacific have the most.

People living in Kuwait use sea water that is processed at a desalination plant. As such Kuwait has no area on this map because there are no freshwater resources there.

Territory size shows the proportion of all worldwide freshwater resources found there.

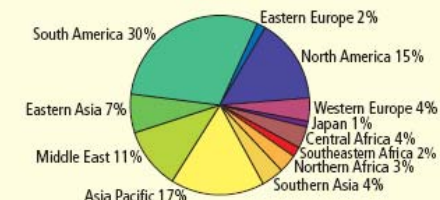
MOST AND LEAST WATER RESOURCES

Rank	Territory	Value	Rank	Territory	Value
1	Sao Tome and Principe	227	190	Qatar	0.46
2	Sierra Leone	223	191	Oman	0.32
3	Costa Rica	220	192	Turkmenistan	0.29
4	Liberia	208	193	Niger	0.28
5	Colombia	203	194	Bahamas	0.20
6	Bhutan	202	195	Egypt	0.18
7	Panama	198	196	United Arab Emirates	0.18
8	Taiwan	186	197	Saudi Arabia	0.11
9	Papua New Guinea	177	198	Mauritania	0.04
10	Malaysia	177	199	Libyan Arab Jamahiriya	0.03

centimetres of water per year (cubic centimetres of water volume per square centimetre of land area)*

Technical notes
 • These data are from the United Nations Environment Programme.
 • Only freshwater resources are shown here.
 • *Kuwait had no recorded freshwater resources
 • See website for further information.

WORLD WATER RESOURCE DISTRIBUTION



For some experts: “Before dying due to heat (CO2), we would die of thirst”
 In some emerging countries in a few years the price of water will be more expensive than the price of oil.

Problem of Resources or

Distorted World Map Problem of Management?

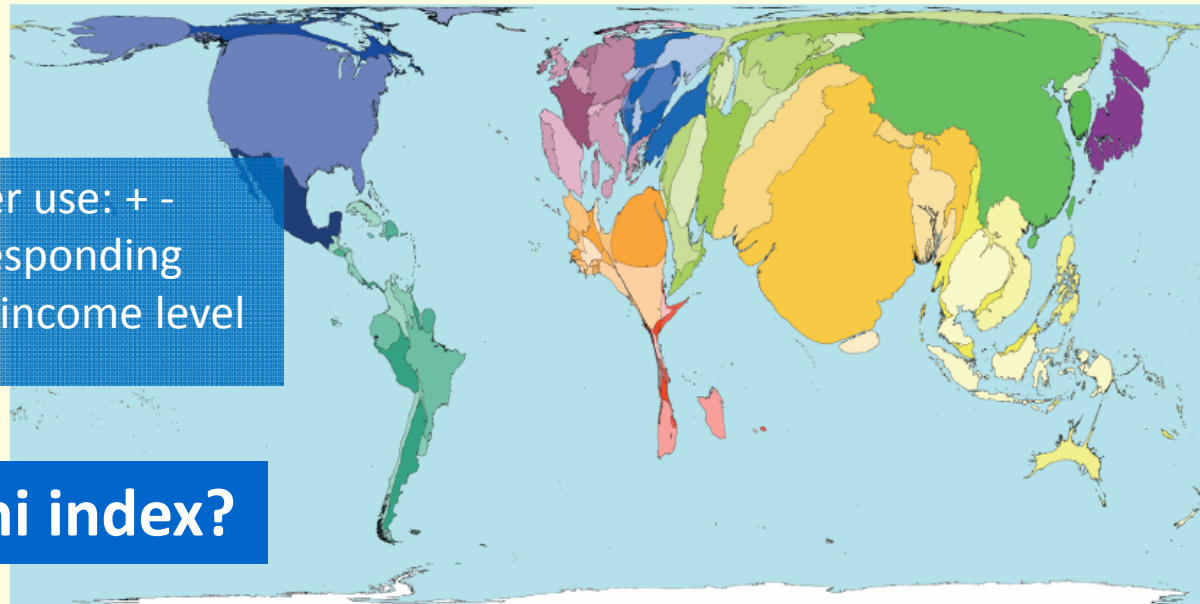
Requires good governance and cost recovery

Good perspectives for the Water Business



Water Use

The University Of Sheffield, M, The Leverhulme Trust, Geographical Association
Produced by the SASI group (Sheffield) and Mark Newman (Michigan)



Water use: + -
corresponding
with income level

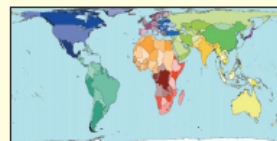
Gini index?

Four thousand cubic kilometres of water are used by people each year around the world, for domestic, agricultural and other industrial purposes. This does not include non-consumptive uses such as energy generation, mining, and recreation.

China, India and the United States use the most water. These are also the territories where the most people live. But water use per person is about three times higher in the United States than it is in India and China.

Whilst everybody needs water, people use hugely varying quantities. On average, people living in Central Africa each use only 2% of the water used by each person living in North America.

Territory size shows the proportion of worldwide water use occurring there.



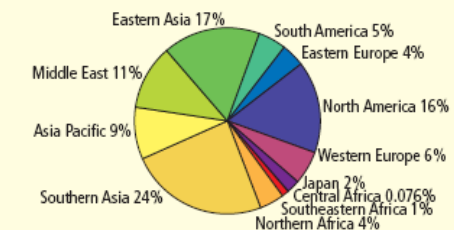
Technical notes
• Data are from the United Nations Environment Programme.
• See website for further information.

MOST AND LEAST WATER USAGE

Rank	Territory	Value	Rank	Territory	Value
1	Bangladesh	64	191	Djibouti	0.04
2	Bahrain	44	192	Namibia	0.03
3	Mauritius	31	194	Angola	0.03
4	Belgium	27	193	Mongolia	0.03
5	Japan	24	195	Botswana	0.03
6	Netherlands	24	196	Chad	0.02
7	Pakistan	23	197	Papua New Guinea	0.02
8	Maldives	23	198	Dem Republic Congo	0.02
9	Viet Nam	23	199	Congo	0.01
10	India	22	200	Central African Republic	<0.01

centimetres of water use per year (cubic centimetres of water volume per square centimetre of land area)

WORLD WATER USE



A new concept: Virtual Water Trade through Food Trade

Ex: every pepper suppose 70 l of water

Spanish model : good governance

Spanish miracle?



Only country that has evolved from infrastructural underdevelopment to development in 25 years;
 RAPPORT BIEHL:
 Quantification of infrastructures
 1985, Spain 50% EU average.
 Actually: 100%

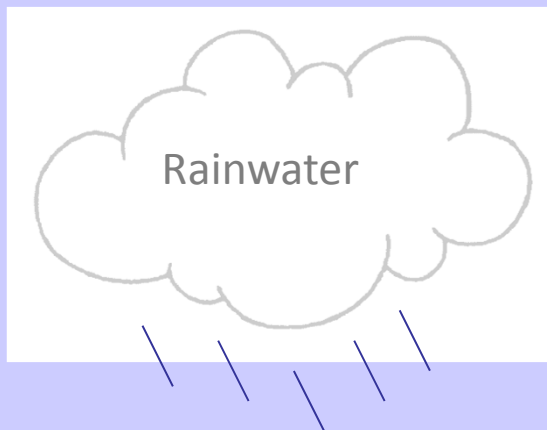


The achievement of supplying 300l. per person/day in very dry cities in southern Spain would be equivalent to supplying 3000 hours of sun a year to the inhabitants of cloudy northern Europe cities.

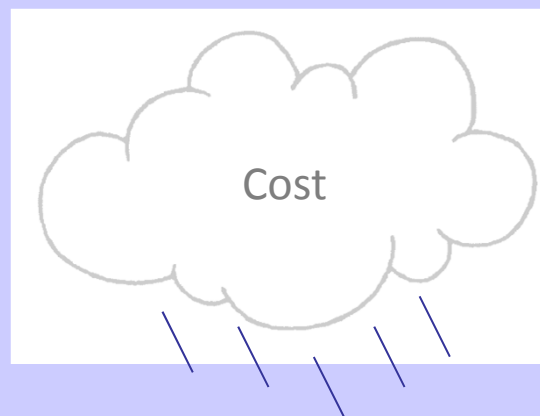
- **Spain**: yellow-brown country, not green.
- **Long tradition** in good consumer-producer relationship
- The oldest free Court in Water Conflicts (Tribunal de las aguas de Valencia)

Spanish model : Good Governance

Spanish miracle? “Marca Agua España”



SPAIN without infrastructure would make use of 8% of rainwater .
With 1500 dams and other constructions it uses 40%.
In Central Europe Countries would make use directly 40%



In a central European city water is caught from the phreatic zone and taken home at 3-4 euros per m3.

Costs more than 4€ per m3 (EU average).
In Madrid, dams like El Atazar have to be build, water channeled for more than 70 Km and the cost is 1,5 euros per m3.

Spanish companies manage water in order to supply to over 100 million people outside Spain

— Spanish model : good governance

- Multiplies by 10 its population in summer
- Mixed water sources: transferred, desalinization, groundwater and reutilization



BENIDORM 1960



BENIDORM, SIGLO XXI

Spanish model : good governance

Survey managers: Spanish optimism

Table 2: Shortfall perception from water utility executives

Aggregate responses from survey, conducted July 2012

Country	Utilities expecting a mismatch in supply and demand by 2020 (%)	Utilities expecting a mismatch in supply and demand by 2030 (%)	Respondents who think the risk of water demand outstripping supply in 2030 is highly likely (%)
India	52	23	42
US	41	7	44
Canada	39	4	39
UK	33	38	25
Australia	28	33	44
Brazil	21	4	42
China	21	26	46
France	18	27	32
Russia	18	5	32
Spain	0	14	36
Average	28	18	39

Source: EIU survey.

Factors of competitiveness (World Economic Forum)

GLOBAL COMPETITIVENESS INDEX

	RANK (OUT OF 139)	SCORE (1 TO 7)
GCI 2011-2012.....	36.....	4.6
Basic Requirements.....	36.....	5.11
1st pillar: Institutions.....	48.....	4.25
2nd pillar: INFRASTRUCTURE.....	10.....	5.92
3rd pillar: Macroeconomic environment.....	104.....	4.17
4th pillar: Health and primary education.....	36.....	6.09

The report highlights Spanish Infrastructures as one of its strengths

SPAIN RANKS 10th POSITION

Spain make a good use of EU funds, specially on water infrastructure. It was common knowledge in the European Union that 1€ injected in the Spanish public works management system were ninety-many cents invested in water supply or a water treatment plant.

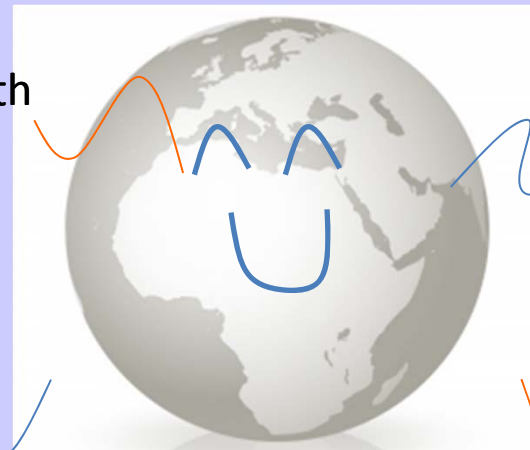
Millennium Goals

Of the 8 Millennium Goals
water is related to 6 of them

5. **Improving** maternal health

6. **Combating** diseases

7. **Ensuring**
environmental
sustainability



4. **Reducing** child mortality rates

1. **Eradicating**
extreme poverty
and hunger

3. **Promoting**
gender
equality and
empowering

Probably the progress on water access has been the strongest contribution to the achievement of the millennium goals, but there is still a long way to go

— Millennium Goals



- We need to harmonize the existing contradictions between Human right/ Economic good and between cooperation to development/ Utility.
- Its not just another utility more. Strategic factor: Key element regarding quality of life but also economic development



1100 million/people defecate in the open, among them 17% rural population of Latin America and the Caribbean

Objective: to reduce by $\frac{1}{2}$ n° people without access to clean drinking water by 2015, was achieved in 2012.

Last decade + 2000 million/people: improved clean water

2015 + 600 million/people would not have access to improved clean water

2500 million/people lack access to sanitation



Funding for the achievement of the Millennium Goals

Good Democratic Economic Governance

SOME EXAMPLES OF ACTIVITIES

JOINT PROGRAMME TITLE	COUNTRY	MDG-F PROGRAMME
Economic governance, regulatory reform, public participation, and pro-poor development in Albania	ALBANIA	Democratic Economic Governance
Governance of Water and Sanitation in Angola's Poor Neighbourhoods	ANGOLA	Democratic Economic Governance
Securing Access to Water through Institutional Development and Infrastructure	BOSNIA HERZEGOVINA	Democratic Economic Governance
Governance in the water and sanitation sector in Ecuador within the framework of the Millennium Development Goals	ECUADOR	Democratic Economic Governance
Capacity-Building amongst the Mam People in Economic Water and Sanitation Governance	GUATEMALA	Democratic Economic Governance
Economic Governance of Water and Sanitation	HONDURAS	Democratic Economic Governance



**WHY
AREN'T THE
COMPANIES
INVOLVED?**

Water as an Economic Good

1. Aarhus (Denmark)	\$9.12/m ³
2. Essen (Germany)	\$7.35/m ³
3. Copenhagen (Denmark)	\$7.09/m ³
4. Perth (Australia)	\$6.47/m ³
5. Brisbane (Australia)	\$6.44/m ³
6. Adelaide (Australia)	\$6.40/m ³
7. Sydney (Australia)	\$6.38/m ³
8. Honolulu (United States)	\$6.37/m ³
9. Glasgow (UK)	\$6.29/m ³
10. Bremen (Germany)	\$6.06/m ³

Mistake: to measure in M3, and non in liter

Source: Global Water Intelligence
- September 2012-

Barcelona \$ 1,42 m3
Madrid \$ 1,43 m3

Water as an Economic Good

Bottom 10 combined water and wastewater tariffs

1= Ashgabat (Turkmenistan)	\$0.00/m ³
1= Belfast (UK)	\$0.00/m ³
1= Cork (Ireland)	\$0.00/m ³
1= Dublin (Ireland)	\$0.00/m ³
5= Jeddah (Saudi Arabia)	\$0.03/m ³
5= Riyadh (Saudi Arabia)	\$0.03/m ³
7. Damascus (Syria)	\$0.04/m ³
8. Havana (Cuba)	\$0.04/m ³
9. Chandigarh (India)	\$0.05/m ³
10. Khulna (Bangladesh)	\$0.06/m ³

Bombay Central: 7 rupees to fill a swimming pool (network supply)

Bombay Slums: 80 rupees for drinking water (truck supply)

Public authorities do not know the price of water

Avoid the risk of confounding emergency solutions with sustainable solutions at long term

Water as an Economic Good



MAXIMUM CAPACITY TO PAY FOR WATER AS A % OF FAMILY INCOME

- World Bank 5%: 3% supply, 2% sanitation
- Other authors (2010) <1%
- IDB 5% poor, 1% not poor
- Brazilian slums <2%
- Arequipa 1,7%, Costa Rica 9,8%
- Spain 0,70%: **Actually: the problem is funding Complete Sanitation in small communities**

Water as an Economic Good: Cost Recovery

Two ways of economic approach: Probably the Good balance in a intermediate position



Supply of drinking water and average tariff

Suppliers	Year	Supply		Average bill (dollars per month)a	Average price (dollars per m3)b
		Litres per inhabitant and day	Cubic meters per client and month		
BUENOS AIRES	2011	356	29	4,82	0,17
SANTA FE	2011	c	c	5,87	c
SAO PAULO	2010	227	18	48,43	2,63
BELO HORIZONTE	2010	148	12	36,09	2,94
SANTIAGO DE CHILE	2011	203	22	38,98	1,77
ANTOFAGASTA	2011	169	19	67,69	3,54
BOGOTA	2011	100	12	31,82	2,64
CARTAGENA	2011	129	16	32,51	1,98
LIMA	2011	153	28	27,74	1,01
CAJAMARCA	2011	94	14	12,93	0,94
COSTA RICA	2010	175	21	22,72	1,07
QUITO	2011	189	27	19,76	0,72
PANAMA	2011	359	52	15,45	0,30
PARAGUAY	2011	237	35	c	c
URUGUAY	2009	138	15	26,27	1,80

Source: Sector data

a Operating income divided by clients

b Operating income divided by cubic metre consumed

c Not available

Only numbers

**Ex: AVINA
Foundation:
3 models of
democratic
governance for
water:**

- Community water boards
- The one million cistern program
- Social control

**On these
models water
price is not
shown.**

Only Words

Companies should be key players

Water Tariff Criteria



- **Convenience**, including the attributes of simplicity, comprehensibility, feasibility of the application and public acceptance. **On Line**

Free of controversies in its interpretation

- **Effectiveness in achieving the revenue target** to obtain a fair and reasonable turnover. **European Directive oblige strict recover of cost**
- **Tariff stability** aiming at avoiding adverse unexpected change for service users
- **Equity between the different user groups**, in relation with their respective shares in the final service costs
- **Avoiding excessive discrimination** between users
- **Encouragement of efficient consumption patterns**, deterring squandering and allowing for all kinds and amounts of justified use (like peak and non peak consumption)

SOURCE: CEPAL.

— Companies should be key players

WHY AREN'T COMPANIES PRESENT IN COOPERATION ?



- Companies are the ones that have the “know-how” to install and provide the taps
- Infrastructure (water) built by companies is significantly cheaper than infrastructure (water) built by Non Companies



- Management in cooperation (water) is done mainly through governments bodies
 - In Spain: NGO Non-Governmental Organization are publicly. Financed in a 62%



- In Spanish Cooperation, involvement of companies accounts for less than 10%

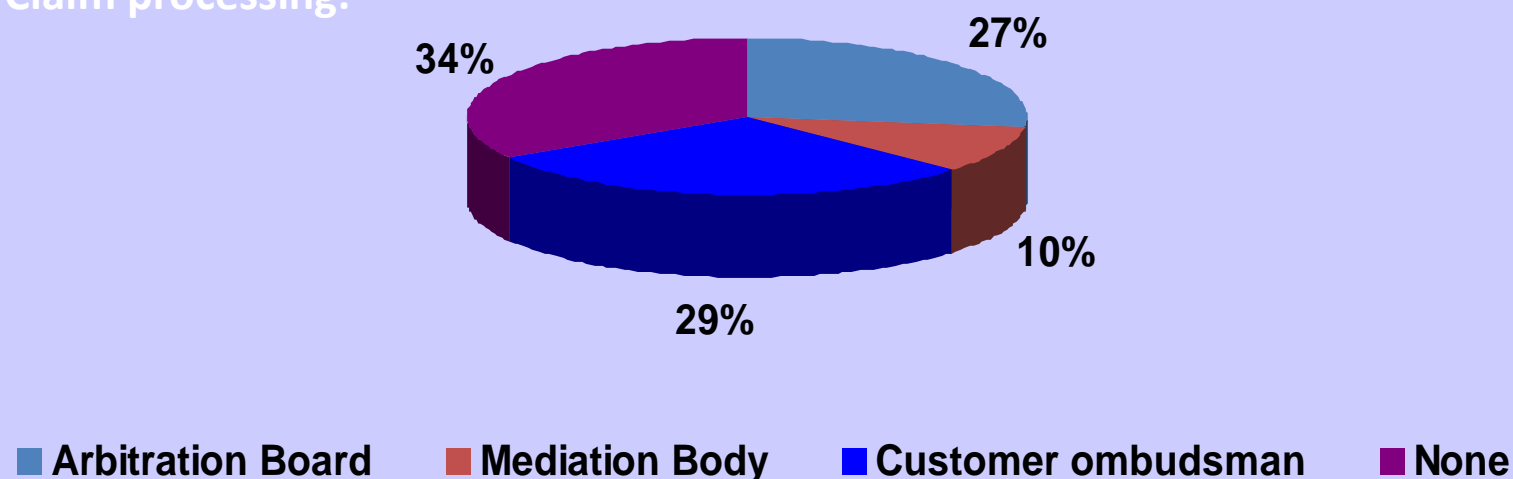
**The debate is not public or private,
The debate is good or non good management**

Companies should be key players

Good relationships with consumers SPAIN

- Number of annual claims / number of clients: **1,3%**
- Claims resolved favorable to the client : **58%**
- Main kind of claim; errors in the receipt: **56,3%**

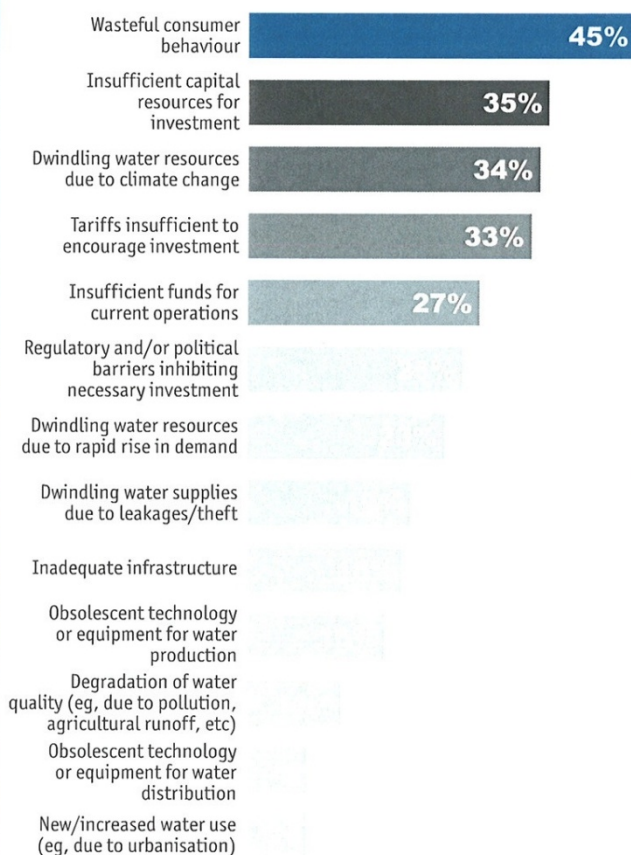
Claim processing:



Companies should be key players

Chart 4

Q What, if any, are the main barriers to ensuring sufficient clean water supplies to 2030 in the country in which you are based? Please select the top three.
(% respondents)



Source: Economist Intelligence Unit.

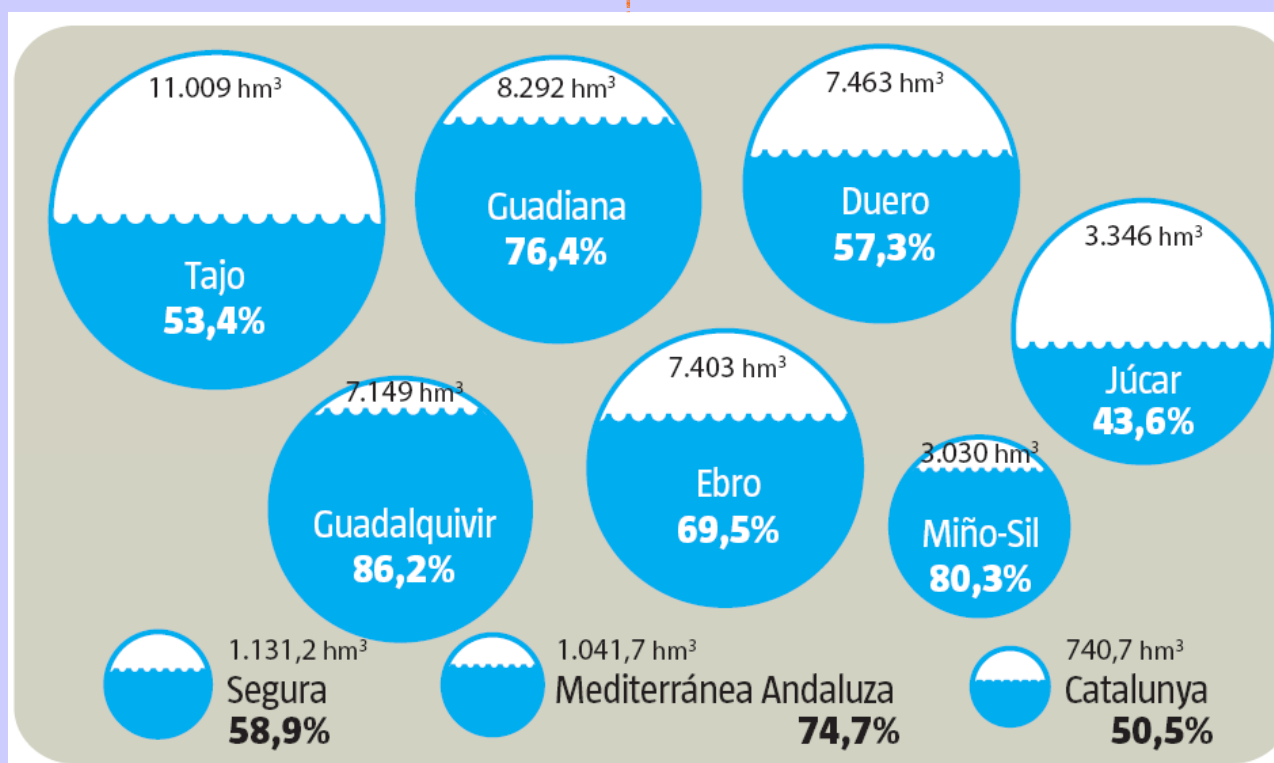
The main barrier to ensure sufficient clean water supplies to 2020 is the Wasteful consumer behavior.

Spanish model : good governance

Public awareness

Pioneers in River Basin Management

Water stored in the Spanish River Basins, published in the daily newspaper



Source: Ministry of the Environment (6/03/2013)

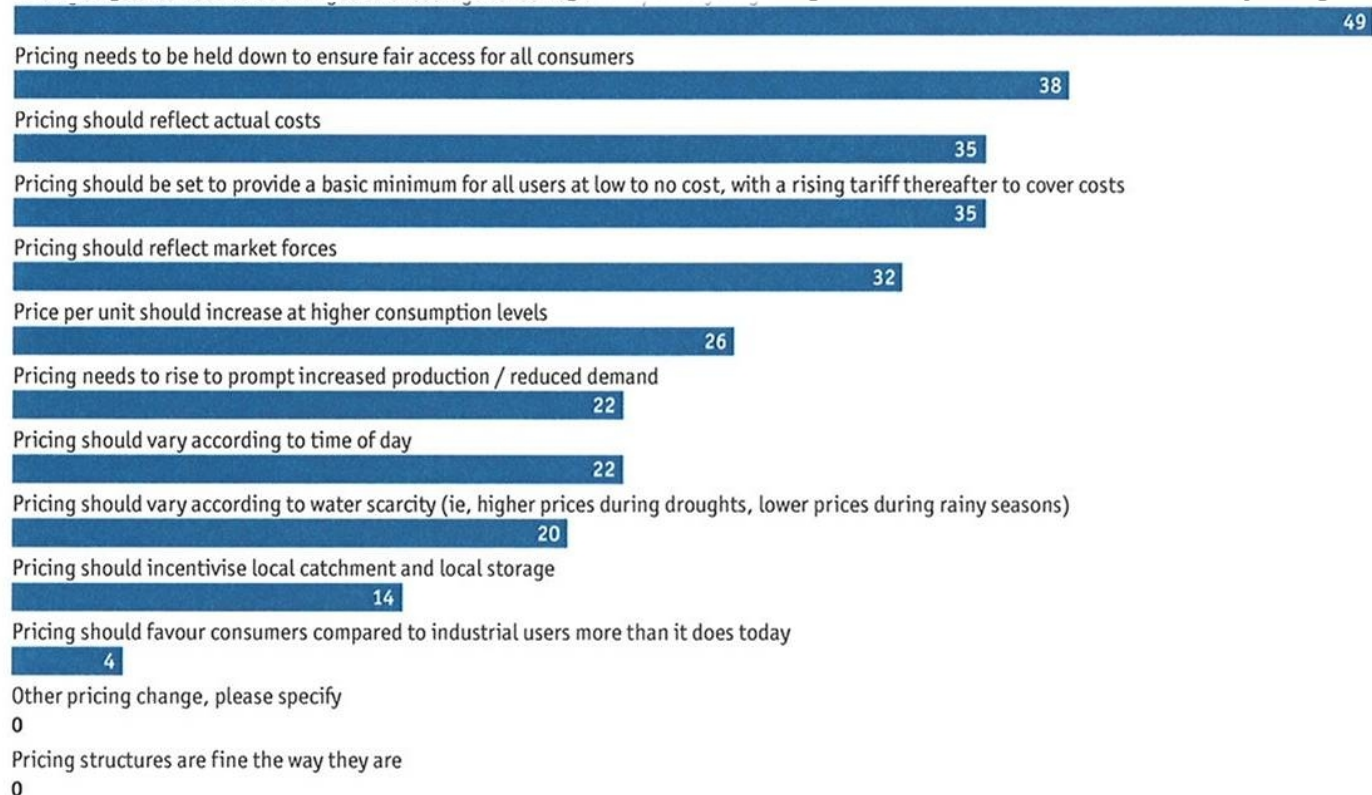
Companies should be key players

To ensure adequate supplies by 2030



What, if at all, do you believe needs to change in water tariffs to ensure adequate supplies by 2030? Please choose the top three (% respondents)

Pricing structures need to be changed to encourage conservation and/or recycling



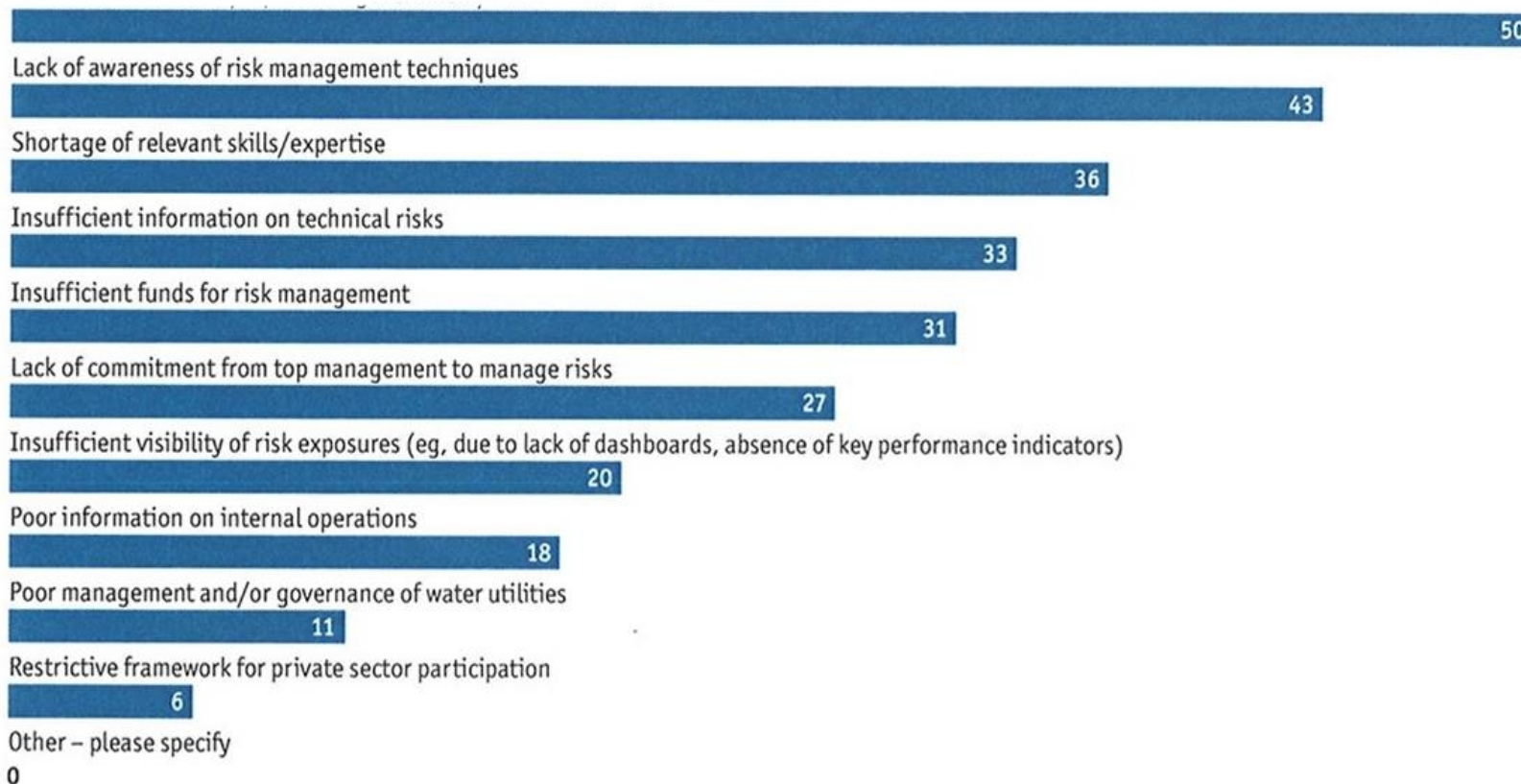
Companies should be key players: Barriers to more effective management



What are the most significant barriers to more effective management of operational risks associated with your water production and/or distribution facilities? Please select up to three.

(% respondents)

Limited collaboration/input from government/water authorities

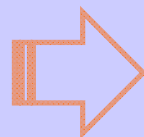


Companies should be key players

In many countries : Public Spending for water is finishing



The water needs funds



Water projects are pioneer in PPP and present strong growth prospects

RATING ON PPP. Good or bad environment

Clasification		2010	2012	Change in rating
1	Chile	79,4	76,4	(-3,0)
2	Brasil	71,9	71,3	(-0,6)
3	Perú	68,1	69,6	(+1,5)
4	México	58,1	63,8	(+5,7)
5	Colombia	55,3	59,5	(+4,2)
6	Uruguay	34,8	49,5	(+14,7)
7	Guatemala	40,9	43,2	(+2,3)
8	Costa Rica	32,6	38,8	(+6,2)
9	El Salvador	30,7	38,2	(+7,5)
10	Trinidad y Tobago	32,2	34,3	(+2,1)
11	Panamá	36,4	34,0	(-2,4))
12	Honduras	24,2	33,7	(+9,5)
13	Jamaica	26,6	30,2	(+3,6)
14	Paraguay	24,7	28,9	(+4,2)
15	República Dominicana	24,0	25,7	(+1,7)
16	Nicaragua	17,1	20,4	(+3,3)
17	Ecuador	12,4	19,9	(+7,5)
18	Argentina	30,3	17,5	(-12,8)
19	Venezuela	5,3	5,1	(-0,2)

Source: The Economist

— Companies should be key players



Advantages



Sector knowledge

Public and private accountability



Cheaper and cost control

**Ignore the Companies
Is a Social Waste**



Professional ability



Innovation: demand rationalization



Long tradition in good relationships with consumers



Local partnership



Contributing to the development of the private sector



Audio

An undervalued resource

Thank you for your
attention

The
Economist

