



# **Water Stewardship at Coca-Cola Hellenic**

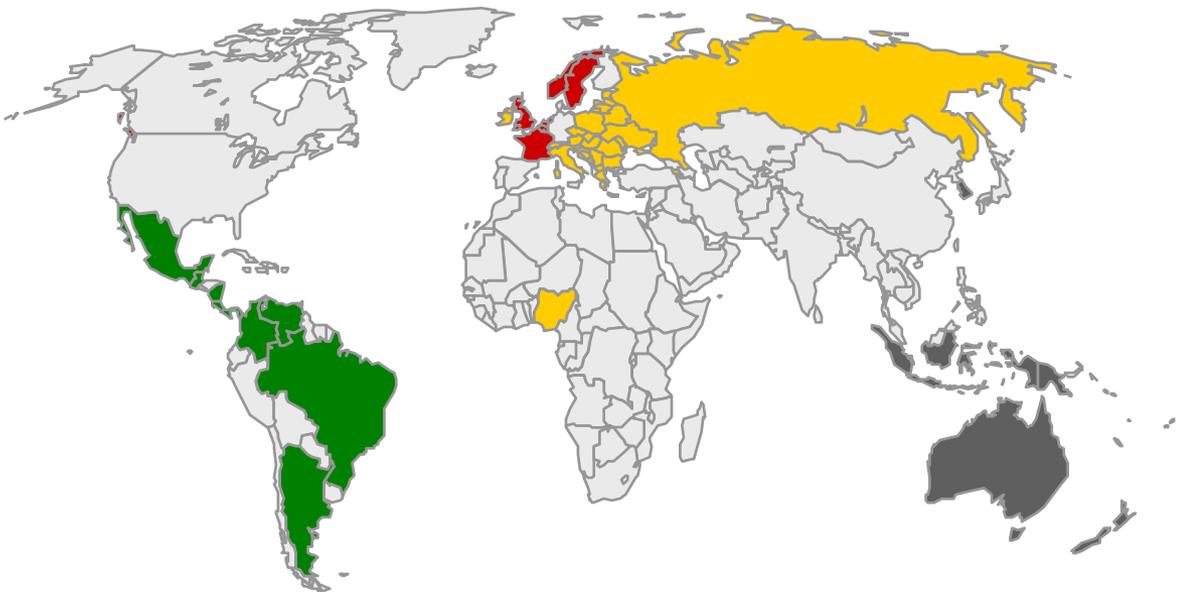
**ICPDR Agricultural Forum**

**Budapest, Hungary**

**23 March 2012**

# Coca-Cola Hellenic at a glance

- Hellenic is the second largest Coke bottler globally
- 28 countries
- Serving 560 million people
- More than 42,000 employees



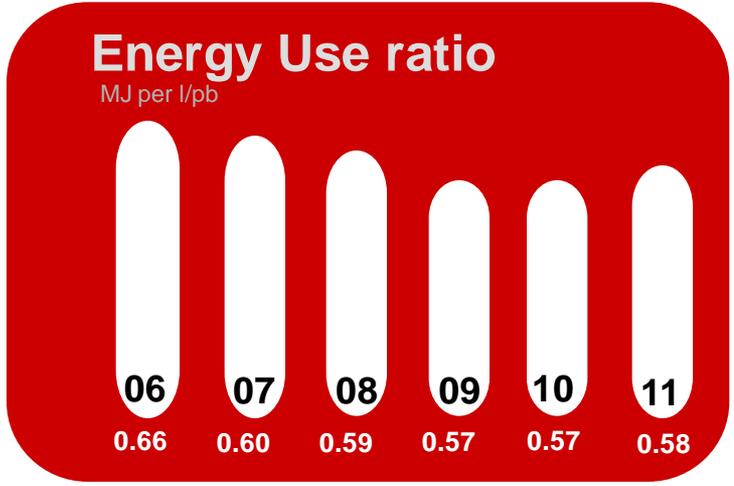
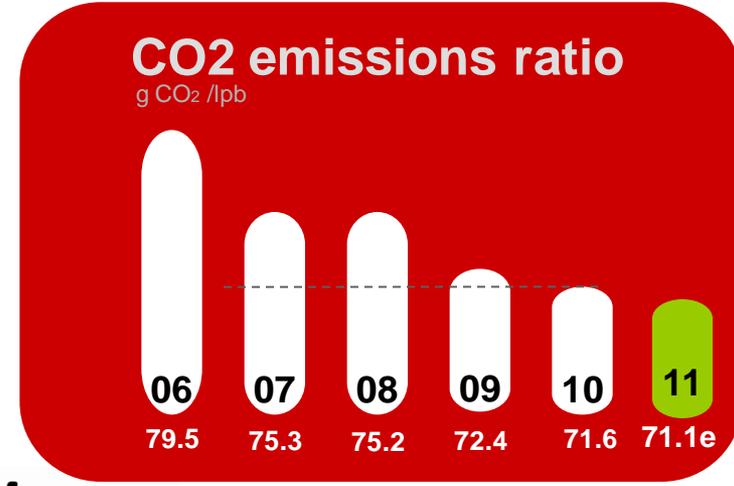
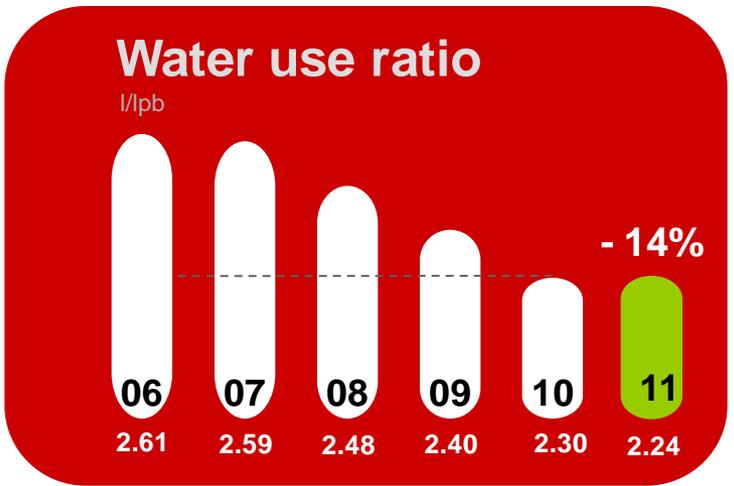
Coca-Cola Hellenic	Coca-Cola Femsa	Coca-Cola Enterprises	Coca-Cola Amatil
<ul style="list-style-type: none"> <li>• 2011 sales \$9.0 BN</li> <li>• Mk cap \$6.9 BN</li> <li>• Enterprise value \$9.2 BN</li> <li>• 2011 volume 2.1 bn uc</li> </ul>	<ul style="list-style-type: none"> <li>• 2011 sales \$9.7 BN</li> <li>• Mk cap \$19.7 BN</li> <li>• Enterprise value \$20.6 BN</li> <li>• 2011 volume 2.6 bn uc</li> </ul>	<ul style="list-style-type: none"> <li>• 2011 sales \$8.3 BN</li> <li>• Mk cap \$8.7 BN</li> <li>• Enterprise value \$11.1 BN</li> <li>• 2011 volume approx 1.4 bn uc.</li> </ul>	<ul style="list-style-type: none"> <li>• 2011 sales \$4.4 BN</li> <li>• Mk cap \$9.8 BN</li> <li>• Enterprise value \$11.5 BN</li> <li>• 2011 volume 0.6 bn uc</li> </ul>



Source: Bloomberg, Company information

Note: Bottlers may not serve 100% of the country area shown on map. Market cap & EV data as of 29 February, 2012

# Making good progress against our sustainability goals



Further details on our sustainability goals and initiatives can be found at [www.coca-colahellenic.com](http://www.coca-colahellenic.com)

# No Water, No Business

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*“No water, no business:  
It’s as simple as that. We  
must carefully manage our  
own water use and ensure  
there is sufficient for the  
communities we serve. We  
will not have a sustainable  
business unless the  
community is able to sustain  
itself too.”*

*Doros Constantinou (2004)*

Water is:

- The main ingredient in all of our beverages
- Essential to our manufacturing processes
- A life-sustaining resource for the communities and ecosystems that make our business possible
- Essential for the sustainability of our agricultural ingredients, including sugar and fruit

# Water Saving Initiatives

Dry lubrication

CIP water recovery

PET Rinsing water recovery

RGB Rinsing water recovery

Water treatment technologies

PET preforms air rinsing

Water-saving cooling systems



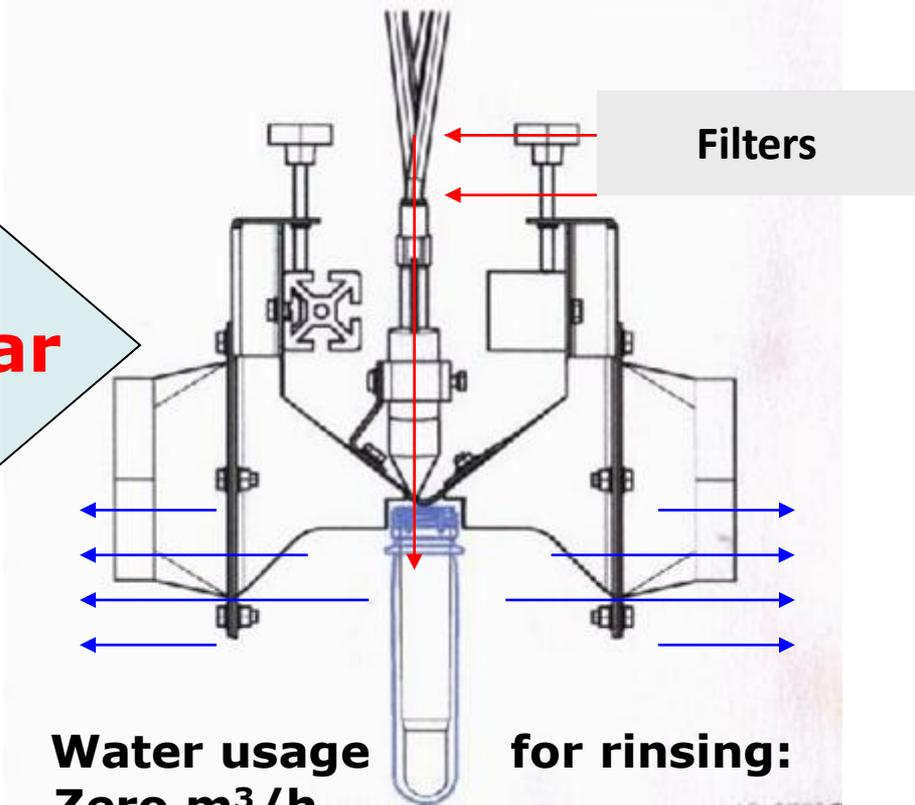
# PET Preforms: Air Rinsing

Traditional Water rinser



**SAVING of 24 000 m<sup>3</sup> /year**

New Kronos Rinsing System



**Water usage for rinsing:  
4 m<sup>3</sup>/h. (= 24 000 m<sup>3</sup>/year)**

# Fonte del Vultura, Italy

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Total water use upon acquisition in 2005 : 2,3 billion litres

Total water use by 2008: 1,1 billion litres

Water saving almost 50%

Plus volume sales increased by 28%

“Only when the well is running dry do we fully appreciate the importance of water!”

*Jean-Luc Bonjour  
Group Water Resource Manager*



# The Coca-Cola Hellenic Danube story..



2004 - CCH, TCCC and ICPDR began talking about a possible one on the Danube.



June 2005 – Signing of the Green Danube Partnership , Visegrad



2006 - Danube Box launched in Vienna



2007 Danube Box showcased at World Water Week, Stockholm



In 2008 the Business Friends of the Danube was launched.. Danube Box is now available in seven languages



2009 In partnership with the ICPDR and WWF a project to address the pollution on the Tisza River was launched



For the 2010 Danube Day, Romania and Ukraine worked in close partnership to tackle pollution on both banks of the Tisza River, which separates the two nations



# Other Watershed Projects

Greece - Rainwater Harvesting – Cooperation with the Global Water Partnership-Mediterranean

Russia – Living Volga Programme – Partnership with the UNESCO Moscow Office

Russia - Clean Shores of Lake Baikal environmental project

Poland – Vistula with WWF & Kropla Beskidu Fund

Italy – The Mystery of the Disappearing Water – used by more than 3,500 schools

Belarus – Yelnya Bog Partnership with the local NGO partner Birdlife

Belarus & Russia - Supporting the Stockholm – Junior water prize



# Water Stewardship projects



- Russia**
- Living Volga
  - Volga Day
  - Baikal Clean Shores
  - Green Teams
  - Emergency potable water during 2010 wildfires

- Estonia**
- Let's do it! Beach clean-up

- Latvia**
- Juglas lake-side clean-up

- Lithuania**
- Let's do it! Clean-up of Nemunas river banks

- Belarus**
- Let's Save Yelnya Bog
  - Meadow of Turuv clean-up

- Poland**
- Vistula Rivers for life
  - Vistula Day
  - Kresla Beskidu Fund and Partnership

- Northern Ireland and The Republic of Ireland**
- Coca-Cola Clean Coast Programme and Green Coast Awards

- Ukraine**
- Green Danube partnership
  - Danube Day
  - Tisza River project
  - Green Teams

- Czech Republic**
- Danube Box
  - Emergency potable water during 2010 floods

**Central and Eastern Europe**  
Emergency potable water provided in 7 countries following 2010 floods

- Slovakia**
- Green Danube partnership
  - World Water Day

- Switzerland**
- Valser Water World

- Austria**
- Green Danube partnership
  - Danube Challenges
  - Danube Box

- Hungary**
- Liberty Island conservation
  - Danube Day
  - Danube Box

- Romania**
- Green Danube partnership
  - Adopt a River programme
  - Water for Vatra Dornei residents
  - Clean-ups in Vatra Dornei
  - Water Education Centre

- Croatia**
- Our Beautiful Sava
  - Danube Day
  - Green Danube partnership

- Slovenia**
- You are my River
  - Green Danube partnership

**Green Danube Partnership**  
Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria, Ukraine, Slovenia and Czech Republic

- Bosnia**
- River bank clean-ups

- Italy**
- The Mystery of the Disappearing Water (book and touring stage play)
  - Otter House

- Bulgaria**
- Green Danube partnership
  - My Green City
  - River Petrovka clean-up
  - Water supplies in Kostinbrod

- Serbia**
- Green Danube partnership
  - Danube Day
  - Danube Box
  - Emergency potable water during 2010 floods

- Greece**
- Mission Water rainwater harvesting
  - Lake Kerkira clean-up

- Armenia**
- Every Drop Matters
  - Clean-ups in Dilijan

- Nigeria**
- Water Ambassadors
  - Replenish Africa Initiative (RAIN)
  - Boreholes

# Outlook 2012

# Supernatural

Massive Clean up action

- Supernatural Festival
- Environmental, Educational & Cultural Camp
- Danube city Park

22.04. Danube, Ada huja

▲ 63  
Biodiverzitat

Seite 20 / Picture 20  
Desi Dancu 2010.



tematska zelena površina A p=304m2

tematska zelena površina E p=290m2

staklenik

tematska zelena površina D p=560m2

kontejneri eko centar

tematska zelena površina B p=160m2

igraliste

geodetske kupole uclonice

teren za odbojku

geodetske kupole

mreza - hammock

zelena pijaca

tematska zelena površina C p=320m2

pristaniste

osmatracnica

bar

prostor za koncerte

zastave / bambusi

bina / scena

Supernatural park 2012

# Coca-Cola awareness raising

## Coca-Cola Green Classroom: A place of education

Used during supernatural festival, EU green week, Solar Days, Danube Days, camps..

### Education

#### Green Classroom

Danube Biodiversity  
Danube Strategy

Ada Huja eco remediation

Eco tourism  
EU directives on environment



# The Power of Partnerships

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## Groupwide partnerships:

- ✓ UNGC – United Nations Global Compact
  - CEO Water Mandate
  - Caring for Climate
- ✓ ICPDR – International Commission for the Protection of the Danube River
- ✓ Water Footprint Network
- ✓ IFRC – International Federation of Red Cross and Red Crescent Societies

## Country Partnerships:

- ✓ WWF – World Wide Fund for Nature
- ✓ IFRC – International Federation of Red Cross and Red Crescent Societies
- ✓ UNDP – United Nations Development Programme
- ✓ GWP – Global Water Partnership
- ✓ UNESCO – United Nations Educational, Scientific and Cultural Organisation



# Source Vulnerability Assessments and Source Water Protection Plans

- ✓ Water Risk Assessment across all plants in the global Coke system.
- ✓ Includes Water Risk, Water Scarcity and Source Vulnerability assessment.
- ✓ Source water protection plan looks at catchment area in a societal context as well as industrial perspective
- ✓ Risk and corrective action plans in place.



Annual Water Supply Levels (1995).

- Location of bottling operations
- Extreme scarcity <math>< 500 \text{ m}^3/\text{person}/\text{year}</math>
- Scarcity 500-1,000  $\text{m}^3/\text{person}/\text{year}</math>$
- Stress 1,000-1,700  $\text{m}^3/\text{person}/\text{year}</math>$
- Sufficient 1,700-4,000  $\text{m}^3/\text{person}/\text{year}</math>$
- Abundant > 4,000  $\text{m}^3/\text{person}/\text{year}</math>$

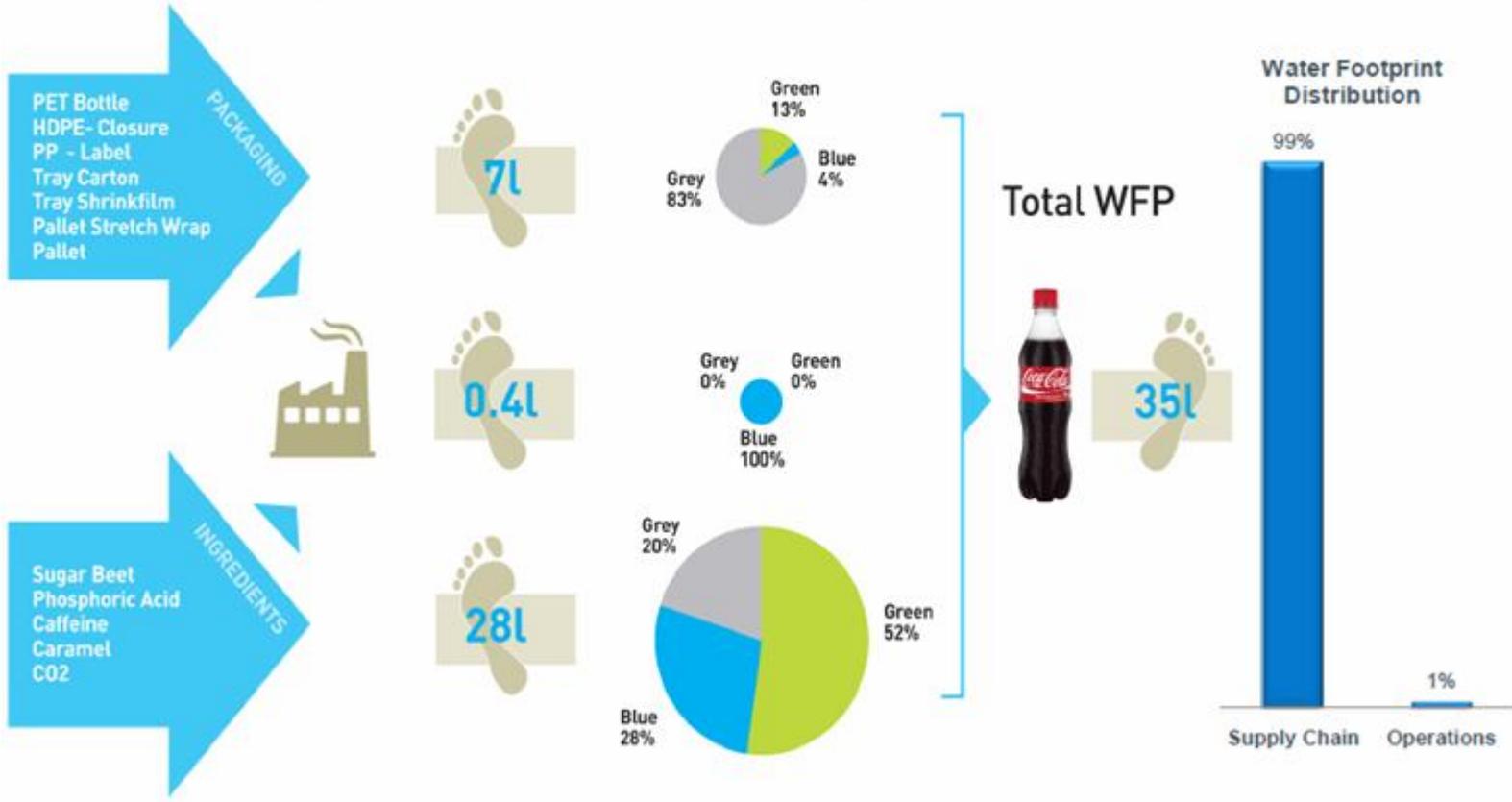
# Full wastewater treatment of all process water



- In 2011 we met our goal to achieve 100% waste water treatment to levels supporting aquatic life at all plants.
- This required the construction of 44 wastewater treatment facilities.
- The final sites were FYROM & Nigeria.
- FYROM and Armenia were the first such systems in the country.
- COD load is 63% lower than in 2003.
- Total waste water volume has reduced by 8% while production volume has grown by 75%
- Our water footprint has shrunk by 53% since 2004

# Water Footprint

## Water Footprinting Pilot - Results



# HIDDEN WATER

The world consumes trillions of virtual litres.

Serve a kilo of beef and you are also serving up 15,497 litres of water. A cup of coffee? That's 140 litres, enough to fill the average bathtub. Pull on a pair of jeans and you are soaking in 10,978 litres. This is our freshwater consumption we do not directly see. It is called virtual water: the amount of water used to create a product. The concept was coined by geographer Tony Allan of King's College London in the early 1990s to explain why Middle Eastern countries with limited water resources were not in outright war over water. His answer? They imported food – food grown with other countries' water. Dutch scientist Arjen Hoekstra and colleagues at UNESCO and the University of Twente later calculated the virtual water in commodities as a tool for water management and to give countries, companies and individuals a clearer measure of their water footprint.

## MEAT

The virtual water in coffee, pigs and fish is the water they drink and the water used to grow their feed and power their waste.



## ANIMAL PRODUCTS

Virtual water levels include the water used to raise the animals and generate the edible end product.



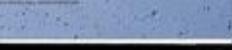
## FRUITS AND VEGETABLES

Both domestic and imported water are included in virtual water levels.



## COMMON GOODS

Cotton is a water-intensive crop—and heavily fertilized. Nearly 15 percent of the virtual water in cotton goods represents water used to store wastewater from fertilizer fields just the water used to transport cotton into fabric. Coffee requires about the same amount of water as tea to grow, but it costs far higher to virtual water because of the lower yield of that product per acre. That doesn't make drinking coffee a bad choice. More important than any product's virtual water total is whether the region it comes from has sustainable water to grow the crop.

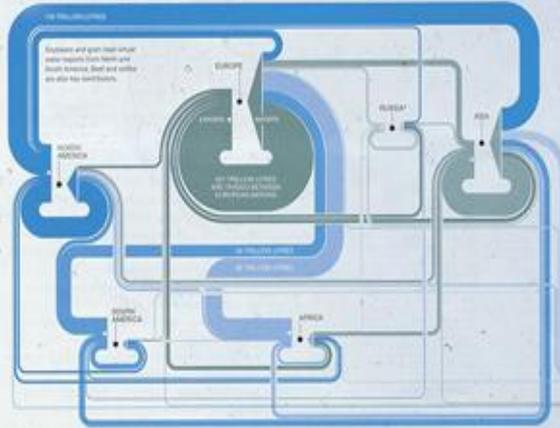


## VIRTUAL-WATER FLOW

Trillions of litres of virtual water are transferred in the global trade of agricultural products – comparable to the volume of water that pours down the Congo River. Regions leading in beef and grain exports are the big exporters of virtual water. To feed a growing population, experts say, the water-use efficiency will need to double in the next 50 years. Weighing the export value of a crop against the impact on the local water supply, and changing more to reflect the water's value, could become part of the equation.



■ EXPORTERS  
■ IMPORTERS



Water flows 15 times more virtual water than it exports. The highest exports go to Asia.

Who has Europe's largest virtual water footprint? Imports from Asia.

Which region exports the most virtual water? Europe exports the most virtual water, mostly to Asia and Africa.

## WHY MEAT TAKES MORE

A kilogram of beef requires 15 times more virtual water than a kilogram of soybeans. Soybeans are a water-intensive crop, but it's a water-intensive crop because it's a water-intensive crop. Soybeans are a water-intensive crop because it's a water-intensive crop.



Virtual water follows green grass from global agriculture. They all need to irrigate, fertilize, and harvest. Pesticides and farm waste contribute as well.

The price of meat and milk used in this chart have been converted to their real value by using the US dollar as a common unit.

Source: Arjen Hoekstra, MSc, Ph.D., University of Twente, Enschede, The Netherlands; Tony Allan, Ph.D., King's College London, London, UK; and others. See [www.nature.com/nature442](http://www.nature.com/nature442) for more information.

# Water Footprint Assessment

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- Provide guidance where water use is a sustainability risk.
- Majority of sugar used in EU comes from the EU, mostly rainfed, not irrigated.
- Looked at 6 countries and found no major impacts or sustainability risks for beet growing on the local water quality or quantity in most of them (GB, FF, B, NL, Ro)
- In Spain we found local water quantity and quality risks and sugar impacts.
- In Greece we found no data to conduct the assessment and continue to seek a solution.



# Water Stewardship Strategy

## Where we are Today

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- ✓ Reducing water use within operations  
Absolute water use reduction for fourth consecutive year
- ✓ Treating 100% of our wastewater  
100% of all wastewater treated
- ✓ Ensuring sustainability of our water extraction  
Completed source vulnerability assessments in 72 of 74 plants (100% in 2012)
- ✓ Working with suppliers and others to reduce our indirect water use  
Operational water footprint reduced by 48% despite volume increase.
- ✓ Partnering with others to protect local watersheds  
Building on success of Danube Flagship Programme, similar programmes across the Group:

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Thank you