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The Value of Water

Jan Lundqvist Senior Scientific Advisor

SIWI

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This presentation

Paradox: high value – low willingness to pay

Our need, use and misuse of water

A multiple-win approach







"Thousands have lived without love, not one without water"



H₂O - a unique molecule



- Life started in water
- Worshiped & feared in religions
- Has no substitute



- Premature death and destruction often due to water
- Climate change is MAJOR water change



The Water – Diamond paradox

How come.....

"...water, which has so much value in use, has no value in exchange, while diamonds, which have practically no value in use, are exchanged at high prices"?

> Adam Smith, 1776: An Inquiry into the Nature and Causes of the Wealth of Nations







Renewable, variable, uncertain

Average per capita availability, 2009



Average availability: m³, per capita, year

Globally:	6,000
Norway:	77,000
Brazil:	27,000
Canada:	22,000
Sweden:	18,000
USA:	9,000
Italy:	3,000

Egypt: 23 (World Bank data)

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Variability of rainfall in Beira, Mozambique - one hundred years



Source: JeanMarc Faures, FAO

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Global warming and sea level rise

Exhibition at Museum of Modern Art, New York, 2010



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High demand and multiple threats to scarce water resources all over the world











World Economic Forum

"...we have enjoyed a series of water 'bubbles' to support economic growth over the past 50 years or so..... We are now on the verge of water bankruptcy in many places with no way of paying the debt back...".

(January, 2009)



One planet with finite resources but (some) live as if we had two





? Next generations: Equity, stability, security, sustainability

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Stressed resources, world economic map upside down



"Human demand on the biosphere more than doubled between 1961 – 2007" (WWF: Living Planet Report ,2010, "adjusted") poverty remains, widening gaps

Ten of the most rapidly developing economies in Africa and: China, India, Vietnam, Brazil, Indonesia, etc.

What a waste; high cost, no gain!

Conservative estimate: 1.3 billion tons of food is lost and/or wasted (FAO)

- About 1/3 of all food produced (FAO)
- Economic value about \$750 billion (FAO)
- Green house gas emissions
- Water, land, energy used in vain
- Environmental implications
- Public health







Potential savings and benefits by reducing losses and waste by 50%

Food Irrigation Water¹⁾ Energy²⁾ Monetary

1) Italy 175 km³; Lake Nasser: 55 km³ 2) Current global total energy use: > 500 ExaJoules

650 mill tons 450 km³ 16 ExaJoules US \$375 billion







Revive timeless virtues not because they are old but because they are smart



Losses, conversions and waste 'from field to fork': 30 – 50% of food produced

What company or household would accept 30 – 50% losses and waste?



Milk powder production -25 degrees C





Awareness raising, sub-way in Stockholm



"One out of ten has still not understood the problem...

Maybe you throw some oil from your garage,.....?

Small contributions from a large number of people add up to significant amounts...

Treatment plants will not take care of all. Part will end up in the Baltic Sea....

If harmful to the Baltic, it should not be poured in your sink or WC"

Stockholm Water Company



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Molte grazie

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