Creating Shared Value and reducing the corporate water footprint

World Water Week, 18 August 2008

José Lopez
EVP Operations, Nestlé S.A.
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Agenda

The corporate water footprint and creating shared value: some context

How to improve water efficiency through focused management

Water management and the value chain

Business and water advocacy, including practical suggestions
Shared Value definition

Hierarchy of Corporate Social Responsibility

CREATE
SHARED VALUE
Nutrition
Water
Rural Development

SUSTAINABILITY
Protect the future

COMPLIANCE
Laws, Business Principles, codes of conduct
Water and Carbon (with thanks to WWF)

**Water**
- Chronic global shortages already exist in many areas
- Solving water problems is a local issue
- Shortages can vary disastrously from year to year
- Meaningful solutions must be found in the watershed
- More complicated and will be difficult to solve
- Confusion over response

**Carbon**
- Global impacts are slowly increasing
- Solving carbon problems is a global issue
- CO₂ increases and decreases gradually
- Cap and trade carbon trading systems to address impacts
- More obvious problem to solve
- Confusion over measurement
Nestlé is participating in the **Water Footprint Working Group (WFWG)**

- **Objective:** establish a scientific basis for water footprint accounting, eventually via ISO
- **Other participants:** WWF, University of Twente, UNESCO / Institute for Water Education, The Nature Conservancy, Coca Cola, Suez, WBCSD
- **Methodology:** Business Water Footprint Accounting (Prof. A. Hoekstra)

<table>
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<tr>
<th>Simple value chain</th>
<th>Stage 1: WF Green, blue, grey</th>
<th>Stage 2: Localized hydrological impacts of WF</th>
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<tbody>
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<td>Raw materials in the supply chain</td>
<td>Supply chain WF</td>
<td>Impact on hydrology in production areas</td>
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<td>Production phase</td>
<td>Operational WF</td>
<td>Impact on local aquifer/water at factory sites (municipalities)</td>
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<tr>
<td>Consumption</td>
<td>End use WF footprint</td>
<td>Impact on water use of consumers</td>
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- Nestlé will test methodology, covering entire life cycle of a product from farm to fork
Why is water important to a food company?

• Nestlé needs reliable access to clean water
  ➢ raw materials, processing, consumer use
  ➢ has stake in future of water, shared value with society

• Growing pressure on agricultural land:
  • Urbanisation, economic development
Why is water important to a food company?

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- **Biofuels, some impacts....**
  - 3900 litres to produce grain for 1 litre of ethanol from irrigated corn*, 9100 litres to produce soy for 1 litre biodiesel*

  - EU biofuel target of 10% of transportation energy increases freshwater withdrawals by 800-1,300 km³ per year, i.e. +30-50% of present water withdrawal for agriculture**

* = Energy Demands on Water Resources; Report to Congress; U.S. Department of Energy; December 2006; Berkeley University
** = Thermodynamics of the Corn-EthanolBiofuel Cycle, Berkeley University, July 2006
Reducing our own direct water footprint through focused management

• Water withdrawal down 28% 1998-2007 despite 76% production increase
• Targeting 10-15% reduction/tonne of product over next five years
• 18% factories certified to ISO 14001 and OHSAS 18001

Value for Society: reduced impact on water availability/quality
Value for Nestlé: risk and cost reduction

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A focus on water treatment

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• 94% COD organic load removed from waste water
• Water treatment plants operate to high standards at 480 factories worldwide
• Where laws or infrastructure don't exist, we build
• We share proactively our technical knowhow with governments, water authorities
• A key asset in global year of sanitation

Value for Society: sustainable impact on water quality, knowledge sharing
Value for Nestlé: risk and cost reduction, protecting input quality

Nigeria: sharing knowledge with Ghanaian colleagues for 2007 Tema plant

Water treatment plant, El Jadida, Morocco

Organic load in waste water, 2007

Value for Society:

Value for Nestlé:
Water management in the supply chain

- South Africa: more efficient irrigation for milk producers
- Vietnam: coffee farmers reduce water use in washing by 60%
- Shuangcheng, China, dairy farmers store farm effluent correctly
- Interacting with 600,000 farmers globally
- Increasing importance of water in industry platforms, eg SAI

Value for Society: knowledge sharing, improved agricultural/water management practices
Value for Nestlé: quality supplies from motivated, enabled farmers

Livestock workers in Pakistan include water management in training
Investigating research possibilities with drought-resistant coffee and cocoa
Water source protection techniques in Mexico
Water advocacy 1:
Community partnerships for clean water

Community partnership in villages for Indian milk district water wells

IFAPA clean water project for 22,000 Rwandans

Clean drinking water facilities in Mozambique, in partnership with IFRC

- 85 water wells in Moga milk district schools
- IFRC clean drinking water projects in Mozambique, reaching 30,000
- World Lutheran Federation project: drinking water for 22,000 in Rwanda

Value for Society: sustainable access to clean water in stressed communities
Value for Nestlé: quality supplies from motivated, enabled farmers, community integration

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Water advocacy 2:
WEF, UN Global Compact

Support for UN Global Compact
- Leadership on water, patron sponsor of UNGC Leaders Summit; Founding signatory of CEO Water Mandate

Vocal advocacy in media through WEF and other fora
Water advocacy 3:
Role of governments, innovative (existing) models

Role of governments

• Countries and cities: increase investment in water infrastructure

• US$ 1040 billion needed annually by 2025 for water & sanitation

• Current annual investment: US$ 580 billion

• Better management, governance, pricing of water key to access
Water advocacy 3:
Role of governments, innovative (existing) models

Some role models
• *Oman*: market-led *Aflaj* mechanisms: tradable / inheritable water rights

• South Africa. 6,000 litres per family and month free for low income families
  • Minimum 25-50 litres of safe water per person per day as basic right
  • Water consumed above that amount paid for at a true cost

• *Philippines*: community-level access to piped water through entrepreneurial partnerships
Water advocacy 3:
Role of governments, innovative (existing) models

Policy first steps

- Incentives to invest in best practice/new technology in agriculture (irrigation, plant resistance, etc)

- Abolish distortion on agricultural water pricing produced by subsidies (up to 98% of real costs)

- Invest in education/sensitising future generations to water management
More at: www.nestle.com/csv