Current Status of Water Footprint Assessment Tool (WATFAST)

UN CEO Water Mandate

April 14, 2010
Why do we need this?

“…..a business’ water-related risk cannot be fully and effectively managed unless the *watersheds* in which they, and their supply chains operate are managed equitably, efficiently, and sustainably.”

CEO Mandate - Guide to Responsible Business Engagement with Water Policy

- Visualisation of the context where water is extracted and returned
- Step toward better risk management
- Spatial scale down to the local
Background

• DSS
• Builds on learning's from WFN and partners
• 1.0 – 2.0 - 3.0
• WFN with support from
  – IFC
  – DEG
  – WWF/TNC
  – Unilever
General Structure of WATFAST

User Interface
- User Expert System
- User Output Visualisation

Computational Modules
- Module 1: Water Footprint Calculation
- Module 2: Watershed Conditions
- Module 3: Water Footprint Sustainability Assessment
- Module 4: Water Footprint Response Strategies

Databases
- Product Water Footprint Database
- Watershed Hydrology Database
- Basin Water Footprint Database
- Cost-benefit Database and Response Options
It’s all about the watershed
Lake Naivasha, Kenya
Module 1: Water Footprint Calculation
Total consumption in a watershed

Blue Water
Green Water
Grey Water

Agriculture
(20 crops + livestock)

Industry

Domestic Water Supply
1.0: Production water footprint
Wheat
1.0 Module 2: Watershed Conditions
water available by month (blue/green)
1.0 Module 2: Watershed conditions
water availability by month

![Graph showing river flow over months]

- Naturally available water
1.0 Module 3: Sustainability Assessment

availability vs. consumption

[Graph showing river flow with labeled naturally available water and sustainability boundaries]
1.0 Module 3: Sustainability Assessment
availability vs. consumption

![Graph showing river flow over months with labels for naturally available water, sustainability boundaries, and water left after consumption.](image-url)
November 2010:

Version 1.0 of WATFAST completed and circulated for peer review
2.0: Response Strategies
Watershed restoration activities

1. Agricultural land practice changes
2. Storm-water management
3. Land use alterations
4. Hydraulic/hydrologic water body alterations
5. Water conservation including leak repair
6. Wastewater treatment
7. Biologic management
8. Water reuse
9. Rainwater harvesting and aquifer recharge
2.0: Response Strategies
Successful mitigation
The future

- 2.0 refined consumption, more categories added, company specific, risk overlay (social, environmental, policy) – Nov 2011
- 3.0 Further gap analysis, refinement and improvement
- Identification of gaps
- Compatibility with other ‘context’ tools