The AWS International Water Stewardship Standard: advancing local-to-global water security

Dr Nick Hepworth, Water Witness International
water witness
...because we're all downstream
To cover...

- What is the Alliance for Water Stewardship?
- Why do we need another standard?
- AWS Standard development process
- Piloting with M&S in Africa
- The first draft AWS Standard
- Consultation and piloting phases: how you can make a difference...
The Alliance for Water Stewardship

A Sample of Organizations Engaged / Supporting the AWS (alphabetical)

American Standard
BASF
Coca-Cola
Diversey
FEMSA
Fundación FEMSA
Fundación Chile
NALCO
MARKS & SPENCER
Rio Tinto
Why do we need an international water stewardship standard?

Figure 5.4 The UK’s external agricultural WF

Source: Orr and Chapagain, WWF 2008
2002

Demand 226 Mm$^3$/yr
Recharge 252 Mm$^3$/yr

No groundwater deficit

2008

Demand 317 to 496 Mm$^3$/yr
Deficit of 64 to 244 Mm$^3$/yr

Recharge 252 Mm$^3$/yr

Rapid decline in water table
Asparagus production vs. groundwater levels

Mean groundwater level*  Annual asparagus production** (millions kg's)

*metres below ground level

**millions of kilogrammes
We need a Water Stewardship standard because:

1. Economic and social development relies on sustainable water use
2. Challenges of increasing demand and climate change
3. State-led water resource management faces challenges
4. Markets, buyers and consumers increasingly sensitive to their impacts
5. Existing standards do not adequately address sustainable water use
What is Water Stewardship?

- Responsibility – ‘taking care of something you don’t own’
- Internally
- Externally (engagement to collective action)
- Benefits environment, society and the economy
- From shared risk to shared value and opportunity
Why develop a Standard?

• **Physical Water Risk**
  – Water quantity (scarcity / flooding) and quality (pollution)

• **Regulatory Water Risk**
  – Restrictions on water use by government (pricing, licenses, rights, etc.)

• **Reputational Water Risk**
  – Company’s image and the risk it faces from customer support/rejection

**Risk Response (+ Opportunity)**
- cost savings, brand value, attracting staff, accessing markets, innovation & learning, etc.
A Water Stewardship Standard

- Focus on catchment level assessment, impacts, actions and benefits
- Meet technical specifications
  - globally and locally applicable
  - verifiable and cost effective
  - direct and indirect water use
  - align with other standards, systems and tools.
- Must deliver value for civil society, public and private sector
Business actions

- Water quantity management
- Water quality management
- Governance engagement
- Habitat management

Watershed level targets

- Improved water flow regime
- Improved water quality
- More effective governance
- Better protected habitats

Impacts

- Ecosystems & species
- Human health
- Social & cultural wellbeing
- Economic use

Stakeholder benefits

- Civil society organization goals
- Public sector agency benefits
- Business value
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A Water Stewardship programme

GLOBAL WATER STEWARDSHIP PROGRAM

GOVERNANCE SYSTEM

VERIFICATION PROCESS

STANDARDS
(PRINCIPLES & CRITERIA)

BRAND VALUE

Multi-stakeholder process
How is the Standard being developed?

- Stakeholder input and stakeholder-based decision-making
- 15-member International Standard Development Committee (ISDC)
- Regions & sectors
- ISEAL compliant
Exploring the value of Water Stewardship Standards
Alliance for Water Stewardship Kenya Case Study

Key findings
Key challenges

Highly variable and changing climate

Lake levels and over-abstraction

Unregulated water use

Catchment degradation, nutrients and erosion

Threats to biodiversity and natural capital

Sources: UNDP 2009, WWF 2010, LaNaWRUA
Primary pilot sites - Naivasha

- Flamingo flowers
- Vegpro horticulture

Supplementary pilot sites

- Gikanda coffee cooperative
- Mana horticulture/dairy
Key findings

1. Some best practice already in place at site and basin level
2. WSS identifies opportunities for further improvement
3. WSS offers multiple benefits for producers: reduced costs, reduced risks and securing and accessing markets
4. WSS drives positive outcomes off-site for: downstream water users, the environment, biodiversity, sustainable growth and conflict prevention
EMERGENCY CHEMICAL SPILLAGE HANDLING PROCEDURE DURING TRANSPORTATION

In the event of an accident such as a crash, fire or chemical spillage, the driver should:

1. Switch off the engine and refrain from smoking.
2. Ensure the tailgate is closed.
3. Stop the vehicle and block wheels at an angle to the traffic.
4. Close any spillage by surrounding it with sand or earth to avoid contact risk and effect of fumes.
5. Stay with the vehicle, but always keep any spilled chemical and keep people away.
6. The spillage must be absorbed in an earth or sand, or other non-flammable material then placed in a plastic container for safe disposal.
7. If there is any possibility that food, animal feed, clothing or general consumer goods have been contaminated these must be destroyed.
8. Deliveries should be made either to a responsible person (storekeeper) or to a secure area. All deliveries should be documented.

PROCEDURES FOR SAFE DISPOSAL OF OBSCURED SPRAYED PESTICIDES

1. In the chemical store, the principle of ‘First in – First Out’ shall be applied when issuing pesticides.
2. Chemical store supervisor shall advise the Agronomist any chemicals due to expire in six months.
3. Chemical store supervisor shall notify the Agronomist on all obsolete and/or expired pesticides.
4. The chemical store supervisor shall ensure all obsolete and/or expired pesticides are stored separately from the others still in use.
5. The Agronomist in consultation with the concerned Senior Manager shall make arrangements for disposal and/or return to the supplier.
6. The Senior Manager shall give approval (written & signed) for the disposal and/or return to the supplier of all the obsolete pesticides.
7. The authorized personnel at the chemical store and a security staff shall be involved in the documentation of all obsolete and/or expired pesticides which shall be stored away from the farm by a third party contractor ensuring disposal.
8. The diseases and/or expired pesticides shall be disposed by the authorized third-party contractor at Vector Disposal.
9. Once the obsolete and/or expired pesticides have been loaded onto the Contractor’s and/or supplier’s vehicle(s) it shall close to Co. Turcogum’s ORD List and promotes the proper disposal of the Contractor’s and/or supplier’s vehicle(s).

PROCEDURE FOR SAFE DISPOSAL OF DILUTE PESTICIDE RESIDUES

- Contaminated pesticide residues deviating or accidental spillages remedied by the person concerned.
- Dilute pesticide residues may be disinfected with chlorine/Spray Units (CUU) and/or Romeo No. 2000s.

Disposal Procedure
- All drums from the chemical store lined and disposed of a store.
- Two tanks shall be provided: “RED LIST” and “G” respectively.
- The “GREEN LIST” chemical spillage shall be taken care of, where it will be sprinable de-activation.
- The pipes lining effluent constructed around it to activate the dilute chemical.
- The “RED LIST” chemical using the vented units, will sprayed off at the design distance collected kept in the pesticide containers.
Water Allocation Plan

- No Restrictions
  - Abstraction permitted up to permit limits

- Restriction Zone 1
  - Abstraction for irrigation reduced

- Restriction Zone 2
  - Abstraction for domestic use reduced
  - Abstraction for irrigation heavily curtailed

WRM Rules identify three states related to resource availability for rivers, namely:

- Reserve – this would occur 5% of the time;
- Normal flow – this occurs 15% of the time;
- Flood flow – this occurs 80% of the time.
Key findings…continued

5. WSS a powerful tool to advance implementation of government policy

6. Improved service delivery by government is highlighted and incentivized e.g. sewage and waste treatment; water use permits

7. Provides proof of concept that water stewardship standards can drive:
   • regulatory compliance and implementation of agreements
   • efficiencies in resource use
   • proactive, risk-based action on key basin issues
   • action throughout the ‘chain of influence’
Also highlights difficult questions…

1. Where meeting the standard relies on performance of a third party. *eg. full compliance, duty of care for solid and liquid waste?*

2. Engaging with out growers, smallholders and SMEs.

3. How to define stewardship and equitable use in data scarce, large or ‘governance challenged’ catchments?

4. Boundary issues – how to define the ‘area of influence’?
High level discussion group
Testimony of Kenyan stakeholders

‘Now we understand what the AWS standard is about, it is clear it will help us implement IWRM and our national water policy. It has our full support’

CEO, Water Resource Management Authority

‘This work is very important. It will change the way water is managed in Naivasha’

Vice-chair, Naivasha Basin Water Resource Users Association Umbrella Group

‘Standards bring many benefits but some audits aren’t thorough and there isn’t much attention to water. This focus on water will bring targeted action’

Quality and Compliance Manager, Naivasha Agri-business

‘Of course our resources are stretched, so anything that promotes compliance and business cooperation is a welcome initiative’

Director of Enforcement and Compliance, National Environment Management Authority
<table>
<thead>
<tr>
<th>Principle</th>
<th>Water Area</th>
<th>Criteria</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principle 1</td>
<td>Water Governance</td>
<td>12</td>
<td>n</td>
</tr>
<tr>
<td>Principle 2</td>
<td>Water Balance</td>
<td>12</td>
<td>n</td>
</tr>
<tr>
<td>Principle 3</td>
<td>Water Quality</td>
<td>12</td>
<td>n</td>
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<tr>
<td>Principle 4</td>
<td>Important Water Areas</td>
<td>12</td>
<td>n</td>
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</tbody>
</table>
## Step 5: Measure The Impacts And Risks Of The Site’s Water Use In The Area Of Influence

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</thead>
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<tr>
<td>Core Criterion</td>
<td>1.5</td>
<td>The Implementer has a system in place to measure the impacts and risks of the site’s water use, and both responsibility and accountability for gathering information on the site’s water impacts and risks is documented.</td>
<td>2.5</td>
<td>The environmental, social and economic impacts and risks of the site’s withdrawals and consumption shall be monitored, evaluated in context and reported upon through a stakeholder engagement process.</td>
</tr>
<tr>
<td>Intent</td>
<td>Criterion 1.5 is intended to ensure that the Implementer understands and has both responsibility and accountability for the economic, environmental, and social impacts being generated by the site’s use of water and Important Water Areas, as well as the physical, reputational and regulatory risks associated with such use.</td>
<td>Criterion 2.5 is intended to ensure that an Implementer understands the existing economic, environmental, and social impacts and risks of water withdrawals and consumption. It is also intended to ensure that new operations explore Environmental and Social Impact Assessments (ESIAs) in a professional manner as is necessary.</td>
<td>Criterion 3.5 is intended to ensure that an Implementer understands the existing economic, social, and environmental impacts and risks of water effluent discharges. It is also intended to ensure that new operations explore ESIAs in a professional manner as is necessary.</td>
<td>Criterion 4.5 is intended to ensure that an Implementer understands the impacts of their site’s water use on Important Water Areas, and the risks that could derive from such impacts or reliance.</td>
</tr>
<tr>
<td>Core Indicators</td>
<td>1.5.1</td>
<td>A list of the name(s) of individual(s) responsible for gathering data from 1.5, 2.5, 3.5, and 4.5.</td>
<td>2.5.1</td>
<td>Data from at least one environmental, one social and one economic indicator (or as required by law, whichever is greater) from any on the proposed impact indicators list that relates to water balance (See Table 4).</td>
</tr>
<tr>
<td></td>
<td>1.5.2</td>
<td>The name of the individual accountable for ensuring 1.5, 2.5, 3.5, and 4.5.</td>
<td>2.5.2</td>
<td>A completed risk evaluation that covers physical, regulatory and reputational risk with respect to water withdrawals and consumption.</td>
</tr>
</tbody>
</table>
The Draft AWS Standard: Steps

STEP 1: MAKE A LEADERSHIP COMMITMENT

STEPS 2-6: MEASURE THE DIRECT & INDIRECT USE OF WATER AT THE SITE AND IN THE AREA OF INFLUENCE, AS WELL AS ITS IMPACTS & RISKS.

STEP 7-8: DEVELOP A WATER STEWARDSHIP POLICY THAT INCLUDES PLANS FOR RARE INCIDENTS

STEP 9: COMPLY WITH THE LAW & RESPECT WATER RIGHTS

STEP 10: UNDERTAKE ACTIONS TO IMPROVE IMPACTS

STEP 11: ESTABLISH THE NECESSARY CAPACITY

STEP 12: DISCLOSE THE SITE’S WATER STEWARDSHIP PLANS, ACTIONS AND RESULTS
Consultation: Timeline and Phases

NOTE: FEEDBACK IS NOW OPEN AND WELCOME THROUGH JUNE 15 (www.allianceforwaterstewardship.org)

Versions in:
- English
- Chinese
- French
- Spanish
- Portuguese

Time:
- March 2012
- Mid-2013

PHASE I
(1st Draft)

PHASE II
(2nd Draft)

PHASE III
(Final draft)
Consultation: Mechanisms

Mechanism for stakeholder engagement
- Regional Meetings
- Regional Field Tests
- Individual / Public Review

Mechanism for stakeholder feedback to Secretariat
- Official Submission from Meetings (any format)
- Official submission from Field Tests (specific format)
- Online / written feedback

Mechanism for accounting for stakeholder feedback
- Water Roundtable Comment Database
  - Comments grouped into categories
  - Grouped comments responded to by ISDC
  - Responses posted online
AWS Standard: Creating coherence

Step 1: Leadership commitment

Verification

Steps 2-4: Measurement

ALLIANCE FOR WATER STEWARDSHIP

Steps 7-11: Response

Step 12: Disclosure

Step 5: Impacts

Step 5: Risks

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Conclusions

- The AWS Standard will guide and reward water users to minimize water impacts and risks, and contribute to improved watershed governance
- The AWS Water Stewardship System is being developed to support the Standard

How to get involved:
- Comment on the 1st draft by providing input before June 15th
  https://www.surveymonkey.com/s/M8YFSRS
- Participate in or organise regional and international meetings/webinars
- Pilot or test the draft Standard at a facility, basin or supply chain scale
- Partner with us and invest in building the international water stewardship system

Points to consider:
- How is the standard relevant to Scottish stakeholders?
- How can Scotland benefit from and positively influence water stewardship?
- Interface with the Hydro-nation initiative?....and input to Rio +20
“If you want to walk fast, walk alone.
If you want to walk far, walk together”

African proverb

Thankyou!

Nick Hepworth nickhepworth@waterwitnes.org
www.waterwitnes.org
www.allianceforwaterstewardship.org