Jan Verheeke
Secretary
Flemish Environmental & Nature Council (Minaraad)
An international perspective on water policy

Jan Verheeke – Secretary, Flemish Environmental and Nature Council
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The international water challenge
### Challenges, drivers and consequences

<table>
<thead>
<tr>
<th>Water related drivers</th>
<th>Water related challenges</th>
<th>Water related consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population growth, economic growth, urbanization</td>
<td>Increasing consumption and waste</td>
<td>Water and food production</td>
</tr>
<tr>
<td></td>
<td>Increasing agricultural production</td>
<td>Water pollution and human health</td>
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<tr>
<td></td>
<td>Expanding cities and settlements</td>
<td>Flooding</td>
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<tr>
<td></td>
<td>Increasing production renewable energy</td>
<td>Water related energy production</td>
</tr>
<tr>
<td>Climate change, rising temperature, changing precipitation patterns</td>
<td>Drought, water shortage, desertification</td>
<td>Ecological quality of water systems</td>
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<tr>
<td></td>
<td>Extreme weather events</td>
<td>Water, conflict and migration</td>
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<tr>
<td></td>
<td>Warming of oceans and sea level rise</td>
<td></td>
</tr>
</tbody>
</table>

Based upon Netherlands Environmental Assessment Agency, the geography of future water challenges, 2018.
Water challenges on different scales

= etc.
Water in the Sustainable Development Goals
International water policy – “soft policy”

- There is no such thing as an Global Water Agreement, nor an international agreement on “sustainable water use in the production of goods and services”.
- The Paris Agreement, art. 7, stipulates that adaptation is country-driven.
- UN-Water is, in the United Nations, an inter-agency coordination mechanism for freshwater related matters.
- Still, there is the yearly UNESCO World Water Development Report is the UN-Water flagship report on water – 2018 on nature based solutions.
The Water Framework Directive
... as a framework
A water bodies / water systems approach ...

- Systems approach is projected upon river basins and water bodies.
- "Good status" is essentially the situation whereby the water system and the social systems that depend upon it, are functioning in equilibrium and can remain so in a sustainable way.
- Guidance documents *provide* details ... but *create* details as well.
... a directive of the 3rd generation

<table>
<thead>
<tr>
<th>Generation</th>
<th>Description</th>
<th>Directives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>“Compartimental” water directives</td>
<td>separate directives on surface water, fish water, shellfish water, groundwater, on dangerous substances and on measurement methods for fresh water quality</td>
</tr>
</tbody>
</table>
Programmes of measures

Basic measures under WFD art. 11(3)a (pre-dating WFD)

Basic measures under WFD art. 11(3)b to 11(3)l (some already in place, some to be implemented)

Supplementary measures WFD art. 11 (4) (if basic measures are not sufficient)

Existing and planned

Required by WFD

Water bodies in good status

Water bodies in less than good status

Gap

Water bodies in good status

Starting point

Business as usual scenario

Objective

Extra investment and support measures.
## The WFD – a partial success

### OUTPUT
- Common implementation strategy
- River basin districts
- Competent authorities
- River basin management plans (RBMP)
- Programs of measures
- Monitoring programs
- Subsequently: Flood Risk management plans (FRMP)

### OUTCOME ± 2015

<table>
<thead>
<tr>
<th>Ecological status of surface waters</th>
<th>Number of member states</th>
<th>Number of water bodies</th>
<th>good status or potential 2009 (%)</th>
<th>good status or potential 2015 (%)</th>
<th>Progress 2009-2015 in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 (*)</td>
<td>82.684</td>
<td>42 %</td>
<td>52 %</td>
<td>10 %</td>
<td></td>
</tr>
</tbody>
</table>

| Quantitative status of groundwater  | 24 (***)                | 12.022 (5.197)         | 89 % (85)                         | 96 % (92)                         | 7 % (7)                  |

| Chemical status of groundwater      | 24 (****)               | 12.022 (5.197)         | 83 % (68)                         | 89 % (77)                         | 6 % (9)                  |
Co-operating for water
## Water systems as economic goods

<table>
<thead>
<tr>
<th>Rival usage or consumption</th>
<th>Non rival usage or consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surfaces and soils</strong> / <strong>Specific water quantities</strong></td>
<td><strong>Water structures</strong></td>
</tr>
<tr>
<td><strong>Water systems</strong></td>
<td><strong>Services from water systems</strong></td>
</tr>
</tbody>
</table>

Users are excludable / good can be exclusive

No excludability

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“Build resilience against droughts (and water scarcity) by enhancing infiltration and water retention capacity of landscapes in regions of strategic importance for drinking water production. ... Restoring and developing blue-green structures in landscapes improves the hydrological resilience to droughts and floods, provides substantial climate mitigation benefits and benefits biodiversity.”
Co-operation, consultation, participation

Information -> understanding -> capacity -> potential -> mandate

Efficiency -> time -> trust
State of the debate in Flanders: finance
State of the debate in Flanders: adaptation

Adaptation policy = empty box, black box or tool box?

- Population growth, economic growth, urbanization
- Water and food production
- Water pollution and human health
- Flooding
- Water related energy production
- Ecological quality of water systems
- Water, conflict and migration

- Increasing agricultural production
- Water, conflict and migration
- Expanding cities and settlements
- Water, conflict and migration
- Drought, water shortage, desertification
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- Extreme weather events
- Water, conflict and migration
- Warming of oceans and sea level rise
- Water, conflict and migration

Climate change, rising temperature, changing precipitation patterns

Drought, water shortage, desertification

Extreme weather events

Warming of oceans and sea level rise
Conclusions

- The international challenges being what they are, most action will be local, regional and/or water-body oriented.
- The Water Framework Directive provides in a framework for the many policies that relate to the water challenge.
- Water services (the provision, usage and disposal of water) and water systems are, from the point of view of economic analysis, not really clear-cut goods.
- The challenge is to construct the appropriate willingness-to-pay or -to-invest and fitting management structures.
- Only with feasible projects, and with proper consultation and/or participation … we’ll be able to tackle the challenges.