Chief Liquidity Series

Water-related materiality briefings for financial institutions

Ivo Mulder, Programme Officer UNEP FI
• A strategic partnership between the United Nations and globally operating financial institutions.

• Aim: understand the impacts of environmental and social considerations on financial performance and to promote the adoption of best practice.

• Nearly 200 banks, insurers, asset managers, and pension funds make up the global UNEP FI family.
1. UNEP FI’s Water & Finance Work Stream

2. Water-related financial risks for investors and lenders

3. Heavy water users - agribusiness and power generation – in water constraint regions
   - Maps of water constraint areas
   - Global water use
   - Factors that will enhance water-related risk

4. An example: water-related financial risk in India’s power sector

5. A summary
1. UNEP FI’s Water & Finance Work Stream

Strategy:
- Moving from ‘general’ to ‘specific /concrete /practical’
- From ‘awareness raising’ to real ‘implementation support’
2. Water Related Pressures become Financial Risks

- Increased water supply costs
- Business and financial constraints on expansion
- Loss of water use license / reputational risk
- Business disruptions
- Cross-boundary conflict related to water scarcity

Financial risk & opportunity
2. Water Related Pressures become Financial Risks

- **Debt-servicing ability.** Resource bottlenecks can have immediate adverse effects on company turnovers, factor costs, and ultimately profitability and solvency

- **Creditworthiness of clients.** Water-dependent companies and/or companies with a large water impact may become less creditworthy as water constraints sharpen over time

- **Reputation.** If reputation or litigation damage occurs on the borrower company level, it can rebound and backfire on lenders, investors or other FIs.
3. Global water use: Agribusiness and power

Global water use

- Agriculture (67%)
- Domestic and other industrial (20%)
- Power (10%)
- Evaporation from reservoirs (3%)
3. Water constraints: India, Mediterranean basin, Australia, South Africa, Brazil
3. Three issues are recurring enhancing risk in these regions

- **Water withdrawal-to-availability** showcase severe water stress

- **Climate change** will have negative effects on water availability

- **Water risk has so far been low for investors** and lenders, due to regulatory protection by many governments. It will be more costly to sustain this over the long-term.

In addition, dwindling water quality also an impact on water availability for industries.
4. An example: water-related risks in India’s power sector

79% of the new planned capacity of 60GW will be built in areas that are already water scarce or stressed. HSBC / WRI analysis calculated that a 5% drop in power plant load factor will result in nearly a 75 base point drop in a project’s IRR.

- Delay in commercial operation
- Loss in plant load

[Map of India with areas marked for water scarcity or stress]
4. Example: Performance Indicators for thermal power

<table>
<thead>
<tr>
<th>Number</th>
<th>Performance Indicator</th>
<th>Rationale and materiality</th>
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</thead>
<tbody>
<tr>
<td>PI-TP 1</td>
<td>Does the thermal plant use the cleanest fuel economically practical?</td>
<td>Natural gas is preferable to oil, which is preferable to coal.</td>
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<tr>
<td>PI-TP 2</td>
<td>What is the water consumption of the technology applied?</td>
<td>Consumption of the plant can be optimised by new technologies.</td>
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<tr>
<td>PI-TP 3</td>
<td>Did the provider meet the target specific water consumption?</td>
<td>Efficiency improvements are anticipated.</td>
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<tr>
<td>PI-TP 4</td>
<td>Is the region characterised by water-stress?</td>
<td>In regions already facing severe water stress consideration must be given to water-saving technologies.</td>
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<tr>
<td>PI-TP 5</td>
<td>Has the client conducted a localised assessment of security of sustainable water supply in terms of quality and quantity?</td>
<td>An assessment minimises risks and may increase water sustainability.</td>
</tr>
<tr>
<td>PI-TP 6</td>
<td>Has the company assessed how their power production is at risk as climate change affects water flows?</td>
<td>An assessment minimises risks and supports management in their decision making.</td>
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<tr>
<td>PI-TP 7</td>
<td>What is the extent of measures undertaken to prevent, minimise, and control thermal discharges and effluents within outflows?</td>
<td>The measures help to increase environment quality and maintain essential ecological services.</td>
</tr>
<tr>
<td>PI-TP 8</td>
<td>Has the company been prosecuted for not complying with environmental standards regarding a local ‘zero effluent’ policy?</td>
<td>Breaching environmental standards and subsequent prosecution can incur financial costs (and reputational risks)</td>
</tr>
<tr>
<td>PI-TP 9</td>
<td>Has the client considered alternatives for solid waste deposition?</td>
<td>Reduced volume of solid wastes creates wider sustainability benefits.</td>
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<td>PI-TP 10</td>
<td>Has the client assessed the competing uses and how water is shared?</td>
<td>A robust sharing, rather than seniority system, would be preferable</td>
</tr>
<tr>
<td>PI-TP 11</td>
<td>Were stakeholders consulted?</td>
<td>Stakeholder consultation may help to reduce negative impacts.</td>
</tr>
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</table>
5. Summary

Power generation (thermal, hydro and solar) & Agribusiness

• Most investments in power generation are long-term

• Future water supplies are uncertain

• Lenders / investors are essentially placing bigger bets on future water availability and on the financial viability of loans and investments

• Both Briefings contain Performance Indicators that can be used by FIs as part of
  • an engagement process with clients
  • due diligence

• FIs could use these insights to define the more water-efficient, environmentally friendly and financially competitive firms – adapted to the 21st century. The “winners”, “losers” “buys” and “sells”
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