

This is part of a series of case studies that WBCSD has developed to mark the World Water Day 2021, on the theme of valuing water. The case studies showcase examples from a cross-section of WBCSD's membership on how they value water. The aim is to highlight the various dimensions of valuing water and how businesses integrate it into their strategy, operations and decision making.



CASE STUDY 6

Water Valuation for context-based water management



International Paper (IP) is one of the world's leading producers of fiber-based packaging, pulp and paper with approximately 48000 employees, and over 25000 customers in 150 countries. The company's commitment to sustainability reflects in its vision of being among the most successful,

sustainable and responsible companies in the world. IP delivers value through sustaining forests, investing in people, improving the planet, creating innovative products and delivering inspired performance.

Key driver for valuing water

Being a packaging, pulp and paper manufacturing company, IP uses water as a key input to its processes although water use by the industry is largely non-consumptive. Water Stewardship is central to IP's commitment to invest in the long-term sustainability of natural capital. The company's Vision 2030 goals for water stewardship are:

- to implement context-based water management plans at all its pulp and paper mills, and
- to reduce water use by 25% per ton of the product across the enterprise according to site-based risks and opportunities.

Identifying and incorporating the true value of water in the company's strategy is therefore central to delivering on these goals.

Natural Capital Protocol framework for water valuation

In 2017-18, IP applied specific elements of the Natural Capital Protocol framework at three geographically diverse manufacturing

sites from each of its three core businesses, to assess the true value of water as an input for strategic decision-making. The methodology was designed to seek values for various impacts and dependencies as they relate to IP and the local stakeholders.

The evaluations were conducted independently of one-another but followed the same methodology to enable generation of consistent metrics from each site. The assessment methodology was developed by IP's partner, Sustain Value.

Each study involved several weeks of desk research and data collection from internal and external sources, followed by a one-day site visit with the mill team. After a few more weeks of analysis and research, the results were reviewed with subject matter experts and presented to internal Councils for review and decision on next steps.

Results and Outcomes

The application of the above approach helped IP gain key insights into:

- The true cost and value of water to the company
- Estimated cost and value of water to the community and other local users
- The company's economic value-add per unit of water used

The three sites produced different results for the above indicators depending on the local situation. The results were anchored relative to the global benchmark of \$1/m³ as a generalized societal value on water. This helped put the analysis in the context of IP's external stakeholders. Widely available alternative tools were also applied to compare the results of different methodologies.



Next steps and lessons learnt

The study is helping IP shape its approach to water risk management and stewardship. It has served as an input to the company's plan of integrating the value of water into its operational models to internalize key externalities related to water use and wastewater effluent. This is part of the company's strategic reorientation from water management to water stewardship, which is aligned with its goal of improving the long-term sustainability of the shared water resources in areas the company operates in. The study will help improve the decision-making regarding the resources used in sourcing and manufacturing processes.

The main challenges in the process were related to the scope, methods and internal buy-in for the assessment.

- A narrow scope for the study was defined to get the best results. For example, it was decided that the focus will be on water intake and effluent only, and not operational water use within the mill. This allows for a standard approach that works within different manufacturing models (e.g. bleached pulp vs. containerboard). It was key to make the IP teams understand that the focus was not yet on improving operational water efficiency, but rather on performing an analysis that could influence such investment decisions in the future as part of the company's water use reduction goal.
- IP chose to create a custom model designed for their purposes, as they not see an existing one that accurately accounted for their relationship with water resources. However, this approach required constant adjusting along the way as new questions came up. To scale the model to the other sites, a simplified version of the model will need to be created.
- Support from internal decision-makers was critical. The project team worked within the company's Global Citizenship governance structure to gain approvals and maintain transparency throughout the project and had individual follow-ups to ensure diverse perspectives were represented. Natural capital valuation is still a relatively new concept, so it was important to bring our internal stakeholders along, especially regarding the "why" behind this work.

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