Post-Conference Report
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Title: ***Integrating the Value of Nature into Business Decisions***

Is Nature Ready to Transform Big Business?

Nature is poised to be a leading edge technology for businesses that find strategic fit

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Valuing natural capital in business decisions is poised to move from R&D to a leading edge technology, thanks in part to strategic collaborations between businesses and NGOs.

These collaborations have followed an "open innovation" model—sharing knowledge and tools—so access to information and methods will not be the primary challenge for other businesses. The challenge instead will be leading transformational change.

At a recent ACES (A Community on Ecosystem Services) conference, we brought together members of three collaborations, representing different sectors and stages of maturity, to discuss the strategic fit of valuing nature to their business and lessons learned from their collaborations.

These collaborations included the more than a decade old collaboration between The Coca-Cola Company's, The Global Environment Technology Foundation (GETF), and World Wildlife Fund (WWF); the four year old collaboration between The Dow Chemical Company and The Nature Conservancy (TNC) (my team); and the new collaboration between CH2M HILL and TNC.

Managing Water Risk in the Beverage Industry

Coke's work on water risk started in 2003 by placing some of its brightest young staff in a Coke think tank. One of those people was Dan Vermeer, who went on to found the Global Water Initiative, and is now a leader at Duke's Fuqua School of Business.

Within the first couple of weeks, Dan had his eureka moment: "Water is an issue which is fundamental to everything that people care about. And I'm in a company that is all about water…so the map of water stress is the map of Coca-Cola's operations."

From that insight, Coke set out to do the hard work of quantifying water risk. The process was critical. The sites had a different view of the risk factors than the central think tank and vice versa. It took working together to quantify risk to get everyone on-board.

This risk assessment was just a first step. Coke needed to systematically track and mitigate risk factors affecting its operations. That's when Coke starting collaborating with GETF and later WWF to launch local projects to address risk in watersheds.

"Water is a global issue, but it takes a very local form, so the right kind of intervention really needed to be calibrated to the right locations," noted Dan. In the end, they collaboratively launched 150 public-private water projects in 50 countries. Coke found a strategic opportunity for nature, and tailored it for multiple locations around the world.

Valuing nature has become a way for Coca-Cola to take more of a systems approach. Now, Coca-Cola and WWF are looking to integrate the value of nature into decision-making, particularly around freshwater and the natural resources that impact it.

Integrating Natural Capital into Finance for Advanced Manufacturing

Dow, like Coke, has experience with managing risk and improving efficiency as part of their sustainability initiatives. In 2008, Dow's CEO Andrew Liveris asked Neil Hawkins, now Chief Sustainability Officer, to take a hard look at their current sustainability initiatives and identify the gap.

Natural capital was the clear choice. It fit with two of Dow's key strengths: technological innovation and capital management. These two strengths also influenced our approach to the collaboration, which is built on advancing the science and tools to value natural capital.

Dow was aware of the importance of natural capital, but like Coke's realization with water risk, they would need to develop new science and tools to quantify, value, and manage ecosystem services.

"We approached looking at nature a little bit differently," said Beth Uhlhorn, Sustainability Manager of Ecosystem Services at Dow. "Rather than rolling up our impacts and putting a dollar figure on them, we are looking at nature and valuing it like we would our other assets, that is, based on the value it will deliver to our company over time. As opposed to the accounting approach, it's a finance approach."

TNC also advocated for this approach because it was consistent with ecosystem service science and economics. It meant figuring out how changes in nature affect changes in metrics, such as the cost-effectiveness or net present value of a project. It also meant providing additional metrics on the services ecosystems provide to the surrounding community and to wildlife.

"We looked at things like air quality (paper, blog, blog), water supply (paper, blog), coastal protection (nature.org) and agriculture supply chains (nature.org). It was a chance for us to learn from each other," said Jen Molnar, Director of Science at TNC.

Through research, we overcame scientific challenges to valuing nature and learned that in many cases hybrid natural and engineered solutions result in the best business outcomes. For

example, while coastal marshes can help protect against small storms and sea-level rise, levees are still needed to protect against big hurricanes in some places.

We also uncovered unexpected financial and policy challenges to valuing nature. For example, many benefits from nature come in terms of avoided costs, which don't always carry the same weight as increased cash flows. But, providing better information on the value of nature can decrease a manager's uncertainty and increase the weight of natural capital benefits in decisions.

Now, the collaboration team is creating the blueprint for how Dow and other businesses can go from using information on the value of nature in evaluations of a handful of projects to thousands of projects a year. A key advance in making this possible has been the development of the Ecosystem Services Identification and Inventory (ESII) Tool with Ecometrix Solutions Group.

Developing the Business of Green Infrastructure

Similar to what Dow discovered in their research, CH2M HILL has learned that hybrid natural and built engineering solutions often provide better solutions. Using natural systems to address the problems that are traditionally solved with gray infrastructure is not new to CH2M HILL but it is still a small part of its business. Expanding that business, and changing the definition of "infrastructure" to include ecosystem services, is a key element of the company's business model.

The recent collaboration between CH2M HILL and TNC intends to work on the supply and demand side for green infrastructure by joining CH2M HILL's expertise in design, engineering, and building with TNC's expertise in ecology, restoration, and policy.

"This partnership has really enabled our people to have conversations that they may not have had before around specific green infrastructure strategies," said Brandy Wilson, Global Sustainability Director, CH2M HILL. "We want to open up that conversation and share the incredible knowledge embedded in this collaboration more broadly with our clients, professional organizations, and our communities. This excites our people and is exactly how we hope to transform the industry."

For example, CH2M HILL and TNC have created green infrastructure design alternatives using vegetation and oyster reefs to reduce erosion along one of Shell's pipelines in the Gulf of Mexico: a hat trick for delivering business value, gaining conservation outcomes, and building the case for integrating ecosystem services.

There now are more than 40 projects in various stages of evaluation. "Half of those, we would not have envisioned six months or a year ago" says Jeff North, Senior Corporate Practices Advisor, TNC.

Business Managers Leading the Next Phase of Transformational Change for Natural Capital
Each of these companies invested in R&D to test the business case for nature and find the strategic fit to their assets, technology, employees, brand, and corporate culture. The R&D phase requires collaboration with unlikely partners and a lot of effort from scientists and engineers.

The next phase is where the transformational change is possible, where R&D has a chance to go mainstream. The challenge now is less about understanding natural capital and more about smart management decisions. This is where business leaders have a chance to shine.