

Gold Medal Colloquium Summary: Practical Business Solutions to the Climate-Water-Energy-Food Nexus, May 4, 2012, Washington, DC

WHAT:

Global companies must increasingly account for the disruptive effects to their businesses from climate change and population growth and for how these factors will impact water, energy and food resources. Having already assessed their internal carbon and water footprints, leading companies are increasingly turning to broader questions of managing carbon-water-energy trade-offs in their business planning; modifying their current management systems to account for new kinds of business and societal risks; leveraging alignment opportunities across their respective value chains; assessing collaboration options with competitors, NGOs and other stakeholders at global scale; and identifying innovation opportunities for data analytics and new products and services.

WHO:

The Colloquium was structured to provide a highly interactive discussion among the 101 sustainability professionals in attendance. 52% of participants came from the private sector, 16% from NGOs, 13% from multi-lateral institutions or government agencies, 9% from consultancies, 8% from academia and 2% from business associations.

MAJOR POINTS OF DISCUSSION:

1. The resource triangle of water-energy-food, relatively stable for the past several generations, is now rapidly changing; under a business as usual scenario, the world will require 40% more energy and 70% more food by 2050. Increasing volatility and upward pressures on commodities and natural resources—most importantly water—is becoming the “new normal” that business planners and other organizations will need to confront. Overlaying these challenges are the significant issues of social equity and development.
2. Solutions to these challenges will require a “hard” and a “soft” path. The hard path will consist of improved information, data analytics and technologies. The soft path is about institutions, policies and behaviors and the need to move away from sectoral management approaches to cross-sectoral strategies, and to educate and incentivize market signals and consumer behaviors to move integrated Nexus decision making into greater alignment.
3. Business, government and their stakeholders are at the problem definition stage of addressing these inter-related Nexus issues. However, analysis of megatrend data indicate that these issues represent the greatest challenge facing business in this century. Near-term requirements include: true valuation of nature as an asset to enable investors, business planners and users of natural resources to give voice to the needs of nature in the language of business; re-defining planning units to larger scales, e.g., to develop water solutions using river basins rather than a single business sector or community; framing Nexus issues in a context that political leaders can understand and support (e.g., “disaster risk reduction”).
4. Business solutions to Nexus challenges will take a number of forms. They include: using smarter systems for decision making to optimize the use of energy and natural resources; building a “system of systems” based on information sharing and redesigned business processes that can identify and optimize trade-offs; setting more specific company goals that are Nexus-based; developing business solutions for customers around Nexus issues; including the use of chemicals and materials in the Nexus discussion; applying life cycle analysis to evaluate Nexus impacts and shape product design and sustainability reporting; building capacity across the value chain; translating sustainability into business terms so that investors and executives understand the meaning of Nexus challenges in specific markets; making risk actionable at the lowest level of individual business and consumer decisions.
5. Policy, market and institutional innovations will be increasingly necessary in the future. These will need to include: advancing pre-competitive value chain partnerships at market scale; practicing geographic cluster innovation to achieve alignment on watershed management strategies; re-looking at cities as integrated economic units with common metabolic requirements; financing solutions that provide capital with lower than normal borrowing rates; creating advocacy coalitions that can persuade policymakers to remove subsidies for water and other resource consumption inefficiencies; and developing information platforms that are solutions oriented (e.g., General Electric’s Eco-Challenge; World Resources Institute Aqueduct initiative).

Two final challenges are those of reconciling the integrated thinking necessary for future management of Nexus issues with the current decentralization of business operations. In addition, innovation in science and technology has greatly outpaced the pace of innovation in organizational governance.

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