

Climate change risks and opportunities are often sector-specific, so adaptation strategies must vary by sector

EXECUTIVE SUMMARY

Climate risks and opportunities are often sector-specific, so adaptation strategies must also vary by sector. The insurance sector is a leader in risk assessment, and the agriculture and tourism sectors in their awareness of climate impact. The finance sector, although highly vulnerable, is in a position to influence adaptation measures across all sectors. Managers should work within and across sectors to evaluate the risks and opportunities and develop appropriate strategies for their organization. In addition to developing sector-specific studies, researchers should conduct cross-sectoral studies to discover common concerns and solutions and promote collaboration among sectors.

BACKGROUND

There is a growing consensus among researchers and policy makers that adaptation is a central strategy in dealing with the impacts of climate change. Adaptation is most commonly described as ‘adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities’ (IPCC).

In 2008-2009 the Network for Business Sustainability commissioned a systematic review to synthesize the current state of research and practice of business adaptation to climate change. This report, the second in a four part series, presents a sector-by-sector analysis of risks, opportunities, drivers, strategies, and barriers and gaps to adaptation.

FINDINGS

Some sectors are leaders in adaptation to climate change: the *insurance* sector in risk assessment, and *agriculture* and *tourism* sector in their awareness of climate impact. The *finance* sector, although highly vulnerable, is in a position to influence adaptation measures across all sectors. The *water* sector is facing more risks than opportunities. *Tourism* regions are impacted differently by climate change, but ski and coastal tropical destinations are the most at risk due to their dependence on ecological resources for recreation. Adaptation strategies in the *energy* sector include technological innovation (low carbon energy), building infrastructure (power grid capacity and transmission capability), and behavioural and market strategies (encouraging energy conservation). Despite sectoral differences, executives across the board see climate change as both a risk and an opportunity.

IMPLICATIONS FOR MANAGERS

Managers need to increase awareness of and efforts towards adaptation to climate change:

- Collaborate within your sector to share knowledge

and address common risks. Leading organizations can share knowledge with lagging organizations and be perceived as leaders. Collaborate across sectors and with academics and other stakeholders to innovate new solutions.

- Evaluate the risks and opportunities for your sector and organization and develop appropriate strategies.

IMPLICATIONS FOR RESEARCHERS

Researchers must gain and share knowledge on business adaptation to climate change:

- Develop sector-specific adaptation measures: technical, managerial, financial, and behavioural.
- Study vulnerable sectors (e.g. water, agriculture, energy) to discover opportunities and develop strategies.
- Conduct cross-sectoral studies to discover common concerns and solutions that can promote collaboration among sectors.

METHODS

A systematic review of multiple and varied resources – from the public sector, the private sector, and academia, dating from 1997 to early 2009 – revealed 201 sources pertinent to business adaptation to climate change. An interpretive narrative synthesis was employed to distil the large volume of varied data into accessible and intelligible frameworks. The sources discussed 15 sectors, including insurance (35 studies), agriculture (22 studies), tourism and recreation (20 studies), energy (17 studies), water (15 studies), building and construction (16 studies), finance and banking (8 studies), and mining (5 studies).

CITATION

Network for Business Sustainability. (2009). Business Adaptation to Climate Change: A Systematic Review. Network for Business Sustainability Knowledge Project Series. www.nbs.net.