Business perspectives on Climate Adaptation and Resilience

Liaison Delegate meeting, Montreux
1 April 2019
Session outline

14:30 – 14:35 Welcome and Introduction
14:35 – 15:15 Resilience Game
15:15 – 15:30 Climate Adaptation and Resilience – Policy
15:30 – 15:40 Presentation on TCFD / COSO
15:40 – 15:55 Discussion
15:55 – 16:00 Next steps
Welcome and Introduction
Maria Mendiluce, WBCSD
Science is bold and clear

Global Warming of 1.5°C

**EVERY FRACTION OF A DEGREE MATTERS**

<table>
<thead>
<tr>
<th></th>
<th>1.5°C</th>
<th>2°C</th>
<th>2°C IMPACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXTREME HEAT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global population</td>
<td>14%</td>
<td>37%</td>
<td>2.6x WORSE</td>
</tr>
<tr>
<td>exposed to severe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>heat at least once</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>every five years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SEA-ICE-FREE ARCTIC</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of ice-free</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>summers</td>
<td>AT LEAST</td>
<td>AT LEAST</td>
<td>10x WORSE</td>
</tr>
<tr>
<td></td>
<td>1 EVERY</td>
<td>10 YEARS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100 YEARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CORAL REFS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Further decline in</td>
<td>70-90%</td>
<td>99%</td>
<td>UP TO 29% WORSE</td>
</tr>
<tr>
<td>coral reefs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**1.5°C PARIS AGREEMENT GOAL**

- Pledges & Targets
- Current Policies
- Optimistic Policies

- +4°C
- +3.8°C
- +3.0°C
- +2.4°C
- +2.5°C
- +3.3°C
- +3.0°C
- +2.4°C

**PRE-INDUSTRIAL AVERAGE**

Global mean temperature increase by 2100

We are here
1°C Warming in 2018

**WORLD RESOURCES INSTITUTE**
Reality is going beyond our imagination

Credit: Hannah Simmons, Climate Smart Group
WBCSD work on resilience to climate change

➢ WBCSD Building a resilient power sector
➢ Building Resilience in Global Supply Chains
➢ COSO ERM ESG Guidance / Task Force on Climate-related Financial Disclosure
➢ Climate Smart Agriculture / CSA 100
➢ Water-Smart Agriculture / Water stewardship
➢ Sustainable Cities / Built Environment
➢ Business Leadership on Climate Resilience
Resilience Game
Rodney Irwin, WBCSD
Resilience Game

Action
## Redefining Value: Montreux Sessions

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monday</strong></td>
<td>11:00 - 13:00</td>
<td>Investing Responsibly. Retiring Responsibly</td>
</tr>
<tr>
<td></td>
<td>11:00 - 16:00</td>
<td>Social &amp; Human Capital Workshop</td>
</tr>
<tr>
<td><strong>Wednesday</strong></td>
<td>09:00 - 10:30</td>
<td>Briefing Session Redefining Value</td>
</tr>
<tr>
<td></td>
<td>11:00 - 13:00</td>
<td>Performance &amp; Risk Management</td>
</tr>
<tr>
<td></td>
<td>14:30 - 16:00</td>
<td>Disclosure Dilemmas &amp; Decisions</td>
</tr>
<tr>
<td><strong>Thursday</strong></td>
<td>09:00 - 10:30</td>
<td>Building Resilience through Enterprise Risk Management</td>
</tr>
<tr>
<td></td>
<td>11:00 - 13:00</td>
<td>Turning Sustainability into a Competitive Advantage</td>
</tr>
</tbody>
</table>
Climate Adaptation & Resilience - Policy
Veronika Neumeier, WBCSD
Climate change - A major global risk

The IPCC Special Report on Global Warming of 1.5°C emphasizes the urgency to scale up investment across and within sectors, especially in energy, land use and ecosystems (including oceans), human settlements, infrastructure and industry.

Climate adaptation and resilience building are understood as the foundation and cornerstone of sustainable development. The focus shall not be on the cost, but on the economic and social benefits of adaptation and resilience.
Climate Leadership for Resilience

“Adaptation must move into the mainstream of policy-making, business strategies and development planning. Through these efforts, the world can advance dynamic solutions that will reduce risk and bring economic opportunities for more people. We are all in this together. We must mobilize leadership and unlock investments in adaptation that can improve people’s lives today and for generations to come.”

Ban Ki Moon, 8th Secretary-General of the United Nations and Chairman of the Board, Global Center on Adaptation
WBCSD work on resilience to climate change

- WBCSD Building a resilient power sector
- Building Resilience in Global Supply Chains
- COSO ERM ESG Guidance / Task Force on Climate-related Financial Disclosure
- Climate Smart Agriculture / CSA 100
- Water-Smart Agriculture / Water stewardship
- Sustainable Cities / Built Environment
- Business Leadership on Climate Resilience
In 2019 and beyond, WBCSD aims to deepen its work on Climate Adaptation and Resilience by using cross-sectoral and cross-organizational approach integrating WBCSD projects and members, and connecting inputs from Climate and Energy, Climate Smart Agriculture, Built Environment, Water, Redefining Value and other relevant aspects.

**Objective 1: Engagement of cross-sectoral programs**

**Objective 2: Business narrative for Climate Adaptation and Resilience**
Climate Adaptation & Resilience – Building business narrative
Eric Dugelay, Deloitte
Project strategy

1. Building strong synergies
   - TCFD
   - Built Environment
   - Members
   - Institutional bodies
   - Public authorities
   - Policy makers
   - Water team
   - Climate Smart Agriculture team
   - Climate Action & Policy team
   - Redefining Value team

2. Develop the business narrative on resilience
   - The business case to understand obstacles and levers, risks and opportunities
   - Elevating business action on resilience
   - WBCSD narrative for Climate Resilience
Project outline Policy outlook for 2019 and beyond

State of Play review
Project and stakeholder consultation
WBCSD Member consultation
Analysis & Report Writing
Validation Workshop
Feedback loops
Report Launch

1-4 Apr
WBCSD LD Meeting
Montreux, Switzerland

May / June
WBCSD Climate Policy Workshop
Geneva, Switzerland

14-17 Oct
WBCSD Council Meeting
Lisbon Portugal

18-22 Mar
Africa Climate Week
Accra, Ghana

Aug
Latin America & Caribbean Climate Week
Salvador de Bahia, Brazil

2-6 Sept
Asia-Pacific Climate Week
tbc

23 Sept
UNSG Climate Summit
New York, USA

2-13 Dec
COP 25
Santiago, Chile
Understanding Climate Resilience and related risks and opportunities

Resilience is an opportunity for business:
- Resource efficiency
- Energy source
- Products/Services
- Markets

Business are vulnerable to:
- Acute
- Chronic
- Market
- Reputation
- Technology
- Policy and Legal

Physical Risks
Transition Risks
COSO & TCFD Resilience
Rodney Irwin, WBCSD
Lois Guthrie, WBCSD
COSO’s ERM Framework

Enterprise risk management is the culture, capabilities and practices, integrated with strategy-setting and its performance, that organizations rely on to manage risk in creating, preserving and realizing value.
Applying enterprise risk management to environmental, social and governance-related risks
Enterprise Risk Management & resilience
Assess, prioritize & respond to risk

• **Risk assessments** that consider velocity, resilience, adaptability

• **Prioritization** that considers resilience – appropriate risk severity measures

• **Risk responses** to enhance resilience – pursue, share, reduce
TCFD & Resilience - Oil & Gas Preparer Forum examples

**TCFD recommended disclosure – Strategy c)**
Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

**Measures of resilience**
- Committed & uncommitted capital expenditure
- Capital discipline
- Production forecasts & reserve life
- Payback periods
- Portfolio optimization/diversity – options
- Breakeven, IRR and cost of supply
- Sensitivity to carbon and oil prices

**Assumptions, parameters related to scenario analysis and sensitivities**
- CC(U)S, changing consumption, electrification uptake, natural climate solutions etc.
- Impact on cash flow, net present value etc.
Uncertainties & complexity

Global CO₂ emissions from full set of AR5 pathways 2000-2040
Gt CO₂ per year

CO₂ captured from CCS/U, 2010-2100
Billion tonnes per year
### Indicators and measures of climate resilience
High-level tests for assessing resilience in a time of transition...

<table>
<thead>
<tr>
<th>Business model and strategy</th>
<th>Flexibility, adaptive capacity and discipline</th>
<th>Governance</th>
<th>Climate integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>• fit for the future</td>
<td>• financial discipline</td>
<td>• commitment to execute the plan is embedded in organizational capital in the long term</td>
<td>• climate considerations are integrated into risk management, planning and financial analysis</td>
</tr>
<tr>
<td>• financed for the future</td>
<td>• cash and capital flexibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• supported by structural and management capacity</td>
<td>• portfolio flexibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• options</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• expertise</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Current TCFD Preparer Forums Members

Electric Utilities

CLP 中電 edp EnBW enel IBERDROLA EDF

Chemicals

AkzoNobel BASF DSM SOLVAY SUMITOMO CHEMICAL
Risk management is about doing good business, and on a basic human level, it’s about survival. Business should be aware of all potential ESG risks and should be doing more to bring these risks into the conversation.

We’ll help you implement through an in person training

1. **For eligible companies, we’ll travel to you to:**
   Provide an overview of key risk management and sustainability concepts, play the game, give practical examples and more.

2. **What you’ll need to do:**
   Provide us with your high-level ERM processes and policies in advance. Join a call prior to the workshop for planning purposes. Ensure participants have read the guidance.

3. **Who should come?**
   Lead sustainability practitioners or the CSO, your risk management team or the CRO, representatives from compliance, internal control operations etc.

4. **What you’ll gain**
   Ongoing technical support from WBCSD’s risk team, an implementation plan, a complete high-level diagnostic, a summary slide deck, a stronger relationship between risk and sustainability functions.

Contact leach@wbcsd, taylor@wbcsd and irwin@wbcsd to organize a training
Discussion
Victor Carritte, Deloitte
Veronika Neumeier, WBCSD
Discussion

What is the key priority for your business?
Next steps
Karl Vella, WBCSD