Chartered Institute of Internal Auditors

01 February 2023

Climate change and environmental impact

Chartered Institute of Internal Auditors

The world has entered a period of abrupt climate breakdown creating irreparable harm to the world. Little action has previously been taken on an issue which has been in the news for at least 30 years.

'More than half of all industrial emissions of carbon dioxide since the dawn of the Industrial Revolution will have been released since 1988' – Dr. Peter C. Frumhoff, Director of science and policy at the Union of Concerned Scientists

In May 2019, the UK Government declared a climate emergency along with 11 other countries and districts in 14 other countries around the world (figures as at October 2019).

'Extreme Weather Events' and 'Failure of Climate Change and Adaptation' are the top two likeliest world risks to materialise and are both in the top 3 risks in terms of impact, as stated in the World Economic Forum Global Risk Report 2019.

Across the world, pollution is the largest environmental cause of disease and premature death (with risk of mass extinction of species for example insects such as the bee). Over 124 million people across 51 countries and territories are facing crisis levels of acute food insecurity or worse, requiring immediate emergency action.

Failure to take drastic action across the world is causing sea level rises (eg Louisiana), desertification, wildfires (eg most recently California and Australia in 2019), water shortages (eg Libya and Yemen), crop failures (eg UK cauliflowers in 2019) and extreme weather (many examples all around the world). Millions of people are being displaced, and there are increasing levels of war and conflict over resources that are in short supply.

All organisations, as well as all people, have a social and ethical responsibility to ensure they are taking sufficient action to tackle climate change and environmental impact, and to manage the wide -ranging risks and issues facing them now and in the future.

Business continuity risks have already increased dramatically from extreme weather events and shortages of natural and man-made resources. Where customers and the public deem insufficient action is being taken there are impacts from increased activism, including shareholder activism, plus increased risk of environmental legal action from organisations such as Client Earth.

Conservation International highlight 11 facts you need to know on climate change that you can find at Appendix 1**.**

Legal and regulatory framework
Key questions internal auditors should be asking

Examples of risks and potential responses
What can internal audit do to support?
Appendix 1

Legal and regulatory Framework

The Climate Change Act 2008 requires the reduction of greenhouse gas emissions by 2050 and a path to get there. The Committee on Climate Change has also been established by the Act to ensure that emission targets are based on evidence and independently assessed. Under the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 organisations have to report their annual greenhouse gas emissions in the Director's report.

Additionally, organisations, both mandated and (currently) voluntarily, are also reporting a wider range of environmental impacts such as emissions, energy consumption and energy efficiency under the Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018.

The Climate Disclosure Standards Board's (CDSB) Climate Change Reporting Framework (CCRF) sets out an approach to boundary setting that seeks to align with the boundaries used for financial reporting. Although it has been written for reporting climate impacts, it can be used for reporting other impacts.

- greenhouse gases
- water
- waste
- materials and resource efficiency
- biodiversity/ecosystem services
- emissions to air, land and water.

The Climate Disclosure Standards Board (CDSB) is committed to advancing and aligning the global mainstream corporate reporting model to equate providing relevant information on environmental and social credentials with financial reporting. They provide a framework for reporting environmental information which organisations need to ensure has the same rigour applied to financial information along with providing compliance-ready materials for Regulators.

Various other environmental related laws are in place and an additional overview of these can also be found here.

Key questions internal auditors should be asking

Internal audit activity

- Is climate change and environmental impact part of the internal audit universe and risk assessment? If not, why not?
- Does climate change and environmental impact feature on the audit plan? If not, why not?
- Have the team or suitable members of the team received training to ensure that they are suitably upskilled to audit this risk area and provide an assurance to the audit committee, senior management and board that actions being taken/developed are appropriate? If not, why not?
- Is the chief audit executive discussing the topic with the audit committee chair and the chief

executive officer?
- Are the members of the internal audit activity discussing the topic with relevant stakeholders?
- Does the internal audit activity understand the risks and issues the organisation faces in this area?
- Are suitable members of the internal audit activity aware of what the organisation is doing in this area, and does internal audit have a seat at the table?
- Can internal audit support any strategic transition by reviewing how any strategic change has affected the operations of the business, either positively or negatively?
- Is internal audit aware of what competitors are doing in the market sector? Are there lessons to learn from the actions they are taking?

Strategy

- Is climate change and the impact included within the organisation's strategy? If not, why not?
- Does the board have enough awareness of the climate change risks? Is the risk function involved in identifying climate change risks?
- Does the business understand the interrelation between climate change and its activities and its long-term strategy?
- Has an assessment been undertaken to understand the risks and impacts of climate change facing the organisation?
- Are the board clear on what needs to be done to reduce the impact of climate change on the organisation and more importantly to reduce the impact the organisation is having on the climate?
- Has the organisation set sustainability targets?
- Are new business opportunities being explored as a result of societal changes initiated by climate change (before others do)?
- How is product development taking climate change into account eg use of plastics, increased levels of travel?
- Does the business model need to change to reduce the long-term target of reducing carbon emissions, reducing waste and conserving resources? If so, what is the organisation doing to adapt?
- Is there a clear plan to transition the organisational strategy to manage climate change effectively?
- Have the costs and risks associated with transitioning been considered?
- What impact could lack of action have on reputation in relation to customers/investors/activists? Has this been considered by senior management and the board?
- What impact could lack of action have on the growth and future sustainability of the organisation?
- Is the business aware of the increasing expectations of major institutional investors with regards to green credentials and is the business communicating with the markets effectively on this matter?
- Are innovation and product development programmes aligned with the long-term climate goals of governments and society?
- What is the organisation doing to demonstrate commitment to climate change eg recycling, re-use of oil and diesel, and use of renewable energy sources?

Governance and oversight

- Has the board allocated clear senior accountability for climate change and environmental impact within the organisation?
- Have suitable roles and responsibilities been defined and implemented?
- Is the organisation aware of its legal and regulatory responsibilities related to climate change and

environmental impact?
- Is there an adequate management and reporting framework in place to oversee the required operations and capture the necessary information for reporting?

Risk assessment and management

- Has an assessment of the entire business model up to 20 years ahead been performed to understand the areas where improvement is necessary? Are ideas for change being captured and assessed?
- Are climate change and environmental impacts on the organisation's risk register? If not has it been considered?
- Is there a suitable plan in place to address any known deficiencies, implement improvements and ensure the strategic aims are achieved?
- Do insurance policies cover physical damage caused by the effects of climate change? Do these policies need to be reviewed and updated?

Key performance indicators and reporting

- Have suitable key performance indicators been implemented, that link to government mandated targets?
- Are the board kept updated on key metrics and progress to achieving targets?
- Is the required external reporting and disclosure framework in place?
- Is independent verification of external reporting in place?

Training and awareness

- Has the board received awareness on climate change and the environmental impact from a reputable external or internal expert?
- Has the executive leadership team received awareness on climate change and environmental impact from a reputable external or internal expert?
- Is there an awareness campaign in place to ensure all colleagues in the organisation are aware of their responsibilities within the organisation, for example in relation to single use plastic, recycling and energy consumption?

Examples of risks and potential responses

There are several risk areas to consider within the organisation, including the examples below:

1. Supply chain

Potential impact

- The organisation's supply chain is interrupted due to climate change and environmental impacts leading to issues with manufacturing/supply/product availability, impacting customer service and leading to financial impact eg losses, and financial opportunities.

Potential response

- The supply chain risks the organisation faces have been assessed and analysed with contingency plans put into place.

- The organisation has a clear view of any inbound resources which are at risk such as crops (eg potatoes, cauliflower) and CO_2 supply.
- The organisation only works with suppliers who meet pre-defined climate change and environmental impact standards and has a thorough procurement process in place to vet suppliers and protect the organisation from reputational damage and interruptions to supply.
- On-going due diligence of suppliers includes review of any climate change and environmental impact factors so that the organisation is aware of any risks to supply through activism against the supplier and is aware of any potential reputational issues through supplier behaviour.

2. Operations and continuity

Potential impact

- The organisation has not assessed its operations and infrastructure adequately to ensure it is aware of and managing and reducing climate change and environmental impacts leading to legal action, activism and reputational damage.
- Climate change and environmental impacts have not been adequately considered or planned for in relation to the operational resilience/BCP of the organisation leading to increased customer service demands and financial impacts.

Potential response

- There is a robust and tested business continuity and crisis management framework in place which is tested, reviewed and updated annually.
- The organisation has a robust assessment framework in place which includes all key climate change and environmental impact areas. This is reviewed on an annual basis to assess the impacts on the organisation and its infrastructure, so as to remain aware of any changing risk profile. This includes as a minimum:
- Weather

  extreme weather events
  rising sea levels
  changing weather patterns
  changing climate
  water shortages

- Activity of the organisation

  pollution
  energy consumption
  renewable energy usage
  chemical usage
  transport impacts both of colleague travel and fleet transport
  water and environmental contamination
  water consumption
  consumption of natural resources
  waste levels and waste treatment, particularly non-biodegradable waste
  impacts to the ecosystem including seas, forests, wildlife

- External Impacts to the organisation

political unrest
war/conflict
natural disasters
activism
involuntary migration

- Infrastructure

location of buildings/sites
security of buildings/sites

3. Financial

Potential impact

- The organisation does not manage climate change and environmental impacts successfully, nor takes appropriate action leading to share price impacts and activism.
- The organisation does not plan for the investment impacts of climate change and environmental impacts which impacts the achievement of the corporate growth and capital investment strategy.

Potential response

- The organisation has a clear strategy in place which adequately covers climate change and environmental impacts.
- Annual reporting includes climate change and environmental impacts, is in line with Climate Disclosure Standards Board guidance and demonstrates progress towards meeting legislative requirements eg the Climate Change Act 2008 (c 27) makes it the duty of the Secretary of State to ensure that the net UK carbon account for all six Kyoto greenhouse gases for the year 2050 is at least 80% lower than the 1990 baseline, toward avoiding dangerous climate change therefore organisations should be reporting on carbon emissions.
- All reporting on climate change and environmental impact has been externally verified and validated by an expert, similar to external audit verification of the statement of annual accounts.
- The investment portfolio has been reviewed and updated to ensure focus on both growth and measures to manage climate change and environmental impact.
- Shareholder concerns are understood and acted upon through investor relations activity.
- The investment portfolio of the organisation has been reviewed to ensure it meets climate change and environmental policy.
- The current and future financial risks related to climate change and environmental impact have been assessed and are understood, with appropriate plans in place to mitigate the risks.

What can internal audit do to support?

Internal audit can leverage on the role of trusted advisor to promote awareness of climate change and environmental impact to the board and all internal audit stakeholders.

Internal audit can provide an independent view through the delivery of focused audits on progress of the organisation and any risk exposures and can influence the organisation to act where necessary for the good of their customers, staff and the world in particular:

- are disclosures reliable - metrics/targets

- governance and oversight
- strategy
- risk assessment and management
- education/training/awareness – including of internal audit

Appendix 1

Climate change 11 facts you need to know

1	**408 parts per million** The concentration of carbon dioxide (CO_2) in our atmosphere, as of 2018, is the highest it has been in 3 million years.
2	**2016 was the warmest year on record** NASA and NOAA data show that global averages in 2016 were 1.78 degrees F (0.99 degrees C) warmer than the mid-20th century average. Seventeen of the 18 warmest years have occurred since 2000.
3	**11% of emissions** Eleven percent of all global greenhouse gas emissions caused by humans are caused by deforestation — comparable to the emissions from all of the cars and trucks on the planet.
4	**The Amazon is a carbon-storing powerhouse** In the Amazon, 1% of tree species sequester 50% of the region's carbon.
5	**800 million people** Eleven percent of the world's population is currently vulnerable to climate change impacts such as droughts, floods, heat waves, extreme weather events and sea-level rise.
6	**Coastal 'blue carbon' ecosystems are critical** Just 0.7% of the world's forests are coastal mangroves, yet they store up to 10 times as much carbon per hectare as tropical forests.
7	**Nearly 1 million hectares lost** An area of coastal ecosystems larger than New York City is destroyed every year, removing an important buffer from extreme weather for coastal communities and

	releasing carbon dioxide into the atmosphere.
8	**Save nature. It's cheaper** Conserving ecosystems is often more cost-effective than human-made interventions. In the Maldives, building a sea wall for coastal protection cost about US$ 2.2 billion. Even after 10 years of maintenance costs, it is still four times cheaper to preserve the natural reef.
9	**Nature is an untapped solution** Tropical forests are incredibly effective at storing carbon — providing at least 30% of action needed to prevent the worst climate change scenarios. Yet nature-based solutions only receive only 2% of all climate funding.
10	**195 nations on board** 195 countries signed the 2015 Paris Agreement, agreeing to limit global warming and adapt to climate change, partly by protecting nature.
11	**Price tag: US$ 140 billion per year** This is what it would take to make the changes humanity needs to adapt to a warming world. It may sound like a lot, but it's less than 0.1% of global GDP.
12	**BONUS FACT!** **Fight climate change, naturally** Natural climate solutions like ending deforestation and restoring degraded forests could, at the global level, create 80 million jobs, bring 1 billion people out of poverty and add US$ 2.3 trillion in productive growth.

Conservation International

Further reading

Legislation.gov.uk – Climate Change Act 2008

Gov.uk - Environmental reporting guidelines: including Streamlined Energy and Carbon Reporting requirements

Bank of England PRA - Supervisory Statement | SS3/19 - Enhancing banks' and insurers' approaches to managing the financial risks from climate change

The London School of Economics and Political Science – Grantham Research Institute on Climate Change and the Environment

WWF UK – Climate change

Financial Reporting Council - Climate-related corporate reporting

Conservation International – Climate change: 11 facts you need to know

Climate Disclosures Standards Board

Climate Policy Initiative

World Economic Forum