



# **SUSTAINABLE** DEVELOPMENT







AFFORDABLE AND

**CLEAN ENERGY** 



CLIMATE ACTION



ZERO Hunger



DECENT WORK AND ECONOMIC GROWTH





GOOD HEALTH AND WELL-BEING



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



15 LIFE ON LAND



QUALITY Education



10 REDUCED INEQUALITIES



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



5 GENDER EQUALITY



SUSTAINABLE CITIES AND COMMUNITIES



PARTNERSHIPS FOR THE GOALS



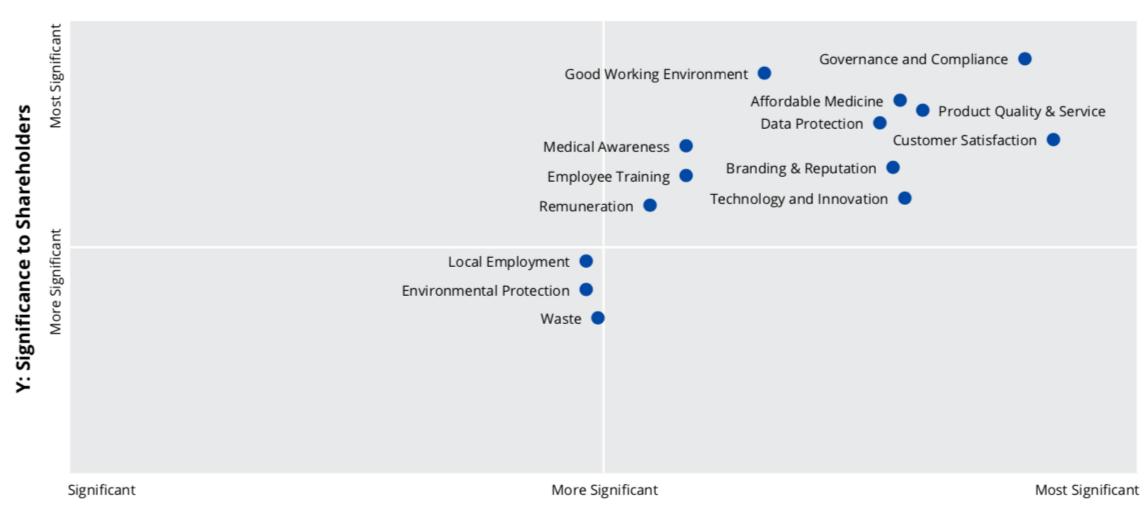
CLEAN WATER AND SANITATION



RESPONSIBLE CONSUMPTION AND PRODUCTION







X: Significance to CARING Group

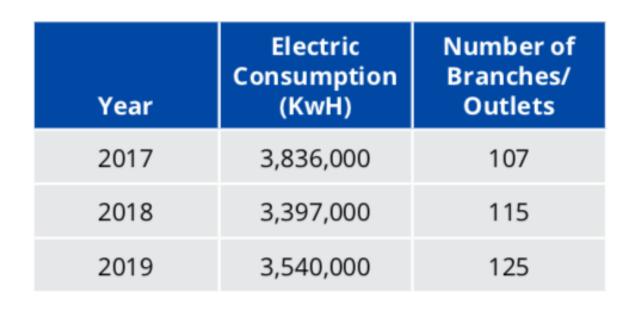












#### Customer Testimony:

'I\* went to CARING and asked the CARING Pharmacist for painkillers for my chronic neck pain. The Pharmacist suggested that I should not depend on painkillers too much. Instead, she told me to try neck exercises (which she taught), change my pillow and try different sleeping positions. I also asked her to give me advice about my itchy and watery eye condition, but she asked me to consult a doctor for proper diagnosis.

I must have taken about 20 minutes of her time talking about my pains and allergies. The Pharmacist advised me about proper diet and exercise. I left buying fewer painkillers than I had planned. Then I told the Pharmacist, "CARiNG might not like you because I am not buying a lot and I took so much of your time." She replied, "Even if customers don't buy anything, if we help them as much as we can with our whole heart, they come back. So that's why we give good advice."

\* The customer's name is withheld to maintain their privacy.

### THE GLOBAL RISK OUTLOOK FOR 2019

Types of Risks:



ENVIRONMENTAL



GEOPOLITICAL



SOCIETAL





#### Top 5 Global Risks in Terms of Impact

Weapons of mass destruction

Failure of climate-change mitigation and adaptation

- Extreme weather events
- - Water crises



Natural disasters

Top 5 Global Risks in Terms of Likelihood

- Extreme weather events

Failure of climate-change mitigation and adaptation



Natural disasters



Data fraud or theft



Cyber-attacks

## Risk Management



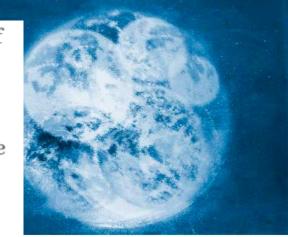
Insight Report

#### The Global Risks Report 2019 14th Edition

In partnership with Marsh & McLennan Companies and Zurich Insurance Group

BlackRock has warned that investors are underpricing the impact of climate-related risks and need to rethink their assessment of asset vulnerabilities.

'Many of our clients are long-term investors and, as a fiduciary, we are working to help them integrate ESG factors across an entire portfolio to enhance long-term risk adjusted returns with built-in resilience.'





### POWERING THE FUTURE

BUSINESS

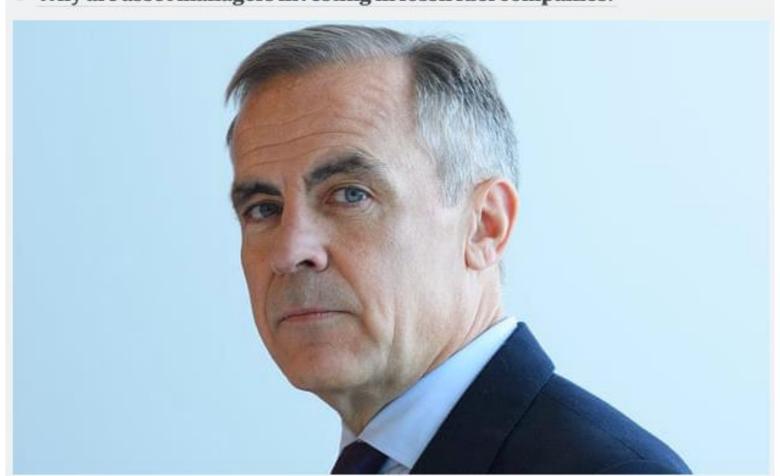
# **Op-Ed: Investors are getting** closer to a climate change tipping point

- An estimated \$23 trillion in losses will be caused by climate change over the next 80 years, with a 4°C rise in global temperatures.
- A network of global investors representing \$35 trillion in assets has used its shareholder weight to gain commitments from BP, Royal Dutch Shell, Equinor and Glencore.
- But only 1 in 10 of the world's biggest greenhouse gas-emitting corporations have targets in place to reduce emissions as required in line with the Paris Agreement.

## Firms ignoring climate crisis will go bankrupt, says Mark Carney

Bank of England governor warns of financial collapse linked to climate emergency

- Top asset managers oversee \$300bn fossil fuel investments
- Why are asset managers investing in fossil fuel companies?



# **UN Climate Report on Oceans, Frozen** Regions Warns 'Unprecedented Transitions in All Aspects of Society' Needed to Sustain Life on Earth

Describing scientists' latest warnings as "chilling and compelling," environmentalists called for "enacting radical policies" that protect marine ecosystems and fully phase out fossil fuels.

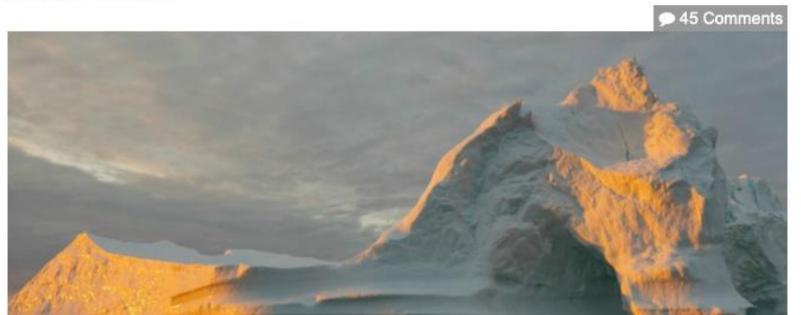
by Jessica Corbett, staff writer













"The open sea, the Arctic, the Antarctic, and the high mountains may seem far away to many people. But we depend on them and are influenced by them directly and indirectly in many ways—for weather and climate, for food and water, for energy, trade, transport, recreation and tourism, for health and well-being, for culture and identity," noted IPCC chair Hoesung Lee. "If we reduce emissions sharply, consequences for people and their livelihoods will still be challenging, but potentially more manageable for those who are most vulnerable."

## The global population vulnerable to sea-level rise

		2050		2100	
		NASA satellite model	Princeton model	NASA satellite model	Princeton model
Low emissions scenario (RCP 2.6)	People living below high tides	37 million	150 million	50 million	190 million
	Those below annual flood levels	77	290	97	350
High emissions scenario (RCP 8.5)	People living below high tides	39	150	94	340
	Those below annual flood levels	81	300	170	500

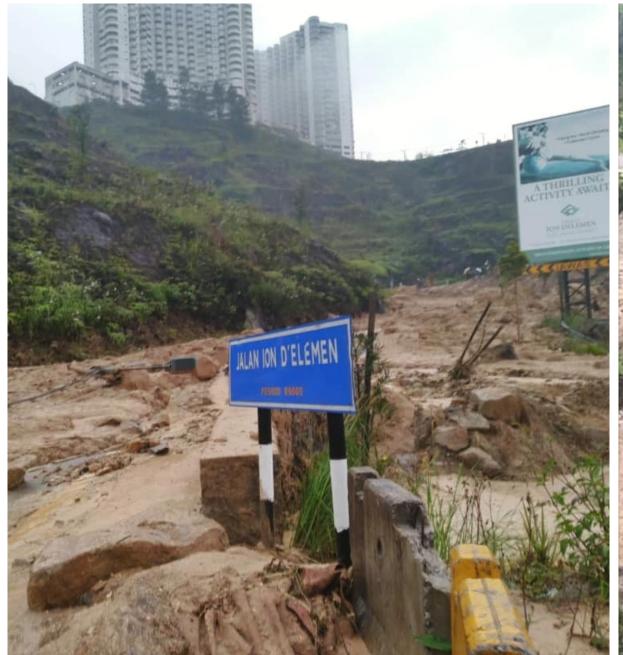














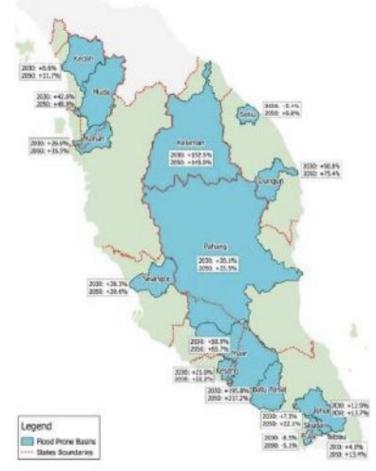
## **Climate Change in Malaysia - Flooding**

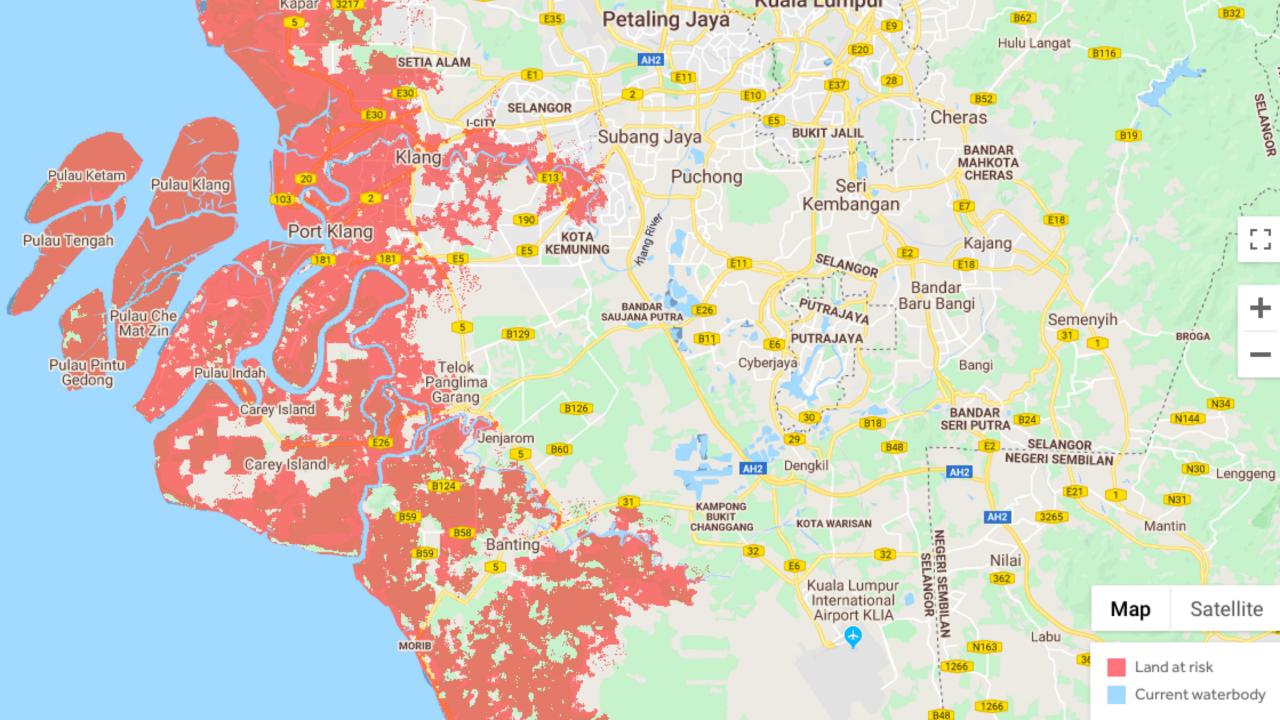


The worst floods over the last few decades have all occurred since 2003

- Floods in the northern state of Kelantan in 2017 caused damage of more than 30 million ringgit
- Studies in Peninsular Malaysia showed a potential increase in flooding area of 65%

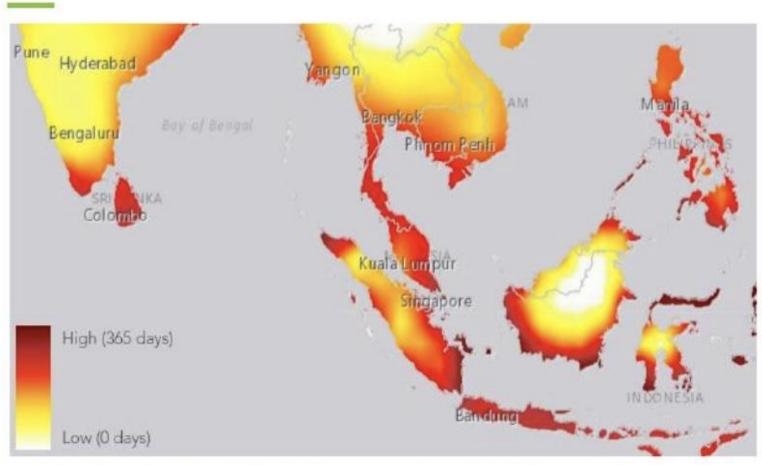
Rigura 4.3: Projected Changes in Flood Areal Extent for the Selected 15 Road Prone Basins in Peninsular Hologola



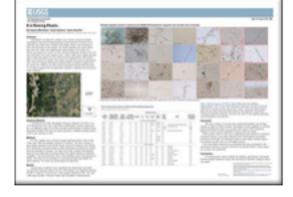








 Number of 'Extreme' heat days a year by 2040 under a moderate mitigation scenario



### It is raining plastic

Open-File Report 2019-1048

By: Gregory A. Wetherbee 💿 , Austin K. Baldwin 💿 , and James F. Ranville 🕦

https://doi.org/10.3133/ofr20191048

#### Abstract

Atmospheric deposition samples were collected using the National Atmospheric Deposition Program / National Trends Network (NADP/NTN) at 6 sites in the Denver-Boulder urban corridor and 2 adjacent sites in the Colorado Front Range. Weekly wet-only atmospheric deposition samples collected at these sites during winter-summer of 2017 were filtered (0.45 micrometers, polyethersulfone) to obtain particulates washed from the atmosphere (washout). Plastics were identified on over 90 percent of the filters. The plastic materials are mostly fibers that are only visible with magnification (~40X). Fibers were present in a variety of colors; the most frequently observed color was blue followed by red > silver > purple > green > yellow > other colors. Plastic particles such as beads and shards were also observed with magnification. More plastic fibers were observed in samples from urban sites than from isolated, montane sites. However, frequent observation of plastic fibers in washout samples from the isolated Loch Vale site in Rocky M deposition of plastic is ubiquitous and not just an urban condition. The mass of plastic in ev reliably estimate. Developing a routine capability to calculate plastic wet-deposition loads i microscope and multiplying the counts by a mean mass per fiber might be possible, but it is recovery of the plastic materials from the NADP samples is needed. However, saving the NA network possible with very little added expense, and methods could be developed to more plastic materials are accumulating and being assimilated in the environment and biota. Mo







# How to Set Up Effective Climate Governance on Corporate Boards Guiding principles and questions

In collaboration with PwC

### #1 - Climate Accountability on Boards





"Climate change is one of the most urgent challenges facing the world today. With a mere twelve years to save the planet, now is the time for corporate directors to step up, be courageous and ensure the long-term resilience of their organizations for the good of society through effective climate governance."

Katherine Garrett-Cox, Chief Executive Officer, Gulf International Bank UK; Member of the Supervisory Board, Deutsche Bank The Board is ultimately accountable to shareholders for the long-term stewardship of the company. Accordingly, the Board should be accountable for the company's long-term resilience with respect to potential shifts in the business landscape that may result from climate change. Failure to do so may constitute a breach of Directors' duties.

#### **Guiding questions**

- Do your board directors consider the risks and opportunities associated with climate change as integral part of their accountability for the long-term stewardship of the organization?
- 2. To what extent are climate risks and opportunities incorporated into your Board's understanding of Directors' duties?
- 3. Do your board directors undertake decisions that are informed by the best available information on climate risks and opportunities (see Principle 4)?
- 4. Do directors feel confident in their abilities to explain their decisions as informed by the best available information on climate risks and opportunities?
- 5. Does the Board conduct internal performance reviews? Is accountability for climate risks and opportunities considered during internal evaluations of the Board?
- 6. Are independent performance audits undertaken? If so, do these include climate considerations?