The Climate Resilient Company

A vision for 2030

Dr Edward Cameron

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Biography

Two decades working to reduce greenhouse gas emissions and build climate resilience.

Experience designing climate strategies for more than 250 companies across 10 industrial sectors including financial services.

Has served with the European Union, Foreign Ministry of Maldives, World Bank, World Resources Institute, and BSR.

Author of "A World Made New" and "The New Corporate Climate Leadership".

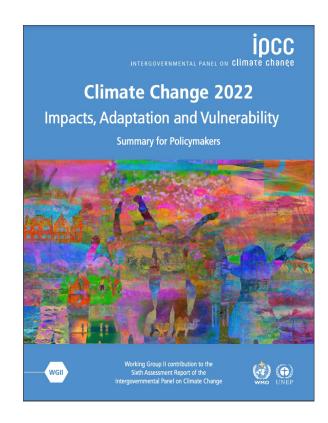


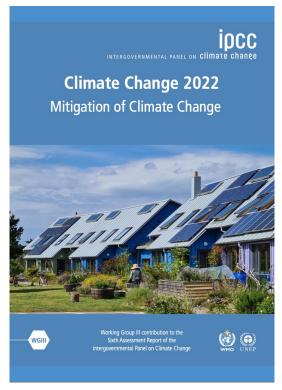
Learning from the Science

The Intergovernmental Panel on Climate Change has published two reports on climate **impacts**, **adaptation and vulnerability** and **mitigation**.

These reports total almost 7000 pages; 52,000 citations / sources; 550 authors; and 121,000 review comments.

It is the most comprehensive assessment of climate change in history.







A new climate economy

FSB estimates the total global stock of manageable assets at risk from climate change to be as high as \$43 trillion by the end of the century.

National climate action plans: **\$125 trillion** by 2050. Up to \$23 trillion to emerging markets by 2030. At least \$13.5 trillion invested in clean energy.

6000 companies, representing \$36 trillion in revenue, have committed to climate action.

Financial institutions with AUM of \$47 trillion have



The Climate Resilient Company Class of 2030 Class of 2022

Does not replicate 2015, but instead anticipates leadership in 2030.

Mitigation:

- Reducing total net GHG anthropogenic emissions by 45% by 2030.
- Net-zero CO₂ emissions by 2050 through investments in sources and sinks.
- Applying robust design architecture to decarbonization targets.

The just transition:

- Reimagining the future for high-carbon sectors and communities.
- Engage in a social dialogue across stakeholder groups to generate community-led solutions.
- Create a shared prosperity when building the new climate economy starting with the 21st century energy system.



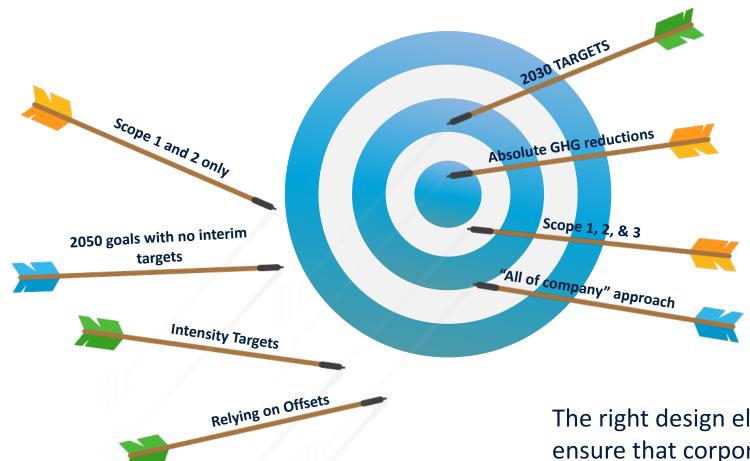
Adaptation:

- Improving understanding of the dynamic interactions between hazards, exposure and vulnerability.
- Investing in six capital assets human, social, natural, physical, financial, and political – to enhance adaptive capacity.
- Focusing on the most vulnerable assets and populations.

Designs for decarbonization. Most corporate targets currently miss the target.

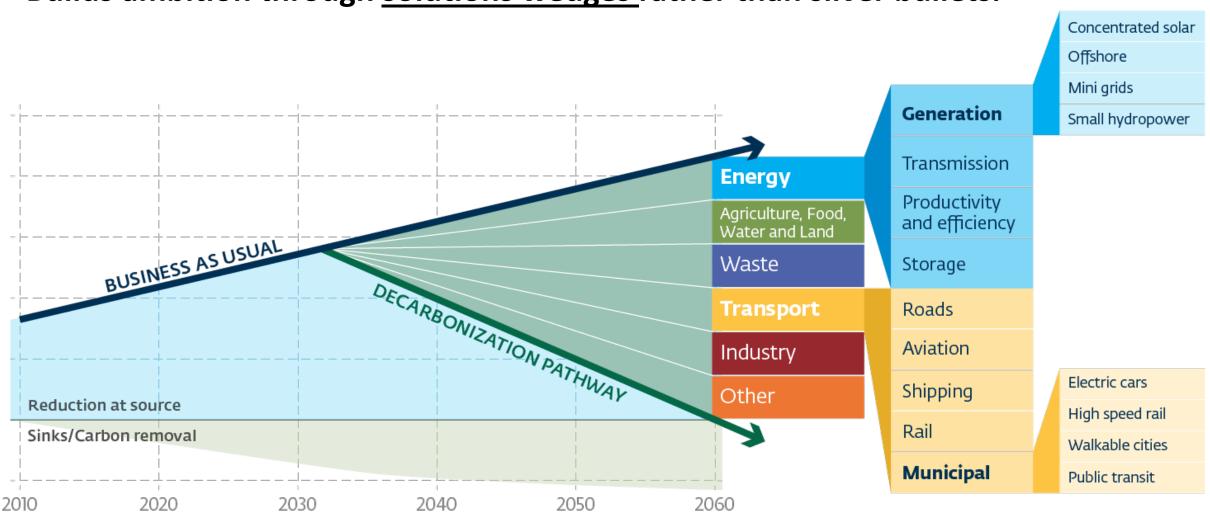
Of the **6000** companies with climate commitments, **1100** have net-zero targets.

Of these only 11, or 5% have targets that are considered robust.



The right design elements can ensure that corporate climate strategies hit the target.

Builds ambition through solutions wedges rather than silver bullets.



Understands risk in three dimensions.

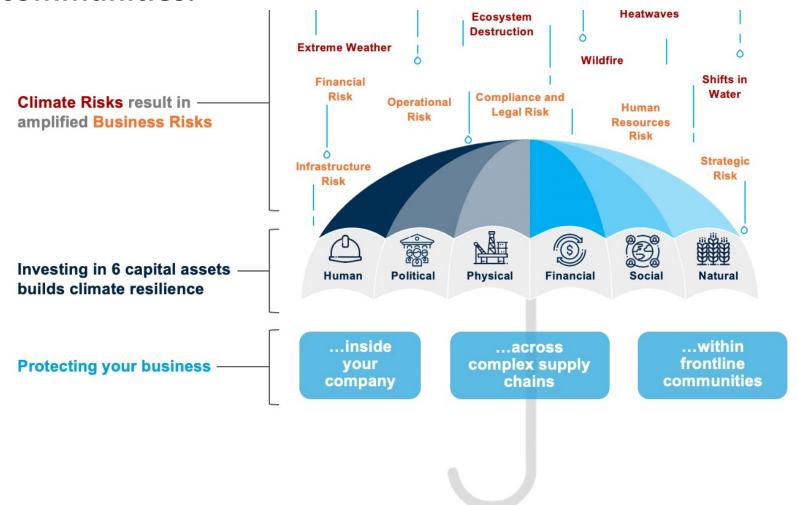
Hazard. Climate change hazards include hurricanes, heatwaves, wildfires, and vector-borne diseases.



Exposure. Are homes, businesses, infrastructure and people in the path of the storm?

Vulnerability. Are there underlying weaknesses that increase susceptibility to harm?

<u>Invests in resilience</u> inside the company, across supply chains and within frontline communities.



Draws down from hundreds of "solutions" to build tailored strategies.

Decarbonization | Stabilization Wedges



Decarbonization Stabilization Wedges								
Energy	Transport	Landuse / Food	Buildings / Cities	Other	Enablers			
Concentrated Solar Power Distributed Solar Photovoltaics Utility-Scale Solar Photovoltaics Micro Wind Turbines Onshore Wind Turbines Offshore Wind Turbines Geothermal Power Small Hydropower Ocean / Tidal Power Biomass Power Nuclear Power Grid Flexibility Microgrids Distributed Energy Storage Utility-Scale Energy Storage Energy Conservation Energy Efficiency Energy Transmission LED Lighting Water Distribution Efficiency Waste-to-Energy Green Hydrogen Smart Grids Cogeneration Biomass	Carpooling Public Transit High-Speed Rail Telepresence EVs Efficient Trucks Electric Trains Walkable Cities Bicycle Infrastructure / E-bikes Efficient Ocean Shipping Efficient Aviation Smart Freight and Logistics Smart Highways	Plant-Rich Diets Reduced Food Waste Forest Protection Grassland Protection Coastal Wetland Protection and Restoration Nutrient Management Farm Irrigation Efficiency Peatland Protection and Rewetting Sustainable Intensification for Smallholders Conservation Agriculture Regenerative Annual Cropping Improved Rice Production System of Rice Intensification Composting Temperate Forest Restoration Tropical Forest Restoration Managed Grazing Silvopasture Bamboo Production Abandoned Farmland Restoration Microbial farming	Smart Thermostats Building Automation Systems Insulation / Weatherization Dynamic Glass High-Performance Glass Green and Cool Roofs District Heating High-Efficiency Heat Pumps Solar Hot Water Low-Flow Fixtures Building Retrofitting Net-Zero Buildings Biogas for Cooking Improved Clean Cookstoves	Landfill Methane Capture Methane Digesters Biochar Production Alternative Cement Bioplastics Recycling Refrigerant Management Alternative Refrigerants	Indigenous Peoples' Forest Tenure Gender Empowerment Family Planning Education			

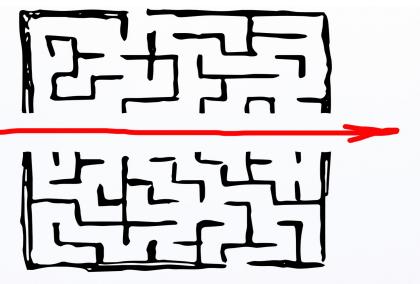
Draws down from hundreds of "solutions" to build tailored strategies.

Adaptation | Capital Assets



Six Capital Assets building blocks of climate adaptation									
Human	Social	Physical	Natural	Political	Financial				
Indigenous, traditional, & local knowledge, technologies, & methods; Worker trainings Awareness raising & education; Household preparation & evacuation planning;	Participatory scenario planning Multi-stakeholder co-learning Transboundary collaboration Participatory action research & social learning; Improved access to social support structures	Coastal defence Green infrastructure Sustainable urban water management Resilient power systems Energy generation diversification Smart-grid Updated design standards on energy assets Transport & road infrastructure improvements. Early warning systems Levees Water storage Irrigation Water sanitation resilience Storm & wastewater management Shelters Vaccine development Adequate housing Building codes & practices	Forest-based adaptation Agroforestry Sustainable aquaculture and fisheries Biodiversity management and ecosystem connectivity (ecological corridors) Water use efficiency and water resource management Improved cropland management Efficient livestock systems Restoring wetlands Soil moisture conservation Farm diversification Urban agriculture Maintenance of genetic diversity Protected areas	Integrated coastal zone management Sustainable urban planning Health systems adaptation Planned relocation and resettlement Disaster risk management Heat health action plans Addressing inequities based on gender, ethnicity, disability, age, location and income. Reduced gender inequality & marginalization in other forms. Improved access to & control of local resources Land tenure Improved access to education, nutrition, health facilities, energy, safe housing, technology, information, decision making and justice Food banks & distribution of food surplus Vaccination programs	Social safety nets Cash transfers Public works programs Risk spreading and sharing Grants Guarantees Equity Concessional debt Market debt Internal budget allocation Savings Insurance Public-private partnerships Income, asset, & livelihood diversification Catastrophe bonds Payments for ecosystem services Microfinance Disaster contingency funds				

It's a journey!



Becoming a climate resilient company requires leadership, creativity, courage and collaboration.



