

Climate Security Chain of Causation (Louise Selisny: Climate Change & (In)Security Project)

Climate (System Components)
Atmosphere
Land Surface
Oceans
Biosphere (Eco-systems)
Cryosphere (Land and Sea Ice)
Interactions Between Components

Causes of Climate Change
Burning of Fossil Fuels
Manufacturing
Deforestation
Agriculture
Natural

Effects of Climate Change
Atmospheric Build-up of 'Greenhouse Gases' and Reduced Modulation of Solar Radiation (Greenhouse Effect)
Atmospheric Build-up of Water Vapour and Increased Frequency and Severity of Storms
Increased/Altered Transpiration and Evaporation
Reduced/Altered Precipitation
Increased Land Surface Temperature
Increased Oceans Volume, Temperature, and Acidity
Ecosystem Collapse
Melting Land and Sea Ice

Secondary (Human Systems) Impacts
Overwhelming of Societal Infrastructure
Fresh Water Scarcity
Reduction in Agricultural Capacity
Reduction in Economic Productivity
Increased Scale and Severity of Disease and Illness
Reduction in Positive Public Sentiment

Primary (Natural Systems) Impacts
Inundation of Critical Assets
Sea Incursion of Land Surface
Reduced Fresh Water Supply
Reduced Vegetation Moisture and Growth
Wildfires and Massive Smoke Events
Soil Erosion
Expansion of Disease Zones
Expansion of Desert and Sandstorm Ranges

Climate Change Hazards
Floods
Drought
Heatwaves
Rising Sea Level
Reduced Biodiversity

Compound Cascade Risks
Global Food Shocks
Economic Instability
Migration and Displacement
Competition for Resources
Deepening of Intergroup Cleavages
Health Crisis and Pandemics
Socio-economic Inequality
Commodity Shortages
Supply Disruptions
Inflation
Interest Rate Spikes
Debt Servicing Crisis

Political Implications
Economic Collapse
Civil Instability/Disorder
Destabilisation of Political Systems
Perception of State Legitimacy Deficit
Support for Populist/Anti Democratic Groups
Proliferation of Authoritarian Regimes
State Weakness/Failure

Defence and Security Implications
Increase in Organised Violence and Rent Seeking
Increase in Extremist Organisations
Increase in Inter/Intra State Violent Conflict
Increased Public Order/Military Intervention
Increased Likelihood of (Tactical) Nuclear Weapon Use