SOA Research INSTITUTE

Sustainable Development Goals as Reverse Threat Multipliers

Catastrophe and Climate

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Sustainable Development Goals as Reverse Threat Multipliers

The term threat multiplier was developed over 15 years ago by the U.S. military to describe ways that climate change drives instability and, through interactions, makes other risks worse. This term has also been used to describe financial volatility and wars, which along with climate change were the top risks chosen in combination with others in the most recent SOA Research Institute (16th) survey of emerging risks. Considerations for these risk relationships can be managed along with the United Nation's 17 Sustainable Development Goals (SDG). While *Climate action* is a specific SDG, many of the other goals interact at least indirectly. A healthy and sustainable planet, with a formal economy that relies on trade, depends on these goals.

WHICH SDG MATTER?

Quality education (#4) and *Gender equality* (#5) have been long associated with better economic outcomes. *No poverty* (#1), *Zero hunger* (#2), *Good health and well-being* (#3) and *Clean water and sanitation* (#6) provide a base for economies to grow. Only functioning economies need traditional actuarial skill sets covering insurers and pension plans. A functioning economy needs *Decent work and economic growth* (#8) and *Industry, innovation and infrastructure* (#9) for sustained economic growth. *Reduced inequalities* (#10) encourage basic economic principles like creative destruction and property rights. Each of these goals aligns with conditions necessary for a thriving global economy. Lack of them could reduce society to relying on a barter system of trade.

IMPLICATIONS OF A THREAT MULTIPLIER

A world where the SDG goals are ignored will lead to the typical ramifications of the threat multiplier. As an example, lack of fresh water leads to regional conflict, which accelerates climate change in a spiral with no end except traditional population control features like infectious disease and war. Debased currencies and politically extreme governments in a period where little resilience in the global economic system exists would be devastating due to reduced growth and living standards or governments backed into a corner and lashing out to create a Mad Max scenario. No one wins unless the SDG are treated with respect and acted on.

HOW DOES THIS IMPACT THE ACTUARIAL PROFESSION?

Actuaries value contingent events by analyzing the financial value under risk and uncertainty. Assumptions used in models require a stable environment over the length of any guarantees, but in today's environment this time horizon stability is at risk. Reducing greenhouse gases and implementing SDG suggested actions are necessary to avoid an inherently unstable scenario.

ACTION PLANS

The SDG website, https://sdgs.un.org/goals , allows anyone who has implemented an action to help meet these goals an opportunity to share them. Others can scan and choose one or build off them in ways unique to a specific location or available skill set. This is consistent with a paper I wrote about how cities could deal with climate change, Municipalities and Climate Change: Successful Strategies Depend on Circumstances (https://www.soa.org/globalassets/assets/files/resources/research-report/2022/2022-municipalities-climate-change.pdf), that focused on strategies by size of city. What works in a small town differs from a project designed for Cleveland.

NEGATIVE THREAT MULTIPLIER

This makes implementation, in general, of the SDGs a negative threat multiplier. If more actions are completed it is expected that the world will be more sustainable and fewer greenhouse gases will end up in the air and water. This should reduce regional conflicts, which create a feedback loop for greenhouse gases, food insecurity and education shortfalls.

ROLE FOR AN ACTUARY

An actuary's natural role is to work alongside climate scientists, doctors, engineers, activists and others to provide financial guidance or just to interpret between professionals in other fields and provide contrarian advice. This builds off a skill set developed working with doctors, underwriters, demographers and investors in the past.

CONCLUSION

Knowledge of the UN's Sustainable Development Goals should be part of every actuary's tool kit. Being aware of the causes for unstable assumptions over long time horizons adds value for employers and clients and leads to value added solutions.

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