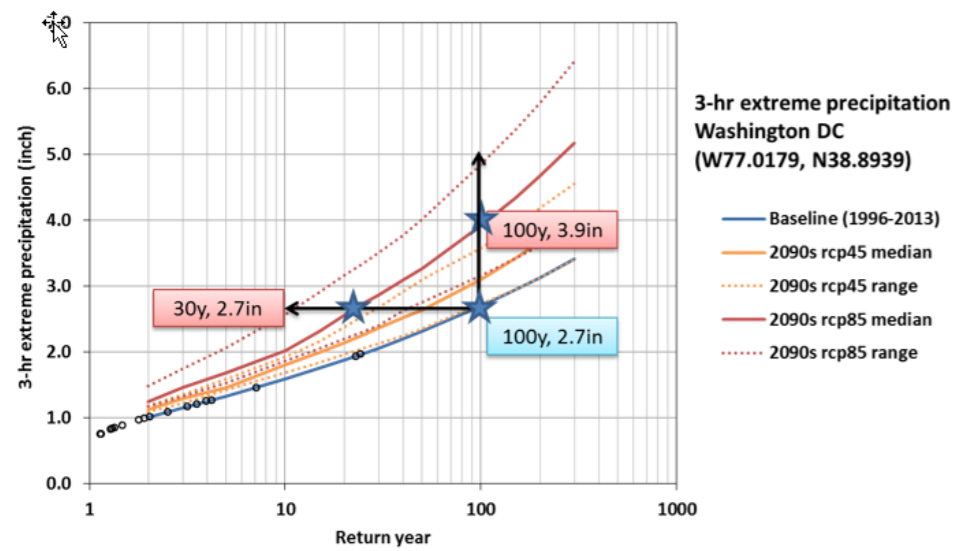


CLIMsystems has spent decades investing in methodologies that underpin actionable data for decision making for asset risk. We have always applied scenario analysis methodologies for asset risk assessments. CLIMsystems has straddled the space between governance and science/technology. With decades of experience occupying and helping to define this space we are distinctly prepared to serve asset industry leaders in moving



forward to achieve the mainstreaming of climate risk into asset assessments so decision making is more efficient. We also act as a catalyst for achieving improved climate resilience across asset classes.

Probabilistic climate projections from multi-model ensembles approaches are applied in CLIMsystems datasets. Probability Density Functions (PDFs) of projected changes attempt to represent the uncertainties that are embodied by a spectrum of modelling choices, and by the inherent imperfection of each and every one of them.

Exposure to climate hazards is evaluated in two time-frames: Historical/Current and Future. This is because past records are not necessarily indicative of future conditions. The Historical/Current timeframe captures past extreme events and recent climate trends. The Future time-frame focuses on the climate and climate-related conditions projected under different global climate models.

Close and seamless cooperation of a team with experts and specialists in climate data and with sectoral experience offers a range of integrated and useful information for different sectors. Common understanding of data applications, limitations and caveats, and transparent communication and interpretation of the data is very important in achieving credible outputs.

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What is ARR?

Our Asset Risk Reduction service brings together the most up-to-date climate data and processing methods for rapid and efficient querying of climate issues pertaining to built assets anywhere in the world.

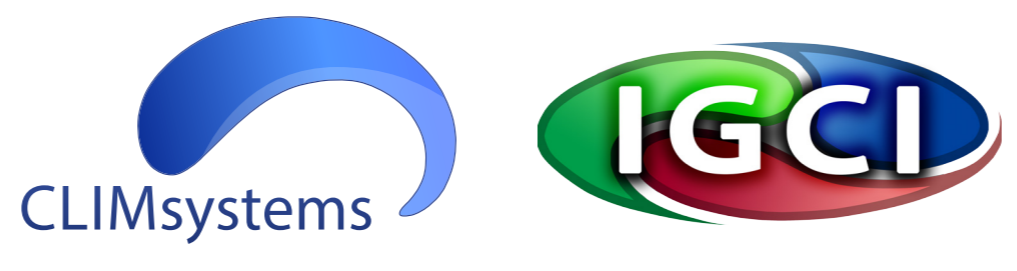
ARR

Asset Risk Reduction



An integrated solution for applying the latest climate information for rapid, robust and defensible asset risk assessments.

- Latest validated climate data applied
- Extreme event analysis
- High quality service with iconic project experience



Climate change presents a series of risks to institutional investors, who manage trillions of dollars in capital for pension fund members and individual savers, endowments, foundations, and insurers. For the fiduciaries overseeing investments, climate change poses portfolio risks but also opens up new opportunities. This is because the necessary reduction in carbon emissions will require a fundamental change in the energy mix that underpins, to some extent, every investment. Our view on approaching investment and asset protection with climate risk is a “new business as usual”.



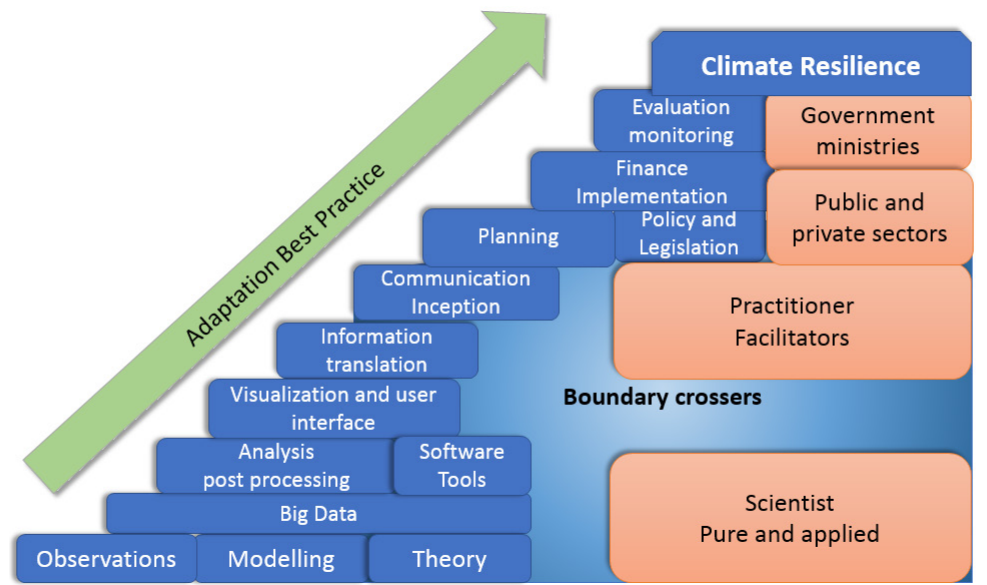
Identifying and building a suite of interlinked and inter-related actions which comprehensively and cohesively protects all assets, either infrastructure, livestock farming or rural peoples’ resilience is what this concept achieves.

An Asset Protection and Investment Solution approach will guide the management of new challenges.

The approach takes the view that an Asset as it currently exists is affected by a range of risks, such as financial, institutional, and environmental, that makes it attractive or otherwise to an investor. Even though adding another risk layer may not be conducive to a potential investment initially, a more accurate picture is provided which can over the life of the asset move from marginal to viable due to the ability of the evaluator to incorporate all risks over scales of time that are otherwise not considered.

This means that as an Asset can be impacted over time without undue recognition to the changing climate risk i.e. an Asset can lose significant value for the investor, while pushing up remedial costs.

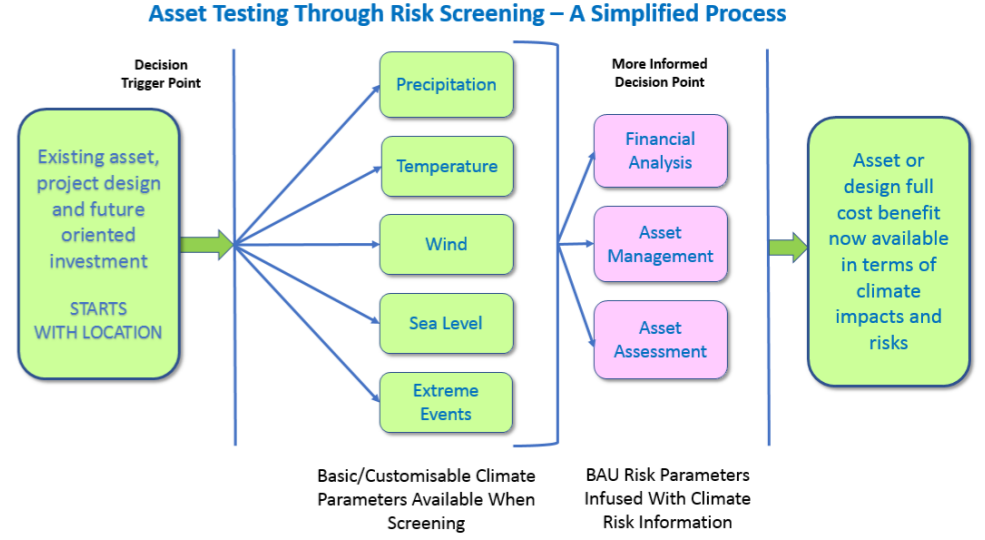
An investment to de-risk climate impacts on Assets aims to help asset owners and investment managers increase their sophistication when considering the impact of climate-policy changes and related factors on their portfolios. Until recently most investors assumed that the future will continue to mirror the past, however, for increasingly climate-aware investors, more climate related information on risk and opportunity priorities is needed to inform their portfolio management. For policymakers, the ratified Paris Agreement has galvanized the role of policy setting in mobilising capital for the transition to low-carbon economies. Corporate and country entities are engaging in the process.



Scenario analysis is a well-established method for developing strategic plans that are more flexible or robust to a range of future states. The use of scenario analysis for assessing climate related risks and opportunities and their potential implications, however, is relatively recent. Given the importance of forward-looking assessments of climate-related risk, the Task Force believes that scenario analysis is an important and useful tool for an organization to use, both for understanding strategic implications of climate-related risks and opportunities and for informing stakeholders about how the organization is positioning itself in light of these risks and opportunities. It also can provide useful forward-looking information to investors, lenders, and insurance underwriters.

(Source: Task Force on Climate-Related Financial Disclosures, 2016)

To address and mitigate the climate risk prior to a damaging impact in the future, a climate risk analyses is undertaken along with the normal analyses required when considering an asset portfolio and the preparation of a prospectus for investor interest.



The return on undertaking such an approach as promoted here is a climate proofed asset, that gains not loses value over time, and which can provide a financial return based upon the attractiveness of the asset’s value that has been robustly considered for climate risks along with other risks required by the financial and investment sector. A loan to construct or build an asset is also an added value proposition given the completion of such an assessment.

These are linked activities which generate a key output – financial attractiveness and viability of investing in an asset, and how its value may change in the context of climate risk over time.

Key Characteristics of Climate De-Risking

A risk-based approach to adaptation is not only desirable but also practicable. It combines both the likelihood and consequence components of climate-related impacts and can assess risks for both current and anticipated conditions, with the option of examining either specific events or an integration of those events over time. Furthermore, risk assessment and management are common to many sectors and asset classes – e.g., health, financial, transport, agriculture, energy, and water resources. The existing familiarity of planners and decision makers with risk management therefore helps facilitate the mainstreaming of risk-based adaptation. Risk-based methods also facilitate an objective and more quantitative approach, including cost benefit analyses that result in evaluation of the incremental costs and benefits of adaptation and assists in prioritizing adaptation options.