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Resilience Economics

Autocase Economic Advisory supports resilience infrastructure by quantifying and valuing the benefits of reducing the harmful effects of climate change, and natural weather-based hazards. Autocase Economic Advisory is the economic consulting stream of Autocase. Our team of experienced consultants has conducted economic analyses on over \$100 billion worth of projects and successful grant applications, our expertise in resilience is concentrated in:

Economic Analyses

- Capital Investment Planning Valuation and Prioritization
- Carbon Life Cycle Analysis
- Cross Asset Strategic Planning
- Cost Benefit Analysis (CBA)
- · Econometric Modeling
- Economic Impact Analysis (EIA)
- Financial Life Cycle Cost Analysis
- Geospatial (GIS) Impact Evaluation
- Grant Application Support
- Life Cycle Cost Analysis (LCCA)
- Multicriteria Decision Analysis (MCDA)
- Real Estate Economic Analysis
- Regulatory Economic Analysis
- Resilience Analysis with Climate Change
- Probabilistic Risk Analysis/Monte Carlo

Sector Knowledge

- Climate Adaptation
- Coastal/Fire/Fluvial/Wind Hazards
- Hazard Mitigation
- Ecosystem Restoration
- Environmental, Social, Governance (ESG)
- Nature-based Solutions

Valuation Methods

- Coastal and Inland Flood Damages
- Cost of Failure
- Ecosystem Services & Natural Capital
- Fire Risk & Emissions Modeling
- Geospatial Analysis
- Hazard Emergency Costs
- Local Displacement
- Natural Capital Accounting



Quantify

- Feet of Inundation
- Hazards Mitigated
- Tons of Carbon
- Properties at Risk
- Species Impacted
- Water Conserved



Value

- Carbon Tax and Cost
- Cost of Adaptation
- Cost of Compliance
- Cost of Displacement
- Cost of Replacement
- Ecosystem Services



Communicate

- Case Studies
- KPIs
- Literature Reviews
- Methodology Reports
- Technical Reports
- Stakeholder Seminars

Trusted by Industry



For the 100 Resilient Cities 'National Green Infrastructure Challenge', Autocase Economic Advisory, with Earth Economics as partners, leveraged ecosystem service data to create an enhanced tool allowing local planners to measure the comprehensive triple bottom line (TBL) - economic, social, and environmental costs and benefits of green infrastructure. Conducted a TBL-CBA of the Mirabeau Water Garden, an urban stormwater park in New Orleans, seeking to reduce flooding and subsidence, while providing TBL benefits to communities.



Autocase Economic Advisory assessed the costs and benefits of an upland green infrastructure redevelopment and coastal resilience investments into sea walls and living shorelines along the Baywalk waterfront in Miami. The CBA incorporated flood risk mitigation assessment with GIS-based SLR projections and storm NTOWN DEVELOPMENT AUTHORITY intervals to determine the value at risk of coastal properties, emergency costs, and public infrastructure. An EIA estimated the regional jobs and GDP resulting from the resilience investments. Access the report.



Autocase Economic Advisory, in partnership with Wood and Social Finance, developed The Urban Resilience Fund (TURF) Screen tool for water, waste, energy, transportation, communications, and social infrastructure investments. The TURF Screen is a multi-level multicriteria decision analysis (MCDA) tool to screen, evaluate and prioritize resilience infrastructure projects for funding by Rockefeller Foundation and 100 Resilient Cities (100RC)'s TURF. The TURF Screen is founded on resilience-based process, reliable performance, positive co-benefits, and resilience over delivery.



Engaged by the Institute for Catastrophic Loss Reduction (ICLR), Autocase Economic Advisory valued the life cycle costs, avoided damages from mitigated Institute for Catastrophic basement flooding and wind damage resulting from the installation of resiliency devices in new home construction across Canada. The CBA incorporated GIS mapping of high-risk neighborhoods in 10 Canadian provinces with climate-change adjusted recurrence intervals of short-duration, high intensity rainfall events and extreme wind and tornadoes coupled with probabilistic risk modelling across.

Visit our website for more project experience and case studies. About Us

Our team of professional economists conduct rigorous, evidence-based economic analyses of the financial, social, and environmental costs and benefits of sustainable and resilient investments in the infrastructure, real estate, public policy and regulatory worlds.

Our economic analyses help you prioritize investments, understand risks, develop strategic plans, report ESG metrics, secure funding, communicate with stakeholders, support climate equity, and understand the holistic trade-offs of your investments and policies. We provide objective, thirdparty, data-driven quantitative insights to support you.

