First comprehensive benchmarking of Australian councils' climate risk names areas in most need of adaptation support

SYDNEY, 24 October 2019 -- Climate change risk analysis company XDI today released a new report, "Climate Change Risk to Australia's Built Environment – A Second Pass National Assessment" analysing for the first time all 15 million addresses in Australia and benchmarking all 544 local government areas across the nation. The XDI report is the most extensive of its kind looking at five key hazards: riverine floods, coastal inundation, forest fire, wind and subsidence due to drought from 1990 to 2100.

The report names the top ten areas most in need of climate change adaptation to avert impacts, including the risks of coastal inundation and riverine flooding, forest fire, soil subsidence from drought and impacts of wind. The report has been released ten years after the federal government's groundbreaking report "Climate Change Risk to Australia's Coast – A First National Pass Assessment"[2] .

The report uses several indicators to identify high risk councils including projected annual damage costs and the number of high risk properties (using the U.S. Federal Emergency Management Agency classification) which is already 372,000 in 2020 and will rise to 718,000 in 2100. This figure is for existing development only, and does not include the impact of growth in high risk areas.

"This is a national problem which requires a coordinated national response," said XDI CEO Rohan Hamden. "We were compelled to release this information because we want to drive action on this issue. A response requires everyone to play a part in a coordinated way -- Federal and State governments, businesses, insurers and communities. We need a strategic vision for building resilience."

"This analysis provides a solid case for climate resilient investment in any of these locations. Climate impacts will affect the bottom line in the operations of business and supply chain services in high risk areas," Hamden said. "These are critical considerations for financial viability."

XDI's report names Queensland as the state with the most local governments at risk, including the Gold Coast, Brisbane, the Sunshine Coast, Fraser Coast, Morton Bay and Mackay in the top ten areas based on Total Technical Insurance Premiums (TTIP)[1]. Victoria's Greater Shepparton and Wangaratta and the NSW Central Coast and Tweed also make the top ten risk list. A full breakdown by risk indicator is provided.

[1] Total Technical Insurance Premium (TTIP), the total annual cost of damage and assumes all hazards are insured.

The data will help state governments to understand which councils should be prioritised for adaptation, which can be hard to identify." said Rohan Hamden, "Climate related risks are unevenly distributed across LGAs. While average risks from flooding may increase by about 30% due to climate, in 20% of large councils flood risk will double," said Hamden. "It's worse for coastal inundation, where the worst 20% of large councils will see a 400% increase of risk over the coming decades."

"This report will also be invaluable for the private sector to understand the risks to their assets and investments," Hamden said. "With climate data companies recently being acquired by Moodys and MSCI, it's clear that climate risk data is becoming more and more available to insurers, banks and valuation companies. We need to better understand Australia's risk so that we can take steps to protect people, infrastructure and property."

The XDI report includes policy recommendations on how to build climate resilience into the economy to avoid projected losses and damage, with particular focus around land use planning and building codes. Two of the reports' five recommendations address development, urging appropriate land use planning and the use of building codes that incorporate known climate risk, so all new development is built fit for purpose. Other recommendations address legislating climate risk disclosure, the funding of adaptation measures, and a call to financial regulators to tackle growing uninsurability via nuanced insurance products that encourage investments in resilience.

"If governments and communities act on this information now, many of the projected losses can be averted," Hamden said. "Acting with a strategic focus on those communities most at risk will ensure that adaptation is achieved at least cost and can help protect people, infrastructure and assets from harm."

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Contact:
Rohan Hamden, CEO XDI Cross Dependency Initiative: 0422 394 679, rohan@xdi.systems
Blair Palese, XDI Communications: 0414 659 511, blair@xdi.systems.

Information:
Full XDI report: https://xdi.systems/reportoctober2019/
A detailed breakdown for each local government: https://xdi.systems/lgabenchmarking2019/

ABC story: https://www.abc.net.au/news/2019-10-23/the-suburbs-facing-rising-insurance-costs-from-climate-risk/11624108.

XDI is an international climate change risk analysis company helping governments and businesses prepare for future risk. https://xdi.systems and https://easyxdi.systems,

*__ClimateRisk Engines__: XDI's report utilises the computational power of the Climate Risk Engines: https://ClimateRiskEngines.com.

Notes: The data used for analysis is derived from sources including General Circulation Models using RCP 8.5 **Business-As-Usual** emission scenarios, commercial flood maps, satellite data on forests and soils and an array of weather, tide and wave gauges.

The Report contains the following Recommendations:

1. **Establish Legal Requirements for Risk Disclosure**: Establish unambiguous legal requirements for purchasers, investors and tenants of built property and infrastructure to be advised of the full range of extreme weather and climate change risks that may affect the property over its full life time.

2. **Require Fit-for-Purpose Construction in High Hazard areas**: Ensure design standards and planning requirements for infrastructure and development match location specific hazards. All tiers of government seek to achieve full insurability by ensuring projected VARs of less than 1% of the replacement cost of the property over its design lifetime under worst-case climate change projections.

3. **Plan for Infrastructure System Resilience**: Federal and state governments require that all critical infrastructure - including water, power, transport and telecommunications - be assessed both at an asset level and at an interdependent system level. Establish an overarching standard risk tolerance (e.g. 1:500 year event tolerance) such that extreme weather event failures do not cause cascading failures across sectors.

4. **Develop Risk Based Insurance Pricing**: Financial regulators require that insurance industry products fairly reflect both site specific hazard probabilities and asset specific vulnerability, thus providing lower premiums for more resilient designs and materials, and a clear market signal that investment in resilience will be fairly rewarded by lower premiums.

5. **Adaptation for Highly Exposed Areas**: State and Federal governments implement support schemes to finance adaptation in areas at high risk. This can finance resilient construction, municipal works or relocation.