

Climate extremes and mental health are converging into a risk crisis

Natural catastrophic events often impact the mental well-being of a population leading to unnoticed but long-term deleterious effects, especially if the population is also ageing as in case of China. Can the Chinese insurance industry help mitigate this silent epidemic? *Asia Insurance Review* speaks with **Asian Risks Management Services' Mr Marc Burban** for his thoughts.

By Anoop Khanna



China's climate risks are intensifying. In 2025, North China experienced its longest rainy season since 1961 and one of the hottest summers on record. The unprecedented rainfall triggered deadly floods and significant economic losses. The Lancet Countdown estimated heatwave mortality in China at around 50,900 deaths in 2022, a figure that reflects both physiological and systemic stress from prolonged heat exposure.

Natural disasters in general such as floods, drought, extreme temperatures, landslides and earthquakes cost China over CNY93bn (\$13bn) in the first half of 2024 alone, affecting millions of people and destroying homes, farmland, and livelihoods.

These events not only harm infrastructure but also disrupt lives, routines, and livelihoods, all prime ingredients for psychological strain.

Nat CATs and mental health

Physical injuries and economic losses from climate extremes draw immediate attention. But the impact that these catastrophic events have on the mental health of a population is rarely investigated or made note of.

Research on this aspect is, however, slowly but steadily gathering pace and the findings increasingly show that natural disasters have significant negative effects on mental health, especially among middle-aged and older adults.

Asia Insurance Review spoke with Asian Risks Management Services founder and general manager Marc Burban on how the insurers can help in this silent but gargantuan epidemic of mental health problems that is gradually taking hold of the Chinese ageing population.

Mr Burban said, "China's rising floods, catastrophic rainfalls, heatwaves and other such events, layered onto an ageing and vulnerable population, create an unprecedented challenge for individuals, communities, and the insurance sector. These forces compound each other, elevating disaster claims and escalating demand for mental healthcare support at a scale never seen before.

"Despite limited large-scale data on how disaster-related post-traumatic stress disorder (PTSD) impacts the Chinese population, various surveys conducted on PTSD in the country suggest that repeated exposure to floods, displacement,

income loss, and disruption of social support significantly diminish life satisfaction and contribute to anxiety, depression, and stress, particularly for older, rural, and lower-income households in China."

A study conducted in 2022 using China Family Panel Survey data and reported in *International Journal of Environmental Research and Public Health* found that natural disasters are strongly correlated with reduced mental health scores for rural and older residents, particularly those with limited education or whose families rely on agriculture.

Another investigation on Chinese adults in 2023 reported in *International Journal of Disaster Risk Reduction* revealed that cumulative exposure to natural hazards over many years was statistically associated with increased depression among Chinese adults.

Mr Burban said, "Global research indicates that extreme heat is also associated with declines in mental well-being among older adults, mediated by chronic disease, reduced physical activity, and decreased social contact, vulnerabilities that reflect broader patterns in China's demographic transition."

Ageing population a risk multiplier

China's population is ageing rapidly, intensifying the vulnerability matrix around climate and mental health. In 2021, 14.2% of China's population was age 65 or older, and projections estimate this could rise to 26.1% by 2050, giving China a larger elderly share than many peer economies. Millions of senior citizens contend with chronic diseases, mobility limitations and social isolation that exacerbate the psychological toll of disasters.

Mr Burban said, "Older adults are especially susceptible to both, the direct physiological impacts of heat and flood exposure and the indirect psychological stresses arising from loss, disruption, and social disconnection.

Medical studies have confirmed that heatwaves raise the risk of stroke, kidney disease, and respiratory complications in older people, compounding anxiety about health and security. Loss of property or relocation fractures social networks, creating loneliness and cognitive decline.

He said, "This demographic trend means that climate stress and mental health challenges are not isolated phenomena but systemic pressures with far-reaching socioeconomic implications."

Rising claims need rising innovation

For insurers in China, these trends intersect with core business challenges.

1. Climbing Nat CAT losses

Severe floods, droughts, and extreme weather put a strain on property and casualty portfolios, pushing up claims, reinsurance costs, and risk capital needs. This is especially acute in flood-prone river basins and densely populated urban centres.

2. Growing health and life liabilities

Mental health issues compound chronic physical conditions. Depression, anxiety, and stress are highly correlated with higher healthcare utilisation, reduced treatment adherence, and increased mortality, all escalating costs and claims in health and life products.

3. Disability and reduced productivity

Climate stress can increase days lost from work, disability claims, and long-term care needs, particularly among older adults and manual workers exposed to heat.

4. Reputation and social expectation

In China's evolving regulatory and social context, insurers are increasingly expected not just to pay claims, but to contribute to social wellbeing and risk reduction, especially where public welfare intersects with private insurance markets.

Insurance has solutions

Speaking about solutions that insurers can provide, Mr Burban said, "China's insurance community can and must adapt. Several strategic actions can help align risk management with societal needs.

"Firstly, climate change and mental health should be integrated into risk models of insurers. This would be able to quantify the impact of extreme weather, catastrophic hydrological and geological events on mental health outcomes, especially for high-risk demographics like older adults. In a broader perspective, it would require integrating epidemiological, socioeconomic, and climate data for informed underwriting."

Mr Burban said the insurers should also look at offering prevention-first products such that policies include proactive features such as:

- Tele-mental health access and crisis counselling triggered after major climate events.
- Reduced or waived copays for psychological support in the first six to 12 months following a natural catastrophic event.
- Digital self-help and resilience programmes tailored for elderly and rural populations with caregiver interfaces.

He said, "Supporting and encouraging community resilience is another area where insurers can help form and fund community-level solutions, early-warning systems targeted at seniors, community mental health centres in high-risk regions, and public-private

partnerships for green infrastructure that reduces heat and flood exposure."

Speaking about innovation in parametric and adaptive products Mr Burban said, "Parametric triggers tied to rainfall intensity, flood levels, or extreme temperature durations can automate payouts not just for property loss, but for mental health support packages, reducing delays, and overcoming stigma, and barriers to care. This could be in association with mental healthcare providers so as to obviate the need for any third-party help and maintaining individual privacy as well."

"Insurers can also promote preparedness and mitigation by offering incentives like reduced premiums for implementing risk-reduction measures which help reduce the impact of future disasters thus contributing to strengthening long-term community psychological resilience, especially in disaster prone regions."

Double mandate

Mr Burban said, "The mental health impacts of climate change are unequally distributed, with certain groups and geographies disproportionately affected depending on factors such as socioeconomic status, gender and age.

"The insurers can integrate climate considerations with their mental health covers and build upon their social commitments also. They can help develop community-based approaches to reduce vulnerabilities and close the large gap that currently exists for mental health and psychosocial support."

For insurers, the path forward requires blending financial resilience with social resilience, integrating mental health into risk frameworks, designing adaptive products for an ageing society, and investing in proactive support and community recovery.

"As catastrophic events and mental-health stress converge into a systemic risk crisis in China, insurance can no longer afford to ignore these. In China's context, climate change is not just a physical risk but a human risk that is compounding. The insurance industry must both quantify and address this risk with innovation, empathy, and long-term vision," Mr Burban said. ▀