What if our survival depended on smart, climate-resilient households?

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Climate Ready

Within Reach | Transitional | Visionary

Individuals and households actively adapt to climate shifts, safeguarding their well-being and assets through tailored resilience and disaster preparedness plans informed by real-time data and advanced machine intelligence, enhancing climate resilience and contributing to community-wide climate adaptation.

UNCERTAINTIES

Nature, Technology

MEGATREND (Most significant)

Evolving Ecosystems

TRENDS

Community-Based Solutions
Government Agility
Mobilising Innovation
Open Data

TECHNOLOGIES

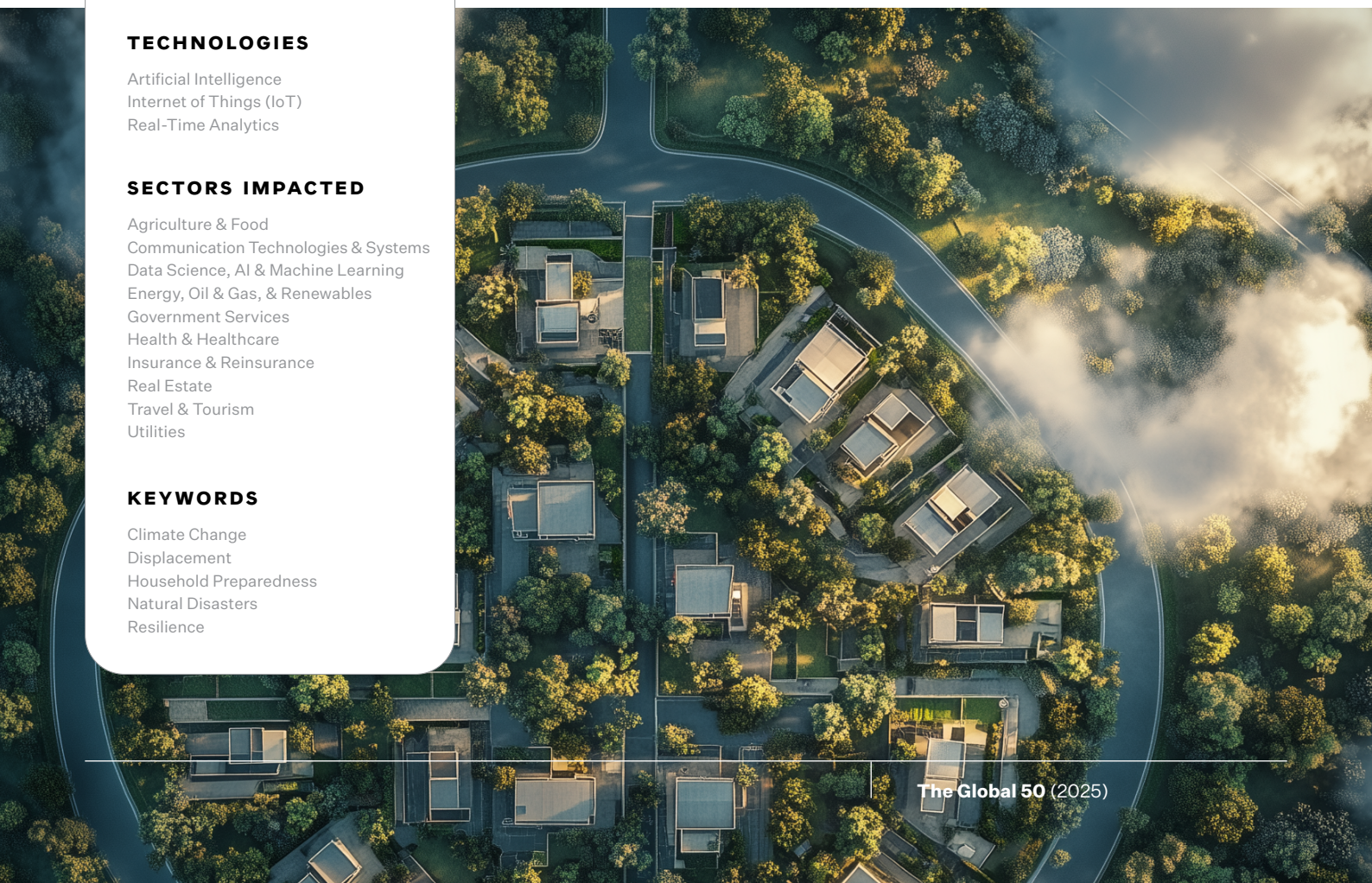
Artificial Intelligence
Internet of Things (IoT)
Real-Time Analytics

SECTORS IMPACTED

Agriculture & Food
Communication Technologies & Systems
Data Science, AI & Machine Learning
Energy, Oil & Gas, & Renewables
Government Services
Health & Healthcare
Insurance & Reinsurance
Real Estate
Travel & Tourism
Utilities

KEYWORDS

Climate Change
Displacement
Household Preparedness
Natural Disasters
Resilience



WHY IT MATTERS TODAY

By 2050, climate change and natural disasters **could displace**

1.2 billion

people, with **216 million forced to relocate within their countries**

The number of weather-related disasters has

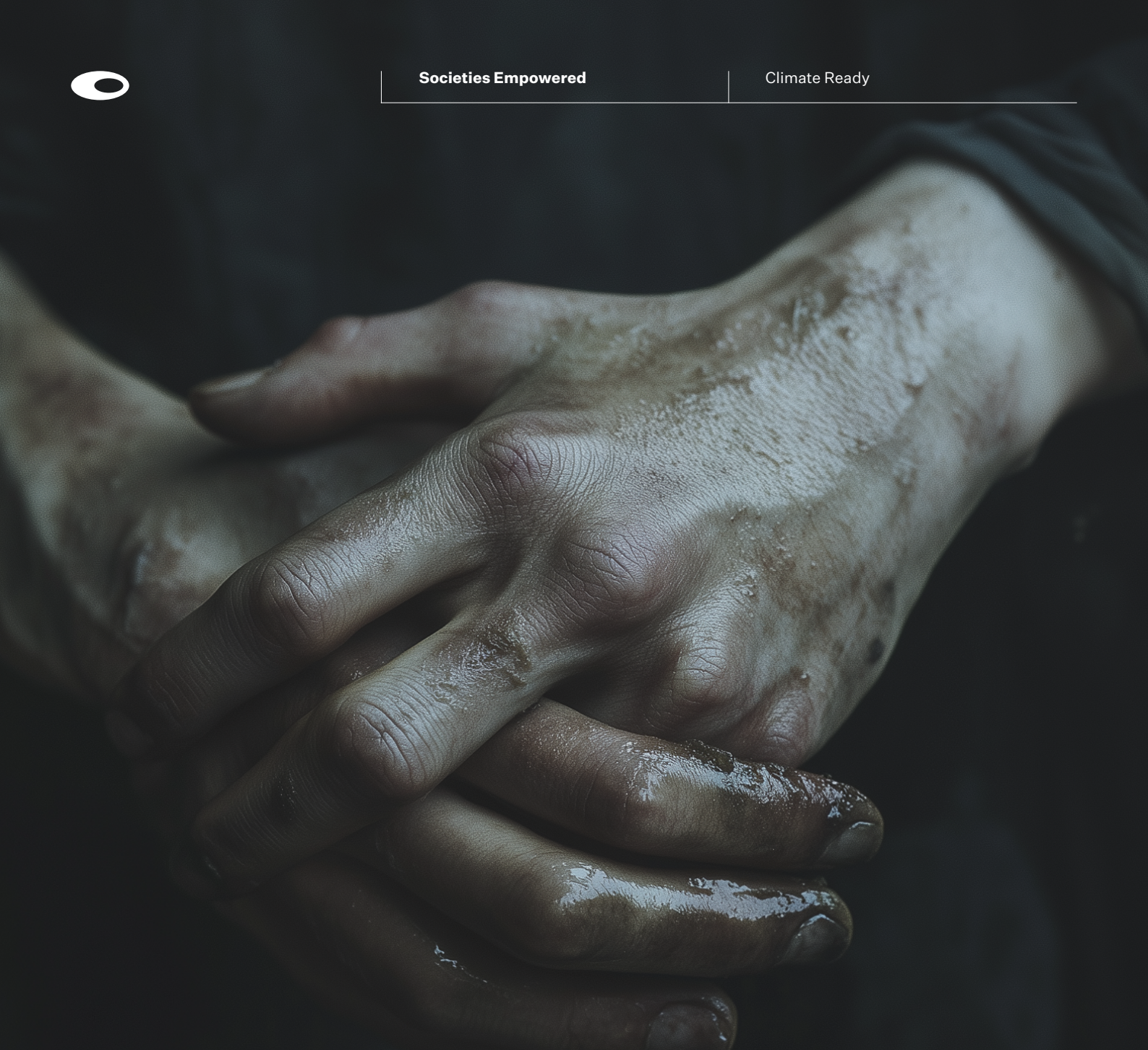
nearly tripled

over the past 40 years

Around 1.2 billion people could be displaced by 2050 due to natural disasters and climate change,[939] and 216 million will have to relocate within their countries by 2050 due to climate change.[940] Weather-related disasters have caused approximately 21 million displacements annually since 2008 and the annual number of weather-related disasters has almost tripled in the past 40 years.[941] Even if global warming is limited to 1.5°C and degraded ecosystems are restored starting in 2030, communities will still face rising sea levels, more frequent natural disasters, extreme weather events, and biodiversity loss.[942]

Between 2030 and 2050, climate change could impact global health, leading to 250,000 additional deaths per year due to undernutrition, malaria, diarrhoea and heat stress.[943] By the 2070s, and in the scenario with the highest likely temperature rises, the United Kingdom could see 21,000 additional heat-related deaths annually.[944]

Climate preparedness pays off both psychologically and economically. Up to 50% of disaster survivors may experience mental distress, including post-traumatic stress disorder (PTSD), depression and anxiety, with 5–10% requiring clinical care.[945] The global cost of natural disasters exceeded $360 billion in 2022, with over 40 events causing more than $1 billion in damages each.[946] In the United States, every $1 invested in disaster preparation saves $13 ($6 on damage and clean-up costs and $7 on economic costs).[947]



Between 2030 and 2050, climate change could cause an additional

250,000 deaths per year

from undernutrition, malaria, diarrhoea, and heat stress alone.

THE OPPORTUNITY

Individuals and households proactively adapt to climate shifts, safeguarding both their well-being and assets, through an integrated society-wide platform powered by advanced machine intelligence that enables individuals to personalise their climate resilience strategies. This platform provides actionable, tailored recommendations based on publicly available data (such as weather forecasts and air quality indices) and real-time household data.

Building on smart home technology, the platform prepares households and provides tailored advice for extreme weather events such as heatwaves and flooding. Tailored disaster preparedness and specific lifestyle and climate proofing guidance enables families and their homes to withstand climate impacts, reduce risks, and potentially lower insurance costs. Integrated with broader community systems, such a platform could enable collective preparedness and resilience while prioritising data protection and user consent, ensuring families can participate without compromising privacy.

BENEFITS

Empowerment of individuals, households and communities; enhanced climate resilience; promotion of sustainable practices; promotion of climate awareness.

RISKS

Inability to cope with climate events that are more aggressive than anticipated; incorrect or ineffective recommendations; increased anxiety; cybersecurity and safeguarding data privacy.

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