KPMG

Reframing sustainability

Building resilience

KPMG. Make the Difference.

June 2026

Contents

Foreword

The world is facing into heightened challenges and uncertainty driven by issues such as climate change, geopolitics, increasing resource scarcity and economic conditions.

In this increasingly volatile environment, risks are converging to create shocks that cascade across society, communities, individuals and enterprises, and disruption has become the norm, not the exception.

Action is needed to drive positive change, but for it to be meaningful and deliver long-term benefits we must recognise the common importance of **sustainability** and **resilience**.

In this paper, we consider what is needed for a resilient and sustainable future and how that anchors to sustainable business (through supply chains), the physical world (climate and nature), energy, water and people.

We draw on KPMG's experience working with clients across all sectors of the economy to reflect on:

- What sustainability and resilience mean;
- The mindset required to achieve them; and
- The investment and/or partnerships needed.

I hope you find the paper thought-provoking. Please reach out if you would like to discuss any of the issues covered in more detail.

Richard Andrews,
Partner, UK Head of Sustainability,
KPMG in the UK

"In a world increasingly marked by disruption and volatility, it is more important than ever to focus on the **resilience** and **sustainability** of our society, our economy, the companies that operate across them and the people that live in them. Companies face multiple and increasing stress events from different sources. The difference between success and failure in the long term, and increasingly in the short term, lies in the ability to adapt and mitigate these twin challenges."

The need for a collective response

Resilience is often considered in terms of protecting the commercial value of individual entities, and this is still important. But, in a world where disruption is becoming the norm and failures cascade rapidly across markets and communities, a significant shift in mindset is required – from narrow focus on organisational recovery to consideration of, and action to mitigate, wider societal impacts. This requires a collective long-term response involving government, the private sector, community groups and individuals.

Collaboration is key

Public and private collaboration is critical. Governments have the mandate and legitimacy to protect citizens and enterprises, and can set expectations. However, they do not have the resources or bandwidth to deliver society-wide resilience alone.

Bodies such as the UK Resilience Academy and the National Preparedness Commission have a role to play in helping to create a framework for society-wide resilience, but it will be crucial that private enterprise does more, having both the agility and resources to implement solutions at scale.

At present, there is insufficient contribution by private enterprises to long-term societal resilience. Focus to date has tended to be on actions with short-term impacts. However, in the face of heightened geopolitical risk, increasing resource scarcity, more frequent natural disasters and climate events and other escalating and interconnected risks, longer term strategies will be critical.

Achieving widespread engagement may be challenging as it will require a shift from just 'preaching to the choir' to galvanising organisations and individuals not already focused on broader societal resilience.

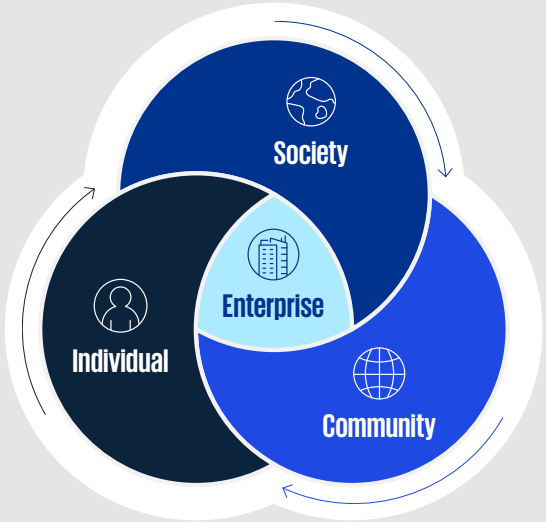
Whole society resilience demands a whole society response

Societal resilience

Societal resilience reflects the capacity of communities, institutions and systems to absorb shocks, adapt to and recover from crises and change while maintaining core functions. It involves preparing before, responding during, and recovering after disruptions, often through strong, collaborative networks and proactive, local-level actions rather than passive reliance on authorities.

Societal resilience is underpinned by three core layers – **Society** (macro), **Community** (meso) and **Individuals** (micro). The glue that binds these together and allows them to function effectively is **Enterprise** – the organisations and institutions formed to fulfil a business purpose and/or solve societal needs through commercial activities.

Private and public companies play a critical role across all three layers of society



1. **Society** – at the societal level, they provide critical infrastructure, foster economic stability, drive innovation and provide resources, particularly in times of crisis. Their role extends beyond profit-seeking to include social, economic and environmental contributions that help communities prepare for, withstand and recover from shocks.

2. **Community** – enterprises of all sizes have a fundamental role to play in community resilience by providing essential services, maintaining economic stability and fostering social cohesion, particularly during crises. They act as 'first responders' and anchors of stability by ensuring continuity of supply, offering employment and investing in local disaster preparedness.

3. **Individuals** – enterprises contribute to resilience at an individual level by fostering a supportive environment that enhances employees' capacity to adapt to stress, recover from setbacks, and maintain productivity. Rather than just providing crisis-management tools, modern enterprises embed resilience into their culture through holistic wellbeing programs, professional development, and strong social support systems.

Many company mission statements and values focus on service and trust for their customers. Ensuring enterprise resilience is an implicit part of being able to deliver commitments to these individuals, communities and wider society.

> Unsustainable systems create brittle societies; resilient societies depend on sustainable foundations.

Sustainability and resilience

Sustainability addresses the drivers of shocks such as climate change, nature loss, inequality and resource depletion, while resilience addresses the capacity to cope with those shocks once they materialise.

Many organisations still treat sustainability and resilience as separate agendas – increasing the risk that known drivers of disruption are not embedded into resilience planning.

Companies which have greater awareness of the types and impacts of sustainability-related shock drivers on their business can understand how and where these might materialise in their value chains.

Appropriate actions can then be taken to mitigate, manage or avoid activities that create the potential for business-critical disruptions. This can help to avoid or reduce potential negative impacts across all layers of society.

Sustainability-related shock drivers

Heatwaves	Flooding	Storms
Biodiversity loss/failure	Habitat destruction	Invasive species outbreaks
Public health emergencies	Labour strikes/ industrial action	Skills/capability shortages

> Resilience is not a crisis response, but a strategic capability – one that identifies sustainability risks and converts them into managed, investable and governable business outcomes.

Chapter 1

Energy security

Energy is the foundation on which everything else rests. When energy is disrupted, it is not just power stations and fuel markets that feel it. It is the food on supermarket shelves, the fertiliser that grows it, the ships that transport it and the factories that package it. It is the cost of heating a home, running a hospital, operating a data centre or manufacturing a car. Energy price shocks become inflation. Inflation becomes a cost of living crisis. A cost of living crisis becomes a political crisis.

Energy security is being redefined

Increasingly, energy security is understood as the ability of the energy system to absorb disruption, maintain supply and reduce exposure to external shocks. That includes resilience to:

- Geopolitical conflict
- Disruption to shipping and trade routes
- Volatility in global commodity markets
- Attacks on critical infrastructure
- Supply chain bottlenecks
- Price shocks flowing through to households and industry

Recent events, including the conflicts in Ukraine and Iran, have reinforced the vulnerability of energy systems that are exposed to fuel supply disruption, commodity price volatility, maritime chokepoints and concentrated infrastructure.

Energy volatility is being transmitted through the wider economy and is becoming a strategic issue for corporates across multiple sectors. Sharp rises in oil and gas prices have had effects far beyond utilities and fuel markets, impacting transport, petrochemicals, fertiliser production and more. Resulting inflationary pressures have passed through to food and consumer goods.

"The chain from wellhead to household is shorter and more direct than most people and unfortunately most boardrooms have ever been forced to reckon with. Energy resilience is a business survival question – the companies that treat it as such will define the next era of competitive advantage."

Wafa Jafri,
Partner, UK Head of Energy Strategy
& Global Lead for Energy Transition, KPMG in the UK

Energy transition: a core pillar of diversification strategy

The energy transition is often framed as a climate imperative. That framing is too narrow and in the current environment, it is also strategically counterproductive. The more powerful case for transition is not environmental – it is about risk mitigation.

Within a diversified energy strategy, the energy transition plays a central and often underappreciated role. Renewables, once built, require no fuel imports and carry no commodity price exposure. Storage reduces dependence on real-time supply. Electrification of heat and transport shifts consumption away from globally traded fossil fuels toward domestically generated power.

This is the reframing that matters. Energy transition is not a cost to be managed or a regulatory obligation to be met. It is one of the most powerful tools available for building genuine energy resilience.

None of this removes risk entirely. Renewable supply chains have their own dependencies, including on critical minerals, equipment manufacturing and grid availability. But they do offer a different risk profile, one that can reduce exposure to some of the most acute geopolitical and market shocks witnessed recently.

The companies and countries that will be most resilient in the decade ahead are not those that have simply decarbonised. They are those that have used the transition to diversify their energy sources, their supply chains, their exposure. Transition and resilience are no longer separate strategies.

> Energy market disruption does not stay in the energy market – it quickly becomes a corporate cost, margin and resilience issue, with society-wide impacts.
>
> Energy security ultimately depends on diversification, system flexibility and resilient infrastructure.

What can companies do?

The KPMG 2025 Global Energy, Natural Resources and Chemicals CEO Outlook found that 34% of respondents – the largest proportion in the survey – identified supply chain resilience as the top challenge driving short-term decisions. Climate and wider environmental impacts were cited by 27% of respondents, and geopolitical uncertainty by 15%.

Top challenges driving short-term decisions

Source: KPMG, 2025 Global Energy, Natural Resources and Chemicals CEO Outlook.

Considerations for companies in supporting more sustainable and resilient energy security include:

Energy efficiency as the first line of defence: where volatility is high, efficiency becomes more valuable. The less energy a business needs to produce the same output, the less exposed it is to price shocks and supply disruption. For many companies, energy efficiency remains the fastest and most practical lever to manage risk.

Diversification reduces dependencies: diversification, including increasing exposure to renewable electricity where possible, can reduce dependence on fossil-fuel-linked markets and improve resilience against geopolitical and commodity shocks.

Long-term contracting to manage volatility: Public-Private Alliances (PPAs) and similar mechanisms are likely to continue because they can provide price certainty and visibility of long-term costs.

Supply chain resilience is non-negotiable: higher energy prices feed into transport, logistics, raw materials and industrial intermediates. Supply chain resilience – including alternative suppliers, transport routes, input substitution and operational redesign - is more important than ever, especially in sectors where energy costs are embedded at multiple stages of the value chain.

Self-sufficiency to change the risk equation: greater focus on becoming self-sufficient for energy through, for example, self-generation.

> Ensuring energy security encompasses both long-term and short-term dimensions. The long-term dimension involves securing sufficient infrastructure investment and diverse supply sources. The short-term dimension – resilience – focuses on systems' ability to cope with events exceeding standard planning conditions.[1]

Case study: Ukraine

The war in Ukraine provides a compelling case study on energy resilience planning. In February 2026, the International Energy Agency (IEA) published a report reflecting lessons learned as Ukraine grappled with issues including cyber attacks, physical attacks on infrastructure and unexpected infrastructure failures, and extreme and severe weather.

The report, compiled in close collaboration with Ukraine, delivered a 10-point plan and a roadmap for decentralising the country's power system. While aimed at government, there are 'real-world lessons that can inform resilience planning' for other IEA countries and the private sector:

1. Put resilience at the centre of energy system planning.
2. Implement physical hardening and defence measures.
3. Build comprehensive emergency response capabilities that cover multiple scenarios.
4. Ensure effective emergency communication mechanisms to reach citizens.
5. Leverage decentralisation and distributed resources as strategic security assets.
6. Maintain emergency oil stocks as a buffer against supply shocks.
7. Standardise and stockpile critical equipment.
8. Treat data as a strategic asset and continue its collection during emergencies.
9. Embed cyber resilience into all aspects of system planning and operations.
10. Build mechanisms for cross-border cooperation.

1. International Energy Agency, Energy System Resilience: Lessons learned from Ukraine.

Chapter 2

Supply chain disruption

Supply chain resilience has become a board-level issue because disruption is no longer rare, local or short-lived. The operating environment now combines logistics risk (for example maritime chokepoints, rerouting and port congestion), policy and geopolitical risk (including tariffs, sanctions, export controls and trade policy uncertainty), and capacity risk (such as availability of freight, warehousing, critical components and specialist logistics).

Overlaying all of these are sustainability concerns, with human rights and modern slavery, deforestation, climate change and changing consumer expectations as important considerations. 65% of US executives view sustainable supply chains as a clear competitive advantage, linking it to growth, resilience, reputation and cost savings.[2]

2. Supply Chain Digital, EcoVadis: How Sustainability is Reshaping US Supply Chains.
3. OECD, Supply Chain Resilience Review.

A useful way to frame the shift is as 'just in time becoming just in case'. But 'just in case' does not mean simply stockpiling inventory. It means intentional design – understanding where the supply chain is fragile, what failure would do to customers and communities, and which investments create resilience without destroying competitiveness.

It also means recognising that a supply chain is only as robust as its weakest link, requiring visibility beyond immediate suppliers, including sub-tier relationships, geographies and routes which can be integrated with broader supply chain sustainability risk management.

Optimisation vs. building redundancy? Making deliberate portfolio decisions

Resilience is not achieved by eliminating risk, but by navigating it – often through a mix of agility, diversification and targeted buffers. A practical approach is to segment products or customer flows into three categories:

1. 'Keep running' flows (critical to customers, safety or licence to operate)

Build redundancy by design, for example through dual sourcing, alternative routings, pre-approved carriers and minimum viable inventory at decoupling points.

2. 'Competitive' flows (margin-sensitive, high volume)

Optimise for cost and service but add 'shock absorbers' such as flexible contracts, surge clauses, postponement strategies (late customisation) and cross-trained logistics capacity.

3. 'Strategic bets' (new markets, new technology, new regulation exposure)

Invest in optionality where it genuinely reduces risk, for example through nearshoring or regionally balanced footprints, or product redesign that reduces dependence on constrained inputs. The OECD Supply Chain Resilience Review[3] cautions that simply re-localising everything can undermine growth and is not automatically more resilient, pointing instead to balanced approaches and effective risk management.

Stress testing and scenario planning

Scenario planning should focus on systemic shocks that simultaneously change routes, costs and availability. It should consider factors such as chokepoint closures and other severe constraints, prolonged rerouting and the impact of tariffs or other trade policies.

Good outputs are not just risk registers. They include a ranked list of pinch points, pre-approved playbooks, decision thresholds and time-to-recover assumptions that have been tested with suppliers and logistics partners. Good planning considers not just the impact on the business in question, but on the wider community and society in which it operates.

74% of UK manufacturers embed ESG requirements into supplier procurement.[4]

29% of procurement decision-makers think that AI adds value to sustainability tracking.[5]

"The case for supply chain sustainability and resilience is not just driven by regulation. Customer consciousness around ethical practices, investor expectations, reputational risks and the very real threat of corporate and wider societal disruption that can come from major shocks, be they pandemics such as Covid-19 or geopolitical pressures due to the war in Ukraine or the Iran conflict, are all major drivers of why companies should view their supply chain as an enabler for resilience."

Annabel Reoch,
Partner, Global Head of Ethics and Compliance, KPMG in the UK

Sustainability

Over the last two decades, sustainable supply chain levers have evolved from efficiency gains to regulation-led transparency and AI enabled due diligence, embedding sustainability into procurement and logistics.

In the early 2000s, supply chains focused on operational efficiencies through e-procurement, web-based systems and wide adoption of radio frequency identification (RFID). The 2010s saw the rise of regulations such as the Modern Slavery Act (2015), the Paris Agreement (2015) and International Organisation for Standardisation (ISO) procurement guidance (2017).

Focus has now turned to supply chain due diligence and sustainability, for example through the EU's Corporate Sustainability Due Diligence, EU Deforestation Regulation and Corporate Sustainability Reporting Directives.

Evolving themes in supply chain practices encompass adapting to changes in trade policy and geopolitics, enhancing environmental stewardship through reviewing supplier emission targets and sustainable practices, and ensuring human-rights due diligence to mitigate abuse risks.

There is also focus on occupational health and safety, the importance of supplier training and upskilling to meet due diligence requirements, and fostering collaborative partnerships for responsible procurement. All of these require firms to build trust and resilience in complex supply chains. This can be achieved through transparency, data verification and taking a long-term view of strategic relationships.

4. Make UK, ESG in Manufacturing Report.
5. SAP Taulia, AI and Procurement in the UK.

Practical considerations for companies can include:

Sustainability performance data management and insights: what gets measured can be managed, and robust infrastructure can help identify significant gaps beyond compliance.

Supplier onboarding: integrating a resilient, sustainable supply chain strategy into business operations can help manage the risks around onboarding new suppliers and setting expectations at the beginning of the business relationship.

Transformation services and capacity building: diversifying the supplier base while also getting the best from existing suppliers by helping to enhance their sustainability capabilities.

Value chain GHG emissions: considering the impact of value chain greenhouse gas (GHG) emissions is an essential input towards setting corporate decarbonisation strategy and net zero targets. Scope 3 GHG emissions in the value chain have far-reaching impact that go beyond a company's own operations.

Value chain climate risk screening: understanding climate change risks and opportunities and their impacts on a company's supply chain is one of the key steps towards building a climate resilient business.

Supply chain traceability: traceability is a useful tool for companies to advance sustainability and prove the claims/attributes of sustainable products.

Supplier's security assessment: identifying security arrangements while a product is packed and shipped can help provide reassurance on supplier security.

Supplier's capability and capacity: it is essential to understand the current capacity, knowledge and skills of your suppliers.

Case study: Ethical sourcing and transparency for a major clothing company

A major clothing company has woven sustainability through its supply chain. It prioritises ethical sourcing of materials with minimal environmental impact and high ethical standards, such as organic cotton, recycled polyester and responsibly sourced wool. It is working with manufacturing partners to implement resource-efficient processes, including waterless dyeing and solar-powered factories, to reduce its environmental footprint, and localises production to reduce transportation emissions and enhance labour standards.

The company operates fair labour practices and safe working conditions, and respects workers' rights through initiatives such as the Fair Trade Certified™ programme. And, by designing durable products and promoting repair and reuse programs, it reduces waste and fosters a more sustainable consumption model. This approach aligns with its values and builds a resilient supply chain less dependent on constant new production.

Case study: Zero deforestation and regenerative agriculture

A multinational food company has made a Global Zero Deforestation commitment part of its sustainable sourcing programme. It rigorously monitors deforestation in its supply chain and partners with other organisations to improve forest ecosystems. It has also implemented regenerative agriculture programs to enhance soil health and biodiversity, strengthening the resilience of its supply chain by ensuring the long-term availability and quality of key ingredients.

Case study: Automotive industry and semiconductor shortages

The automotive industry's response to semiconductor shortages is linked to climate resilience. Manufacturing hubs for semiconductors, particularly in Asia, are highly exposed to extreme weather and water stresses, posing climate risks to the supply of critical components. Companies are diversifying manufacturing and sourcing footprints into regions with lower climate risks and investing in fortified infrastructure, demonstrating a move to integrate climate change adaptation into resilience strategies.

Chapter 3

Physical impacts

The escalating frequency and severity of climate and nature hazards is compounding physical shocks, as evidenced by events such as simultaneous droughts and floods. Increasingly, hazards hitting one sector can transmit damage through the value chain to other sectors, and impact multiple areas of society.

Damage may manifest as direct threat to human health, failure of key infrastructure, including pressure on power grids and inefficient power transmission, impacts on workforce productivity, value chain impacts on vulnerable sectors or threats to production of climate sensitive commodities.

Climate risk: what's in half a degree?

Peril		1.5°C	2.0°C	3.0°C
Sea level rise	Global mean sea level rise by 2100	0.28 – 0.55m	0.33 – 0.61m	0.44 – 0.76m
Floods	Increase in global population exposed to flooding	24%	30%	No data available
Drought	Dryland population exposed to water stress, heat stress and desertification	0.95 billion people	1.15 billion people	1.29 billion people
Food security	Costs for adaptation and residual damage to major crops	$63 billion (US)	$80 billion (US)	$128 billion (US)
Extreme heat	Increase in number of days per year with a maximum temperature above 35°C (95°F)	45 – 58 days	52 – 68 days	66 – 87 days

The level of threat is undermining recovery efforts and outpacing traditional insurance coverage – underscoring the importance of resilience.

Source: World Resources Institute, Top Findings from the IPCC Climate Change Report 2023.

Resilience considerations

There are several important considerations in securing supply chains and protecting balance sheets in a volatile climate:

1. The true perimeter of risk extends beyond the factory gate – physical operations might be well adapted to extreme weather, but if the value chain is not, the balance sheet remains exposed. This extends both upstream and down. Supply chains may be disrupted, or scarcity could drive price increases, putting pressure on margins. Equally, revenue is under threat where markets are not themselves prepared for climate impacts. The most significant financial threats today hide in deep-tier economic networks, where a lack of visibility masks single points of failure for global operations.

2. Climate hazards are financially contagious – climate risk does not respect geographic or sectoral boundaries. A localised physical hazard, such as a drought in North Africa or a flood in Switzerland, rarely stays local. These events act as contagion vectors, transmitting physical damage into global financial shocks, such as severe commodity shortages, delayed manufacturing and price inflation.

3. Diversification is not sufficient for climate resilience – conventional wisdom assumes that diversity provides protection. However, climate change creates correlated shocks. If agriculture, mining and manufacturing suppliers all rely on the same regional water basin or vulnerable power grid, a single severe weather event may cause all of them to fail simultaneously, breaking the traditional rules of supply chain diversification.

4. Limits to 'risk transfer' – companies can no longer rely purely on buying their way out of trouble through insurance. As the frequency of compounding extreme weather events increases, the global insurance protection gap is widening, and premiums are becoming cost-prohibitive. Supply chain resilience now requires hard CapEx investments in physical adaptation, rather than just paper contracts.

Resilience as a competitive advantage

Resilience is a competitive advantage, not a sunk cost. Companies that understand their supply chain exposures and invest in resilience do not just avoid losses – they can secure cheaper access to capital, negotiate lower insurance premiums and capture market share whilst less prepared competitors are forced to halt operations.

There is a cost to inaction. In 2024, global economic losses from natural catastrophes hit $318 billion, with only 43% of those losses insured[6]. Estimates show that without resilience investment, extreme physical risks will cost firms an average of 3.3% of their total asset value per annum (and up to 28% in severe cases)[7].

The main climate-related challenges faced by businesses

- Damage to site, infrastructure and critical assets
- Supply chain and logistics disruption across value chains
- Workforce health, safety and productivity losses
- Water stress, drought and changing rainfall patterns that undermine productivity and service delivery
- Insurance, financing, and balance-sheet strain that weakens resilience
- Compliance challenges in risk management, preparing disclosures and avoiding litigation or greenwashing claims

6. Swiss Re, Insurance and reinsurance under climate stress.
7. SAP Global, 2026, Quantifying the financial costs of climate change physical risks for companies.

Finding solutions

Responding to resilience threats from climate change requires adaptation solutions that can protect systems and communities from the impacts already crystallising.

The development of adaptation solutions starts with research, including:

- Definition of priority climate resilience outcomes in critical areas such as health, infrastructure, productivity, food systems and supply chains;
- Identification of key climate hazards, vulnerable geographies and critical value chain dependencies;
- Screening of sectors and assets for adaptation investment opportunities such as resilient infrastructure, water, agriculture, cooling and health systems; and
- Assessing resilience gaps, societal benefits, scalability and economic viability.

Once identified, potential projects can be aligned with policy priorities, and investments that reduce systemic disruption and protect vulnerable populations can be prioritised.

Following start-up, finance has a key role to play in scale-up.

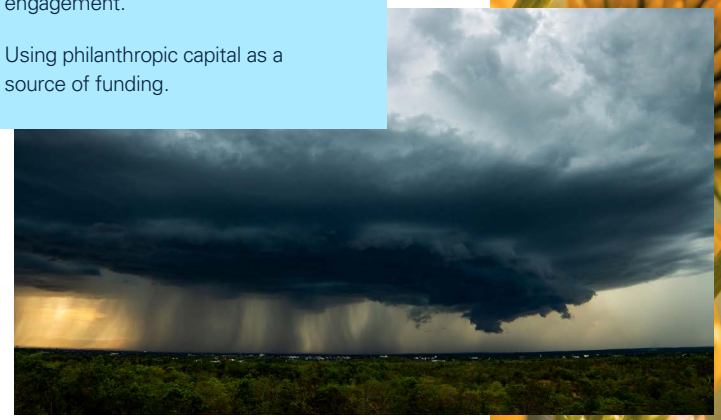
Adaptive finance can provide innovative solutions to address the growing need for climate adaptation projects. However, this requires the development of adaptation and resilience investment strategies, identification of adaptation and resilience project pipelines, and structuring for adaptation and resilience finance investments.

Potential solutions to address the finance issue include:

- Integrating natural hazard risk measurements and management into central banks' mandates.
- Utilising new instruments such as blended finance and collaborate with Multilateral Development Banks.
- Driving consistency in adaptation and resilience finance taxonomy.
- Providing robust business cases aligned with financial institution's ambitions.
- Promoting innovation in products (e.g. A&R bonds, parametric insurance).
- Strengthening stakeholder engagement.
- Using philanthropic capital as a source of funding.

"Unmitigated physical risk destroys value. Proactive adaptation creates it."

James Dennis,
Director, Climate Risk and Decarbonisation Strategy, KPMG in the UK



Chapter 4

Human factors

Organisations increasingly recognise that ‘social’ is not a standalone sustainability pillar or a narrow supply-chain concern. It is a material resilience issue that affects competitiveness, continuity of service and, ultimately, survival.

The social landscape is shifting quickly: social displacements are increasing, migration patterns are changing, labour markets are tightening, stakeholder expectations are rising and technology – particularly AI – is reshaping job and skill requirements at pace. These forces interact with each other and with wider geopolitical and economic shocks, creating compounding risks that can spill across markets and sectors. They impact social cohesion, social mobility, the benefit of work, and go to the heart of questions around human purpose.

Social/human themes as a resilience agenda

Many businesses have historically treated social topics as either compliance obligations or corporate responsibility initiatives – valuable, but peripheral to core strategy. That model no longer holds. Social trends are now affecting the basic conditions for doing business, from the availability of labour to the stability of supplier ecosystems and the expectations attached to market access.

A key shift is recognising social resilience as a two-way dynamic:

- **External social conditions increasingly shape enterprise outcomes:** changes in immigration policy, social security systems, demographic pressures and societal polarisation can rapidly translate into talent shortages, productivity constraints and service disruption.
- **Enterprises also shape societal resilience:** businesses influence livelihoods, job quality, access to products and services, and the resilience of communities in which they operate – whether intentionally or not.

The social agenda is moving closer to the centre of enterprise resilience planning as it is no longer just about preventing harm, but also about maintaining core functions and building resilience in a disrupted world.

Social risk hotspots

Key areas of social risk:

1. Workforce resilience

Companies are increasingly connecting workforce resilience to productivity and revenue protection, through consideration of workplace wellbeing and mental health, burnout risk and retention, inclusion and psychological safety, and pay equity and transparency. These topics are often discussed as culture or 'people agenda' issues, but they are also operational concerns. Sustained productivity requires a workforce that can perform under pressure and adapt through change. Resilience requires understanding of how productivity flows through the organisation and its extended workforce, including vendors and outsourced service providers, and managing the human dependencies that can become points of failure.

2. Migration and talent

The speed at which changes in immigration policy can affect basic service delivery can be a striking signal of shifting social risk. When businesses depend heavily on temporary or migrant labour, the removal or restriction of those pathways can lead to immediate operational disruption – forcing them to reduce capacity or even cease operations. Even in sectors not traditionally reliant on temporary workers, labour availability is increasingly shaped by external policy decisions, talent mobility is less predictable and the lag between policy change and business impact can be very short. Resilience requires scenario analysis, not only on suppliers and physical assets, but also on workforce composition, credential recognition, mobility constraints and alternative sourcing of skills.

3. Human rights, modern slavery and supply chains

As value chains extend globally, exposure increases not only to labour exploitation, but also to wider human-rights risks and ethical practice failures. Organisations that treat social due diligence as a periodic exercise may struggle to keep pace with changing risks. Resilience depends on making social and human rights considerations part of routine procurement, supplier governance, contracting, monitoring and remediation – all supported by data and credible escalation routes.

4. Artificial intelligence (AI)

AI adoption amplifies social risk and opportunity because it is reshaping the broader ecosystem that supplies skills and absorbs displaced workers – potentially constraining the talent pipeline and causing a ripple effect across functions. The demand for AI-related skills is rising rapidly, while education systems may struggle to keep pace. AI can change the nature of work across organisations – as automation increases, new needs emerge such as auditing and assuring AI-enabled processes, developing and monitoring workflows, and embedding AI capability in every function. This creates an enterprise-wide reskilling challenge at scale, compounded by demographic shifts (e.g., parts of the workforce close to retirement may be less inclined to retrain) and by tight external labour markets. AI strategy and social strategy cannot be separated – organisations need to understand where AI will displace roles, where it will create new roles and how the transition will be experienced by different segments of the workforce and the wider communities that depend on those jobs.

A financial lens: value preservation and value creation

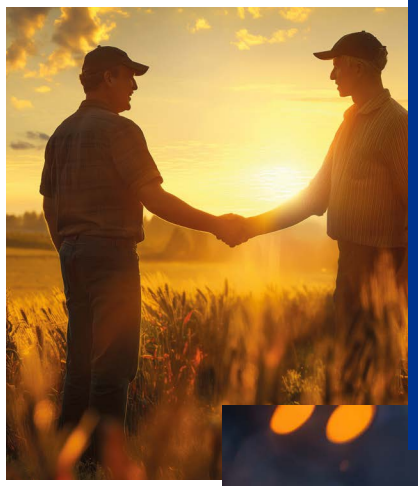
A practical way to embed social issues into business decision-making is to frame them through a financial lens. Social sustainability can be understood across a spectrum of value preservation and value creation.

Value preservation covers foundational expectations, anchored in human rights regulation and baseline standards on subjects such health and safety, compliance and reporting, labour and employment standards in operations and supply chains, and modern slavery. Even where regulation is weak or inconsistent, these issues carry financial consequences through fines, litigation, supply disruption, reputational damage and loss of the social licence to operate.

Besides mitigating the risks above, preserving social value leads to broader benefits, through stronger organisational cultures, adaptable teams with workplace wellbeing, evolving inclusive leaders, communities that thrive under pressure, ecosystem decision-making considering dynamic risk and stronger partnerships with ecosystem links e.g. suppliers, private sector, government, academia and non-for-profits working together to safeguard the most vulnerable, to build stronger ties with talent pools and customers.

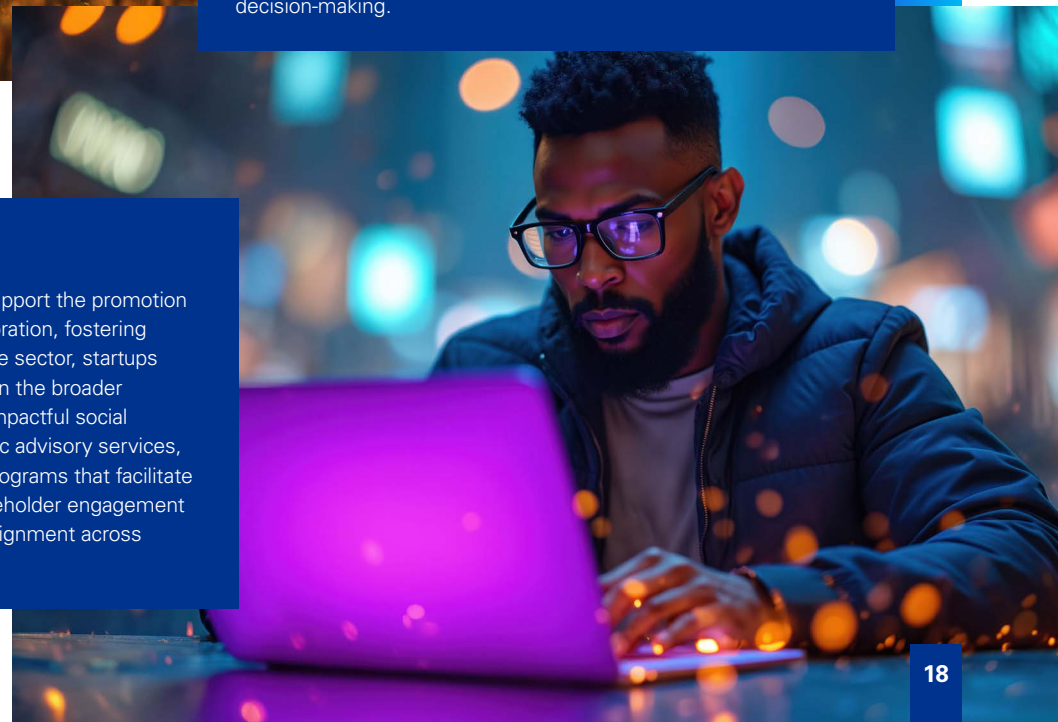
Value creation is where companies focus on inclusion, building trusted ecosystems and expanding access to their products and services to unlock growth. Value creation pathways include:

- **Supporting underserved and vulnerable communities** through accessible products, services and customer journeys.
- **Strengthening relationships with rightsholders** including indigenous communities and other stakeholders who may not be visible in traditional stakeholder maps but have material influence on continuity and legitimacy.
- **Building talent and supplier diversity** as long-term capability and innovation levers.
- **Advancing socioeconomic development** through financial inclusion, literacy and pathways to social mobility.
- **Enhancing workforce learning paths** to embed profitability and materiality analysis through all functions to increase social impact and protect the social license to operate.
- **Responding more effectively to agile market and talent needs** by connecting with customers, vendors, employees, community stakeholders proactively through co-creation, engagement and consultation processes.
- **Monitoring and increasing social impact and social ROI** aligning to key frameworks like Social Development Goals (SDGs), International Labour Organization (ILO) Standards and the new Taskforce on Inequality and Social-related Financial Disclosures (TISFD). This is not philanthropy – it is strategic positioning in a market where trust, legitimacy and workforce stability can drive business performance.



Case study: Strengthening territorial management

KPMG Brazil has been engaged to strengthen a global mining territorial management capability through the design and implementation of robust data monitoring and governance frameworks. The engagement focuses on supporting the development of structured processes and tools to enhance the collection, validation, and analysis of territory-level data, enabling greater consistency and reliability in reporting across the company's regions of operation. KPMG Brazil will support improvements in data integration and standardisation practices, as well as the establishment of clear governance mechanisms to enhance visibility into key community and social impact indicators. This will enable the mining organisation to develop a more comprehensive and timely understanding of conditions across its operational territories, supporting more informed and proactive decision-making.



Case study: Promoting social innovation

KPMG Taiwan has been engaged by the Government to support the promotion of social innovation through enhanced cross-sector collaboration, fostering stronger linkages between government entities, the private sector, startups and social enterprises. The engagement aims to strengthen the broader innovation ecosystem and enable more coordinated and impactful social innovation efforts. KPMG's role includes delivering strategic advisory services, as well as supporting the design and implementation of programs that facilitate collaboration and innovation. The team also assists in stakeholder engagement and coordination, ensuring effective communication and alignment across diverse participants within the ecosystem.

Practical actions: how organisations can respond

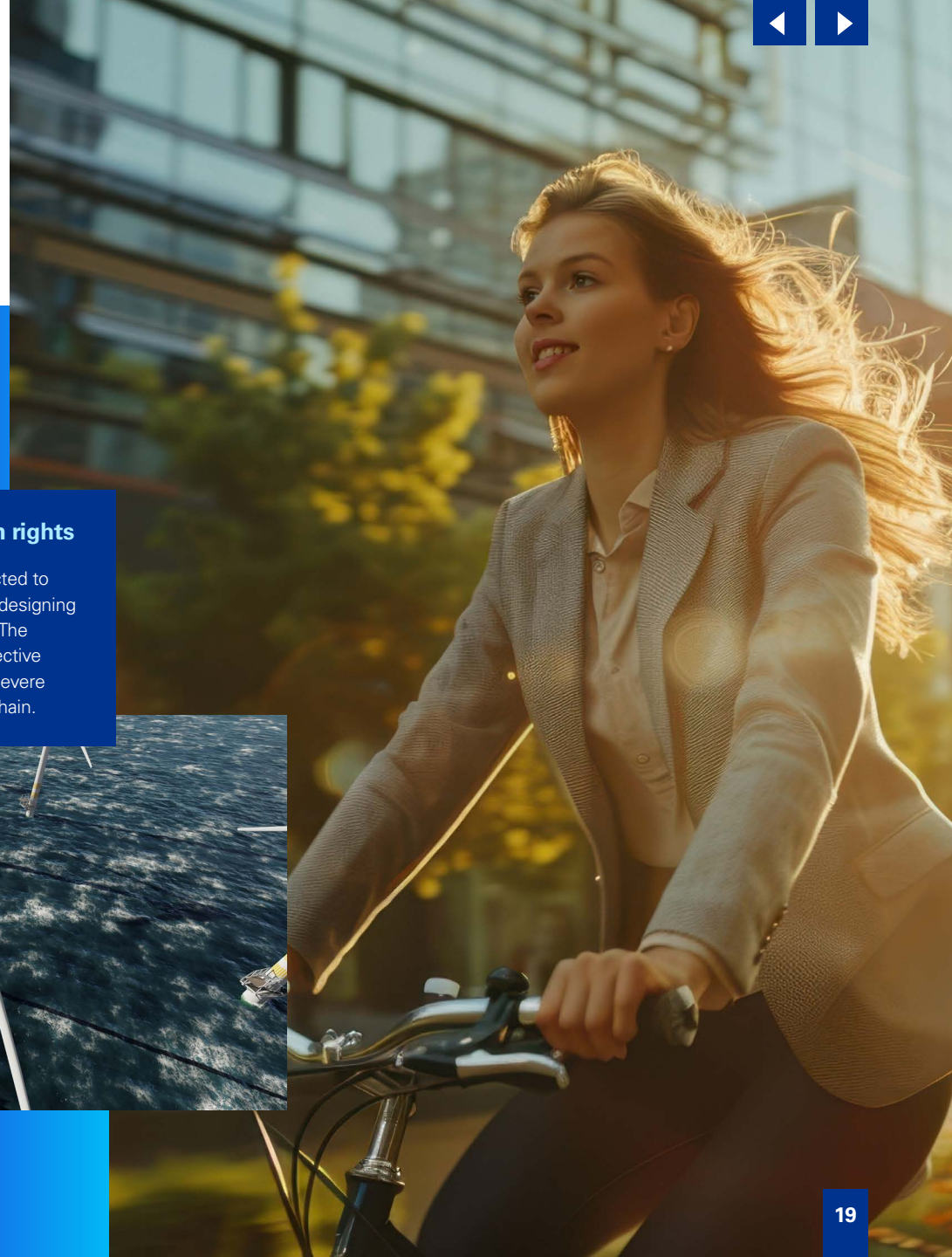
A resilience-oriented social strategy is both broader and more operational than traditional 'S' reporting. Practical steps can include defining a clear social risk and opportunity taxonomy and mapping the end-to-end value chain for social exposure. Companies can strengthen their human rights and modern slavery due diligence with real remediation pathways and credible engagement with suppliers. They can build workforce resilience into operating models, focusing on areas such as migration and talent mobility, skills planning, and how AI can be accompanied by workforce reskilling.

> Social sustainability must be treated as a core resilience capability. The organisations that move first will not only protect value, but also create it, strengthening both enterprise performance and societal resilience in the process."

Silvia Gonzalez-Zamora,
Partner, Global Social Sustainability Leader, KPMG Canada

Case study: Supplier human rights

KPMG Netherlands has been contracted to support a global food company in co-designing a supplier human rights programme. The project focuses on developing an effective programme to address and prevent severe human rights impacts in the supply chain.



Chapter 5

Water supply

Ensuring water supply is an emerging global challenge as climate change, population growth and pollution place increasing strain on finite water resources. Droughts, floods and declining water quality are no longer secondary or tertiary considerations – they are systemic shocks that disrupt supply chains, constrain economic activity and amplify inequalities across regions and sectors.

~20% regional GDP loss in Valencia caused by 2024 floods.[8]

30% agricultural output losses from a water scarcity shock.[8]

Water resilience – the capacity of water systems and users to anticipate, absorb and recover from climate-, demand- and pollution-related impacts to availability and usability – is not just an infrastructure issue. It is a cross sector resilience and sustainability challenge, with material implications for businesses well beyond regulated water companies and for communities.

Water plays a central role in resilience because it is both the primary source of climate shocks and a system-wide multiplier of impacts. Most climate-related hazards – particularly floods, storms, and droughts – are fundamentally water-driven, with evidence showing that the vast majority of disasters globally are linked to either excess or scarcity of water. When there is too much water, flooding can damage infrastructure, disrupt economic activity, and create cascading losses across urban systems, with hundreds of millions of people exposed to flood risks and significant annual economic damages. Conversely, too little water undermines resilience by constraining food production, industrial operations and public health, with water scarcity impacting livelihoods and increasing systemic fragility across regions.

8. European Central Bank, A central banker's perspective on climate change and nature degradation.

Beyond these direct risks, water also acts as a multiplier across interconnected systems – energy, food, ecosystems and the built environment – meaning that disruptions in water availability or quality propagate widely, while effective water management can simultaneously improve economic performance, health outcomes and environmental stability.

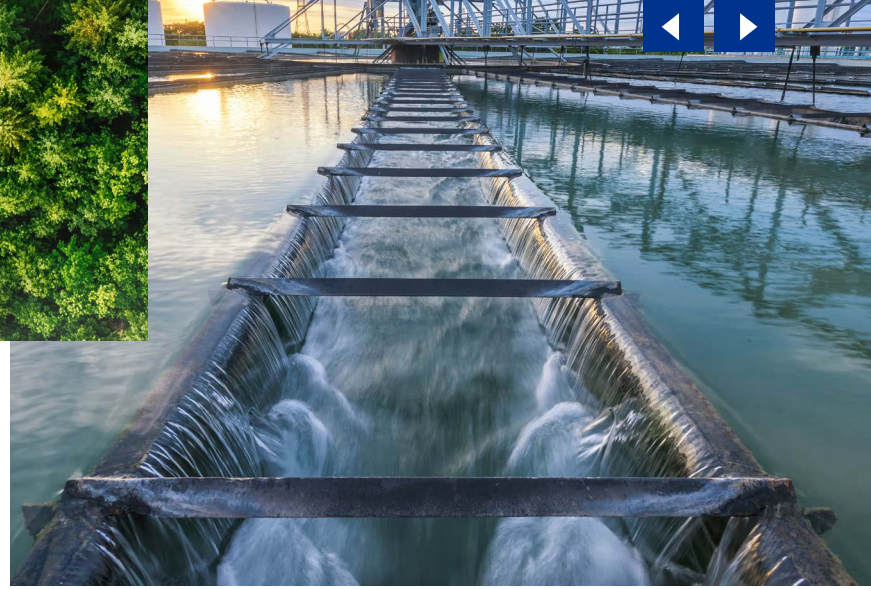
Government policy frames resilient water systems as essential to protecting nature, maintaining environmental standards and ensuring that communities and businesses can adapt to climate change. In this context, water resilience underpins democratic trust and social stability, not just economic output.

For companies across sectors, this strengthens expectations around responsible water stewardship as part of broader sustainability commitments. Engagement in catchment level initiatives, partnerships and long term planning increasingly contributes to corporate social licence to operate.

Sustainable water management therefore requires a shift from short-term supply optimisation to long-term stewardship, integrating nature-based solutions, demand management and cross-sector collaboration to protect water supply sheds while sustaining growth.

Case study: Water stress and impact on avocados

The Australian Avocado Irrigation Review[9] identified key challenges including water scarcity, declining water quality, ageing infrastructure, climate variability and limited grower knowledge. To address this, the review combined surveys, international benchmarking, literature analysis, and expert workshops to identify best practices and research priorities. The outcome was a coordinated evidence base to guide future research, extension, and industry-wide improvements in irrigation efficiency and decision-making, helping growers optimise water use, improve productivity and strengthen resilience to climatic and resource constraints.



UK scenario: what Ofwat's PR24/AMP8 means beyond water companies

In the UK, Ofwat's PR24 determinations set the funding, performance and incentive framework for water companies for the current five year cycle in England and Wales. The impacts cascade across other sectors that depend on reliable, sustainable water services.

PR24 materially increases statutory requirements and approved investment for resilience, including water supply security, drought preparedness, environmental protection and long term system planning. Water companies must frame five year business plans within a 25 year long term delivery strategy, embedding resilience as a structural, not just short term, consideration.

This regulatory shift matters for other sectors, such as manufacturing, food and beverage, data centres, real estate, agriculture, healthcare and energy, because it directly affects continuity of water supply, cost stability, and environmental compliance risks. UK parliamentary[10] and government[11] analysis explicitly warns that insufficient resilience could lead to water shortages that constrain economic growth and place pressure on communities and ecosystems. Non-water companies should therefore understand their water dependency risks and plan accordingly.

9. Avocados Australia, Australian Avocado Irrigation Review overview.
10. UK Parliament POST, Water supply resilience and climate change.
11. Environment Agency, Taking action on public water supplies.

Commercial resilience: water as a cross-sector dependency

The UK's National Framework for Water Resources[12] explicitly links water resilience to the ability of the economy to grow sustainably, warning that delays in delivering water supply and demand measures could restrict development and increase environmental damage. This positions water as a systemic input, comparable to energy or digital infrastructure.

From a commercial perspective, water resilience increasingly influences:

- **Operational continuity** for water-intensive sectors;
- **Investment risk** for assets exposed to water scarcity or flooding;
- **Supply chain stability**, particularly in food, chemicals and manufacturing; and
- **Regulatory and reputational exposure** linked to environmental performance.

Companies should engage with local water utility strategies, regional planning and partnership models, rather than treating water as an assumed background service.

Case study: Water utilities and forecasting the hidden deficit

Chronic water stress and changing rainfall patterns are undermining the reliability of public water infrastructure, increasing long term supply risk. Scenario modelling indicates that under severe climate stress, drought impacts could be significantly amplified versus historical norms, risking loss of water pressure and forcing shutdowns in water dependent sectors such as manufacturing, data centres and food production. A financial services firm wanted to understand the financial impact of such stresses. A structured framework was applied to model future investment needs, requiring early planning for capacity expansion and leakage reduction. Robust adaptation planning improved credit confidence, reducing perceived default risk and supporting continued access to lower cost financing.

What can companies do?

Companies can strengthen water resilience by treating water as a core business risk and managing it systematically across operations and value chains.

This begins with assessing water risks – such as scarcity, flooding and quality issues – across facilities and suppliers to identify where disruptions could affect operations or costs.

From there, companies need to measure and optimise water use internally by tracking withdrawals, improving efficiency and investing in recycling and reuse systems that reduce dependence on freshwater.

Resilience also requires planning for extremes by developing drought and flood response strategies, diversifying water sources and strengthening site-level infrastructure. Beyond direct operations, companies must engage suppliers to address water risks embedded in their value chains, where a significant share of exposure often resides.

Finally, leading firms extend their efforts beyond the fence line by collaborating with local stakeholders to protect shared water resources and by embedding water considerations into governance, strategy and disclosure processes. Together, these actions shift companies from reactive water management to proactive water stewardship, improving resilience as well as long-term value.

"For many businesses, water resilience is an indirect but critical operational risk. Climate-driven droughts, flooding and water quality deterioration affect not only utilities but also agriculture, industry, energy systems and urban economies."

Blythe Chorn,
Partner, Circular Economy Lead, KPMG LLP

12. Environment Agency, Taking action on public water supplies.

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