Methodologies and Tools to Evaluate the Financial Impact of Climate-Related Risks and Opportunities

Navigating a New Climate – Acclimatise approach to climate risk (and opportunity) assessment

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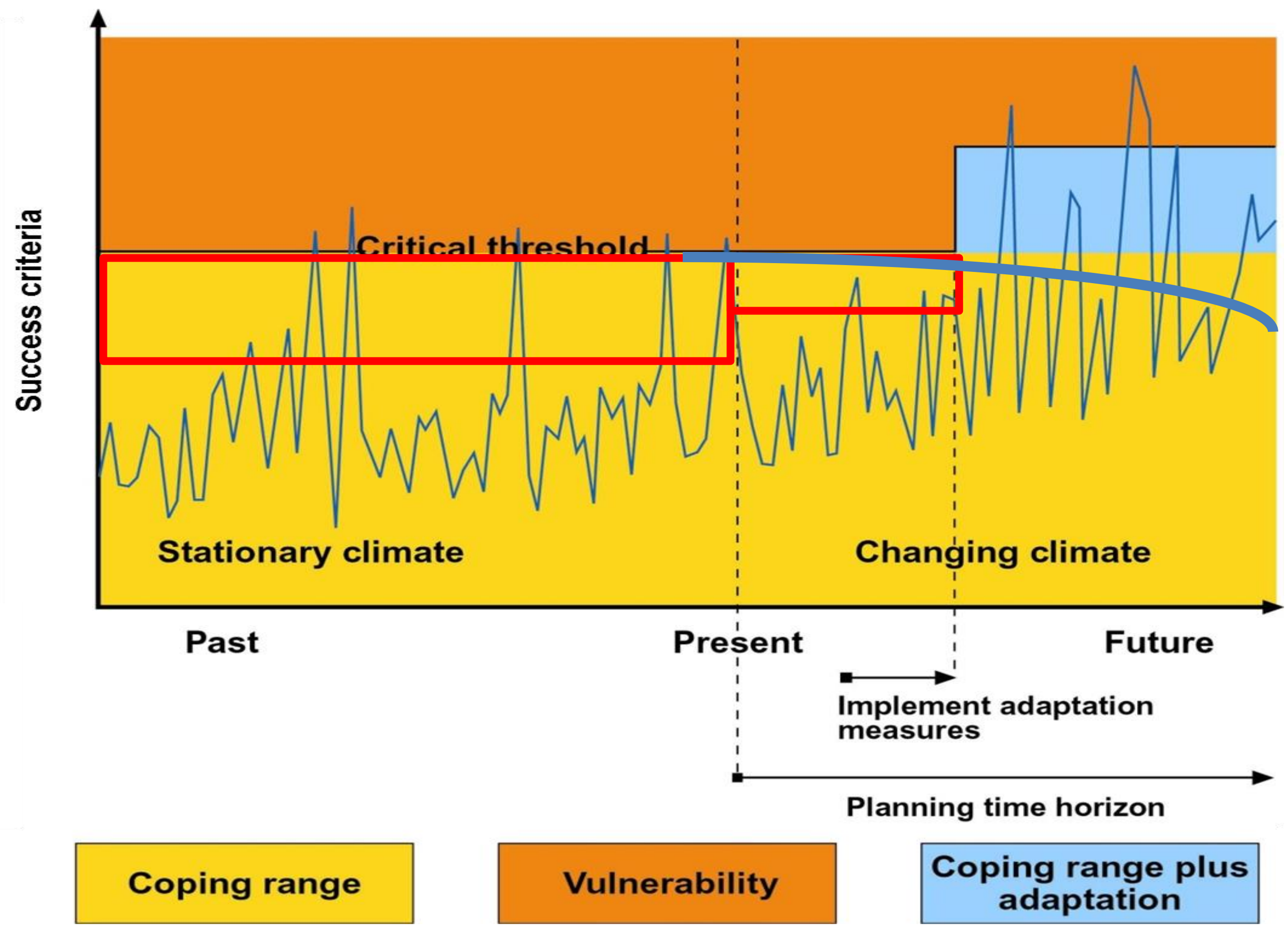
Forum per la Finanza Sostenibile

Agenda

- Risk assessment - providing a context
- ‘Navigating a New Climate’ – Acclimatise UNEPFI
- Intangible impacts?

An approach to risk assessment: thresholds and headroom



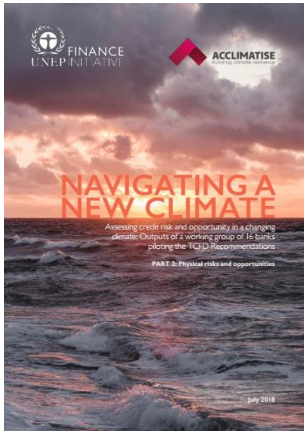
Deterioration in asset performance and 'supply chain components' over time – with impacts on threshold and headroom

Business opportunities to manage existing risks, respond to emerging risks, prepare for market shifts

Adapted from Willows, R.I. and Connell, R.K. (Eds.). (2003). *Climate adaptation: Risk, uncertainty and decision-making*. UKCIP Technical Report. UKCIP, Oxford.

Corporate disclosure – if we can’t measure we won’t act

- **Enable UNEP FI member banks** to assess and disclose climate-related risks and opportunities in alignment with the TCFD recommendations
- Contribute to the emergence of a **harmonized approach to TCFD disclosure** among banks and to provide an example and guidance to the wider banking industry



UNEPFI TCFD
Risk methods overview for agriculture and energy

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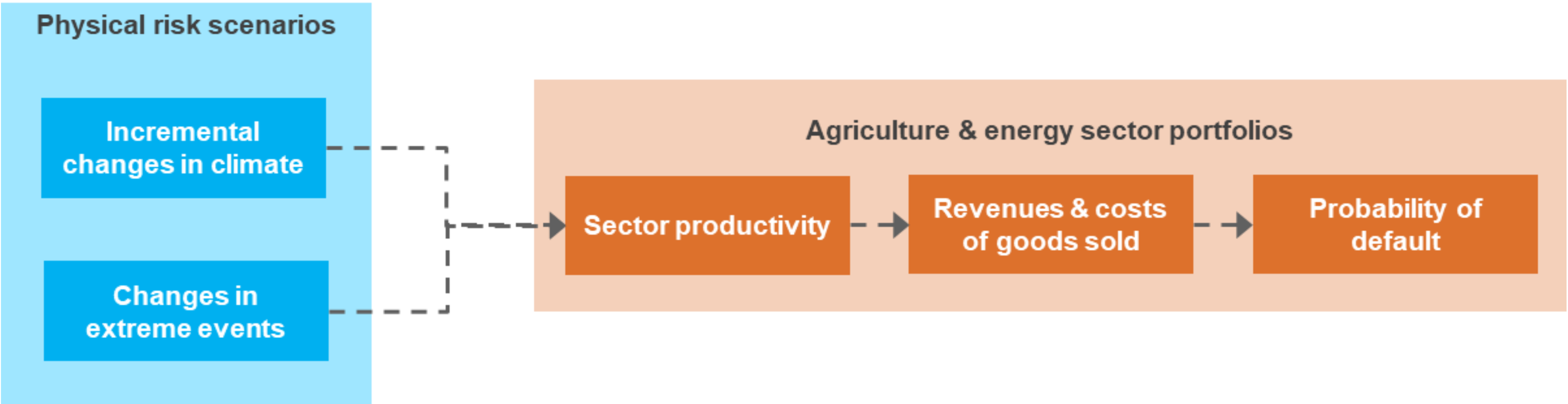
- Analyse impacts of **incremental climate change** and **extreme events** for **industry sub-sectors:**
  - Evidence base provides data on changes in productivity, price, downtime
- Assess implications for borrowers' finances:
  - **Changes in revenue**
  - **Changes in costs of goods sold**
  - Potential **adaptation investments** are not accounted for
  - The methodologies help banks to evaluate plausible linkages between: Climate change → risks to sector output → financial risk to borrowers → credit risks
- Estimate changes in **probability of default:**
  - By stressing factors/ratios in banks' internal credit rating models that have revenue and cost components



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Risk methods overview for real estate

- Analyze probabilities of encountering **extreme weather events**:
  - Using existing online risk assessment platforms
- Assess potential changes in **property values**:
  - High-level estimates provided based on empirical evidence following storms, flooding, wildfire
- Calculate revised **loan-to-value ratios**
- For **income-producing real estate**, changes in revenue (e.g. loss of rental income) are not accounted for

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Framework for evaluating opportunities

- **‘Opportunity’ is defined as the potential increase in demand** for finance and advisory services driven by physical impacts of a changing climate
- The framework provides a **strategic market analysis for banks** to identify most relevant opportunities
- It sets out a **taxonomy of opportunities** for banks, based on clients:
  - Managing existing risks
  - Responding to emerging risks
  - Preparing for market shifts
- **Not all opportunities will be immediately relevant to a bank** and its business model, because of the time horizons over which they will occur
- The framework recognises that the **process of disclosure of opportunities arising from the impacts of a changing climate is embryonic**, and that release of forward looking statements can be challenging:
  - There are no agreed methodologies for assessing and disclosing opportunities arising from, and in response to, the physical impacts of a changing climate
  - Qualitative ‘soft’ reporting is currently more easily achievable

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Key activities

	Opportunity assessment framework		
	Activity	**Task**	**Objective**
1	**Taxonomy of opportunities**	Define opportunity categories	Agree how opportunities can be defined
2	**Market assessment**	A. Sector finance demand	Estimate future finance demand by sector and country arising from a changing climate
		B. Sub-sector assessment	Identify sub-sectors with most significant lending and advisory service opportunities
3	**Bank institutional capacity and positioning**	Scorecard for each sub-sector	Assess capacity and positioning of the bank to take advantage of opportunities over time, and potential for market shifts
4	**Opportunity evaluation**	Combine market assessment with bank's institutional capacity and positioning	Identifying sub-sectors with highest potential opportunities

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Opportunities overview

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Data and knowledge prime sources

Historic
Historic trend analysis and correlations
Core financials
Voluntary reporting

Year 1 last accounts
Historic trend analysis and correlations
Core financials
Voluntary reporting

Year 2 current accounts
Historic trend analysis and correlations
Core financials
Voluntary reporting

Years 3-10
Historic trend analysis and correlations, Scenarios.
Market analysis and socio-economic data. Sector physical risk assessments, NAPs, and NDCs

Years 10+
Historic trend analysis and correlations, Scenarios.
Market analysis and socio-economic data. Sector physical risk assessments, NAPs, and NDCs

Managing existing risks

Taxonomy of opportunities

Responding to emerging risks

Preparing for market shifts

Data sources are drawn from financial reporting and correlations with bank data

Note:
1. There are no publicly available historic trend analyses or correlations of the impacts of weather and climate on value chains and core financials These can be calculated.
2. Most companies do not identify weather or climate related impacts on their core financials

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Main knowledge sources are third party scenarios and reports

Note:
1. The sources tend to be at global, national and sector level and provide aggregated data.
2. They have limited granularity for use at segment level.
3. The sources have limited financial analysis

Granularity and veracity

HIGH ⟷ LOW

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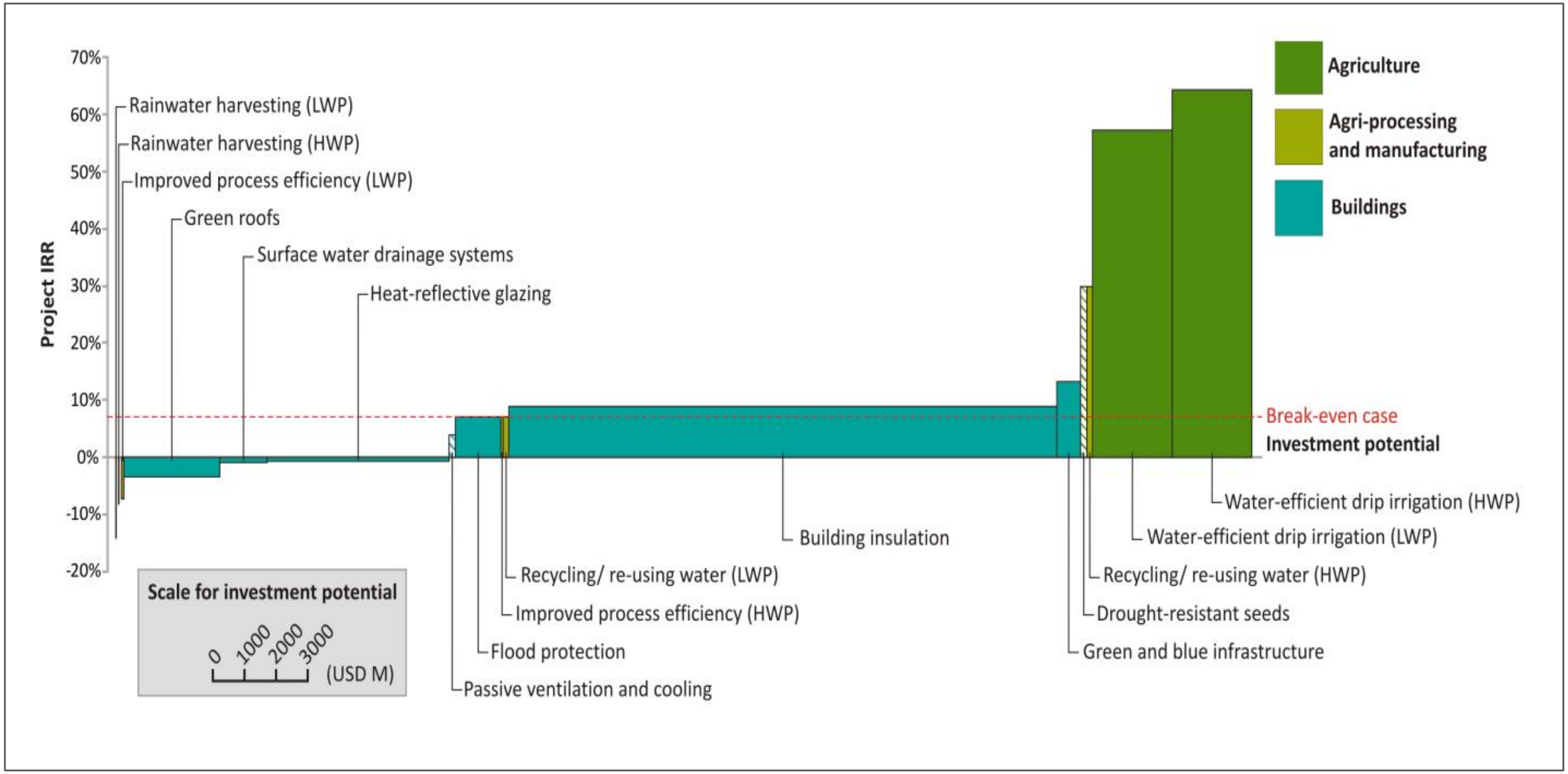
Market study and analysis



The total investment potential in Turkey across these investment opportunities was estimated at more than USD 22bn

TCFD focus is on disclosure of risks to tangible asset and values – is this a problem?

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- Growing importance of intangible assets.
- E&Y in 2016 noted that intangible assets contributed 84% of the value of the S&P 500, compared with 17% in 1972 – **a shift in how market value is assessed**

Brand value as percentage of market value	
Sector	**Brand (All)**
Airlines	>100%
Oil & Gas	2-2.5%
Food & Beverages Production	68%
Food Retail	52%
Telecommunications	17%
Banking	17%

Source: Lippincott Mercer analysis

- Intangibles include: brand value, governance, reputation, goodwill, copyrights, customer and employee engagement, social licence to operate and environmental performance
- Full picture of a company's value cannot be captured on a balance sheet because 'value' is not just dollars and cents
- Climate change impacts (risks and opportunities) are, and will increasingly affect intangible value – this will need to be accounted for as the process (and regulation) of risk assessment and disclosure evolves.

Thank you

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