



Resilience & Family Business

The Planet and Resilience

April 2022
Duncan Pollard



Science, Knowledge, History



Dependency on Nature



 **PURINA**

Living Planet Report

Planetary Boundaries

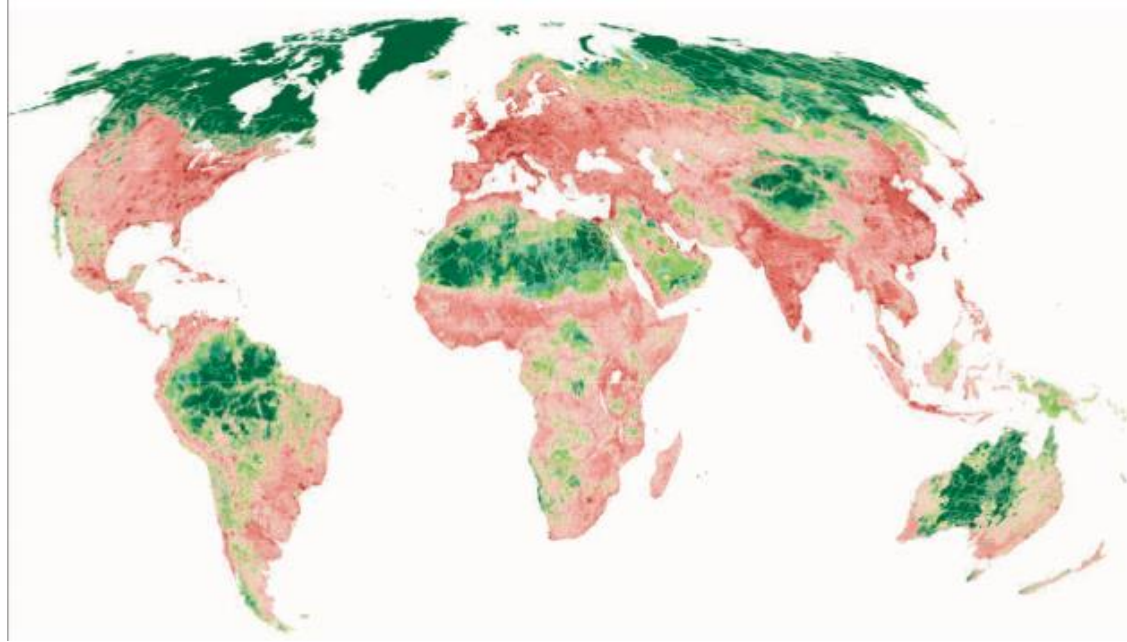
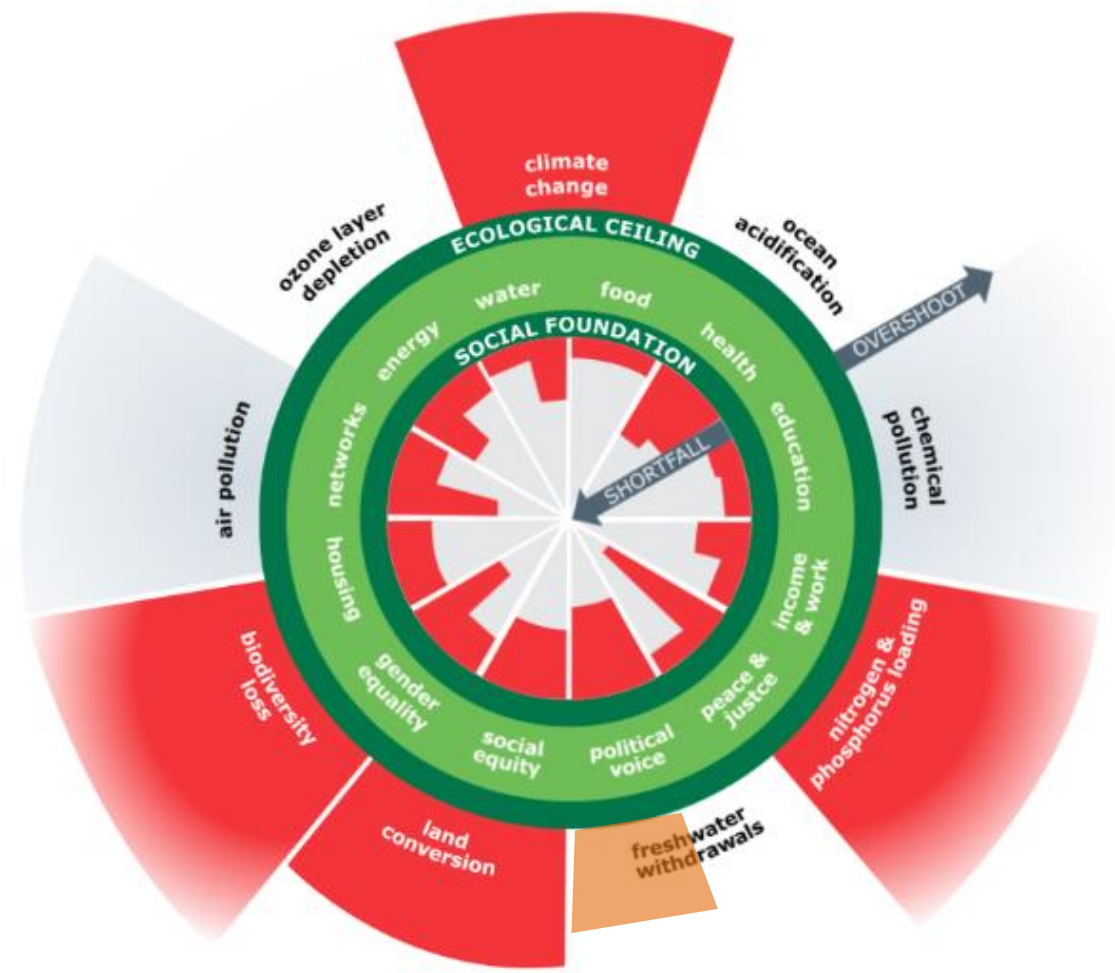
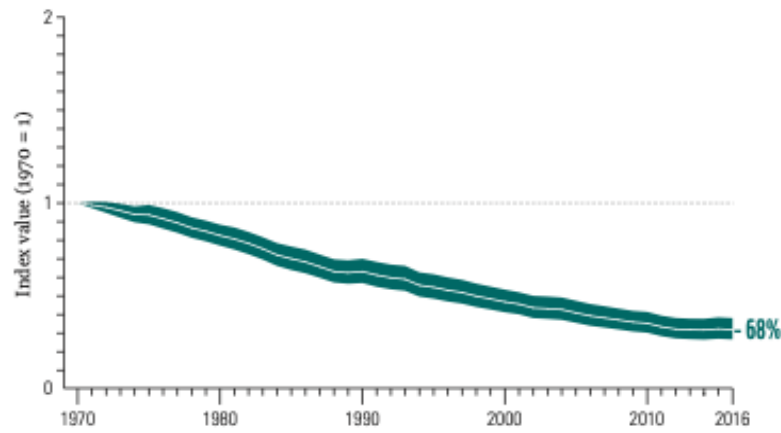


Figure 1: The global Living Planet Index: 1970 to 2016
 Average abundance of 20,811 populations representing 4,392 species monitored across the globe declined by 68%. The white line shows the index values and the shaded areas represent the statistical certainty surrounding the trend (range: -73% to -62%). Source - WWF/ZSL (2020)¹⁰⁰.

Key

- Global Living Planet Index
- Confidence limits



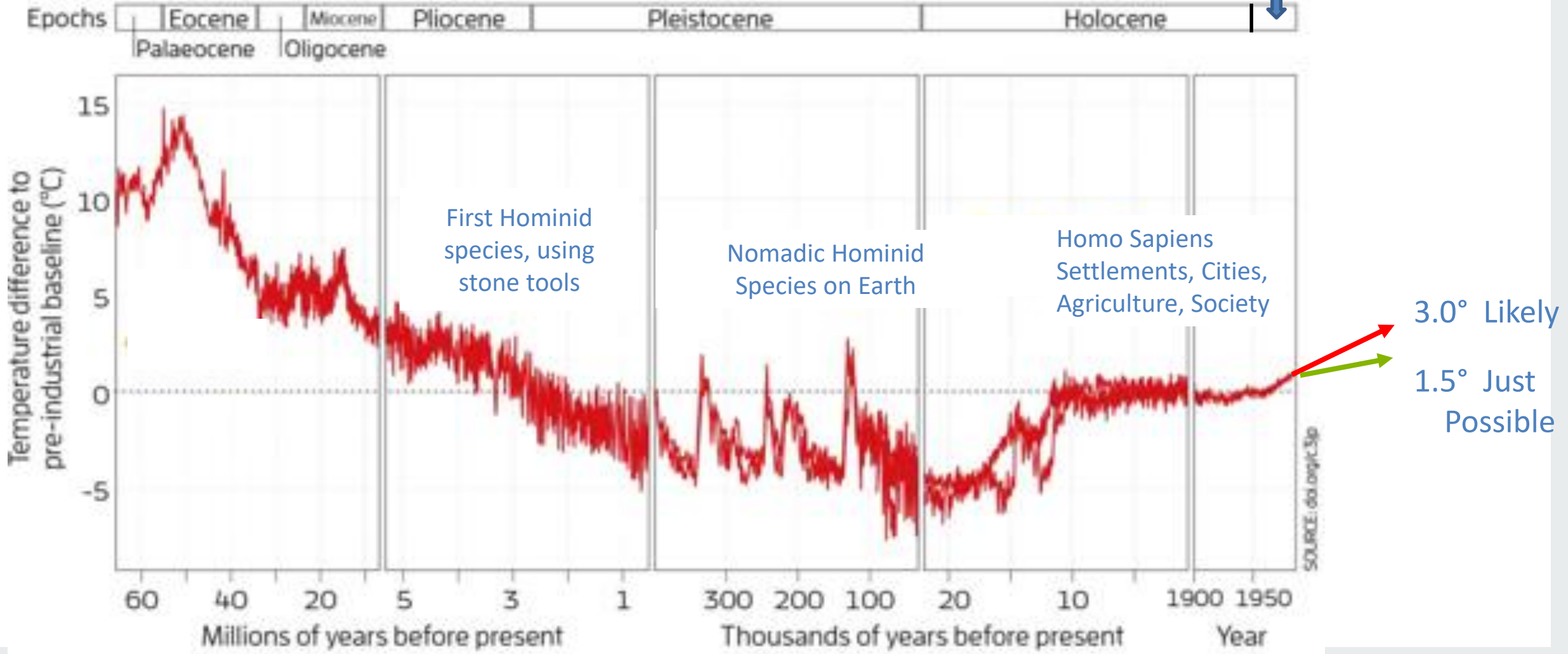
The Capitalocene



10000 Years of Stability

Now Breaking Out to the Unknown

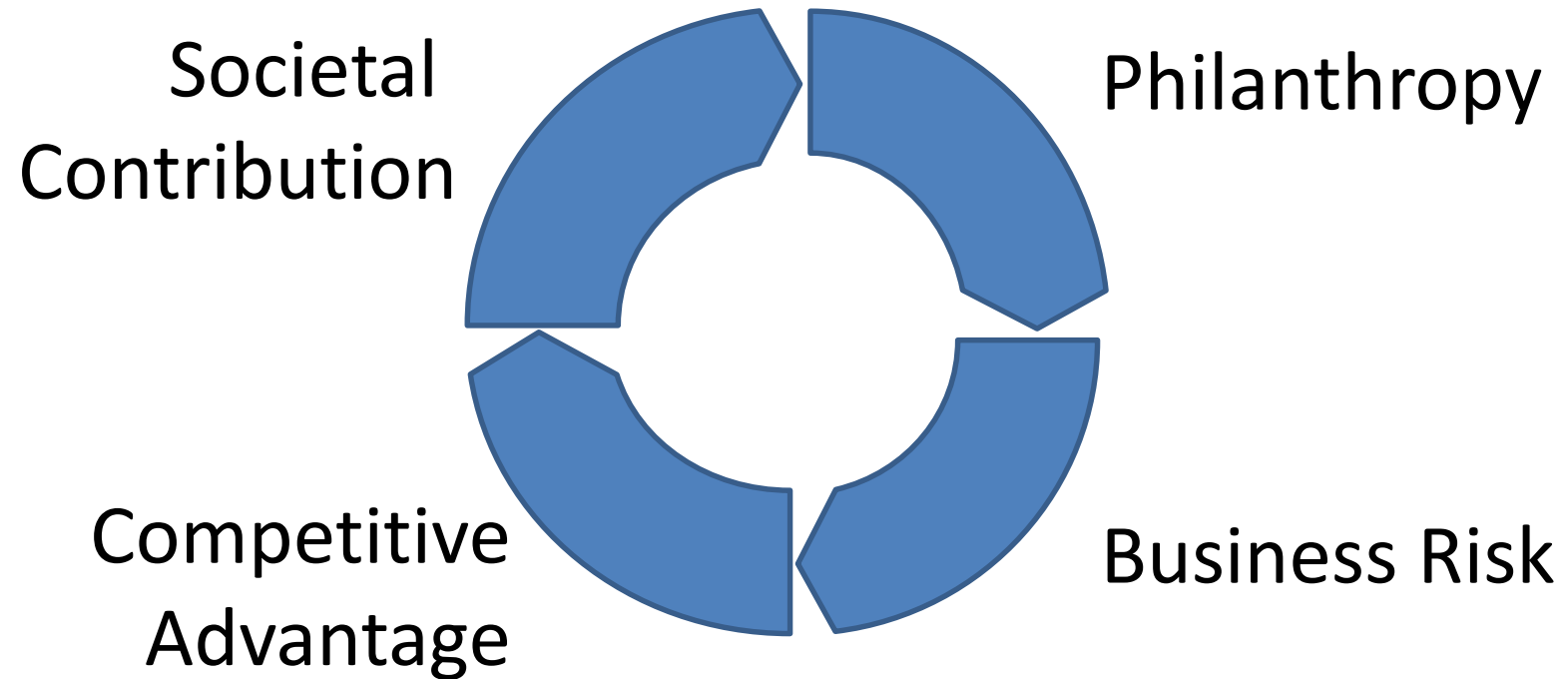
Capitalocene



Sustainability

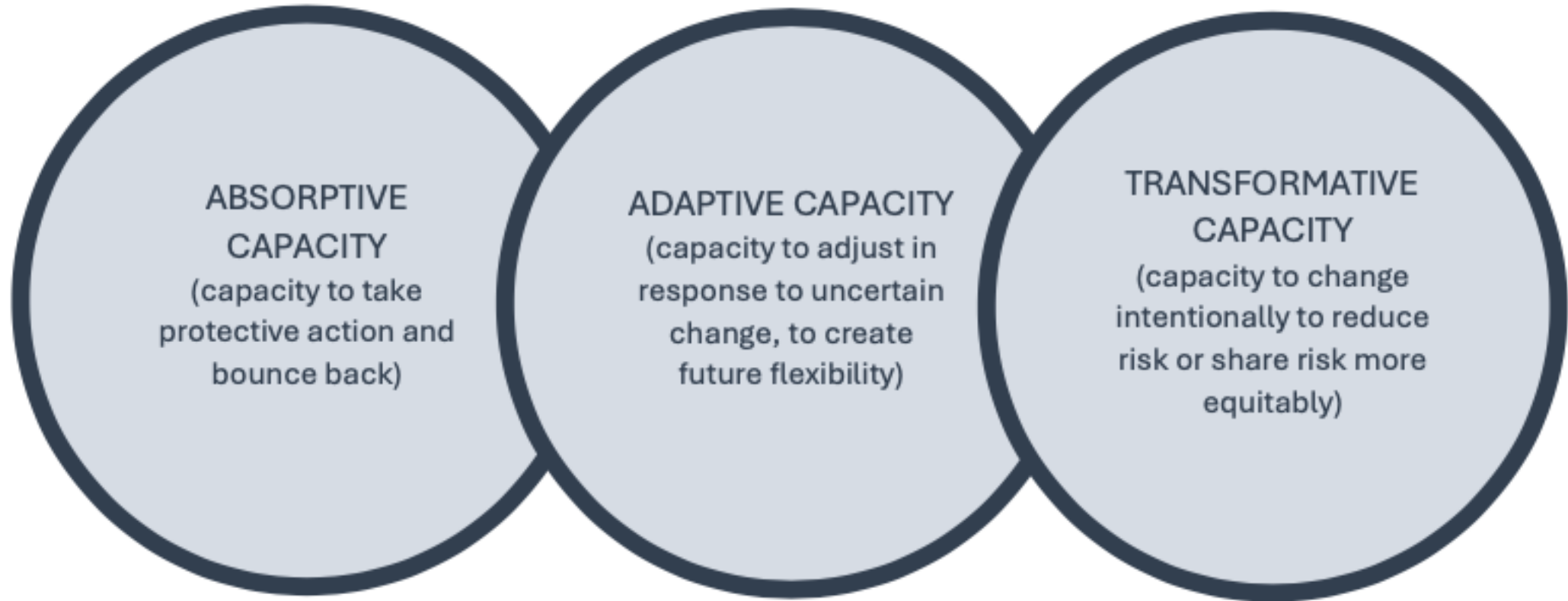
The Evolution in Thinking

Resilience &
Regeneration



Based upon
Zadek, HBR 2005

Three Types of Resilience



Based on Jeans, Castillo & Thomas 2017

Businesses & Resilience

Agility & Flexibility

Adaptive/Transformative
Resilience

Cost Control & Margins

Investments in Value Chains

Managing Risk

Long Term Relationships

Short Term Focus

Collaboration

Power Imbalances

Equality/Equity

Absorptive Capacity



Response

Responsible Sourcing Strategy to address issues in value chains of key commodities



Adaptive Capacity

Changing Weather/Climate 2012 onwards

Coffee in Kenya

Productivity +/- 25% according to rainfall

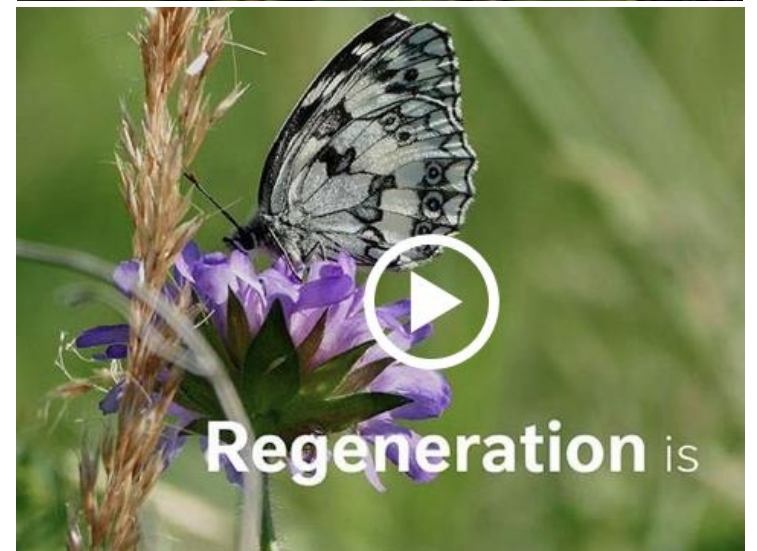
Soil Organic Matter & Mulching. Shade Trees

Organic Agriculture - Regenerative Agriculture

Soil Health, Chemicals, Water, Carbon

2018 onwards

Ecological & Consumer Resilience



Resilience: Shared Risk

Biodiversity Reporting, circa 2012

Manufacturing locations wrt high biodiverse areas

Dependency (upstream areas); Impact (downstream areas)

12 out of 500+ locations

Local level management with communities & land managers

Adaptive and Absorptive

Water efficiency programmes, circa 2013

Global efficiency target

Water stressed areas. Own operations

Water stewardship. At watershed level.

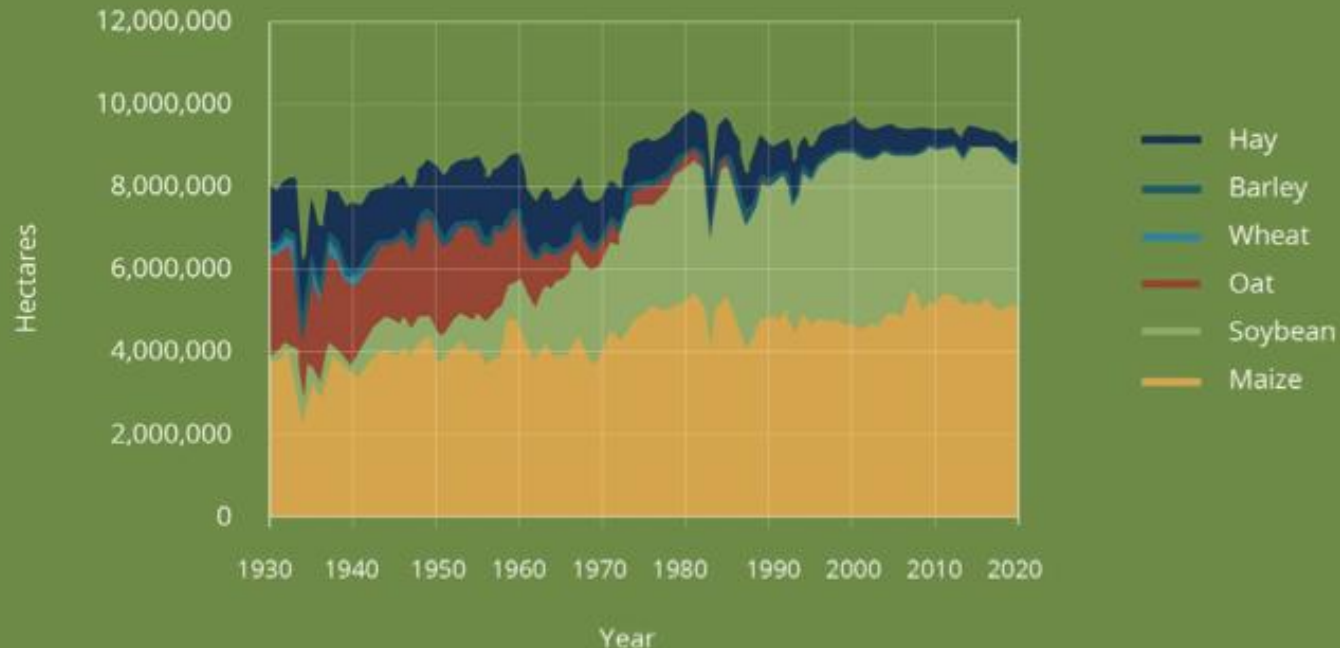


Adaptive and Transformative



Resilience: a System Level Challenge

Hectares of corn, soybeans, oats, wheat, barley, and hay grown in Iowa, 1930-2020.



Source: Agricultural and Environmental Letters, Vol.6 Issue 2

Focus on productivity

Simplified Rotations of Maize and Soya

Markets, Industry, Govt Policy

Drives the transition

Consequences

Soil is bare half the year

Less root matter to enrich the soil

Adoption of no-till agriculture from 1990s

Regenerative (rotational) agriculture

Not just a farmer decision

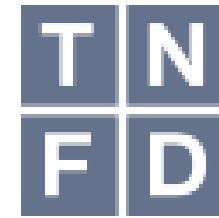
Resilience

Government & Family Businesses “Get It”



Ecological Transition Risks

Navigating the short term



Taskforce on Nature-related
Financial Disclosures

Policy: CBD, National Biodiversity Action Plans, EU Trade Legislation

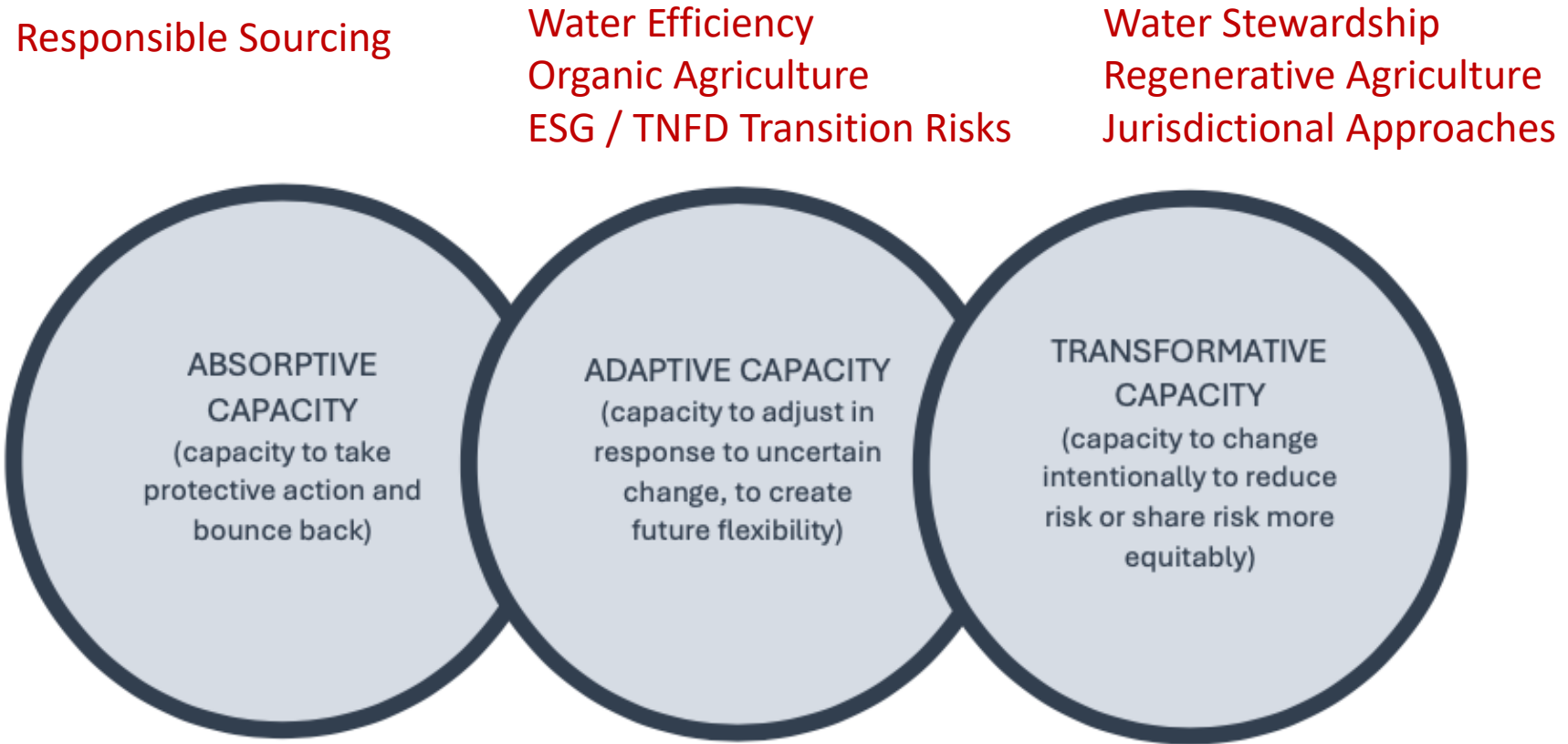
Liability: Increasing legal action (>1000 legal actions on climate, spills over to nature)

Market: Consumer preference – “close to nature” / “regenerative”

Reputation: Continued NGO action. Investor expectations

Technology: Disrupting technology – new products/services (eg alternative proteins)

Resilience: From Simple to Complex



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