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Strategic risk policy for agriculture and the food supply chain

Ivan Savov
European Risk Policy Institute

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Global climate risks

- Extreme precipitation
- Floods
- Cold waves
- Heat waves
- Draughts, water shortages
- Thunderstorms, windstorms, hailstorms
- New/old pathogens
- Crops adaptation to northward relocation
- Soil adaptation
- Insurance

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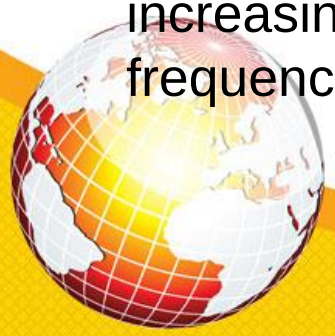
The Climate Crisis Threatens the World's Food Supply

- The current food system – production, transport, packaging, storage, retail, consumption, loss and waste
- Currently, 821 million people are undernourished, 151 million children under five are stunted, 613 million women and girls suffer from iron deficiency, and 2 billion adults are overweight or obese. The food system is under pressure from non-climate stressors and from climate change. These stresses are impacting the four pillars of food security – availability, access, utilization, and stability
- Observed climate change is already affecting food security through increasing temperature, change in precipitation patterns, and greater frequency of extreme events.



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Climate crisis impact

- Food security will be increasingly affected by projected future climate change
- Vulnerability of pastoral systems to climate change is very high
- Fruit and vegetable production is also vulnerable
- Food security and climate change have strong gender and equity dimensions
- Practices are not optimized and scaled up to advance adaptation throughout the food system
- Close to 40% of GHG are attributable to the food system
- Supply-side practices can contribute to mitigation
- Reduction of food loss and waste could lower GHG and improve food security
- **For adaptation and mitigation throughout the food system – enabling conditions need to be created through policies and governance!**

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Risk thinking and approaches must adjust to be effective in today's world

- World has changed and is changing as we speak in ways never seen before
- Why have leaders failed to see preventable crises and make informed decisions?
- Complexity is increasing – Strategic Risk Policy® promotes clarity and simplicity
- Leaders want to be informed so decision-making can be pre-emptive and effective
- Potential strategic risks ('vulnerabilities') are found today in network systems
- Adjustment about 'risk' thinking is required to provide awareness of potentiality

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Digital transformation has been interrupted!

- Now interconnected/interdependent like never before = 'meta grids'
- World today must be viewed as whole systems - systems within systems
- Some challenges today have never been seen before
- Some consequences today are unimaginable
- We have to learn how to cope with complexity and time – cannot be changed
- Risk domino exists – digital, COVID, supply chains, cyber attacks, societal risk
- Research reveals that today, information resides in networks

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Global 'Gap Analysis'

- As risk management continues to fail, a group of industry leaders conducted a gap
- analysis covering leadership⇔decision-making ⇔risk:
  - WEF, IMF, OECD and more had called for new thinking about risk
  - No risk awareness - 9/11, GFC, COVID, cyber, supply chains, energy resilience
  - Risk register data are mechanical, linear and assume all risks behave rationally
  - COVID-19 = 'Every national risk management plan is a temporary illusion'
- Answer: Risk 'Policy' is missing – to inform leaders about issues and in time
- Risk Policy introduces a new approach by identifying potential strategic risks

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Adjusting risk thinking and approaches

- Risks must be viewed at the point of 'potentiality' as potential/possible strategic risks
- Executive action is then facilitated to 'protect against' vulnerabilities
- Protecting against vulnerabilities is the smart new approach to risk
- Results in fewer and less severe risks and wicked problems – a new risk paradigm
- Acts earlier in time, higher in focus, involves protection against, not risk management
- Results in avoided costs, savings, opportunities, innovation and reputation

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Risk 'law of adjustment' in practice

- Risk becomes a trilogy comprising 'Policy⇔Management⇔Governance'
- Risk architecture is now 'Risk Policy – Risk Management – Issues Management'
- Leadership paradigm change produces the change = 'Drivers and Connectors'
- Replace organisation-centric (silo) thinking with network-centric thinking
- Access available network information through protocols
- Boards/executives gain situational awareness for strategic decision-making

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New Risk Trilogy - basic architecture

Set and driven from the top - executive and professional levels

Risk Governance links Strategic Risk Policy® to ERM

if Vulnerability is protected then there should be no unexpected risk

SRP informs, authorises and complements ERM

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Key pillars of Strategic Risk Policy®

1. Contemporary meaning of risk – impacts, implications, implementation analysis
2. Strategic Risk Policy® model and implementation strategy
3. Expanded contexts and perspectives of vulnerability for anticipation
4. New Risk Landscape – dashboard, strategic, integrated, appetite, forensic
5. Transition Code – when vulnerability may become a risk e.g., time vector
6. Operating above and before, it informs and authorises risk management
7. Promotes critical enhancements to risk management processes

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Defined transition from vulnerability to risk

- Noting the use of different risk language, ARPI has developed an objective, measurable and auditable transition code for the journey when necessary, from 'vulnerability to risk.' For example, when a time vector arises in order to protect against a vulnerability and threat/ threat actor occur
- Code provides clarity, certainty and consistency in application
- 'Risk is a consequence of the conjunction of Vulnerability x Threat x Threat Actor'

Risk ⊨ Vulnerability ^ Threat ^ Threat Actor

New Leadership Paradigm for Better Decision-Making: ARPI Risk Landscape ©

TIME

IMPLEMENTATION

Strategic Risk Policy® (Potentiality) - No Risk Exists	Risk Management (Probability) - Risk Exists	Issues Management (Happening) - Risk Materialised
Probability 0%	Probability 1-99%	Probability 100%
Vulnerability • Strategic: Explore potential risk scenarios	**Risk Identified** • Operational: Risks priority managed	**Risk Materialised** • Immediate organizational reaction/crisis
Leadership Action • Pre-emptive Executive consideration • Protection against vulnerability	**Leadership Action** • Pro-Active Risk Management • Impacts, Implications, Implementation	**Leadership Action** • Reactive Issues or Crisis Management • Demands and diverts resources and time
Paradigm change • Reactive Process to Proactive Policy	**Enhancement of risk management** • Policy direction, Systemic Risk, new Equation	**Risk KPIs - measurement e.g. Left field <10%** • Risk Governance - Causal – Gap Analysis
Perspective • Paradigm change: new world–new challenges • Approach vulnerability of 'whole systems' • Information from interconnected networks • Map networks and identify vulnerabilities	**Perspective** • Fewer and less severe risks possible • Better management of today's risks • Means to identify/prevent wicked problems • Greater organisational synergy/connectivity	**Perspective** • Reputation and relationship management • Strategic opportunity – prevent recurrence • Impact on organisational priorities • Budget impacts - Avoided Costs
If a vulnerability can be completely protected, no risk will arise > strategic opportunity **Part protection against only** If vulnerability cannot be fully protected against a risk may arise. Risk = Vulnerability x Threat X Threat Actor. (Risk is the consequence of conjunction of vulnerability, threat, threat actor) **Implementation Process** • Leadership driven paradigm change • View environment as 'whole systems' • Interconnected world – 'information networks' • Relationship change - silo to horizontal • Map whole system networks • Obtain the 'right' information < protocols • Identify vulnerabilities – see opportunities • Protect against vulnerabilities • Save resources and time • Improve performance and governance • Build reputation, resilience, sustainability • Reduce complexity to simplicity	✱ **Fundamental new Differentiation of Risk Type** 1) Systemic Risk • Plural (legal/organisational) ownership • Jointly manage - formally and collaboratively • Single integrated processes 2) Traditional Single Risk • Manage in accordance with ISO 31,000 **Revised Risk Equation** • Consequence must now dominate the equation because in some situations today, consequences are unthinkable • Strategic disruption can be invaluable for improvement and/or innovation	**Systemic Risk not effectively managed =** • Wicked Problem • Then, is it soluble or requires reconstruction? **Single risk not managed** • Live Issue/Crisis • Issues/Crisis Management • Causal Loop Mapping • Correction/prevention of recurrence See Risk Policy Model: www.arpi.org.au

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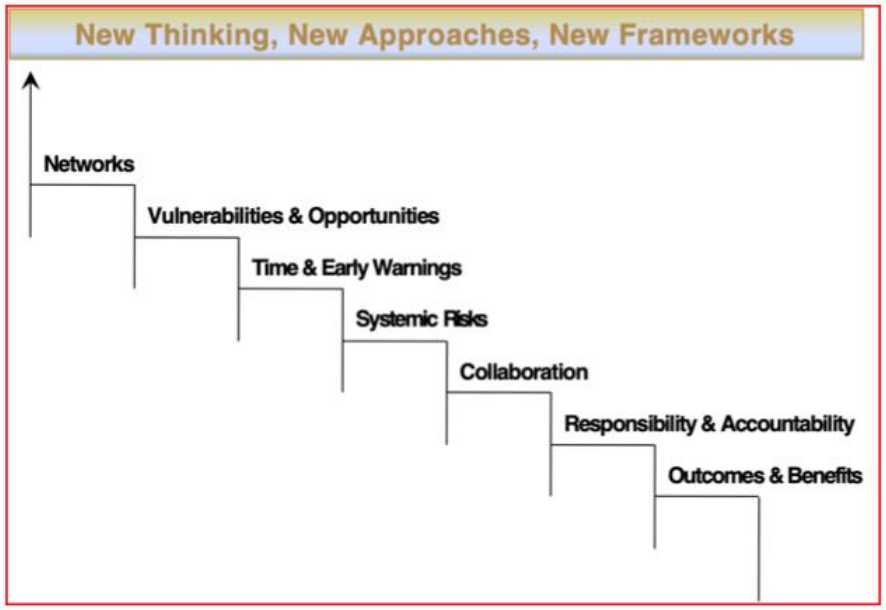
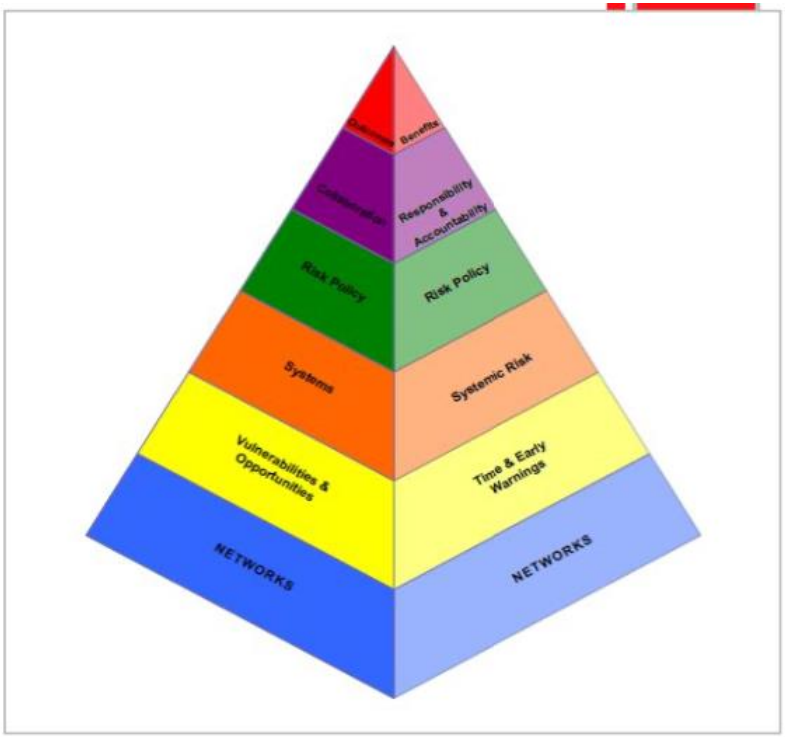
Two views of Strategic Risk Policy®





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Enhancements - risk management processes

- ARPI has advised ISO responsible for ISO 31000 of two critical enhancements:

1. **Systemic Risks** are introduced as precursors to 'Wicked Problems' – they require different treatment – formal collaboration among plural or multiple legal owners – not merely liaison;
2. **Risk management assessment equation of '**Likelihood x Consequence' must no longer be used as such! As some risks have extreme consequences but 'negligible' likelihood – combined with historical influences on discount effects of events considered to have negligible likelihood – equation must be immediately adjusted. 'Every entity must adopt a risk policy as to when consequence will dominate the equation'.

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+ Benefits include

- Thought leadership on risk thinking, approaches and frames
- Optimised performance and governance for informed decision-making
- Know strategic vulnerabilities and opportunities for pre-emptive action
- Board/Executives have ‘evidence of all reasonable attempts to find out’
- Strategic agenda item = anticipation and awareness rather than reaction
- Enhanced client risk assessment of infrastructure projects
- BL - better quality information ‘in’ – better quality ‘output’ and ‘outcomes’

Adaptation Preparedness Scoreboard BULGARIA

- Institutional structure
- ▪ Quality of national vulnerability assessments
- ▪ Knowledge creation (national observation systems in relevant sectors[2] and climate
- modelling), transfer and use
- ▪ Action plans:
  - – Quality (incl. the basis used for assessment of adaptation options)
  - – Actual implementation mechanisms
- ▪ Funding mechanisms
- ▪ Mainstreaming into sectoral policies, in particular:
  - – Disaster risk reduction
  - – Spatial planning
  - – Environmental impact assessment (EIA) (how the Directive is transposed)
  - – Insurance policy
- ▪ Transboundary cooperation
- ▪ Monitoring mechanisms in different sectors and governance levels

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COP26 GLASGOQ

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1. **Secure global net zero by mid-century and keep 1.5 degrees within reach**

- Countries are being asked to come forward with ambitious 2030 emissions reductions targets that align with reaching net zero by the middle of the century.
- To deliver on these stretching targets, countries will need to:
- accelerate the phase-out of coal
- curtail deforestation
- speed up the switch to electric vehicles
- encourage investment in renewables.

2. **Adapt to protect communities and natural habitats**

- The climate is already changing, and it will continue to change even as we reduce emissions, with devastating effects.
- At COP26 we need to work together to enable and encourage countries affected by climate change to:
- protect and restore ecosystems
- build defences, warning systems and resilient infrastructure and agriculture to avoid loss of homes, livelihoods and even lives

3. **Mobilise finance**

- To deliver on our first two goals, developed countries must make good on their promise to mobilise at least $100bn in climate finance per year by 2020.
- International financial institutions must play their part and we need work towards unleashing the trillions in private and public sector finance required to secure global net zero.

4. **Work together to deliver**

- We can only rise to the challenges of the climate crisis by working together.
- At COP26 we must:
- finalise the Paris Rulebook (the detailed rules that make the Paris Agreement operational)
- accelerate action to tackle the climate crisis through collaboration between governments, businesses and civil society.

Climate crisis: Temperature changes could halt whisky production in Scotland by 2080, report warns

- Shortage of water, shortage of crops, temperature and humidity change will limit production, raise price, enforce change of production processes and change the taste of whisky.

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БЛАГОДАРЯ!

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