



UK Risk and Assessment

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Thoughts to ponder

- What does risk mean to you?
 - Is that the same for your community, organisation or country?
 - What is your appetite to risk?
- What is vulnerability?
 - Does a vulnerability change depending upon the disaster or emergency that you are facing?
- Who should be involved in assessing the risk?



Direction of approach

Parliament sets the direction for the United Kingdom (UK)

- Govern
- Produce laws



Approach and Implementation

Brief History

2000 and 2001 – UK experienced 3 serious emergencies

- Fuel Crisis, Serious Flooding, Out break of foot and mouth disease

Review of Emergency Planning 2001 -2004

Identified the need to have an integrated approach to Emergency Management



NRSA



National UK document that aims to assess:

- the most significant malicious and non-malicious risks facing the UK or its interests overseas.
- each risk as a reasonable worst-case scenario (RWCS)
- likelihood of the risk manifesting and its consequences across a range of areas should it occur.



Assessing Likelihood



NSRA assesses both malicious and non-malicious risks using the same methodological approach.

- Non-malicious likelihood is based on historical precedent, expert judgement and statistical models/forecasts
- Malicious likelihood is based on the intelligence services view covering intent, capability and vulnerability

Score	Percentage chance	PHIA yardstick designation
5	>25%	Almost certain (95-100%) Highly likely (80-90%) Likely or probable (55-75%) Realistic probability (40-50%) Unlikely (25-35%)
4	5-25%	Highly unlikely (5-25%)
3	1-5%	Remote chance (0-5%)
2	0.2-1%	
1	<0.2%	

Table 1: Summary detailing the alignment of the final 1-5 likelihood score for NSRA risks, its corresponding percentage chance and the label using the PHIA yardstick.

We use a scale of 1 to 5 for both malicious and non-malicious risks to allow like-for-like comparison between risks, and as a tool to help effective risk visualisation. The highest score (5) represents a greater than 25% likelihood. The reason that this number is relatively low is that all risks in the NSRA are relatively low likelihood events.



Assessing Impact



Dimensions considered under the impact assessment

- Human welfare
- Behavioural
- Economy
- Essential services
- Environment
- Security
- International order

	Impact				
	1	2	3	4	5
Fatalities	1-8	9-40	41-200	201-1,000	>1,000
Casualties	1-18	17-80	81-400	400-2,000	>2,000
Economic cost	Millions of £	Tens of millions £	Hundreds of millions £	Billions of £	Tens of Billions £

Table 2: Example impact scale indicators for fatalities, casualties and economic cost.



IMPACT	LIKELIHOOD				
	1 <0.2%	2 0.2-1%	3 1-5%	4 5-25%	5 >25%
Catastrophic 5	28, 29		9, 26a	54	
Significant 4	21	24, 38, 56a	27, 49, 51a, 51b, 51c, 61	10, 47, 50, 55, 63	
Moderate 3	17, 32, 33, 34, 35, 36, 56c	12, 22, 23, 52	25, 26b, 31a, 45, 53, 56b	4, 8, 11, 40, 43, 48, 60	3, 31b, 46, 62
Limited 2	18, 19, 30, 37	5, 16, 41, 42	14, 20, 56d, 58, 59	7, 13, 57b	2, 6
Minor 1	44	39		15	1, 57a

Terrorism, cyber and state threats

1. International terrorist attack
2. Northern Ireland related terrorism
3. Terrorist attacks in venues and public spaces
4. Terrorist attacks on transport
5. Strategic hostage taking
6. Assassination of a high-profile public figure
7. Smaller-scale CBRN attacks
8. Medium-scale CBRN attacks
9. Larger-scale CBRN attacks
10. Conventional attacks on infrastructure
11. Cyber attacks on infrastructure

Geographic and diplomatic

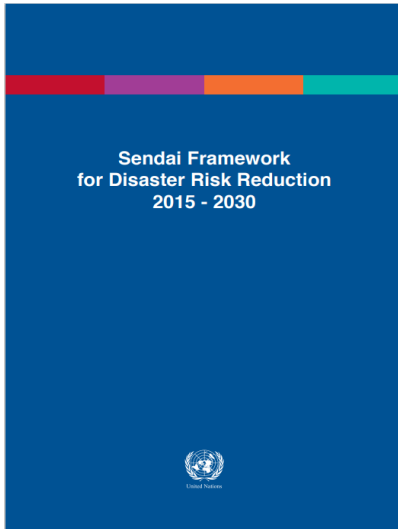
12. Disruption to global oil trade routes

Accidents and systems failures

13. Major adult social care provider failure
14. Insolvency of supplier(s) of critical services to the public sector
15. Insolvency affecting fuel supply
16. Rail accident
17. Large passenger vessel accident
18. Major maritime pollution incident
19. Incident (grounding/sinking) of a vessel blocking a major port
20. Accident involving high-consequence dangerous goods
21. Aviation collision
22. Malicious drone incident
23. Disruption of space-based services



Sendai Framework



Different approach to risk and who's involved:

- Emphasises the need to empower local communities to reduce risk
- Supports the approach of building resilience from the ground
- Helps to create an environment to build social capital



Grenfell



Reflecting on this tragedy:

National Risk Register evaluated major fires as having limited impact with a likelihood score of 2

- Did this assessment consider the community's ability to respond?
- How does the current approach take into account the continuing impact on national, regional and local communities?
 - What is tolerable risk?





Summary & Questions

- UK approach is top down with little engagement, with communities, on the development risk assessment or plans in dealing with the disaster/emergency
- Community involvement in pre-planning for disasters or emergencies in the UK is low
 - Predominate communication is through 'warn and inform'
- Risk and Vulnerability is viewed very differently

* Images from National Risk Register 2023 Edition, United Nations Office for Disaster Reduction website 2024

