

Access to Health Care	DH
Evacuation & Shelter	CCS
Environment	DEFRA
Judicial Disruption	HO and MOJ

Table 1 - Lead departments for social disruption scoring.

Risk assessment owners remain responsible for considering other impacts, such as fatalities and casualties and economic impact, but are encouraged to work with expert groups and Departments with a particular interest in these areas to ensure that their risk impacts are accurately captured.

Role of JTAC, CCA and CPNI

The Joint Terrorism Analysis Centre (JTAC) is responsible for coordinating evidence and agreeing intent and capability scores for each threat risk. The Centre for Cyber Assessments (CCA) is similarly responsible in respect of cyber risks. To date, in the vast majority of cases the Centre for the Protection of Critical National Infrastructure (CPNI) has been responsible for coordinating evidence for and agreeing vulnerability scores for each threat risk, with some exceptions. Please note that these roles and responsibilities will be subject to review in 2016-17 to take into account, for example, the role of the National Centre for Cyber Security (NCSC).

Risk Assessment Steering Group

RASG brings together risk owners, JTAC, CCA and CPNI as well as Departments and Agencies with an interest in risk impacts, who may not own risks themselves. Representatives from the Devolved Administrations are also members of RASG. Discussions among RASG members are intended to allow for constructive challenge and discussion of risk assessment.

Government Office for Science

The Government Office for Science is responsible for helping to ensure that the NRA draws on scientific and technical evidence and advice, where appropriate. They are also responsible for ensuring that the Government Chief Scientific Advisor is briefed on key NRA developments.

Scientific and Technical risk review groups

The most cross-cutting risks are independently reviewed by Scientific Review Groups (SRG). These include:

- The **Natural Hazards Partnership**, which provides scientific and technical advice to the Cabinet Office on risks within the National Risk Assessment (NRA) pertaining to the natural environment and weather systems.
- The **Chemical, Biological, Radiological and Nuclear Group**, which provides scientific and technical advice to the Cabinet Office on risks within the National Risk Assessment (NRA) that include the release of chemical, biological, radiological and nuclear (CBRN) agents and or material.
- The **Behavioural Science Expert Group**, which provides scientific and technical advice to the Cabinet Office on how to most appropriately represent the psychological impact of risks within the National Risk Assessment.
- The **Cyber Expert Group**, which provides scientific and technical advice to the Cabinet Office on how to most appropriately identify and assess cyber risks within the National Risk Assessment.

In many cases, the evidence from these groups will inform Departmental understanding of the risk and common consequences used to determine the planning assumptions. The ownership of NRA risks remains the responsibility of risk owners and recommendations will be sent by CCS to risk owners (and JTAC/CPNI where relevant) for their consideration. Risk owners will need to respond to the recommendations, providing a clear rationale if they decide to reject them. CCS will monitor progress against the recommendations.

Devolved Administrations

As members of RASG, the Scottish Government, Welsh Government, and Northern Ireland Office ensure that devolved issues are considered and represented in the NRA. They should brief their Chief Scientific Advisers as appropriate.

identified in consultation with Government departments and stakeholders and are collectively agreed through the process outlined above.

The NRA is designed to be a strategic risk assessment tool and is therefore pragmatically selective. It is not designed to capture every risk that the UK could face, but instead focuses on scenarios that are representative of the wider risk landscape and which inform our understanding of the common consequences the UK could face as a result of civil emergencies. The NRA will therefore include, for example, a single risk of “an explosive attack on a crowded place” rather than two separate, more specific risks such as “an explosive attack on a shopping centre” and “an explosive attack on a crowded street” because the consequences of both risks are broadly similar (e.g. fatalities, casualties, debris and rubble, etc.)

Risk descriptions have to strike a balance between being sufficiently generic to encourage consideration of a range of possibilities but specific enough to be meaningful for planning purposes. For example, the category ‘terrorism’ is too broad for an assessment of threat, vulnerability and impact to be useful for planning. Equally, a terrorist act involving a particular type of explosive at a particular site would likely be too specific to helpfully inform generic planning and capability.

For risk scenarios to be included in the NRA they should:

- [for hazards] have at least a 1 in 20,000 chance of occurring at least once in the next five years;
- [for threats] be supported by credible intelligence that potential perpetrators have both the intent and capability to enact the scenario described;
- present a “challenge” for central Government if they manifest, scoring at least a “1” on Impact within the risk matrix; and
- inform our understanding of the consequences that we could face as a result of the scenario and/or how planning for it might be prioritised.

Risks that fall just short of these thresholds are placed in ‘Risks under Review’ in order to capture them for future consideration.

Process for reviewing or adding risks

Risk owners are formally commissioned to complete a risk scenario for each risk they own during the biennial NRA review process and to consider if any new risks or additions to existing scenarios are needed on the basis of new evidence since the last NRA review. New evidence could include:

- a) lessons from UK or international emergencies or exercises;
- b) new research, analysis and/or data; or
- c) a change in circumstance which potentially affects the UK’s vulnerability to the risk, an attacker’s capability, intent, etc. or likewise.

Any recommendations from expert review groups are considered in line with the rest

of the evidence. Risk owners consult their Chief Scientific Advisor, Scientific Advisory Groups, other relevant risk assessments, subject-matter and policy experts (including those outside government), as appropriate.

Departments or Agencies wishing to propose new risks (or changes to existing risks) do so using a standardised Risk Description Template, setting out a rationale for inclusion or amendments, including references to original sources in a consistent way.

Newly proposed or significantly changed risks are discussed by the cross-government Risk Assessment Steering Group (RASG), which consider:

- a) whether the scenario has unique consequences not captured by other NRA risks;
- b) whether the scenario is significantly more likely to occur than other NRA risks with similar consequences; and
- c) where the scenario is likely to be positioned on the NRA grid and consequently the implications adding it will have for contingency planning.

Specifying NRA risk scenarios

For the purposes of informing contingency planning and the assessment of wider consequences it is essential that risks are clearly defined and that sufficient detail is provided on the primary risk outcomes. To ensure risks are broadly comparable the NRA uses a Reasonable Worst Case Scenario (RWCS) for each risk. The RWCS is defined as a challenging yet plausible manifestation of the risk. The use of RWCS ensures that the NRA does not compare the best case for some risks and the worst case for others. Research and analysis that goes in to determining the RWCS can also be used to inform risk ranges (see below).

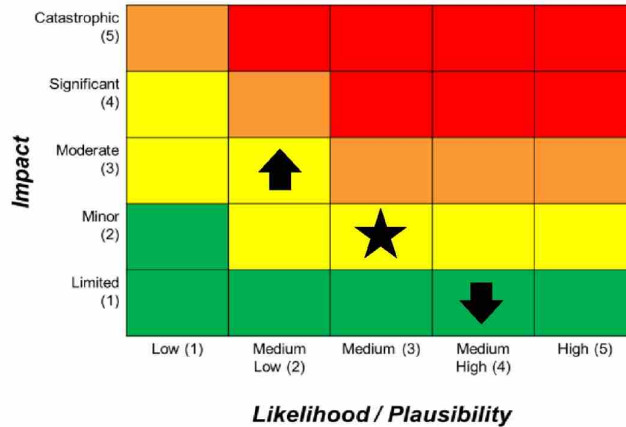
The primary outcomes of the RWCS is described in the “outcome description” for each risk. For example, the outcome description for a flood event might be “Flooding of up to 360,000 properties for up to 14 days.” The outcome description specifies the event to an extent that makes it possible to assess the impact, likelihood/ plausibility and (where appropriate) the threat and vulnerability. This includes specific assumptions that have been made for the purpose of outlining the RWCS such as the location or other factors that might specifically influence the impact or likelihood/plausibility of the event.

Risk Ranges

Each risk will include both a RWCS, a lower range and an upper range. This demonstrates alternative manifestations of that risk scenario which have been considered in the process of identifying a RWCS. Including ranges with greater and lesser impacts / recurrence rates provides greater transparency with regards to planning and places greater emphasis on agility and scalability.

Key

- ★ Reasonable worst case scenario
- ↑ Upper range
- ↓ Lower range



The matrix illustrates the use of ranges, with the RWCS in the centre, the “upper range” being a more impactful but less likely scenario and the “lower range” being a less impactful but more likely one. In addition to containing information specific to the RWCS, full risk scenarios also contain a brief paragraph explaining these alternative scenarios.

Linked and Compound Risks

The NRA is based on *single* events and does not assign scores to scenarios involving many different risks occurring at once. However, each risk will include information on linked and compound risks in order to further inform planning.

- a) **Linked risks** - Linked risks are those where the occurrence of one risk makes another more likely, or where both risks share a cause. For example, severe storms and gales would increase the chance of fluvial flooding.
- b) **Compounding risks** - Compound risks are those where the occurrence of one risk makes another significantly more impactful. For example, severe cold and snow would increase the impact of fuel shortage risks.

Furthermore, the risk itself (either the RWCS or ranges) may include multiple attackers or impacts in multiple regions. Thus a marauding attack of the type that was seen in Mumbai in 2008 would be treated as a single event (despite lasting over 24 hours) as it originated from a single source and occurred in a defined geographical area. Similarly, a natural risk such as a wildfire could exist as numerous individual fires spread across a significant area; however, this would still be classed as one “risk” within the NRA just as pandemic disease among many individuals is treated as one incident.

Recurrence Rate (likelihood and plausibility)

Prioritisation of risks requires an assessment of how frequently a given risk scenario may occur within the next five years. Different approaches are adopted for hazards and threats. Hazards use a probabilistic assessment termed ‘likelihood’, using a percentage scale. Threats use a deterministic assessment termed ‘plausibility’, using