## National Risk Register 2023 edition



## CONTENTS

Foreword	4
<b>Chapter 1: Introduction</b>	5
What is different in this edition?	7
How does the government plan for risk?	8
Who should use the National Risk Register (NRR)?	9
Chapter 2: Risk assessment methodology and matrix	<b>10</b>
How are risks identified and assessed?	10
Assessing likelihood	11
Assessing impact	12
Expert challenge	13
Risk matrix	14
Response capability requirements	14
2023 NRR matrix	15
Chronic risks	17
Chapter 3: Individuals and communities	20
Preparedness advice	21
Supporting communities and volunteering	24
Guidance for responding organisations	24
Community volunteering and resilience building	25
Mental health needs in emergencies and crises	27
Identifying people who could be vulnerable in emergencies and crises	28
Chapter 4: Risk summaries Terrorism International terrorist attack Northern Ireland related terrorism Terrorist attacks in venues and public spaces: explosive devices Terrorist attacks in venues and public spaces: marauding attacks Malicious maritime incident Malicious rail incident Malicious aviation incident Strategic hostage taking Assassination of a high-profile public figure	<ul> <li>30</li> <li>31</li> <li>32</li> <li>33</li> <li>34</li> <li>35</li> <li>36</li> <li>37</li> <li>38</li> <li>39</li> <li>41</li> </ul>

Chemical, Biological, Radiological and Nuclear (CBRN) attack	s 43
Malicious attack on chemicals infrastructure	45
Conventional attack: gas infrastructure	46
Cyber attack: gas infrastructure	47
Conventional attack: electricity infrastructure	48
Cyber attack: electricity infrastructure	49
Conventional attack: civil nuclear	50
Cyber attack: civil nuclear	51
Conventional attack: fuel supply infrastructure	52
Cyber attack: fuel supply infrastructure	53
Attack on government	54
<b>Cyber</b>	<b>55</b>
Cyber attack: health and social care system	56
Cyber attack: transport sector	58
Cyber attack: telecommunications systems	59
<b>State threats</b>	61
Malicious attack: UK financial CNI	62 5
Cyber attack: UK retail bank	63
Total loss of transatlantic telecommunications cables	64
<b>Geographic and diplomatic risks</b>	<b>65</b>
Disruption of Russian gas supplies to Europe	66
Disruption to global oil trade routes	67
Accidents and systems failures Major adult social care provider failure Insolvency of supplier(s) of critical services to the public sector Insolvency affecting fuel supply Rail accident Large passenger vessel accident Major maritime pollution incident Incident (grounding/sinking) of a vessel blocking a major por Accident involving high-consequence dangerous goods Aviation collision	73 75 77 79

## National Risk Register 2023

## CONTENTS

Accidental large toxic chemical release from an onshore113Animal disease: major outbreak of African horse sickness Animal disease: major outbreak of African swine feverAccidental fire or explosion on an offshore oil or gas installation115Major outbreak of plant pest: Xylella fastidiosa Major outbreak of plant pest: Agrilus planipennisAccidental fire or explosion at an onshore fuel pipeline117Accidental fire or explosion at an onshore major accident119Accidental work-related (laboratory) release of a hazardous pathogen121Reservoir/dam collapse123Water infrastructure failure or loss of drinking water125Food supply contamination127Major fire128Conflict and instability pace-based services			
Loss of Positioning, Navigation and Timing (PNT) services91Low temperatures and snowSimultaneous loss of all fixed and mobile forms of communication93Coastal floodingFailure of the National Electricity Transmission System (NETS)95Fluvial floodingRegional failure of the electricity network99DroughtFailure of gas supply infrastructure99DroughtRadiation elease from overseas nuclear site101Poor air qualityRadiation exposure from transported, stolen or lost goods105Human, animal and plant healthTechnological failure at a UK critical financial market infrastructure109Outbreak of an emerging infectious diseaseAccidental large toxic chemical release from an onshore major111Animal disease: major outbreak of African horse sicknessAccidental fire or explosion at an onshore oil or agas installation115Major outbreak of plant pest: <i>Xylella fastidiosa</i> Major outbreak of plant pest: <i>Xylella fastidiosa</i> arriving from overseasAccidental fire or explosion at an onshore major accident119Societal Public disorder Industrial actionAccidental fire or explosion at an onshore major accident119Societal Public disorder Industrial action Reception and integration of British nationals arriving from overseasAccidental fire or explosion at an onshore major accident119Societal <br< td=""><td></td><td></td><td></td></br<>			
Simultaneous loss of all fixed and mobile forms of communication93Coastal floodingFailure of the National Electricity Transmission System (NETS)95Fluvial floodingRegional failure of the electricity network97Surface water floodingFailure of gas supply infrastructure99DroughtCivil nuclear accident101Poor air qualityRadiation release from overseas nuclear site103Radiation release from transported, stolen or lost goods105Human, animal and plant healthTechnological failure at a systemically important retail bank107PandemicCockental fire or explosion at an onshore major111Animal disease: major outbreak of foot and mouth diseaseAccidental large toxic chemical release from an onshore113Animal disease: major outbreak of African horse sicknessmajor hazard (COMAH) site115Major outbreak of plant pest: Xylella fastidiosaAccidental fire or explosion at an onshore major115Major outbreak of plant pest: Xylella fastidiosaAccidental fire or explosion at an onshore fuel pipeline117SocietalAccidental fire or explosion at an onshore major accident119Public disorderhazard ous pathogen121Industrial actionAccidental fire or explosion at an onshore major accident117Accidental fire or explosion at an onshore major accident117Accidental work-related (laboratory) release of a hazard ous pathogen121Accidental work-related (laboratory) release of a hazardous pathogen121Recervoir/dam collaps			
Failure of the National Electricity Transmission System (NETS)95Fluvial floodingRegional failure of the electricity network97Surface water floodingFailure of gas supply infrastructure99DroughtRadiation release from overseas nuclear site101Poor air qualityRadiation release from overseas nuclear site103Radiation exposure from transported, stolen or lost goods105Human, animal and plant healthTechnological failure at a systemically important retail bank107PandemicOutbreak of an emerging infectious diseaseAccidental fire or explosion at an onshore major111Accidental fire or explosion at an onshore major111Animal disease: major outbreak of African horse sicknessmajor hazard (COMAH) site115Major outbreak of plant pest: Xylella fastidiosa Major outbreak of plant pest: Xylella fastidiosa Major outbreak of plant pest: Xylella fastidiosa Major outbreak of plant pest: Agrilus planipennisAccidental fire or explosion at an onshore fuel pipeline117Accidental fire or explosion at an onshore major accident119Publ			•
Regional failure of the electricity network97Surface water floodingFailure of gas supply infrastructure99DroughtCivil nuclear accident101Poor air qualityRadiation elease from overseas nuclear site103Radiation exposure from transported, stolen or lost goods105Human, animal and plant healthTechnological failure at a systemically important retail bank107PandemicOutbreak of an emerging infectious disease0Outbreak of an emerging infectious diseaseAccidental fire or explosion at an onshore major111Animal disease: major outbreak of highly pathogenic avian influenzAccidental large toxic chemical release from an onshore113Animal disease: major outbreak of African horse sicknessmajor hazard (COMAH) site115Major outbreak of plant pest: Xylella fastidiosaAccidental fire or explosion on an offshore oil or115Major outbreak of plant pest: Xylella fastidiosaMajor outbreak fire or explosion at an onshore major accident117SocietalAccidental fire or explosion at an onshore major accident119Public disorderhazard pipeline117SocietalAccidental fire or explosion at an onshore major accident119SocietalAccidental fire or explosion at an onshore major accident117Societal<			-
Failure of gas supply infrastructure99DroughtCivil nuclear accident101Poor air qualityRadiation release from overseas nuclear site101Poor air qualityRadiation release from transported, stolen or lost goods105Human, animal and plant healthTechnological failure at a systemically important retail bank107PandemicTechnological failure at a UK critical financial market infrastructure109Outbreak of an emerging infectious diseaseAccidental fire or explosion at an onshore major111Animal disease: major outbreak of foot and mouth diseasehazard (COMAH) site113Animal disease: major outbreak of African horse sicknessAccidental large toxic chemical release from an onshore113Animal disease: major outbreak of African horse sicknessmajor hazard (COMAH) site115Major outbreak of plant pest: Xylella fastidiosaAccidental fire or explosion on an offshore oil or115Major outbreak of plant pest: Xylella fastidiosagas installation117SocietalAccidental fire or explosion at an onshore fuel pipeline117Accidental fire or explosion at an onshore fuel pipeline117Accidental work-related (laboratory) release of121nazard ous pathogen121Reservoir/dam collapse123Water infrastructure failure or loss of drinking water125Food supply contamination127Major fire212Major fire229			
Civil nuclear accident101Poor air qualityRadiation release from overseas nuclear site103Radiation release from overseas nuclear site103Radiation exposure from transported, stolen or lost goods105Technological failure at a systemically important retail bank107Pandemic104Condraft fire or explosion at an onshore major101Accidental fire or explosion at an onshore major101Accidental large toxic chemical release from an onshore111Accidental fire or explosion on an offshore oil or113gas installationAnimal disease: major outbreak of African horse sicknessAccidental fire or explosion at an onshore fuel pipeline117Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore fuel pipeline117Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore major accident117Accidental fire or explosion at an onshore major accident117Accidental fire or explosion at an onshore major accident119Public disorder121Accidental fire or explosion at an onshore major accident121Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore major accident121Accidental fire or explosion at an onshore major accident121<			0
Radiation release from overseas nuclear site103Radiation exposure from transported, stolen or lost goods105Technological failure at a systemically important retail bank107Technological failure at a UK critical financial market infrastructure109Accidental fire or explosion at an onshore major111hazard (COMAH) site113Accidental fire or explosion on an offshore oil or113Accidental fire or explosion on an offshore oil or115Major outbreak of plant pest: Xylella fastidiosaMajor dipeline117Accidental fire or explosion at an onshore major accident119Accidental fire or explosion on an offshore oil or115Major outbreak of plant pest: Xylella fastidiosaMajor outbreak of plant pest: Xylella fastidiosaMajor outbreak of plant pest: Agrilus planipennisAccidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore fuel pipeline121Accidental fire or explosion at an onshore major accident122Mazard oipeline123Accidental fire or explosion at an onshore major accident124Public disorder125Accidental fire or explosion at an onshore major accident126Accidental fire or explosion at an onshore major accident127Accidental fire or explosion at an onshore major accident128Accidental fire or explosion at an onshore major accident129Accidental fire or explosion at an onsho			5
Radiation exposure from transported, stolen or lost goods105Human, animal and plant healthTechnological failure at a systemically important retail bank107PandemicTechnological failure at a UK critical financial market infrastructure109Outbreak of an emerging infectious diseaseAccidental fire or explosion at an onshore major111Animal disease: major outbreak of highly pathogenic avian influenzAccidental large toxic chemical release from an onshore113Animal disease: major outbreak of African horse sicknessAccidental lire or explosion on an offshore oil or115Major outbreak of plant pest: Xylella fastidiosagas installation115Major outbreak of plant pest: Xylella fastidiosaAccidental fire or explosion at an onshore fuel pipeline117Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore fuel pipeline117Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore major accident121Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore major accident119Accidental fire or explosion at an onshore major accident121Accidental work-related (laboratory) release of a hazardous pathogen121Reservoir/dam collapse123<			
Technological failure at a systemically important retail bank107PandemicTechnological failure at a UK critical financial market infrastructure109Outbreak of an emerging infectious diseaseAccidental fire or explosion at an onshore major111Animal disease: major outbreak of foot and mouth diseaseAccidental large toxic chemical release from an onshore113Animal disease: major outbreak of African horse sicknessmajor hazard (COMAH) site113Animal disease: major outbreak of African horse sicknessAccidental fire or explosion on an offshore oil or115Major outbreak of plant pest: Xylella fastidiosagas installation117Major outbreak of plant pest: Agrilus planipennisAccidental fire or explosion at an onshore major accident117hazard pipeline117Accidental fire or explosion at an onshore major accident119hazard pipeline117Accidental fire or explosion at an onshore major accident119hazard pipeline117Accidental work-related (laboratory) release of121a hazardous pathogen121Reservoir/dam collapse123Water infrastructure failure or loss of drinking water125Food supply contamination127Major fire209Major fire129Paliberate disruption of UK space systems and space-based services			Human, animal and plant health
Technological failure at a UK critical financial market infrastructure109Outbreak of an emerging infectious diseaseAccidental fire or explosion at an onshore major111Animal disease: major outbreak of highly pathogenic avian influenzAccidental large toxic chemical release from an onshore113Animal disease: major outbreak of African horse sicknessmajor hazard (COMAH) site113Animal disease: major outbreak of African swine feverAccidental fire or explosion on an offshore oil or115Major outbreak of plant pest: Xylella fastidiosagas installation117SocietalAccidental fire or explosion at an onshore fuel pipeline117Accidental fire or explosion at an onshore major accident119Public disorder119Accidental work-related (laboratory) release of121a hazardous pathogen123Water infrastructure failure or loss of drinking water125Food supply contamination127Major fire20Major fire129Acidental fire129Acidental fire or explosion at an onshore fuel pipeline117Accidental fue or explosion at an onshore major accident118Animal disease129Accidental fue or explosion at an onshore fuel pipeline120121Accidental fue or explosion at an onshore fuel pipeline122Accidental work-related (laboratory) release of123Animal disease124Accidental work-related (laboratory)125			Pandemic
Accidental fire or explosion at an onshore major111Animal disease: major outbreak of foot and mouth diseasehazard (COMAH) siteAnimal disease: major outbreak of highly pathogenic avian influenzAccidental large toxic chemical release from an onshore113Animal disease: major outbreak of African horse sicknessmajor hazard (COMAH) site113Animal disease: major outbreak of African swine feverAccidental fire or explosion on an offshore oil or115Major outbreak of plant pest: Xylella fastidiosagas installation117Major outbreak of plant pest: Agrilus planipennisAccidental fire or explosion at an onshore fuel pipeline117Accidental work-related (laboratory) release of121a hazardous pathogen121Reservoir/dam collapse123Water infrastructure failure or loss of drinking water125Food supply contamination127Major fire127Major fire127Deliberate disruption of UK space systems and space-based services			Outbreak of an emerging infectious disease
hazard (COMAH) siteAnimal disease: major outbreak of highly pathogenic avian influenzAccidental large toxic chemical release from an onshore major hazard (COMAH) site113Animal disease: major outbreak of African horse sickness Animal disease: major outbreak of plant pest: Xylella fastidiosa Major outbreak of plant pest: Xylella fastidiosa Major outbreak of plant pest: Agrilus planipennisAccidental fire or explosion at an onshore fuel pipeline Accidental fire or explosion at an onshore major accident hazard pipeline117 Societal Public disorderAccidental work-related (laboratory) release of a hazardous pathogen Reservoir/dam collapse121 Reception and integration of British nationals arriving from overseasWater infrastructure failure or loss of drinking water Food supply contamination127 Deliberate disruption of UK space systems and space-based services			Animal disease: major outbreak of foot and mouth disease
Accidental large toxic chemical release from an onshore major hazard (COMAH) site113Animal disease: major outbreak of African horse sickness Animal disease: major outbreak of African swine feverAccidental fire or explosion on an offshore oil or gas installation115Major outbreak of plant pest: Xylella fastidiosa Major outbreak of plant pest: Agrilus planipennisAccidental fire or explosion at an onshore fuel pipeline hazard pipeline117Societal Public disorderAccidental work-related (laboratory) release of a hazardous pathogen121Industrial action Reception and integration of British nationals arriving from overseasWater infrastructure failure or loss of drinking water125Conflict and instability Deliberate disruption of UK space systems and space-based services			Animal disease: major outbreak of highly pathogenic avian influenza
major hazard (COMAH) siteAnimal disease: major outbreak of African swine feverAccidental fire or explosion on an offshore oil or gas installation115Major outbreak of plant pest: Xylella fastidiosa Major outbreak of plant pest: Agrilus planipennisAccidental fire or explosion at an onshore fuel pipeline117Societal Public disorderAccidental work-related (laboratory) release of a hazardous pathogen121Industrial action Reception and integration of British nationals arriving from overseasWater infrastructure failure or loss of drinking water125Conflict and instability Deliberate disruption of UK space systems and space-based services		113	Animal disease: major outbreak of African horse sickness
Accidental fire or explosion on an offshore oil or gas installation115Major outbreak of plant pest: Xylella fastidiosa Major outbreak of plant pest: Agrilus planipennisAccidental fire or explosion at an onshore fuel pipeline117Societal Public disorderAccidental fire or explosion at an onshore major accident119Societal Public disorderhazard pipeline121Industrial action Reception and integration of British nationals arriving from overseasAccidental work-related (laboratory) release of a hazardous pathogen123123Water infrastructure failure or loss of drinking water125Conflict and instability Deliberate disruption of UK space systems and space-based services			Animal disease: major outbreak of African swine fever
gas installationMajor outbreak of plant pest: Agrilus planipennisAccidental fire or explosion at an onshore fuel pipeline117Accidental fire or explosion at an onshore major accident119hazard pipeline119Accidental work-related (laboratory) release of a hazardous pathogen121Reservoir/dam collapse123Water infrastructure failure or loss of drinking water125Food supply contamination127Major fire129Conflict and instability space-based services	-	115	Major outbreak of plant pest: Xylella fastidiosa
Accidental fire or explosion at an onshore fuel pipeline117Accidental fire or explosion at an onshore major accident119hazard pipeline119Accidental work-related (laboratory) release of a hazardous pathogen121Reservoir/dam collapse123Water infrastructure failure or loss of drinking water125Food supply contamination127Major fire129Conflict and instability pace-based services	·		Major outbreak of plant pest: Agrilus planipennis
Accidental fire or explosion at an onshore major accident119Societal Public disorderhazard pipeline119Public disorderAccidental work-related (laboratory) release of a hazardous pathogen121Industrial action Reception and integration of British nationals arriving from overseasReservoir/dam collapse123123Water infrastructure failure or loss of drinking water125Conflict and instability Deliberate disruption of UK space systems and space-based services	-	117	
hazard pipelinePublic disorderAccidental work-related (laboratory) release of a hazardous pathogen121Industrial action Reception and integration of British nationals arriving from overseasReservoir/dam collapse123123Water infrastructure failure or loss of drinking water125Conflict and instability Deliberate disruption of UK space systems and space-based services			
Accidental work-related (laboratory) release of a hazardous pathogen121Industrial action Reception and integration of British nationals arriving from overseasReservoir/dam collapse123123Water infrastructure failure or loss of drinking water125Conflict and instability Deliberate disruption of UK space systems and space-based services			
a hazardous pathogenReception and integration of British nationals arriving from overseasReservoir/dam collapse123Water infrastructure failure or loss of drinking water125Food supply contamination127Major fire129Deliberate disruption of UK space systems and space-based services	•••	121	
Reservoir/dam collapse123arriving from overseasWater infrastructure failure or loss of drinking water125Conflict and instabilityFood supply contamination127Deliberate disruption of UK space systems and space-based services	-		
Water infrastructure failure or loss of drinking water125Conflict and instabilityFood supply contamination127Deliberate disruption of UK space systems andMajor fire129space-based services		123	arriving from overseas
Food supply contamination127Deliberate disruption of UK space systems and space-based servicesMajor fire129		125	Conflict and instability
Major fire 129 space-based services	-		-
		129	
Attack on a LIK ally or partner outside NATO or a mutual	,		Attack on a UK ally or partner outside NATO or a mutual
Natural and environmental hazards Wildfing Wildfing	Natural and environmental hazards	131	
Wildfire     132     132       Value rise executive agreement requiring international assistance     132	Wildfire	132	
Volcanic eruption 134 134 which meets the Article 5 threshold	Volcanic eruption	134	
Earthquake 136 Conventional attack on the LIK mainland or overseas territories	•	136	
Humanitarian crisis overseas: natural hazard event 138	Humanitarian crisis overseas: natural hazard event		
Disaster response in the Overseas Territories 140	Disaster response in the Overseas Territories	140	
Severe space weather 142	Severe space weather	142	

173<u>ט</u>ד 

This page is intentionally left blank