



Rialtas na hÉireann
Government of Ireland

Report to the Government Task Force on Emergency Planning

National Disaster Risk Management Capabilities Assessment - 2021

*Prepared by the Office of Emergency Planning, Department of Defence,
on behalf of the Minister for Defence and
Chair of the Government Task Force on Emergency Planning.*

Foreword by Minister for Foreign Affairs and Minister for Defence, Simon Coveney T.D.

The year 2021 has been a difficult and eventful one for Ireland. The nation has faced considerable challenges resulting from a global pandemic unlike any we have seen in our lifetimes. We also continue to deal with the considerable challenges brought about by the United Kingdom's decision to leave the European Union.

Despite the inherent challenges, work of a consistently robust, effective and thorough nature continues to be done by the Government Departments and Agencies focussed on strategic emergency management in Ireland.

In my role as Chair of the Government Task Force on Emergency Planning, I wish to thank the staff of the Office of Emergency Planning and the members of the GTF Subgroup on Risk for their hard work and dedication in assisting with the management and preparation of this National Disaster Risk Management Capabilities Assessment for Ireland.

This report provides an excellent assessment of our national ability and current capabilities to manage the strategic risks identified in the National Risk Assessment for Ireland 2020. This report will be shared with the European Commission and I have no doubt that it will contribute significantly to collaborative risk management efforts at a European level.

Simon Coveney T.D.

Acknowledgements

The Minister for Defence and Chair of the Government Task Force on Emergency Planning, Simon Coveney, T.D., wishes to thank the staff of the Office of Emergency Planning and the members of the GTF Subgroup on Risk for their hard work and dedication in assisting the GTF with the management and preparation of this National Disaster Risk Management Capabilities Assessment for Ireland and the European Commission 2021.

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1. Introduction

Under the auspices of a European Union (EU) decision on the Union Civil Protection Mechanism, which entered into force on the 1st January 2014, Member States agreed to carry out a number of disaster prevention actions, including the sharing of the ‘assessment of their risk management capability at national or appropriate sub-national level every three years following the finalisation of the relevant guidelines’¹. The EU Commission has developed, together with Member States, reporting guidelines on disaster risk management as contained in Art. 6(1) d of Decision No 1313/2013/EU (2019/C 428/07)². This provides the context for carrying out national assessments on the basis of existing national risk management arrangements, which specifically relate to the risks identified in the National Risk Assessment (NRA) for Ireland 2020.

Using these guidelines, the risk management capabilities of the Lead Government Departments (LGD) deemed responsible for those risks as identified in Strategic Emergency Management (SEM): National Structures and Framework - Annex A³ and the NRA 2020⁴ were assessed in order to augment the management of the following stages across the disaster risk management cycle.

- 1 Risk Assessment Processes
- 2 Risk Management Planning for Prevention and Preparedness
- 3 Implementation of the Risk Prevention and Preparedness Measures.

The EU guidelines proposed such a methodology for this assessment that could be adapted to the needs and requirements of each Member State (MS). These guidelines were adopted as a common starting position in order to enable common understanding of the required elements of the national risk management capability assessment (RMCA) and encourage some unity of effort in so far as practically possible.

As a first step in this process the Government Task Force (GTF) on Emergency Planning carried out the third National Risk Assessment process leading to the endorsement of the NRA 2020, which was submitted to Government and then the EU Commission in March 2021.

¹ EU COMMISSION NOTICE: Risk Management Capability Assessment Guidelines (2015/C 261/03). Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015XC0808\(01\)&from=SL](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015XC0808(01)&from=SL)

² Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.C..2019.428.01.0008.01.ENG&toc=OJ%3AC%3A2019%3A428%3ATOC>

³ Available at <https://www.gov.ie/en/publication/7ff6f-strategic-emergency-management-sem-national-structures-and-framework/>

⁴ Available at <https://www.gov.ie/en/press-release/5e685-national-risk-assessment-for-ireland-2020/>

The second step in this process started in July 2021 when the risk management capabilities assessment commenced with a detailed qualitative description of the national disaster management cycle for the risks identified in the NRA 2020. The questions listed in the posed EU guidelines were extracted and amended into a questionnaire designed by the Office of Emergency Planning (OEP) to guide national level assessment of risk management capabilities. The questionnaire was amended post stakeholder engagement to a set number of 22 specific questions covering two set themes of first, NRA practices and second, national risk management capability assessment.

In the answering of these key questions, Irish LGDs provided detailed qualitative and in cases where possible, quantitative data in relation to the assessment of each risk identified by the NRA 2020. In the determination of the responsibilities of each LGD in relation to these identified risks, Annex A of the SEM, as approved by the Irish Government in July 2017, was adopted. This approach to the assessment of the LGD risk management capabilities was deemed appropriate to cover the entire disaster risk management cycle. It will, therefore, provide a strong base from which to assess LGD emergency management capabilities into the future.

LGDs conducted their risk management capabilities assessments for the risks illustrated in Table 1 (adapted from the NRA 2020).

Table 1: National Risks and LGD (as per NRA 2020 & SEM Annex A)

NRA ID	NRA Risk Score	LGD	NRA 2020 - Risk Description <i>(Reasonable Worst Case Scenario)</i>
A	8	DHLGH	Storm <i>(Severe Weather Storm)</i>
B	9	DHLGH	Snow and Ice <i>(Severe Snow Fall)</i>
C	12	DHLGH	Flooding <i>(Serious River/Coastal Flooding)</i>
D	12	DT	Maritime Incident <i>(Vessel blockage – Dublin Port)</i>
E	12	DT	Air Incident <i>(Serious Aircraft Accident)</i>
F	12	DT	Transport Hub <i>(Vessel blockage – Dublin Port)</i>
G	6	DT	Structural Collapse <i>(Significant structural damage to Dublin Port Tunnel)</i>
H	10	DECC	Nuclear Incident (Abroad) <i>(Impact of serious Nuclear Incident in North-western Europe)</i>
I	15	DECC	Cyber Incident <i>(Network attack compromising or causing a disruption to the national grid, triggering a domino effect)</i>
J	15	DECC	Disruption to Energy Supply <i>(Disruption to the gas interconnector with the UK during a period of cold weather)</i>
K	6	DJ	Terrorist Incident <i>(National Security Related Incidents (including terrorism))</i>
L	25	DH	Pandemic <i>(Current COVID-19 Pandemic)</i>
M	12	DAFM	Food Chain Contamination <i>(Actual or perceived contamination of Irish manufactured dairy products resulting in significant reputational damage)</i>
N	4	DJ	Large Crowd Event <i>(Unlicensed event without consultation with PRAs)</i>
O	12	DAFM	Animal Disease <i>(Foot and Mouth Outbreak)</i>
P	16	DHLGH	Water Supply <i>(Loss of Water Supply to a large urban area)</i>
LPHI	N/A	DECC	Tsunami <i>(Tsunami similar to one caused by Lisbon Earthquake of 1755 as the only Low Probability High Impact Risk)</i>

As part of the process, the OEP conducted a workshop and facilitated the production of a co-ordinated response to the replies on the 16 identified national level risks. This liaison was conducted with the identified LGD Principal Point of Contact for each of the LGDs identified in Column 3 of Table 1 above. OEP collated all of the replies received to provide this report of the National Risk Management Capabilities Assessment process, in line with the EU Decision requiring MS to carry out and to make available to the EU Commission such an assessment every three years.

The conduct of this assessment process has provided the GTF, the LGDs and Government with a good cross-sectoral overview of the different national level risks and capability assessments associated with these risks. It further enables the identification of those risks that need to be prioritised, a view of the suitability and actual performance of the process of risk management planning, including the identification of appropriate prevention and preparedness measures, as well as a clear picture on the implementation processes of any relevant measures. The production of this report was enabled by the excellent contributions by all LGDs and stakeholders and will further inform the review of the National Risk Assessment process and the future capability development planning by the GTF and the LGDs.

2. Risk Assessment

The GTF, which is chaired by the Minister for Defence, is responsible for the oversight and co-ordination of national level emergency management. The responsibility for the response to an actual emergency at a national level remains with the LGDs as identified in Annex A of the SEM⁵. The GTF oversaw the development of this SEM Framework based on extensive engagement with the LGDs.

The GTF comprises senior representatives of all Government Departments and key Agencies. The GTF, which is supported by the OEP, co-ordinates and oversees the emergency management policy and activities of all Government Departments and Agencies under their aegis. The GTF provides political leadership and facilitates co-ordination of emergency management between Departments and Agencies on an ongoing basis.

The OEP provides peer support to Government Departments and Agencies in carrying out our national risk management processes and identifying capability gaps and informing capability development. The OEP also acts as a focal point in matters of emergency planning and risk assessment specifically and emergency management generally. It acts to improve co-ordination of emergency planning across the various Departments and Agencies.

⁵ Department of Defence (2017) *Strategic Emergency Management National Structures and Framework*. Dublin: Defence Forces Printing Press Available at: https://www.emergencyplanning.ie/system/files/media/file-uploads/2018-06/Strategic%20Emergency%20Management%20National%20Structures%20and%20Framework_0.pdf

2.1 The Irish National Risk Assessment Process

Question 1: Assessment of Risk Management Capabilities Questionnaire

Describe how your department's risk assessment process fits into an overall disaster risk management framework.

Detail legislative, procedural and institutional aspects.

Please, explain whether responsibility for the risk assessment lies at departmental or national level or at an appropriate sub-national level such as agencies under the aegis of the department, local authorities, competent authorities etc.

The White Paper on Defence (2015)⁶ sets out the Irish Government's commitment to maintain, and further develop, a robust strategic national emergency management framework. An update to this White Paper on Defence was published in 2019⁷, which included an updated security environment assessment. This update noted that perceptions of real as well as possible or assumed risks combine to create the overall picture. It further noted that the capture of this very complex picture will always be challenging given that there will always be a degree of subjectivity involved. This is then further complicated by unknown future risks. What may seem remote today can quickly emerge in the form of strategic shocks that can have system-wide or transnational impacts.

The production and publication of the NRA for Ireland 2020⁸ by the GTF is an integral component of this work and of the adopted emergency management paradigm outlined in the SEM document approved by Government in July 2017. In accordance with good international practice, the GTF has repeated this NRA process at approximately three yearly intervals in order to capture new and emerging risks, changing trends, cross-border dependencies, and the impacts of climate change. The NRA 2020 also functions to help inform the broader strategic level National Risk Assessment: Overview of Strategic Risks process undertaken by the Department of the Taoiseach⁹. This separate annual consultative process sets out a specific list of strategic risks, both financial and non-financial, which Ireland also faces.

⁶ Department of Defence (2015) *White Paper on Defence*. Available at: <https://www.gov.ie/en/publication/1b0dc6-white-paper-on-defence/>

⁷ Department of Defence (2019) *White Paper on Defence: Update 2019*. Available at: <https://www.gov.ie/en/publication/a519cf-white-paper-on-defence-update-2019/>

⁸ Available at: <https://www.gov.ie/en/press-release/5e685-national-risk-assessment-for-ireland-2020/>

⁹ Department of the Taoiseach (2020) *National Risk Assessment: Overview of Strategic Risks*. Available at: <https://www.gov.ie/en/press-release/e8f9f0-government-publishes-top-strategic-risks-facing-ireland-national-ris/>

The NRA for 2020 specifically meets the EU reporting requirements underlined in the Union Civil Protection Mechanism¹⁰. In the context of the Union Civil Protection Mechanism legislation the EU Commission was tasked, together with MS, to develop Reporting Guidelines on Disaster Risk Management, which the GTF follow during this process.

2.2 Consultation with Relevant Authorities and Stakeholders

<p>Question 2: Assessment of Risk Management Capabilities Questionnaire</p> <p><i>Describe the range of relevant authorities and stakeholders involved in your department's risk assessment process.</i></p> <p>If appropriate: <i>Describe the nature of their involvement, specifying their roles and responsibilities.</i></p> <p><i>In addition, describe the range of relevant authorities and stakeholders involved on your department's behalf in the risk assessment process.</i></p> <p><i>This should include those who were involved in the submission of your departments' list of consolidated risks.</i></p> <p><i>It should also include those subject matter experts nominated by your department to the expert focus groups of the NRA process.</i></p>

The structures and arrangements for national emergency management are as set out in the published SEM document and the associated Annexes. The SEM identifies 50 different emergency/incident types across a range of LGD's responsibilities. It provides the basis for the national level strategic emergency management, risk management and the supports required should such emergencies occur where a national level response is warranted, including security related emergencies.

However, emergencies should be dealt with locally wherever possible and the separate Major Emergency Management (MEM) Framework¹¹ developed in 2006, will be reviewed by the National Steering Group for Major Emergency Management. It will incorporate lessons identified from a review of the response to the COVID-19 Public Health Emergency. The National Steering Group oversees inter-agency co-ordination among the Principal Response Agencies (PRAs). The Framework guides the local and regional responses and inputs into the national level responses, which the SEM addresses, when warranted, through the convening of a National Emergency Co-ordination Group chaired by the LGD as identified in Annex A of the SEM.

¹⁰ EU Civil Protection Mechanism: Union Civil Protection Mechanism Legal Framework. Available at: https://ec.europa.eu/echo/who/about-echo/legal-framework_en

¹¹ MEM (2006) A Framework for Major Emergency Management. Available at: <http://mem.ie/wp-content/uploads/2015/05/A-Framework-For-Major-Emergency-Management.pdf>

Each LGD has the mandate and responsibility to co-ordinate all national level activity for its assigned emergency types. Its role includes risk assessment, planning and preparedness, prevention, mitigation, response, and recovery. Annex A of the SEM sets out the LGD for each emergency type identified. Support Department and Agency responsibilities are also assigned.

All Government Departments and the Agencies under their aegis will be prepared to act in a principal support or in another support role. A Principal Support Role is one that is explicitly mentioned in a Department’s emergency plans. Other support roles include non-specific assistance, which may be requested from any Department or Agency in an emergency. The LGD identifies the specific roles which it expects Support Departments/Agencies to undertake in an emergency, and works with them in the planning and preparedness phase.

2.3 Identifying the Key Risks at Departmental or Sub-National Level

3: Assessment of Risk Management Capabilities Questionnaire	
<i>List the key risks identified by your department that could have significant adverse human, economic, environmental and political/social impacts (including security).</i>	
<i>From the above key risks, identify if applicable :</i>	
3.1	<i>Any key risks which could have significant adverse cross-border impacts, coming from or affecting the neighbouring country or countries.</i>
3.2	<i>Any key risks with a low probability and high impact.</i>
	<i>Where appropriate:</i>
3.3	<i>List any key risks identified by your department as expected in the future. These may include any emerging risks that could have significant adverse human, economic, environmental and political/social impacts (including impacts on security).</i>

During the compilation of the NRA 2020, all Government Departments and their Agencies (where appropriate) submitted to the OEP a listing of risks which, in their expert view, had the potential to trigger a national level emergency. A total of 182 initial risks were submitted for consideration. The risks submitted were reviewed by the NRA Working Group. By taking account of the various inputs, identifying duplicated or overlapping risks, and eliminating those risks better described as consequences, a consolidated list of risks with the potential to trigger a national level emergency was prepared (38 risks).

The Working Group then completed a deeper review of all 38 risks. Risks judged as "low probability risks with a high impact" were removed from the consolidated risk list at this point in the process. The 22 risks which emerged from Stage 1 were grouped, in accordance with the SEM, into four categories:

- Civil
- Natural
- Technological
- Transportation

This consolidated list was reviewed by the GTF Subgroup on Risk. Risks judged to be Low Probability High Impact (LPHI) or lower tier risks (below the threshold for inclusion, i.e. capable of being managed at Departmental, Agency or regional level) were removed. As part of the EU Reporting Guidelines on Disaster Risk Management¹², measures addressing key risks with cross-border impacts and, where appropriate, LPHI risks were also considered as part of the NRA process.

In Ireland's case the only risk assessed as being a LPHI risk was a Tsunami. Such an event could also be considered as a potential cross-border risk impacting on a number of EU Member States.

Following this review, a total of 16 key risks were approved as the Consolidated List of National Risks for assessment by the Expert Focus Groups. For each risk category (civil, natural, technological, transportation), the Expert Focus Groups of specialists drawn from the relevant Government Departments and State Agencies were established. Prior to attending, each participant consulted with appropriate colleagues to gather data and expert opinion relevant to the identified key risks. For each key risk, the Expert Focus Group carried out the following tasks:

1. Identified the reasonable worst case scenario (RWCS).
2. Assessed the likelihood (probability) of the scenario occurring.
3. Determined the impact on people, the environment, the economy and society.
4. Assessed the appropriate climate impact for each risk, where appropriate.

¹² Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.C_.2019.428.01.0008.01.ENG&toc=OJ%3AC%3A2019%3A428%3ATOC

2.4 Identifying Climate Change Impacts

Question 4: Assessment of Risk Management Capabilities Questionnaire
<p><i>Determine which of the above-mentioned key risks are directly linked to climate change impacts.</i></p> <p><i>Please take into consideration the existing national and sub-national climate change adaptation strategy and/or action plans or any relevant climate risk and vulnerability assessments, where appropriate.</i></p> <p><i>Determine if those key risk(s) identified in 'A Risk Assessment for Ireland' for which your department has responsibility are directly linked to climate change impacts.</i></p> <p><i>Please take into consideration the existing national and sub-national climate change adaptation strategy and/or action plans or any relevant climate risk and vulnerability assessments, where appropriate.</i></p>

In line with EU guidance¹³, the Expert Focus Groups gave particular consideration to the potential impact of climate change (climate change trajectory), the interdependent nature of elements of critical infrastructure (the domino and/or cascading effect), and any cross-border considerations or dependencies. To encourage good practice in preparing for the impact of climate change, each key risk was reviewed by the specialist Expert Focus Groups to determine the potential impact, if any, of climate change on the risk rating. Based on the data available, judgements were made as to whether each risk rating was likely to increase, decrease or remain unchanged. These rating criteria are depicted in Table 2.

Table 2: National Risk Rating Criteria (as per NRA 2020)

Key: Confidence Level		Key: Climate Change Trajectory	
High ***	Assessment based on expert knowledge of the issue and/or reliable, relevant, current data. Consistent agreement among assessors.		Based on the data available, risk rating likely to increase.
Moderate **	Assessment informed by significant knowledge of the issue and/or limited reliable, relevant, current data. Broad agreement among assessors.		Based on the data available, risk rating likely to remain unchanged.
Low *	Assessment informed by limited knowledge of the issue and/or insufficient reliable, relevant, current data. Limited agreement among assessors.		Based on the data available, risk rating likely to decrease.

¹³ DECISION No 1313/2013/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 December 2013 on a Union Civil Protection Mechanism, available at: <http://eur-lex.europa.eu/eli/dec/2013/1313/oj>

2.5 Risk Analysis

<p>Question 5: Assessment of Risk Management Capabilities Questionnaire</p> <p><i>Describe the scale of levels of probability and impact of the key risks identified (in Q3) including the key cross-border and key risks with a low probability and a high impact and, where appropriate, future and/or emerging risks.</i></p> <p><i>Display the results in a single risk matrix or other visualised graph/model as well, if applicable.</i></p> <p>If appropriate: <i>Outline the methods, models and techniques used to assess the probability and impacts of the different risks or risk scenarios.</i></p>

Following an analysis of the data from each of the Expert Focus Groups, the NRA Working Group plotted each risk on category-specific risk matrices, noting the confidence level for each assessment, and the climate change trajectory. An overall National Risk Matrix for 2020 was prepared along with a short narrative capturing qualitative data from the Expert Focus Groups, including cross-border dependencies and emerging risks.

The impact and likelihood criteria, outlined in Tables 3 and 4, were used as the basis for decision making with respect to each key risk. All assessments were made taking account of the mitigation measures already in place.

Table 3: National Risk Impact Assessment Criteria (as per NRA 2020)

Impact Category	1 Very Low Impact	2 Low Impact	3 Moderate Impact	4 High Impact	5 Very High Impact
People ¹⁴	Deaths less than 1 in 250,000 people for population of interest OR Critical injuries/illness less than 1 in 250,000 OR Serious injuries less than 1 in 100,000 OR Minor injuries only	Deaths greater than 1 in 250,000 people for population of interest OR Critical injuries/illness greater than 1 in 250,000 OR Serious injuries greater than 1 in 100,000	Deaths greater than 1 in 100,000 people for population of interest OR Critical injuries/illness greater than 1 in 100,000 OR Serious injuries greater than 1 in 40,000	Deaths greater than 1 in 40,000 people for population of interest OR Critical injuries/illness greater than 1 in 40,000 OR Serious injuries greater than 1 in 20,000	Deaths greater than 1 in 20,000 people for population of interest OR Critical injuries/illness greater than 1 in 20,000
Environment ¹⁵	Simple, localised contamination	Simple, regional contamination, effects of short duration	Heavy contamination localised effects or extended duration	Heavy contamination, widespread effects or extended duration	Very heavy contamination, widespread effects of extended duration
Economic ¹⁶	Up to 1% of Annual Budget	Greater than 1% of Annual Budget	Greater than 2% of Annual Budget	Greater than 4% of Annual Budget	Greater than 8% of Annual Budget
Social ¹⁷	Limited disruption to community	Community functioning with considerable inconvenience	Community functioning poorly	Community only partially functioning	Community unable to function without significant support

Table 4: National Risk Likelihood Assessment Criteria (as per NRA 2020)

Rating	Classification	Average Recurrence Interval*
1	Extremely Unlikely	100 or more years between occurrences
2	Very Unlikely	51 - 100 years between occurrences
3	Unlikely	11 – 50 years between occurrences
4	Likely	1 - 10 years between occurrences
5	Very Likely	Ongoing/Less than one year between occurrences

¹⁴ Injury or illness levels are determined by the extent of medical treatment required. Critical injuries pose an immediate threat to life. Serious injuries require significant medical care but are not expected to progress to life threatening status. Minor injuries require basic medical aid.

¹⁵ Environmental criteria are based on the EPA Environmental Impact Assessment Criteria - Available at: <https://www.epa.ie/pubs/advice/licence/Guidance%20to%20licensees.pdf>

¹⁶ Includes financial and economic costs associated with an emergency. Research indicates there is no universally accepted approach to expressing economic impact on the State. Commonly used metrics include Percentages (%) of Government Annual Budget, Gross Domestic Product (GDP), Gross National Income (GNI) or Gross National Product (GNP). In selecting the approach for Ireland’s NRA, consideration was given to international practice, consultation with Government Departments and EU guidance, e.g. the EU Solidarity Fund threshold. A Percentage (%) of Government Annual Budget was adopted as the most suitable “Proxy” for economic impact.

¹⁷ Consideration was given to the impact on: Infrastructure; Community Services; Utilities; Evacuation/Quarantine; Property/Housing; Supplies of Food, Water, Medicines; Civil Unrest; and Public Dissatisfaction. The focus is on the community as a whole rather than impact on the individual (already assessed under the “People” criteria).

2.6 Risk Mapping

Question 6: Assessment of Risk Management Capabilities Questionnaire

State whether any risk maps have been produced showing the expected spatial distribution of the key risks as identified at the identification and analysis stages (Q3, Q4 and Q5). If so, include them as appropriate.

The NRA process determines the key national risks which require "a higher level of management" and which risks "need not be considered further at this time" (BS EN 31010:2010). The matrix for each category of key risk (natural, transportation, technological and civil), is shown below. It is noted that while 16 key risks were assessed by the Expert Focus Groups, a total of 15 scenarios were agreed. This was due to the fact that the same Reasonable Worst Case Scenario was adopted for both Maritime and Transport Hub risks.

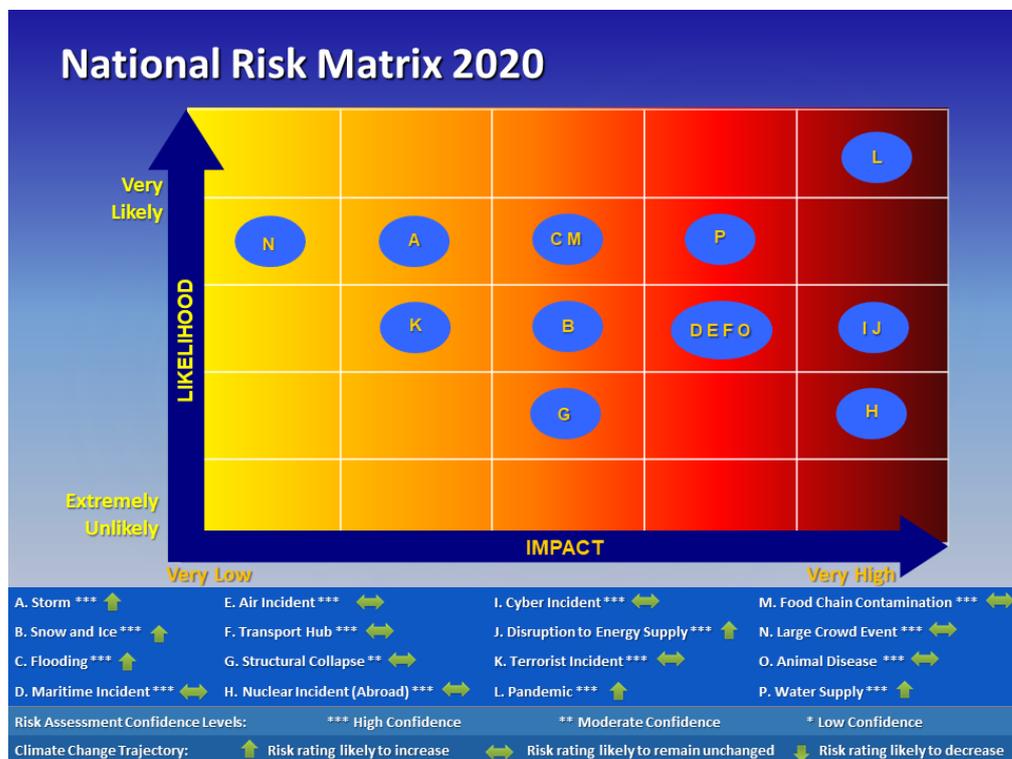


Figure 1: The final plotted NRA Matrix (As per NRA 2020)

2.7 Monitoring and Reviewing Risk Assessment

Question 7: Assessment of Risk Management Capabilities Questionnaire

Outline the system in place for monitoring and reviewing risk assessment so as to factor in new developments. How will your department monitor and review developments within existing key risks and also with the potential emergence of new emerging risks.

In the interest of continuous improvement and in line with the EU Reporting Guidelines on Disaster Risk Management, Art. 6 (1) d of Decision No 1313/2013/EU¹⁸, a number of enhancements were introduced to the NRA 2020 process. Horizon scanning was introduced at this point. Based on research and consultation within their Departments/Agencies, the Expert Focus Group members identified the risks likely to emerge in the medium to long-term. The identification and recording of such emerging risks within the NRA 2020 was undertaken to ensure ongoing monitoring for early warning signs which might trigger mitigation measures or require escalation into the NRA process.

2.8 Communicating Risk Assessment Results

Question 8: Assessment of Risk Management Capabilities Questionnaire

Describe your department's process of communicating and disseminating the results of 'A National Risk Assessment 2020'.

Outline how the risk assessment results are shared among policymakers, various public authorities with different types of responsibility, different levels of administration, and other relevant stakeholders.

State whether and how the general public is informed about the results of risk assessment, to make them aware of risks in their country or region and/or enable them to take informed decisions to protect themselves.

The National Risk Assessment 2020 and this document on our assessment of risk management capabilities are both published on the central Government portal at the following link: <https://www.gov.ie/en/press-release/5e685-national-risk-assessment-for-ireland-2020/>.

In addition the Office of Emergency Planning, on behalf of the GTF, have promoted its publication by the Minister for Defence over the www.emergencyplanning.ie website and through social media via the @emergencyIE Twitter account. The OEP, together with their academic partners in Dublin City University, also made presentations on the NRA 2020 at events such as the 2021 Annual Conference on Major Emergency Management and to the Emergency Management Institute of Ireland.

¹⁸ Available at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:347:0924:0947:EN:PDF>

Arrangements have also been put in place by the Departments and Agencies on the GTF to further disseminate the NRA 2020 through their own organisational structures and risk management processes, as will be the case with this document.

The main method of communicating the process involved in the approval of the NRA 2020 was conducted by the GTF through the submission of the NRA 2020 to Government, the EU Commission and the publication of these documents, as part of Ireland's reporting requirements under the EU Civil Protection Mechanism. The NRA 2020 has informed the overview carried out by the EU Commission of Member States' national level risk assessments, concentrating particularly on cross-border and EU wide key risks.

The GTF will continue to oversee and review the NRA process on a three year cycle, which will address how future assessments of national level key risks; assessments of risk management capabilities and the associated prioritisation of emergency planning, response preparations and mitigation of such key risks will be carried out and reported upon. This will include how this process is communicated to the public.

Nationally, the NRA 2020 will inform the collective and individual prioritisation of the risk management of these key risks, particularly by LGDs and other State Agencies responsible. The next stage in this process is the production of this report on an assessment of risk management capabilities as they pertain to the key risks identified in the NRA 2020. This work will further inform the prioritised training and exercising programmes on the emergency management of these key risks.

In addition, the next NRA process will commence again in early 2023 with the intention of it being completed by the end of 2023. This will be subject to any changes in the EU reporting requirements from the current revision of the EU Civil Protection Mechanism and the GTF review of the national risk management processes and any associated developments relating to proposed EU Directives that may have an impact on Member States' risk management processes.

Specifically, a new Directive focused on the resilience of critical entities is currently being negotiated. Known as the Critical Entities Resilience (CER) Directive, its purpose is to ensure the continuous provision of essential services to all of the citizens of the EU by enhancing the resilience of critical entities.

The environment in which critical entities operate has changed significantly in recent years. The risk landscape is more complex. The increased interconnectivity of critical entities, both cross-sectoral and cross-border, through integrated supply lines, technology and service provision brings additional challenges to risk, business continuity, and emergency management. The proposal, which covers 10 Sectors, namely: energy, transport, banking, financial market infrastructure, health, drinking water, waste water, digital infrastructure, public administration and space, is likely to be finalised in mid-2022. An assessment of the critical entities, providing services essential to vital societal functions, in each of these sectors should be considered in any future National Risk Assessment.

3. Risk Management Capabilities Assessment

3.1 Legislative, Procedural and/or Institutional Framework

<p>Question 9: Assessment of Risk Management Capabilities Questionnaire</p> <p><i>Describe the framework in place for your department's risk management capability assessment process (es). State whether it is based on a legal act, a strategic plan, an implementation plan or other procedural frameworks.</i></p> <p><i>If appropriate:</i> <i>State how often risk management capability is assessed.</i></p> <p><i>State whether the risk management capability assessment(s) is used for decision-making purposes.</i></p>

All LGDs' risk management capability assessment processes are in line with the guidelines set out, which meets the EU reporting requirements underlined in the Union Civil Protection Mechanism⁴.

The Office of Emergency Planning provides a whole of Government strategic co-ordination mechanism to prepare for and respond to national level emergencies. The OEP publishes a suite of guidance documents referenced by the 'Strategic Emergency Management National Structures and Framework' document. These documents set out the responsibilities of LGDs with respect to 50 national level emergencies and provide guidance material on national emergency co-ordination, communications strategies, the protection of critical infrastructure and, climate adaptation. These documents are continuously under review.

Risk Factor (NRA ID): Storm (A) / Snow and Ice (B)

The National Directorate for Fire and Emergency Management (NDFEM), in the Department of Housing, Local Government, and Heritage (DHLGH), periodically review the risk profile for the seven emergency scenarios which are assigned to DHLGH under the SEM. This review process updates risk information and overviews the co-ordination of risk management with the Principal Response Agencies.

In conjunction with the relevant guidance documents, the MEM Framework details how a structured risk assessment must be completed initially by the PRAs and then by regional, multi-agency teams in each of the eight designated MEM regions within the country.

As well as setting out how the PRAs work together, the MEM Framework also identifies how these plans link with other National Plans and with site or event-specific local emergency plans. These Regional Risk Assessments are carried out on a cyclical basis and feed into the NRA process.

Risk Factor (NRA ID): Flooding (C)

In May, 2018 Ireland published 29 Flood Risk Management Plans (FRMPs) to fulfil the third principal requirement of the 2007 EU ‘Floods’ Directive¹⁹ which was transposed into Irish law by Statutory Instruments (S.I.) Nos. 122 of 2010²⁰ and 495 of 2015²¹. The FRMPs followed the completion of the Preliminary Flood Risk Assessment (PFRA) and the preparation of the flood maps as required by the Directive. The OPW produced 29 FRMPs, developed through the Catchment Flood Risk Assessment and Management (CFRAM) Programme that assessed the risk for approximately two-thirds of the national population, containing 119 proposed flood relief schemes (on top of those schemes already completed or underway at that time), and the evidence for the Government to decide to prioritise and finance their delivery of the capital flood relief programme of nearly one billion euro (€1bn) under the National Development Plan. The FRMPs also set out a range of measures that can benefit all at risk properties, including those communities that were not assessed in the CFRAM Programme, and measures addressing the prevention of flood risk and preparedness and resilience to flood events. The Directive requires a review and update as necessary of the PFRA, Flood Maps and the FRMPs every six years thereafter.

Risk Factor (NRA ID): Maritime Incident (D) / Air Incident (E) / Transportation Risks (F) / Structural Collapse (G)

At a national level, the MEM²² details the key elements of risk management planning whilst also enabling planning across the Government Department’s identified risks. The Department of Transport identifies that the management of risk is the responsibility of the relevant Agency or operator, and they are kept informed of the key risks identified within the NRA.

¹⁹ Available at <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32007L0060>

²⁰ Available at <http://www.irishstatutebook.ie/eli/2010/si/122/made/en/print>

²¹ Available at <http://www.irishstatutebook.ie/eli/2015/si/495/made/en/print>

²² Available at <http://mem.ie/wp-content/uploads/2015/05/A-Framework-For-Major-Emergency-Management.pdf>

The MEM Framework informs risk management planning for these operators and agencies. The following risks have been identified for transport with the same RWCS:

- Maritime Incident: Vessel blockage in Dublin Port
- Air Incident: Serious aircraft accident
- Structural Collapse: Significant structural damage to Dublin Port Tunnel

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

The Department of Environment, Climate and Communications (DECC) risk management process in relation to a nuclear incident abroad is again framed on a national level by the Department's responsibility as LGD under the SEM and the results of the National Risk Assessment process of the GTF. The DECC, in conjunction with the Environmental Protection Agency (EPA), evaluates the risk of a nuclear incident abroad in light of relevant international nuclear developments, such as new nuclear power plants or lifetime extensions for existing plants. The measures in place, including those that are on a statutory basis, are evaluated in terms of being fit for purpose to manage the identified risks, taking into account any newly identified vulnerabilities or evolving threats. Emergency planning and response exercises are undertaken at regular intervals including through the International Atomic Energy Agency (IAEA), the European Commission, and the Nuclear Energy Agency (NEA) and bilaterally with UK counterparts.

Ireland's framework for preparedness and response to a nuclear emergency is based on the requirements of Article 55 of S.I. 30 of 2019²³. As part of the National Plan for Nuclear and Radiological Emergency Exposures (the National Plan), the EPA has in place the "EPA Nuclear and Radiological Emergency Plan", which describes the arrangements in EPA to fulfil its responsibilities under the National Plan, the EPA radiation emergency response structure and the roles of teams and individual staff members in responding to a radiation emergency. The DECC, as LGD, may then use the advice received from the EPA, to determine whether the National Emergency Co-ordination Group (NECG) should be convened to activate a national response.

In 2017, a strategic review of the EPA's emergency response/emergency arrangements was conducted by an external consultant (Operational Command Training Organisation Ltd.). This review concluded that the EPA's arrangements for a nuclear or radiological emergency were

²³ Available at <http://www.irishstatutebook.ie/eli/2019/si/30/made/en/pdf>

robust. An important element of preparedness for an emergency arising from a nuclear incident abroad is information sharing and notification of such an incident. Early formal notification of a nuclear accident abroad would be received in Ireland through agreed EU and IAEA formal reporting mechanisms.

Ireland and the Government of the United Kingdom (UK) and Northern Ireland have a Bilateral Agreement on Notification in the Case of a Nuclear Accident or Radiological Emergency. Operational procedures under this Agreement are routinely tested. Ireland is also a member of the International Atomic Energy Agency's Response and Assistance Network (RANET).

Risk Factor (NRA ID): Cyber Incident (I)

In relation to cyber incident risks, there are measures and actions in the National Cyber Security Strategy 2019-2024²⁴ to perform a risk assessment of the vulnerability of Critical National Infrastructure and services to cyber-attack and the Network and Information Security (NIS) Directive²⁵ places obligations on Member States to adopt a national strategy on the security of network and information systems which shall address, among other things, a risk assessment plan to identify risks. Ireland contributes at EU level to the Joint Cyber Unit initiative which is further developing the EU Cyber Crisis Response Framework.

The National Cyber Security Centre (NCSC) appointed a specialist third party organisation to perform a capacity review to assess the NCSC current capabilities and make recommendations regarding the structure, and resources that are required to deliver its objectives and obligations into the future. Stemming from this capacity review, the Government has agreed to a significant package of measures to strengthen the capacity of the NCSC to respond to cyber threats and build cyber resilience in the State's National Critical Functions.

Risk Factor (NRA ID): Disruption to Energy supply (J)

The risk management process within the DECC is framed on a national level by the Departments responsibility as LGD for an oil supply emergency, under the SEM framework. It is framed in addition by the results of the National Risk Assessment process of the GTF. Within the DECC, the risk of an oil supply emergency is evaluated on an annual basis, by way of the conduct of a risk assessment. The measures in place, including those that are statutory based, are evaluated in

²⁴ Available at: <https://www.ncsc.gov.ie/strategy/>

²⁵ Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.194.01.0001.01.ENG&toc=OJ:L:2016:194:TOC

terms of them being fit for purpose to manage the identified risks, taking into account any newly identified vulnerabilities or evolving threats.

The necessity for holding a strategic oil reserve and the maintenance of the capacity to utilise these reserves in the event of an oil emergency, is underpinned by the National Oil Reserves Agency (NORA) Act 2007²⁶ and associated regulation, which ensures compliance with Ireland's EU and International Energy Agency (IEA) obligations to hold a strategic oil reserve. The management of these strategic stocks and NORA's capacity to place these stocks on the market in the event of an oil emergency is overseen on a regular basis, under the terms of NORA's Performance Delivery Agreement with the DECC. The NORA Act 2007 also provides for the Minister to undertake oil emergency planning and mandates the participation of key stakeholders within the oil industry.

Risk Factor (NRA ID): Terrorist Incident (K) / Large Crowd Event (N)

Risk management is embedded in the Department of Justice's Business Planning Framework, which is based on a multiannual strategic plan and an annual implementation plan. A Risk Committee reports regularly to the Department's Management Board. An Garda Síochána has a Risk Management Unit that continually works with each section of An Garda Síochána and reports regularly with the Senior Leadership Team.

Risk Factor (NRA ID): Pandemic (L)

In relation to the assessment of infectious disease risks, the Health Protection Surveillance Centre (HPSC) provides the World Health Assembly (WHA), under the revised International Health Regulations (IHR), with an annual assessment of Ireland's risk management capabilities. State Parties use a self-assessment tool for their annual reporting called the "State Party Self-Assessment Annual Reporting Tool or SPAR." The EU has also mandated amendments to two existing Health Regulations to help facilitate an adequate Union-wide preparedness and response to cross-border threats to health, which are expected to become legally binding in early 2022.

The Health Service Executive (HSE) Emergency Management Branch leads on the annual review and risk assessments that contribute to the updating of the HSE Regional Strategic and Operational Major Emergency Plans. As members of the eight inter-agency Steering and

²⁶ Available at <http://www.irishstatutebook.ie/eli/2007/act/7/enacted/en/html>

Working groups, the HSE Emergency Management Branch participates in an annual inter-agency risk assessment process that in turn populates the updating of regional inter-agency strategic and implementation plans as required. In both instances risk management capability assessments are used for business case funding applications by the HSE and decision-making process.

To manage the risk posed by the Pandemic, COVID-19 public health regulations were adopted pursuant to the powers of the Minister for Health set out in sections 5 and 31A of the Health Act 1947, as amended by the Health (Preservation and Protection and other Emergency Measures in the Public Interest) Act 2020. In light of the global public health emergency caused by the spread of SARS-CoV-2, the Oireachtas empowered the Minister to make regulations for the purpose of preventing, limiting, minimising or slowing the spread of COVID-19 or, where otherwise necessary, to deal with public health risks arising from the spread of COVID-19.

Risk Factor (NRA ID): Food Chain Contamination (M)

The Food Safety Authority of Ireland (FSAI) is the national body with responsibility for enforcing food safety law. The Authority's principal function is to ensure that food consumed, distributed or produced in Ireland meets the highest standards of food safety and hygiene. The risk management capability assessment process is underpinned by national and European legislation. There are internal Departmental Standard Operating Procedures.

Risk Factor (NRA ID): Animal Disease (O)

Regulation (EU) 2016/429²⁷ of the European Parliament and of the Council (the EU Animal Health Law) and national policies dictate that a National Disease Control Centre (NDCC) is permanently in place to maintain disease preparedness and awareness and to direct national strategy in the event of an outbreak of disease.

The Department of Agriculture, Food and the Marine (DAFM) staff are continually engaged in formal and informal assessment of risk, often in co-operation with other Departments and institutions including the Department of Health, Met Éireann, and the Centre for Veterinary Epidemiology and Risk Assessment in University College Dublin (UCD).

²⁷ Available at: <https://eur-lex.europa.eu/eli/reg/2016/429/oj>

Under the EU Animal Health Law, DAFM is required to maintain contingency plans to deal with outbreaks of exotic disease. DAFM is also required to conduct simulation exercises to test its contingency plans and rehearse response routines, at regular intervals. Such exercises represent a very appropriate test of risk management capability, designed as they are to mimic real life as closely as possible.

Under direction of national policy and within the structure of DAFM, the NDCC conducts horizon scanning for potential animal disease threats and implements measures to ameliorate these. Data and risk assessments are collected from collaborating national institutions including the Centre for Veterinary Epidemiology and Risk Analysis (CVERA) and the Irish Meteorology Office (Met Éireann), for predictions about insect movements relevant to diseases such as Bluetongue and advice relating to windborne virus spread. For animal diseases with potential implications for human health such as Avian Influenza (AI) for example, the NDCC works closely with human public health institutions (the HPSC and the HSE) to assess risks. For diseases shared by wildlife and domestic animals (e.g. AI), the National Parks and Wildlife Service (NPWS) partakes in the risk assessment process. On-the-ground knowledge from industry representative bodies and stakeholders is also incorporated into risk assessments. Multiple divisions within DAFM, (e.g. NDCC, Border Control Post policy, Surveillance, Animal Health and Welfare, Veterinary Public Health, Laboratory and Live Trade divisions) collaborate closely in performing risk assessments for incursions of animal diseases. Regional office staff perform a vital role in ‘on-the-ground’ surveillance and intelligence assessment of potential disease risks. For example, they regularly check the Trade Control and Expert System (TRACES) for imported animals and perform follow up checks on them if appropriate.

Risk assessments, horizon scanning reports and updates from our closest neighbours in the UK are also taken into account and there is a close relationship and good information exchange about potential disease threats between the NDCC and other divisions within DAFM and their equivalents in the UK.

Information, disease updates and policy guidelines from international institutions such as the Food and Agriculture Organisation of the United Nations (FAO) and the World Organisation for Animal Health (OIE) are also regularly reviewed and incorporated into risk assessments.

3.2 Roles and Responsibilities of the Competent Authorities

Question 10: Assessment of Risk Management Capabilities Questionnaire

Describe the roles and responsibilities of the competent authorities under your department's aegis at national or sub-national level (as appropriate), distinguishing between risk assessment, prevention, preparedness, and response, and focusing on the management of the key risks identified.

Describe how horizontal co-ordination (the cross-sectoral approach) is ensured among these competent authorities, focusing on the management of the key risks identified.

As explained earlier, the SEM document, produced by the OEP and approved by the GTF, sets out in Annex 'A', the LGDs and Supporting Departments for 50 emergency/incident types. National level co-ordination for responding to such emergencies is achieved through the NECG. In 2021, the Government Task Force on Emergency Planning adopted SEM Guideline Document 1, 'National Emergency Co-ordination Group'²⁸. This guideline sets out the various steps that a LGD should adopt in co-ordinating the national level response to emergencies.

Through the Major Emergency Management Framework the NRA process feeds into National, Regional and Local Risk Assessments, including the periodic risk assessments conducted by the eight MEM Regions. These in turn contribute to the inter-agency annual work plans and exercise plans at National Steering Group, National Working Group, and Regional Steering Group and Regional Working Groups levels. The work programmes involve the inclusion of all response agencies such as the Irish Coast Guard, Civil Defence, etc.

Risk Factor (NRA ID): Storm (A) / Snow and Ice (B)

Local Authorities, as one of the Principal Response Agencies, have a key role to play in the response to most major emergency scenarios. Preparedness and management of risk are vital considerations and experience has shown that Local Authorities are adept at managing the response to emergencies at a local level. DHLGH liaises with all Local Authorities on a regular basis, including hosting workshops to identify areas of potential concern, to share learnings from previous events and exercises and to ensure preparedness for potential events.

Risk Factor (NRA ID): Flooding (C)

As specified earlier, the DHLGH is the LGD designated to co-ordinate a response to national flood emergencies as defined within the SEM, Annex A.

²⁸ Available at <https://www.gov.ie/en/publication/7ff6f-strategic-emergency-management-sem-national-structures-and-framework/>

The Office of Public Works (OPW) is, however, identified as the body with responsibility for flood risk assessment and prevention for the purposes of the SEM. Under the MEM Framework, the Local Authorities have the lead role with respect to the sub-national response to flooding and related risk management responsibilities, which are described in the MEM Guidelines on Risk Assessment.

The management of Ireland's flood risk is a long-term commitment, requiring a multi-sectoral approach through both capital infrastructural measures and non-infrastructural measures. The OPW co-ordinates an integrated, 'whole-of-Government' approach to flood risk management through the Inter-Departmental Flood Policy Co-ordination Group. In the context of this role and responsibilities, the OPW delivers services through the following four key areas:

- Strategic planning to manage flood risk in the future including co-ordinating, for Government, cross sectoral policies that mitigate flood risk now and into the future,
- A programme of capital investment delivered in partnership with Local Authorities,
- Programmed maintenance of 11,500km of river channels, including 800km of embankments of arterial drainage, and
- An advisory role to the State and to the general public to prepare for and respond to flooding events.

The OPW is defined as the 'Competent Authority' for the implementation of the EU 'Floods' Directive, and as the Lead Agency for flood risk management under the Review of Flood Policy, 2004. The transposed law also defines statutory roles in flood risk assessment for the Local Authorities, Irish Water, the ESB and Waterways Ireland in relation to the assessment of flood risks associated with water-bearing infrastructure they either own or operate. The OPW role with regards to assessment is largely discharged through the PFRA and the flood mapping required under the Directive, supported by work done in the preparation of Climate Change Sectoral Adaptation Plan for Flood Risk Management.

In the context of prevention, the core of the OPW's work is delivered in partnership with the Local Authorities through the capital flood relief programme, as noted under sub sections 3.1, 3.7 and 3.9 of this report for flooding, and through the Minor Flood Mitigation Works and Coastal Protection Scheme.

Risk Factor (NRA ID): Maritime Incident (D)

In the event of the RWCS taking place as identified in the NRA 2020, that is, a maritime vessel blockage in Dublin Port, the Harbour Master is required to maintain the channel in a safe condition and monitor and control all shipping movements. This is a requirement of various instruments namely the Harbours Act 1996²⁹ as amended, the Vessel Traffic Monitoring & Information Systems regulations as well as Dublin Port Bye Laws and Notices to Mariners. Procedures are embedded through regularised Standard Operating Procedures. Response measures are specified through the Emergency Management Plan. This capacity is embedded and is subject to continual review through a new risk management framework.

Risk Factor (NRA ID): Air Incident (E)

The Irish Aviation Authority (IAA) has statutory responsibility for the safety regulation of the civil aviation industry in Ireland. This includes the risk assessment and management of the RWCS in the case of a serious aircraft accident.

Risk Factor (NRA ID): Structural Collapse (G)

Emergency Preparedness and Response plans have been established in relation to the risk of significant structural damage to Dublin Port Tunnel from an accident leading to a fire /explosion. These plans have been developed primarily in liaison with the Dublin Fire Brigade. These plans are exercised on a regular basis through table top and live exercises involving the Operator, Transport Infrastructure Ireland (TII) and all relevant emergency services.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

The LGD with overall responsibility for managing and responding to a nuclear incident abroad is the DECC. Risk is assessed by the DECC and the EPA with significant analysis published, including on the Sellafield site and the UK new nuclear build programme. Within the DECC, the Radiation Policy Team of the Air Quality, Noise and Radiation Policy Division is responsible for the updating of risk assessments and ensuring the necessary planning and preparedness measures are in place to mitigate against and if necessary, to respond to a nuclear incident abroad at a national or regional level. In the event of an emergency arising from a nuclear incident abroad, personnel from the Division will consult with the EPA before deciding on the appropriate response, including the possible convening of the NECG.

²⁹ Available at <http://www.irishstatutebook.ie/eli/1996/act/11/enacted/en/html>

Risk Factor (NRA ID): Cyber Incident (I)

The DECC is identified as the LGD for Cyber (Network and Information System) incidents under the SEM, Annex A. In relation to the planning and prevention of cyber related risks, under Article 8 of the NIS Directive, the NCSC is currently designated as the ‘Competent Authority’ on the security of network and information systems for 5 of the 7 sectors referred to in Annex II, namely Energy, Transport, Health, Drinking Water Supply and Distribution and Digital Infrastructure. The NCSC’s role as Competent Authority is to monitor the application of the Directive at national level. The responsibilities for identifying, assessing and managing risks lies with the designated operators of essential services (OES) themselves. The NCSC works closely with other sectoral Competent Authorities to ensure the alignment of cyber security risk management measures and objectives. The NCSC will provide support to all Lead Government Departments on the cyber security elements of an incident.

Risk Factor (NRA ID): Disruption to Energy supply (J)

The LGD with overall responsibility for managing and responding to a disruption to energy supply is the DECC, as assigned by the SEM. Within the DECC, the Petroleum Products Team of the International and Offshore Energy Division is responsible for the updating of risk assessments and ensuring the necessary planning and preparedness measures are in place to mitigate against and if necessary to respond to an oil supply emergency at a national or regional level. In the event of a major oil emergency, personnel from the Division will form Ireland’s National Emergency Strategy Organisation (NESO) structure to manage the response, in accordance with IEA recommendations for dealing with an oil supply emergency.

Personnel within the DECC maintain contact with relevant Government Departments and key Agencies, including through membership of the GTF, in order to obtain the necessary information on the cross-sectoral impact of an oil supply emergency, to better conduct risk analysis and to put in place preparedness and response measures.

NORA operates under the aegis of the Department, with its role being defined in the NORA Act 2007. NORA has operational responsibility for the holding and management of the State’s strategic oil reserve and for ensuring that the necessary plans are maintained to enable strategic oil stocks to be placed on the market quickly, if necessary. NORA also works closely with the Department in the conduct of oil emergency planning.

Aside from the requirements of the Performance Delivery Agreement between the Department and NORA and the conduct of regular scheduled meetings, there is frequent communication between key personnel in all aspects of risk assessment and management, policy development and oil stockholding.

Risk Factor (NRA ID): Terrorist Incident (K)

An Garda Síochána is responsible for policing and national security in the State, and is the Lead Agency responsible in relation to risk assessment, prevention, preparedness and response to terrorist threats. In drawing up the threat assessment, the Garda Commissioner has reference to a wide range of issues and consults with the Chief of Staff of the Defence Forces. The risk of terrorist attack specific to particular sectors is assessed in conjunction with sectoral expertise, e.g. The National Civil Aviation Security Committee Working Group on Threat and Risk Assessment, chaired by the Department of Transport. This cross-sectoral participation ensures that developments in specific areas all feed into and inform the broader national threat assessment.

Risk Factor (NRA ID): Pandemic (L)

Under the auspices of planning and preparedness, the HPSC is Ireland's specialist Agency for the monitoring and reporting of communicable diseases. It is part of the HSE and works in partnership with health service providers and sister organisations in Ireland and around the world, to provide the best possible information for the control and prevention of infectious diseases. The HPSC's main role is to protect and improve the health of the Irish population by providing timely information and independent advice, by carrying out disease surveillance, epidemiological investigation and related research and training.

The National Public Health Emergency Team (NPHE), is the established mechanism for co-ordinating the health sector response to significant public health emergencies, including pandemics. It facilitates the sharing of information between the Department of Health and its agencies. It is a long-standing structure used to provide a forum to steer strategic approaches to public health emergencies in Ireland and mobilise the necessary health service responses. Previous examples include NPHE mobilisation for H1N1 (Swine Flu) in 2009 and CPE (Carbapenemase producing Enterobacteriales) in 2017. This approach is in line with the advice of the World Health Organization (WHO).

National laws and emergency plans must take account of international obligations for the management of public health emergencies, including those provided for by the WHO's 2005 IHR³⁰. The Minister for Health plays a central role regarding NPHEt. The Minister may establish NPHEts in response to public health emergencies in order to receive public health advice in line with the NPHEt's Terms of Reference. The outcomes, advice and recommendations arising from NPHEt meetings regarding health policy or wider cross-Government measures are communicated to the Minister for Health by the Chair of the NPHEt. Recommendations and updates relating to health policy and operational matters, depending on the nature of the emergency, are communicated to the relevant health agencies as appropriate, such as the HSE, HPSC, Health Information & Quality Authority (HIQA), and the Health Products Regulatory Authority (HPRA). In the case of COVID-19 these agencies were members of the NPHEt to ensure sectoral co-ordination. More information on the NPHEt established for the response to COVID-19 is contained on the dedicated webpage for the NPHEt on the Department of Health's website³¹.

Since Ireland's declaration of the COVID-19 Pandemic in March 2020, its national response to COVID-19 has been supported by a strong cross-Government COVID-19 oversight structure to ensure a public health-led, whole-of-society approach to the COVID-19 response. This 'whole-of-government' approach involves cohesive decision-making, a partnership approach, expert public health advice, and clarity of communications. In September 2020, coinciding with the publication of its Plan for Living with COVID-19, the Government updated its cross-Government COVID-19 oversight structure. In addition to the NPHEt, this includes the following groups to ensure a co-ordinated cross-sectoral approach.

The Government established the Special Cabinet Subcommittee on COVID-19, chaired by the Taoiseach, on 3rd March 2020 to assess the social and economic impacts of the potential spread of COVID-19, and oversee the cross-Government response. The first meeting of this group was held on 9th March 2020. Given the severity and the widespread nature of the impact that the COVID -19 Pandemic has had on all aspects of society a Cabinet-led structure operated in order to ensure a whole-of-Government response.

³⁰ World Health Organization. (2008). International health regulations (2005) , 2nd ed. World Health Organization. Available at: <https://apps.who.int/iris/handle/10665/43883>

³¹ Available at: <https://www.gov.ie/en/collection/691330-national-public-health-emergency-team-covid-19-coronavirus/>

The Cabinet Committee on COVID-19 was established to assess the social and economic impacts of the potential spread of the disease and oversee the cross-Government response, supported by a Senior Officials Group and sub-groups. The oversight structures evolved over time and a COVID-19 Oversight Group chaired by the Secretary to the Government was also established to provide advice to Government on the strategic economic and social policy responses to the management of the disease and to consider the public health advices.

The NPHEC for COVID-19 is chaired by the Chief Medical Officer in the Department of Health and provides national direction, guidance, support and expert public health advice on the development and implementation of a strategy to contain COVID-19 in Ireland. A Crisis Communications Group ensured maximum co-ordination between cross-Government and sectoral-led campaigns and communications.

Risk Factor (NRA ID): Food Chain Contamination (M)

The FSAI is the national body with responsibility for enforcing food safety law. DAFM, Local Authorities and the HSE are on a service contract with the FSAI to carry out official controls in relevant food business operators. In order to assess, plan for and manage the risk of animal disease incursions, DAFM implements EU and national policy that in turn is based on European Food Safety Authority (EFSA) risk assessments and discussions between European partners at Standing Committee on Plants, Animals, Food and Feed (SCoPAFF) meetings and put in place by the European Parliament.

Risk Factor (NRA ID): Animal Disease (O)

DAFM is responsible for risk assessments with regard to transboundary animal disease incursions. DAFM staff collaborate with the HPSC and NPWS when carrying out risk assessments and making contingency plans with emphasis on human and wildlife health respectively. The NDCC's One Health Scientific Support Team has the capacity to carry out their own risk assessments. In addition, in its risk assessment/planning work, the NDCC can make requests from CVERA or other academic institutions for more detailed analysis.

The NDCC is additionally responsible for horizon scanning to identify the diseases which pose the highest risk to Irish livestock. A key element of prevention is communication with farmers and other operators on best practice to minimise the risk of disease.

The import of animals and animal products is believed to be a very plausible route for entry of an exotic disease into this country and, therefore, this is managed by DAFM policy and operationally. DAFM policy divisions, including Veterinary Export, Certification and International Trade Division and Animal Health and Import Policy Division, set out day-to-day policies, based on relevant EU legislation, which minimise the risk of disease incursion through this route. The Imports Controls Operations Division has responsibility for ensuring that the prescribed checks are carried out in practice.

Effective animal health surveillance is an important element of preparedness for disease. The two pillars of early detection of exotic disease are reporting of notifiable diseases (legally required under S.I. 130 of 2016)³² and “scanning” surveillance (testing of diagnostic samples, submitted to DAFM laboratories by private veterinarians for commercial reasons, for exotic diseases where deemed necessary or prudent). The animal health surveillance team within the NDCC is responsible for the co-ordination of animal health surveillance activities across divisions.

Regional veterinary offices are responsible for collecting samples and data in response to reports of notifiable diseases. The Veterinary Laboratory Service has responsibility for testing samples as a follow up to disease reports, and for carrying out the “scanning” surveillance mentioned above. DAFM is required to have contingency plans in place for several exotic diseases, and is required to carry out simulation exercises on a regular basis, to test contingency plans and to rehearse response to exotic disease events.

The NDCC is ready to co-ordinate the response to an exotic disease incident at any time. The NDCC is supported in the response to exotic disease incidents, both suspected and confirmed outbreaks, by Regional Veterinary Office staff, the Area Management Teams and the laboratories. Both Regional Offices and laboratories maintain ‘go-kits’ which contain the essential equipment needed to respond to an exotic disease report. This facilitates the rapid response which is required. NDCC provides advice and guidance to staff in the field and provides forms and legal notices etc. as necessary. For planning and implementation of risk prevention and preparedness measures, the roles and responsibilities of different entities are defined in contingency plans and operations manuals drafted by DAFM. Training events and simulation exercises help to clarify the roles and responsibilities of all involved.

³² Available at: <http://www.irishstatutebook.ie/eli/2016/si/130>

Risk Factor (NRA ID): Water Supply (P)

There is overlap between the Local Authorities and Irish Water in the management of risks in the water services sector particularly in the response to incidents that impact on the quality of drinking water for human consumption and environmental pollution resulting from wastewater. The cross-sectoral engagement on Drinking Water incorporates inputs from the DHLGH, Irish Water, the EPA, Health Service Executive, Local Authorities and the Commissioner for Regulation of Utilities.

3.3 Roles of Relevant Stakeholders

Question 11: Assessment of Risk Management Capabilities Questionnaire
<i>State whether relevant stakeholders are informed about and involved in the disaster risk management process (es) for the key risks identified. If they are, describe how.</i>

Risk Factor (NRA ID): Storm (A) /Snow and Ice (B)

The DHLGH communicates regularly with all relevant stakeholders in the form of workshops, seminars, exercises and meetings especially in the context of a particular risk that is undergoing assessment. Where documented procedures are in place, the content is co-ordinated by DHLGH with input and agreement from relevant stakeholders. Local Authorities lead on planning and response to such events with severe weather plans and flood plans in place underpinning an “All Hazards” approach to response.

Risk Factor (NRA ID): Flooding (C)

With respect to the identified risk of flooding, OPW has conducted extensive public consultation and engagement with relevant stakeholders from 2011 to date on flood risk and flood risk management in Ireland. This has been executed through formal co-ordination / steering groups, stakeholder groups, presentations to Local Authorities, informal consultation and liaison, public consultation days and national public consultations. These have included consultations on the PFRA, on the flood maps and on the FRMPs under the Floods Directive. The submissions made and outcomes of these consultations have been taken into account and informed the assessments and mapping of flood risk and the Review of the PFRA.

The Inter-Departmental Flood Policy Co-ordination Group and the National ‘Floods’ Directive Co-ordination Group, which oversees the implementation of the ‘Floods’ Directive in Ireland, includes representatives from public bodies from all relevant sectors ensuring that all sectors are integrated into flood risk assessment.

In addition, the cross-sectoral dimension of flood risk assessment is addressed through the GTF and the GTF Subgroup – ‘the National Steering Group on Major Emergency Management’, where the latter is chaired by the DHLGH as the LGD.

The Local Authorities and the OPW work in partnership to deliver the flood relief schemes, which involves extensive engagement locally for each scheme with the local community, interested parties and relevant stakeholders. The public and statutory agencies are informed of flood risk generally through the OPW flood portal and information on appropriate actions to take before, during and after a flood event is published by the OPW through the Plan, Prepare and Protect initiative that is published on www.flooding.ie. The site also contains relevant contact details, FAQ and a guidance document specifically for riparian landowners along watercourses.

Risk Factor (NRA ID): Maritime Incident (D) / Air Incident (E) / Transportation Risks (F) / Structural Collapse (G)

The Department of Transport identifies that the management of risk is the responsibility of the agency/operator and they are kept informed of the key risks identified within the NRA.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

In the context of a nuclear incident abroad, the DECC and the EPA have a range of stakeholders, including key agencies, international peers and industry participants, all of which contribute to and are informed on the risk management process relating to an emergency of this type. The risk to Ireland from a nuclear incident abroad is particularly pertinent to the agriculture and food sectors and is addressed through a dedicated stakeholder forum in this area. The DECC and the EPA hold a formal liaison meeting twice a year where emergency preparedness and response is a standing agenda item for these meetings.

In addition, the EPA participates in international exercises such as those organised by the IAEA (ConvEx Exercises), Organisation for Economic Co-operation and Development (OECD), Nuclear Energy Agency (INEX series) and the European Union (ECUREX Exercises).

The EPA has a Memorandum of Understanding with Met Éireann to cover areas of shared interest and responsibility particularly in relation to the National Plan for such an incident. A Service Level Agreement is in place between the Department of Defence, the Defence Forces, Civil Defence and the EPA covering the provision of services by the Defence Forces and the Civil Defence to the EPA under the auspices of this National Plan.

Risk Factor (NRA ID): Cyber Incident (I)

The NCSC identifies that the responsibilities for identifying, assessing, managing and communicating (informing) cyber related risks lie with the designated OES and Government Departments themselves.

Risk Factor (NRA ID): Disruption to Energy supply (J)

The DECC has a range of stakeholders, including NORA, key agencies, international peers and industry participants, all of which contribute to and are informed on the risk management process relating to an oil supply emergency. The Petroleum Products Team meets regularly with NORA and communicates frequently with Fuels for Ireland, which is the trade body representing the oil industry. This is to ensure Departmental staff maintain an awareness of supply chains and emerging threats, and to allow stakeholders to be informed on and contribute to policy development in relation to risk management procedures.

Where threats emerge, for example during the early stages of the COVID-19 Pandemic and during BREXIT in the lead up to the end of the UK's transition period, the DECC meets regularly with NORA and Fuels for Ireland. The Department also communicates with other cross-sectoral stakeholders in order to gather information, as well as to co-ordinate and communicate measures and to monitor and respond to issues arising.

NORA also conducts periodic oil emergency exercises, rehearsing the release of oil stocks to the market, in which key stakeholders, including industry participants, are involved and incorporates learnings gained into its planning process. The DECC also attends the EU Oil Co-ordination Group as well as International Energy Agency Standing Group on Emergency Questions and Oil Markets (SEQ and SOM) meetings, with NORA, where subject matter experts from Member States share their experiences and knowledge of security of supply issues and best practice.

Risk Factor (NRA ID): Terrorist Incident (K)

As a terrorist attack would constitute a national security incident, this involvement and reporting, is out of necessity restricted to the relevant Competent Authorities, Government Departments and State bodies. Of course, insights and expertise from outside sources (academia, civil society, etc.) would be taken into consideration by the Competent Authorities in assessing and managing these risks. However, external third parties would not be directly involved in the process.

Risk Factor (NRA ID): Pandemic (L)

With regard to the response to a pandemic, NPHEAT in the Department of Health is the established mechanism for co-ordinating the health sector response to significant public health emergencies. The Department has oversight of its Agencies and bodies under its aegis including the HSE which has a dedicated emergency management function.

With regard to the engagement of stakeholders in the COVID-19 response and reflecting the seriousness of the COVID-19 Pandemic and the scale and pace of the health service response required, the NPHEAT in general met twice a week in the early stages of the Pandemic, moving to weekly meetings at a later stage, meeting more/less frequently as required and conducted regular public press conferences on these meetings as did the HSE on its roles and responsibilities.

Commitment to the principle of transparency has remained central to the work of the NPHEAT since its inception. NPHEAT letters, agendas, adopted minutes and papers, where appropriate, are published on the Department of Health's dedicated NPHEAT webpage. The NPHEAT has also held televised or streamed press briefings on a regular basis throughout the Pandemic. The Chair of the NPHEAT and relevant NPHEAT Members attend sessions of Oireachtas Committees (Parliamentary Committees), as required.

Risk Factor (NRA ID): Animal Disease (O)

In addition to the measures previously described in response to questions 9 and 10, the NDCC also meets with farm organisations and relevant stakeholder groups, to communicate on the management of exotic disease risks and to answer any queries which this key stakeholder group may have on exotic disease prevention and response.

3.4 Procedures and Measures at National, Sub-National and Local Level

Question 12: Assessment of Risk Management Capabilities Questionnaire

<i>Within your department and under your department's aegis, describe the established procedures to ensure vertical cooperation between the national, sub-national and local level authorities involved in disaster risk management process(es) for the identified key risks.</i>

Risk Factor (NRA ID): Storm (A) / Snow and Ice (B)

The DHLGH has a good degree of corporate experience in co-ordinating the response to emergencies, along with procedures and processes at National Working Group and National Steering Group level, thereby ensuring that preparedness is undertaken in all key areas and that good lines of communication exist at all times, not only in emergency situations.

Such preparedness and communications allow the DHLGH to ensure that when emergencies occur, vertical and horizontal co-ordination is enabled seamlessly. This aspect of emergency management has been reviewed recently in the Review Report on Severe Weather Events 2017 – 2018³³.

Risk Factor (NRA ID): Flooding (C)

With respect to flood prevention measures, the Inter-Departmental Flood Policy Co-ordination Group is responsible for monitoring progress across Government of the implementation of the National Flood Risk Policy. It monitors and routinely reports to Government on the progress with the implementation of all measures set out by the 29 FRMPs, both structural and non-structural interventions. This group also considers the evidence and information available from the CFRAM Programme to inform its proposals for consideration by Government for further assistance and support for additional non-structural measures. The Group considers that the whole of Government approach is necessary to support flood risk management nationally. Relevant Government Departments and State Agencies are each taking the lead to provide effective supports and policy measures in their areas of responsibility outside of the OPW's scope and also to promote and address community and individual response. The Group also includes representation from Local Authorities who work in close partnership with the OPW at the local level in the delivery of the flood relief schemes.

³³ Available at <https://www.gov.ie/en/publication/0c2e4-review-report-on-severe-weather-events-2017-2018/>

Risk Factor (NRA ID): Maritime Incident (D) / Air Incident (E) / Transportation Risks (F) / Structural Collapse (G)

At a national level, the key risks identified for the transport sectors are identified through both the NRA 2020 and the Department of Transport's own risk assessment. Relevant stakeholders are informed of the processes for both assessments and are included in the consultation for each. For example, stakeholders were invited to participate in the NRA 2020 process by providing subject matter experts to participate in focus groups. Draft versions of the assessment were circulated to these stakeholders when relevant.

Risk Factor (NRA ID): Maritime Incident (D)

At a sub-national and local level, Dublin Port risk assessments and response protocols are kept under continual review with the relevant operators and external authorities and modified in line with improvements in international standards. Dublin Port liaises with other Agencies such as the PRAs and the Principal Emergency Services such as the Irish Coast Guard for the purposes of training and exercising.

Risk Factor (NRA ID): Air Incident (E)

The IAA provides oversight in Ireland of the pan-European aviation safety regulatory system. This system ensures the inclusion of all stakeholders in the development of regulatory requirements as per the EU system since aviation safety is an EU competency.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

The National Plan for Nuclear and Radiological Emergency Exposures³⁴ clearly delineates roles and structures to ensure vertical cooperation in a relation to an emergency arising from a nuclear incident abroad. In the event of a nuclear incident abroad that has the potential to impact on Ireland, it is envisaged the response would be co-ordinated through the NECG structure as set out in the SEM. As previously described, the EPA maintains a detailed operational plan and lines of communications in this area with other relevant Departments and Agencies such as Met Éireann, the Defence Forces and Civil Defence. The DECC communicates regularly with the EPA, and any possible change to the risk from a nuclear incident abroad is discussed, as appropriate.

³⁴ Available at: [https://www.epa.ie/publications/monitoring--assessment/radiation/National-Plan-for-Nuclear-and-Radiological-Emergency-Exposures-\(2019\).pdf](https://www.epa.ie/publications/monitoring--assessment/radiation/National-Plan-for-Nuclear-and-Radiological-Emergency-Exposures-(2019).pdf)

Roles are clear in terms of responsibility for the management of risk and operational tasks. In this regard, formal emergency planning and response exercises are arranged at regular intervals with outcomes assessed.

Risk Factor (NRA ID): Cyber Incident (I)

The NCSC are engaged at a national level with the GTF on the cyber elements of disaster risk management processes for all sectors. The NCSC also engage directly with cross sectoral entities which are subject to the NIS Directive through periodic OES and digital security program forums, and through regular and ad-hoc meetings with sectoral Competent Authorities and regulators such as the Commission for Communications Regulation (ComReg) and Lead Government Departments to ensure vertical and horizontal cooperation on cyber specific risks.

Risk Factor (NRA ID): Disruption to Energy supply (J)

The DECC meets and communicates regularly with NORA and Fuels for Ireland, to ensure that the Department is aware of evolving supply chains and emerging threats. Roles are clear, in terms of responsibility for the management of risk and operational tasks. Initial procedures to be followed in the event of the occurrence of an emergency are in place and contact lists are updated on a regular basis. NORA exercises its Emergency Release Model on a quarterly basis with supply chain managers from all major oil distributors as well as frequent participation by Department officials. This contact maintains strong close working relationships between the Department, NORA and key industry participants, with this relationship providing for an early warning of any supply chain difficulties which may occur.

Risk Factor (NRA ID): Terrorist Incident (K)

The relevant procedures in relation to the identified risk from terrorism are achieved through the GTF and the Major Emergency Management structures. Given the nature of this risk, it is not proposed to detail specific procedures herein.

Risk Factor (NRA ID): Pandemic (L)

With regard to health related risks, procedures have been established to ensure vertical cooperation as NPHEM reports vertically to the Minister for Health and to Government. Following each NPHEM meeting, the Chair communicates the public health advice of the NPHEM membership formally by letter to the Minister for Health.

These communications are also brought to the attention of the Department of the Taoiseach, and wider Government by the Minister for Health as required. The Chair of the NPHEM also formally writes to the Chair of the HSE National Crisis Management Team as required, in circumstances where these recommendations require action at health service operational level. Letters to the HSE are also brought formally to the attention of the Secretary General of the Department of Health.

With regard to co-ordination of health emergency response at sub-national and local level, the HSE has Area Emergency Planning groups for each of the nine Community Health Organisations (CHO) around the country. These are chaired by Chief Officers with representation from all key HSE services and functions. Vertical co-ordination of risk management processes and plan development is conducted accordingly with local level hospitals and CHO services and functions.

With regard to pandemics specifically, the HSE has eight Departments of Public Health across the country. Their Directors are also regional Medical Officers of Health. In addition to the Consultants in Public Health Medicine in each Department of Public Health, they implement the Medical Officer of Health (MOH) legislation. Notifiable infectious diseases are reported to the MOH for their investigation and control. Investigation and control measures are carried out, using nationally and locally developed guidelines and standards. These diseases are also reported, in anonymised format, to the HPSC for national surveillance.

Risk Factor (NRA ID): Food Chain Contamination (M)

There is a Food Safety Liaison Unit that liaises between DAFM and FSAI. FSAI has overall responsibility. In DAFM, an established organogram covers co-operation within the Department vertically from headquarters to regional and local level and there is an established reporting mechanism for food safety incidences.

Risk Factor (NRA ID): Large Crowd Event (N)

There are also a number of associated Service Level Agreements and Memoranda of Understanding (MOUs) with the voluntary emergency service agencies in relation to the risk posed by a large crowd event.

Risk Factor (NRA ID): Animal Disease (O)

The NDCC takes a leading role in co-ordination of exotic disease risk management within DAFM and ensures continual communication with those in the field through training exercises and focus groups which it operates. Procedures for co-operation within DAFM, and between DAFM and other organisations, are set out in the contingency plans described previously in a very practical manner e.g. who to contact when a foot and mouth Disease (FMD) outbreak is confirmed.

3.5 Procedures and Measures at Cross-Border, Inter-Regional and International Level

<p>Question 13: Assessment of Risk Management Capabilities Questionnaire</p> <p><i>Describe the procedures established to ensure cooperation at the cross-border, inter-regional and international levels for the disaster risk management of identified key risks. Describe measures in place to ensure disaster risk management for the key risks identified.</i></p> <p>If appropriate : State whether disaster risk management policies are developed in a way that takes account of international commitments, such as the 2015-2030 Sendai Framework for Disaster Risk Reduction and the Sustainable Development Goals of the 2030 Agenda for Sustainable Development.</p>
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A Cross-Border Emergency Management Group (CBEMG) meets regularly to plan for and deliver a more resilient supply and effective emergency response in both jurisdictions³⁵. For example, there is considerable cross-border co-ordination, cooperation and communication with regard to the management of shared water courses and catchments.

Risk Factor (NRA ID): Storm (A) / Snow and Ice (B)

In conjunction with other relevant guidance documents, the MEM Framework details how a structured risk assessment must be completed initially by the PRAs and then by the regional, multi-agency teams in each of the eight designated MEM regions within the country.

In addition to setting out how the PRAs work together, the MEM Framework also identifies how these plans link with other National Plans and with site or event-specific local emergency plans. These Regional Risk Assessments are carried out on a cyclical basis and feed into the NRA process.

³⁵ Referenced in NRA 2020 at <https://assets.gov.ie/128544/e3cf811b-8fc9-4fc6-ab4e-a70bd1fd423c.pdf>

From an International perspective, the European Civil Protection Mechanism Legislation was updated and approved in May 2021. This Legislation details the provision for disaster scenario planning and the development of resilience goals focusing on prevention rather than response actions. The concept of the Union disaster resilience goals in the area of civil protection (hereinafter: Union disaster resilience goals) was introduced in the Union Civil Protection Mechanism (UCPM) with the latest revision of Decision No 1313/2013/EU (Regulation (EU) 2021/836 of the European Parliament and of the Council of 20 May 2021 amending Decision No 1313/2013/EU on a UCPM)³⁶. It is defined in Article 4 as follows: “‘Union disaster resilience goals’ means non-binding objectives established in the area of civil protection to support prevention and preparedness actions for the purposes of improving the capacity of the Union and its Member States to withstand the effects of a disaster which causes or is capable of causing transboundary effects”.

Risk Factor (NRA ID): Flooding (C)

With regards to flood risk assessment and prevention, the OPW has an on-going relationship with the Department for Infrastructure, Rivers, Northern Ireland, (DfI Rivers) as the Competent Authority for the implementation of the 'Floods' Directive in Northern Ireland. This relationship has involved ongoing bi-lateral meetings at a senior and technical level to promote co-ordination with and the sharing of information with regards to flood risk and flood risk management. DfI Rivers are in addition, members of the National Floods Directive Co-ordination Group.

Risk Factor (NRA ID): Air Incident (E)

In this regard, the IAA provides oversight in Ireland of the pan-European aviation safety regulatory system. This system includes all inclusion of stakeholders in the development of regulatory requirements as per the EU system since aviation safety is an EU competency.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

From a nuclear incident abroad standpoint, it is well recognised that radiation dispersed into the environment from nuclear incidents does not respect national borders. Significant international cooperation arrangements are in place through the IAEA and EU and a bilateral agreement with the UK.

³⁶ Available at: <https://www.europeansources.info/record/proposal-for-a-decision-amending-decision-no-1313-2013-eu-on-a-union-civil-protection-mechanism/>

Ireland is a member of the IAEA and subject to a number of its conventions relevant to this field including the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. As an EU State, Ireland also benefits from EU co-ordination and EU legislation on nuclear safety and emergency preparedness and response including the Nuclear Safety Directive and the Basic Safety Standards Directive. As mentioned previously, the EPA is the national Competent Authority for the purposes of the IAEA Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, the Convention on Early Notification of a Nuclear Accident and the Convention on the Physical Protection of Nuclear Material.

The EPA cooperates on a European level on nuclear matters with colleagues through membership of the European Nuclear Safety Regulators Group (ENSREG) and the Western European Nuclear Regulators Association (WENRA). The EPA contributes to the development of radiation safety standards and guidance internationally by being active members of the IAEA Emergency Preparedness and Response Standards Committee, the OECD Nuclear Energy Agency's Working Party on Nuclear Emergency Matters and the Heads of the European Radiological Protection Competent Authorities (HERCA) as well as its Working Group on Emergencies.

As described above in relation to notifications, strong cross-border cooperation arrangements exist. Ireland is also committed to assisting internationally in the case of a nuclear or radiological emergency through the IAEA Convention and takes part in regular exercises organised by IAEA in this regard.

Risk Factor (NRA ID): Cyber Incident (I)

From a cyber-risk point of view, the NCSC engage with the Computer Security Incident Response Team (CSIRT) and Cyber Crisis Liaison Organisation Network (CyCLONe) Networks, European Union Agency for Cybersecurity (ENISA) and NIS Cooperation Groups at EU level. At the regional level the NCSC are active members of the OSCE Informal Working Group on Confidence Building Measures to reduce the risks of conflict stemming from the use of Information and Communications Technology (ICT). To enhance the collective response to non-EU cross border cyber incidents, the NCSC co-chair the AIIE (All Island Information Exchange) and C3WG (CNI Cyber Cooperation Working Group) and at the international level the NCSC have established a close working relationship with CISA (Cybersecurity and Infrastructure Security Agency) in the US.

Risk Factor (NRA ID): Disruption to Energy supply (J)

In addition to national level efforts, the DECC focusses risk management and preparedness measures and assessments on an all-Ireland basis. In the event of a disruption to an oil terminal in Ireland, if necessary fuel can transit through a port(s) in Northern Ireland, and vice-versa. Fuel supplies for the North-West of the State already frequently transit through Derry. To aid the utilisation of this capacity in an emergency, contact is maintained with relevant officials in the Northern Ireland administration. Due to the fact that approximately 36% of NORA product is currently held outside Ireland, it is also necessary to have MOUs in place with holding countries to ensure the availability of this stock, in the event of an oil supply emergency.

Ireland's stockholding system is framed by the need to hold stocks equivalent to 90 days of usage, as required under the EU Oil Stocks Directive (Council Directive 2009/119/EC)³⁷. The Directive also requires the State to have capacity for the allocation of oil to the essential services and critical infrastructure, if required in the event of major supply crises. Officials from the Petroleum Products Team attend regular EU Oil Co-ordination Group meetings and participate in work programmes relating to the stockholding requirement. In addition, Ireland as a member of the IEA is also a signatory to the IEA's International Energy Programme, which also requires the State to hold 90 days of oil stocks. Officials from the DECC and NORA also attend the International Energy Agency Standing Group on Emergency Questions and the Standing Group on Emergency Management meetings.

As an IEA member, Ireland is obliged to participate in 'collective action' stock releases in the event of a global shortage. Likewise, if shortages were experienced in the Irish market, and if deemed necessary, Ireland may call upon IEA assistance. Similarly, the EU, through the Oil Co-ordination Group can provide information on any emerging regional level supply difficulties, and co-ordinate the provision of mutual assistance measures, if required.

Risk Factor (NRA ID): Terrorist Incident (K)

An Garda Síochána works closely with their counterparts in Northern Ireland and internationally in assessing the terrorist threat. In addition, the various participating agencies, An Garda Síochána and the Police Service Northern Ireland (PSNI) have in place confidential disaster planning protocols.

³⁷ Available at <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009L0119>

At EU level, work in the areas of combating radicalisation, countering terrorist material online, Chemical, Biological, Radiological & Nuclear Security, aviation security and protection of soft targets facilitate joint exercises between Member States and joint prevention projects, as well as gap analysis and mapping of expertise. There are regular bi-lateral meetings between An Garda Síochána and the PSNI which includes common concerns and risks.

Both the PSNI and An Garda Síochána participate in the CBEMG which was established in 2014 with the agreement of the Major Emergency Management National Steering Group and consists of equal representation of statutory emergency management personnel from both Northern Ireland and Ireland. This group provides a forum for all relevant agencies to enhance cross-border co-operation and resilience in emergency management planning, response and recovery. Based on the NRA in each jurisdiction the CBEMG has developed and published its own risk assessment, which influences the work programme of the CBEMG.

Risk Factor (NRA ID): Pandemic (L)

With regards to health procedures and measures at cross-border, inter-regional and international level, the Irish Government works closely with Northern Ireland on health including in the area of responding to cross-border health threats. There is regular engagement between both jurisdictions on health matters at political and expert level. Co-operation between the jurisdictions on COVID-19 was underpinned by the signature of Memoranda of Understanding. At operational level, a CBEMG was established in 2014 with representation of the PRAs and the Emergency Services from Ireland and the statutory agencies of Northern Ireland.

This group has developed an operational plan, a cross-border risk assessment based on existing risk assessments from both jurisdictions, and a multi-agency activation protocol to be used in the event of a possible, or real emergency in either jurisdiction. This risk assessment forms the basis for collaborative multi-agency exercises on a cross-border basis.

In managing cross-border aspects of the COVID-19 Pandemic, a fortnightly North-South cooperation meeting is held involving multiple stakeholders dealing with various issues pertaining to testing for COVID-19 and the tracking and tracing of the cross-border spread of the disease and the methodologies used/piloted during the outbreak to manage subsequent surges.

Ireland also participates at EU level in the Health Security Committee. The Committee is mandated to reinforce the co-ordination and sharing of best practice and information on national preparedness activities and is chaired by a representative of the European Commission who also provides the secretariat. At EU level, the Integrated Political Crisis Response supports co-ordinated decision-making between Member States in response to crises. This forum facilitates information sharing through exchanges on national positions and the circulation to MS of analytical reports. Response to cross-border health threats is supported by the advice and guidance of the European Centre for Disease Control (ECDC). Ireland regularly contributes data to the ECDC via The European Surveillance System (TESSy). This data contributes to the regular and reliable epidemiological reporting by the ECDC.

From an international point of view, the 2005 IHRs are legally binding regulations on the 194 Member States of the WHO. Amongst other provisions, the IHRs provide for processes to protect against, control and mitigate international public health risks. The IHRs also provide for the WHO Director General to consider public health risks and declare 'a public health emergency of international concern'. In response to the COVID-19 Pandemic, several reviews were initiated to analyse the current WHO preparedness and response frameworks for international public health risks. Following the publication of these reviews, the WHO established a working group on strengthening WHO preparedness and response to health emergencies at the 74th World Health Assembly to analyse the potential benefits of a binding international agreement on pandemic preparedness and response. Following five meetings of the working group, the Special Session of the World Health Assembly in November 2021 adopted a resolution to open negotiations on an international pandemic treaty. An international negotiating body (INB) will meet by 01 March 2022 to begin discussions on the substantive content of such a treaty. Ireland supported the opening of negotiations and was a member of the 'Group of Friends of the Treaty' along with the majority of EU member States.

Risk Factor (NRA ID): Animal Disease (O)

Risk assessment for transboundary diseases entails horizon scanning for disease threats in Europe and its neighbourhood. DAFM pays close attention to UK disease reports and risk assessments as well as those for the EU through the Animal Disease Information System (ADIS) system and EFSA risk assessments. Particular attention is paid to disease events in our closest neighbours in the UK. For example, Ireland implemented risk preparedness measures when the UK suffered FMD, Classical Swine Fever and Bluetongue outbreaks in earlier years.

NDCC works closely with colleagues in the Department of Agriculture, Environment, and Rural Affairs (DAERA) in Northern Ireland to ensure that authorities on both sides of the border share resources and help each other out in the event of an exotic disease outbreak. Examples of this co-operation include a contract awarded jointly by the two authorities to private operators to carry out whole house gassing of poultry, when they are required to be killed for disease control.

An international agreement, known as the International Animal Health Emergency Response (IAHER), also exists on the sharing of staff resources and expertise between Ireland, the UK, USA, Canada, New Zealand and Australia in the event of an exotic disease outbreak in member countries. The EU animal health law directs that Competent Authorities should engage in such co-operation between EU Member States and third countries, for disease preparedness purposes, where possible and appropriate. The EU Commission has an international notification rapid alert system for incidences involving food and feed which may have originated within Member States or third countries. The Competent Authority receives these notifications which is underpinned by robust traceability systems.

3.6 Focus on Climate Change Adaptation Measures

Question 14: Assessment of Risk Management Capabilities Questionnaire

<i>State whether synergies between disaster risk reduction and climate change adaptation measures are established at national or sub-national level (as appropriate) for the key risks identified that are linked to climate change (Q4). If so, describe how.</i>
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In December 2020, the GTF adopted and published the Strategic Emergency Management Guideline 4 – Climate Change Adaptation³⁸ document. Its aim is to assist all Departments and Agencies on the GTF to link in their emergency planning and management roles with that of the National Climate Adaptation Framework. It provides guidance that addresses the following areas:

- Consideration of climate change projections for Ireland during the response to emergencies and in emergency planning;
- Ensuring that relevant likely impacts of climate change in Ireland on diverse sectors are addressed, in order to build resilience to climate change across Irish society and the economy;
- Where to find information on climate change projections, predicted impacts, adaptation options, and national policy on climate change adaptation, in particular the National Adaptation Framework and Sectoral Adaptation Plans.
- National, regional and local co-ordinating structures for climate change adaptation, and
- Integration of national policy and approaches within the wider EU and international policy on climate change adaptation.

Risk Factor (NRA ID): Storm (A) /Snow and Ice (B)

The current draft of “A Guide to Flood Emergencies³⁹” and the completed document “A Guide to Severe Weather Emergencies 2020⁴⁰” contain information on climate change adaptation, and refers to the SEM Guideline 4 published by the GTF. These guides acknowledge the increase of both frequency and impact of severe weather events.

³⁸ Available at <https://www.gov.ie/en/publication/7ff6f-strategic-emergency-management-sem-national-structures-and-framework/>

³⁹ Available at <http://mem.ie/wp-content/uploads/2015/05/A-Guide-to-Flood-Emergencies-Ver2-11-July-2013.pdf>

⁴⁰ Available at <http://mem.ie/wp-content/uploads/2020/09/Guidance-Documents-14-Severe-Weather-Emergencies-February-2020-DHPLG.pdf>

Risk Factor (NRA ID): Flooding (C)

The Sectoral Climate Change Adaptation Plan⁴¹ (SCCAP), provides detail on how flood risk associated with climate change will be managed at a national level for Ireland. The SCCAP was informed by the CFRAM flood maps that were developed for two future scenarios, taking account of the potential impacts of climate change, in addition to current conditions. The CFRAM Programme, contributes towards a number of priorities identified under the United Nations SENDAI Disaster Risk Reduction Framework, namely Priority 1 ‘Understanding disaster risk, Priority 3 ‘Investing in disaster risk reduction for resilience, and Priority 4’ Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction’.

Locally, the potential impacts of climate change on flood risk are assessed at a project level as part of the Flood Relief Scheme projects that each require the preparation of a Scheme Climate Change Adaptation Plan. These plans will set out how potential climate change impacts are accounted for as part of the design of the Scheme, and what potential future interventions may be required to address rising flood levels.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

From a nuclear incident abroad point of view, it is not presently considered that climate change presents a significant risk. At international level, there is an ongoing debate on the role of nuclear energy in a climate context. Climate change and the possibility of rising sea levels is a factor considered in the construction of new nuclear power plants. Ireland is recognised as an interested party in relation to the UK’s new nuclear build programme and is consulted on plans in this regard and has the opportunity to comment on any element of these plans.

Risk Factor (NRA ID): Cyber Incident (I)

Climate change has additional effects on cyber related systems. Climate related effects such as flooding and prolonged high temperatures are increasingly having an impact on the operation of network and information systems. OES are in the first instance responsible for ensuring that appropriate measures are in place to manage risk and prevent and minimise the impact of incidents.

⁴¹ Available at <https://www.gov.ie/pdf/?file=https://assets.gov.ie/129614/9bcbb18e-7203-4079-9a59-833842e932f2.pdf#page=null>

Risk Factor (NRA ID): Disruption to Energy supply (J)

As things stand, the impact of climate change adaptation measures have had only a limited impact on oil emergency risk assessment, preparedness and response measures. Notwithstanding this, risk assessments are now required to take account of the expected increase in the occurrence of extreme weather events, which will pose more frequent challenges, in terms of the maintenance of supply and distribution chains during and in the aftermath of such events, particularly given the highly optimised nature of existing supply chains.

Increased biofuel blend targets and increased electrification, in particular of the State's light vehicle fleet, will over the next decade reduce the State's dependency on petroleum products. This is expected to have implications for the level of the State's strategic oil stockholding, and oil emergency planning generally.

Risk Factor (NRA ID): Pandemic (L)

Health linkages between climate adaptation measures and emergency management are well established in Ireland. Under the National Adaptation Framework, a range of stakeholders including the HSE engage with the Office of Emergency Planning both from the perspectives of working in partnership during climate-related extreme events, and from planning for the impacts of slow-onset events in the future. Linkages exist both at national level as described above, and within relevant sectoral adaptation plans. Emerging risks in this area are also noted in the NRA 2020. The Health Sectoral Adaptation Plan published in 2019⁴² recognises the need for further research on health risks associated with climate change, which can include greater incidence of climate-sensitive diseases including respiratory disease, water-borne disease and other infectious diseases. These risks can be impacted upon by air quality issues, by temperature rises and by extreme weather events.

Risk Factor (NRA ID): Animal Disease (O)

There are substantial links between the two work areas. The NDCC works closely with the Climate Change Division on areas of shared interest. Changing climate is believed to increase the range of many exotic diseases, and their vectors, which have until now been confined to warmer areas of the world. Hence, we are now concerned about diseases such as Bluetongue, West Nile fever and African Swine Fever, which were not seen as a substantial threat in times past.

⁴² Available at <https://www.gov.ie/en/campaigns/708481-climate-change-adaptation-plan-for-the-health-sector-2019-2024/>

In addition, animal diseases generally make livestock production less efficient, so keeping such diseases out is of paramount importance in minimising carbon emissions per unit of animal product generated. The NDCC contributed to the Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan, and the work of the NDCC in horizon scanning and disease surveillance co-ordination is guided by advice from the Climate Change Division.

3.7 Focus on Critical Infrastructure Protection Measures

Question 15: Assessment of Risk Management Capabilities Questionnaire
<i>State whether there are measures in place to protect critical infrastructure regarded as relevant for the continuation of vital societal functions.</i>

Risk Factor (NRA ID): Flooding (C)

The CFRAM Programme, supported by the National Indicative Fluvial Maps and Irish Coastal Wave and Water Level Modelling Study, have provided flood mapping to support the assessment of flood risk to critical infrastructure by the relevant infrastructure owners/operators. The capital flood relief programme, which includes 50 completed schemes, 90 schemes currently at various stages of design, planning or construction and a further 59 planned schemes, has or will provide a significant degree of protection against flooding to critical infrastructure within the relevant communities.

Risk Factor (NRA ID): Maritime Incident (D)

The activities at Dublin Port pose different types of potential risk ranging from collisions involving shipping to accidents involving pedestrians. To address and manage these risks, procedures have been developed by Dublin Port Company and the various operators within the Port to ensure that the facility operates in accordance with the best international practice and in accordance with recognised safety standards.

Dublin Port have developed emergency procedures which are frequently tested. An annual training requirement is in place, including induction and refresher training, and formal exercising. In addition to port specific training, management and staff regularly participate in or observe at tenant site emergency exercise. Dublin Port has developed its resilience due to life cycle planning and stress testing of resources during exercises and training. Life-cycle and surge capacity is addressed through continuity planning.

In 2018, Dublin Port upgraded resources in the form of ships, pilots and tugs to mitigate against surge and lifecycle challenges. Additionally, the Port has carried out Critical National Infrastructure (CNI) workshops, assessments and training in line with Strategic Emergency Management Guideline 3⁴³.

Risk Factor (NRA ID): Air Incident (E)

The IAA provides oversight in Ireland of the pan-European aviation safety regulatory system. Infrastructure requirements including aerodrome operation and design and airspace navigation requirements are included in the regulatory system. This system also includes continuous oversight and auditing of system supplies including aerodromes and air navigation service providers. The IAA also publish an annual report on its identified safety risks (The State Safety Plan)⁴⁴ which includes actions for the regulator and industry to improve safety.

Risk Factor (NRA ID): Transportation Risks (F) / Structural Collapse (G)

In relation to the risk posed by significant structural damage to Dublin Port, TII ensure adherence to Government Construction Contracts Committee requirements for company financial assessment and utilise appropriate monitoring regimes in tandem with relevant stakeholders (e.g., National Development Finance Agency). TII and Egris Road and Tunnel Operations (ERTO) develop maintain and update as required, a suite of incident management and business continuity procedures for tunnel operations. TII and ERTTO also conduct live exercises in accordance with the requirements of the major incident plan for the tunnel contract. A number of other safety measures are in place to protect the Dublin Port Tunnel from the risk of serious failures. It should also be noted that the design of the structure was developed to mitigate the risk of structural failure following a fire.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

In the event of a nuclear incident abroad, the Agri-food sector is the area most likely to be significantly impacted. DAFM has detailed response plans in place for different agricultural sectors.

⁴³ Available at <https://www.gov.ie/en/publication/7ff6f-strategic-emergency-management-sem-national-structures-and-framework/>

⁴⁴ Available at: <https://www.iaa.ie/safety/state-safety-plan>

Risk Factor (NRA ID): Cyber Incident (I)

OES are in the first instance responsible for ensuring that appropriate measures are in place to manage risk and prevent and minimise the impact of cyber related incidents.

Risk Factor (NRA ID): Disruption to Energy supply (J)

Ireland's strategic oil stockholding, equivalent to 90 days usage, provides the key component of the State's ability to protect the functioning of critical infrastructure in the event of a shortage of oil product in supply chains. On the direction of the Minister, NORA has the capacity to release stock directly to the oil companies from its storage facilities and from the main oil terminals. This stock can be transported by road tanker directly to the filling station network, and to facilities operated by critical infrastructure, including the emergency services, hospitals, and other key sites.

Notwithstanding the existence of the State's considerable oil stockholding, the Minister also has the power, under the Fuels (Control of Supplies) Acts 1971 and 1982, on foot of a declaration by Government, to take control of the supply and distribution of fuel in the market, in the exigencies of the common good. While this power may only be exercised in the event of an extreme or long-lasting oil emergency, work is ongoing to finalise draft oil emergency allocation schemes, aimed at putting in place the measures necessary to provide for this prioritisation of fuel to the emergency services and critical infrastructure, if necessary.

In terms of the operation of oil critical infrastructure, the SEM 3 Critical Infrastructure Resilience - Version 2⁴⁵ document provides general guidelines to operators on the increasing of resilience measures. In addition, there are established sectoral procedures in place to provide for the resilience of key infrastructure.

Risk Factor (NRA ID): Terrorist Incident (K) / Large Crowd Event (N)

There are measures in place to protect critical infrastructure regarded as relevant for the continuation of vital societal functions. An Garda Síochána has a unit dedicated to this function and the Major Emergency Management Office also contributes to the Critical Infrastructure Resilience Subgroup of the GTF.

⁴⁵ Available at <https://www.gov.ie/en/publication/7ff6f-strategic-emergency-management-sem-national-structures-and-framework/>

Risk Factor (NRA ID): Pandemic (L)

An initial assessment of critical infrastructure has similarly been engaged with across the HSE. This included the identification of staff, facilities, equipment and interdependencies that exist in the system. Some protective measures have been put in place, particularly around the delivery of essential care. In addition, Ireland is participating in the negotiation of the proposed EU Directive on Critical Entities Resilience which covers the health sector.

Risk Factor (NRA ID): Food Chain Contamination (M)

The FSAI under the aegis of the Minister for Health has responsibility to manage risks in the food chain and respond effectively to any national or international food incident or crisis. DAFM works closely with FSAI in the food processing plants for which DAFM has responsibility.

Risk Factor (NRA ID): Animal Disease (O)

Operations manuals of DAFM contingency plans for transboundary disease incursions cover the consideration of infrastructure for local disease control centres (LDCC) and local biosecurity centres (LBC) and define requirements for these premises.

Regular disease preparedness circulars are disseminated from the NDCC to regional veterinary offices requiring the identification of potential infrastructure for LDCCs, LBCs and other structures relevant to animal disposal (e.g. slaughterhouses, rendering plants) and biosecurity. The potential locations for road checks and biosecurity points as well as the staff required to man them were considered by An Garda Síochána at a FMD simulation exercise in 2017.

Risk Factor (NRA ID): Water Supply (P)

Irish Water has completed a review of its critical infrastructure applying SEM 3 Critical Infrastructure Resilience - Version 2. This indicated that enhanced resilience management practices will contribute to achieving strategic objectives. Local Authorities have continued to develop significant business continuity measures, enhancing resilience in this sector, which supported the Local Authority response to the COVID-19 public health emergency.

3.8 Source(s) of Funding

Question 16: Assessment of Risk Management Capabilities Questionnaire

<i>State whether the budget allows for resources to be allocated flexibly in case of urgent need and to what extent disaster funds promote preventive action.</i>

<i>Describe the funding sources used (e.g. national, sub-national, public, private, including insurance, EU and other international funding) to take priority measures in the field of disaster risk management when assessing, preventing, preparing for and responding to the key risks identified.</i>

Risk Factor (NRA ID): Storm (A) / Snow and Ice (B)

The DHLGH has funded the response to extreme weather events where the resources deployed by the Local Authorities required exceptional support or resources. Funding for such events has amounted to over €90m since 2009.

There is no dedicated budget for such events, and when such an event occurs DHLGH applies for additional funding for the amounts requested by Local Authorities. DHLGH liaise with other stakeholders where relevant. An example of this is a liaison mechanism conducted with the Department of Employment Affairs and Social Protection and Department of Enterprise, Trade and Employment for activation of relevant schemes for businesses and individuals post flooding.

Risk Factor (NRA ID): Flooding (C)

In relation to flood risks, a funding commitment of €1 billion is provided by the Irish Government in the National Development Plan 2018-2027 for the planned programme of work to implement the measures set out in the FRMPs. Investment of €440 million since 1995 has already delivered 50 major flood relief schemes around the country, which provide protection to over 10,000 properties and an economic benefit to the State in damage and losses avoided estimated to be in the region of €1.8 billion.

The financing requirements are identified through the costing of the measures as set out in the FRMPs, with budgets refined at the more detailed project-level assessment. EU Central Bank loans have been made available for capital flood relief schemes⁴⁶. Private funding is not sought for public flood protection measures, but is required for measures planned/implemented by private or semi-State companies to protect their own assets from flood risk. As a general rule, stakeholders do not share costs in the implementation of major flood relief projects with all funding being provided through central Government by the OPW.

⁴⁶ Available at: <https://www.eib.org/en/projects/pipelines/all/20140394>

Local Authorities may use their own funds to carry out flood relief projects and some do this but generally at a small scale. The OPW operates the Minor Flood Mitigation and Coastal Protection Scheme which allows Local Authorities to apply for funding for minor projects up to a value of €750,000. In these cases 90% of the project cost may be provided with the Local Authority having to provide the balance of 10% from its own resources.

Risk Factor (NRA ID): Maritime Incident (D)

The Department of Transport allocates the responsibility to plan for the specific risk posed by vessel blockage in Dublin Port to the Harbour Master who plans and budgets for resources as required. Financing is thus arranged internally in Dublin Port through annual budgets.

Risk Factor (NRA ID): Air Incident (E)

In relation to planning for a serious air incident, the IAA provides oversight in Ireland of the pan-European aviation safety regulatory system. This system includes budgetary requirements, including access to adequate funding for emergency situations, the sharing of the cost of search and rescue, and the recovery of aircraft following an accident.

Risk Factor (NRA ID): Structural Collapse (G)

The operation of the Dublin Tunnel is funded through revenues from toll collections. This funding is allocated towards the preventative planning and mitigation of the RWCS that is identified in NRA 2020, that is, significant structural damage to Dublin Port Tunnel. However as witnessed during the COVID-19 Pandemic, toll revenues are not guaranteed. For years 2020 and 2021, tunnel operational costs significantly exceeded toll revenues, the shortfall being bridged by re-assignment of funding by TII. In relation to capital re-investment in the tunnel, such as the replacement of key tunnel systems or the potential implementation of new systems such as Fixed Fire Suppression Systems, TII will be reliant on Department of Transport exchequer funding.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

The EPA has some capacity in the short-term in relation to resource flexibility in responding to an emergency arising from a nuclear incident abroad. An example of this is in relation to monitoring and it can engage the Civil Defence also in this role. In the unlikely event of a nuclear incident abroad impacting Ireland, it is likely that the recovery plan would be long-term and involve significant resources.

In the event of a severe nuclear emergency in Western Europe, there would be huge demands on the EPA's Radiation Monitoring Laboratory which is the only ISO 17025 accredited laboratory in the country for the measurement of radioactivity in environmental and food samples.

The resources required to deal fully with such an incident including long term remediation would be dependent on the location of the facility where the incident occurred, the amount of radioactivity released into the atmosphere and the weather conditions at the time of the release. An Economic and Social Research Institute (ESRI) report on the Potential Economic Impact of a Nuclear Accident estimates losses from €4 billion to €161 billion based on different scenarios modelled. In the more severe scenarios examined, long term radiological monitoring and testing would be necessary. Government level decision-making would be required to deal with the specific circumstances being faced. Given the nature of this risk as external to the State, funding of preventative action is not relevant.

Risk Factor (NRA ID): Disruption to Energy supply (J)

The DECC is funded through voted exchequer funding. The necessary level of resources is provided within the Department for the management of risks related to oil supplies, including enabling a response to an oil supply emergency. Departmental financial capacity exists to ensure the NESO is sufficiently staffed, including being augmented in the event of an oil supply crisis.

This administrative budget also allows for the utilisation of consultants, if required, to enhance the capacity of the Department to manage risk, for example to facilitate the conduct of emergency exercises, or to provide specialist information relating to markets or security of supply.

NORA is funded through a 2 Cent levy on most petroleum products sold within the State, which ensures it has sufficient funding to cover its risk assessment and mitigation activities. This funding is provided on a statutory basis. The income generated by this levy is used to fund the purchase and maintenance of Ireland's strategic oil reserve. The levy also provides the means for NORA to hold a significant contingency fund, the purpose of which is to ensure it is adequately resourced in the event of an oil emergency.

Risk Factor (NRA ID): Terrorist Incident (K) / Large Crowd Event (N)

The Garda Commissioner is the Accounting Officer of An Garda Síochána and is responsible for the Garda budget. The issues of resource allocation depends on the scenario, with the COVID - 19 Pandemic indicating that funding and budgets can respond dynamically to a given scenario/incident. This includes access to EU funding as appropriate.

Risk Factor (NRA ID): Pandemic (L)

The Health Service Executive is substantially funded through the Health Vote (Vote 38) of the Department of Health. There are other streams of funding which are statutorily provided for in the Health Act, including private income in the form of co-payments and payments from private insurers. The Department's annual Estimates of Expenditure is presented to Dáil Éireann in October each year, setting out the funding allocation required for the forthcoming calendar year.

The Department's estimate has due regard to the following:

- Recurring Funding: Funding allocated for delivery of services on an ongoing basis and would be considered to be included in the Health Vote's base funding
- Existing level of Service (ELS): The level of monies required in the forthcoming year to maintain the same level of service to the current eligible population. ELS also includes:
 - Impact of demographics
 - Impact of cost inflation
 - Full year effect of new developments commenced part way through the previous year
 - Impact of new drugs above/beyond demographics
- Funding for New Measures: Funding allocated to commence new initiatives
- Once-off Funding: Funding allocated on a once off basis for a particular project or item of expenditure and would not be available in the Health Vote funding in the subsequent year

Following approval by Dáil Éireann, the Estimate forms the Health Vote for the forthcoming year. The Minister for Health issues a Letter of Determination, which is the formal communication issued annually to the HSE, setting out the funding allocation for the year for revenue and capital. Within 21 days of receipt of the Letter of Determination, the HSE submits its National Service Plan (NSP) to the Minister for approval.

Having due regard to the voted expenditure and the NSP, governance structures, including Monthly Financial Performance meetings, and the Health Budgetary Oversight Group, monitor expenditure against agreed outputs. Where risks emerge these structures provide a platform for mitigation. At any stage throughout the year, the Minister may issue a Revised Letter of Determination to the HSE to reallocate resources in order to respond to specific challenges.

The Supplementary Estimates process is the primary mechanism by which unforeseen, and therefore unfunded, measures are funded. This mechanism allows the Minister for Health to seek additional exchequer funding at any stage throughout the year. Following approval by Dáil Éireann of the Supplementary Estimates, a revised Letter of Determination issues to the HSE.

Other sources of emergency funding may be provided by the EU. The EU response to the COVID-19 pandemic for example, saw the introduction of a number of financial instruments to help Member States mitigate costs of their responses to the Pandemic. This funding is remitted centrally to the Exchequer but for specifically identified and agreed projects/actions.

Risk Factor (NRA ID): Food Chain Contamination (M) / Animal Disease (O)

DAFM is allocated funding under Vote 30, Subhead A.3 (food safety, animal and plant health and animal welfare). Adjustments can be made, including reprioritising funding, as necessary. A specific portion of the budget in the NDCC is reserved as a contingency fund for financing the opening weeks of any outbreaks. Further financing would be provided by DAFM's contingency funding. Additional funding would then be requested if required.

3.9 Infrastructure, Assets and Equipment

Question 17: Assessment of Risk Management Capabilities Questionnaire

<i>Describe what is done to ensure that enough assets are available to mitigate the impact of disasters and respond promptly to disasters associated with the key risks identified.</i>

Internal and inter-agency testing and exercising identifies gaps. This in consultation with the National Risk Assessment processes, identifies where resources are needed and how to prioritise which gaps need to be addressed first.

Risk Factor (NRA ID): Storm (A) / Snow and Ice (B)

Local Authorities have severe weather plans and flood response plans in place. DHLGH makes emergency funding available where these plans are in place. Capital funding of the Fire Services is processed by the DHLGH. Examples of assets funded to mitigate the impact of disasters includes the funding of a number of 4x4 vehicles for the Fire Service following snow storm Emma in early 2018 to improve the assets for responding in such conditions. Such vehicles are also deployed in the response to other events including flooding and fires. During the national response to COVID-19, DHLGH also funded additional body holding facilities within the Local Authorities that can be deployed for response to any disaster that occurs that may necessitate their deployment.

Risk Factor (NRA ID): Flooding (C)

Assets providing flood risk prevention are developed and implemented through the capital flood relief schemes. As previously outlined, the capital flood relief programme that is under-pinned by a commitment of almost one billion euro (€1bn) in the National Development Plan 2018 to 2027 includes 50 completed schemes, 90 schemes currently at various stages of design, planning or construction and a further 59 planned schemes. These schemes together will provide protection for approximately 95% of the properties at risk from rivers and the sea.

Risk Factor (NRA ID): Maritime Incident (D)

The condition of relevant infrastructure and risks to same are included in the management of the RWCS that is identified in NRA 2020, which is a vessel blockage in Dublin Port. For example, channels and berths must be adequately dredged to ensure vessels do not run aground and this is included in the controls to mitigate this risk.

Inventories of equipment are maintained via IT asset inventories, the Commissioners of Irish Lights database, internal engineering databases and safety management systems. Critical port infrastructure such as quay walls and breakwaters are monitored through laser monitoring and a database maintained by the Dublin Port Engineer.

Risk Factor (NRA ID): Air Incident (E)

In relation to the RWCS posed by a serious aircraft accident, the IAA again provides oversight in Ireland of the pan-European aviation safety regulatory system. Infrastructure requirements including aerodrome operation and design and airspace navigation requirements are included in the regulatory system. This system also includes continuous oversight and auditing of system supplies including aerodromes and air navigation service providers.

Risk Factor (NRA ID): Transportation Risks (F) / Structural Collapse (G)

TII through the Dublin Tunnel operation and maintenance contract provides an onsite presence of control room and patroller personnel to monitor and manage onsite incidents. The Dublin Fire Brigade provides a dedicated service to the Dublin Tunnel from their station in Fairview along with a dedicated specialised fire tender. Procedures are in place with stakeholders to activate the diversion of trucks and other vehicles in the event of a tunnel incident which causes the closure of the tunnel.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

The likelihood of an emergency in Ireland arising from a nuclear incident abroad is extremely low. The EPA has conducted significant research on potential risks to Ireland in this area both in relation to the Sellafield site and the UK new nuclear build programme and a number of publications outline their analyses. The Government also commissioned the Economic and Social Research Institute to quantify the potential socioeconomic costs of this risk and a report has been published on possible costs under four different potential scenarios. This research informs Government policy in this area including in relation to resource allocation.

In the event of a nuclear emergency in Europe, there would be huge demands on the EPA's Radiation Monitoring Laboratory to measure radioactivity in environmental samples and food destined for the Irish market and for trade internationally. To support the laboratory in an emergency, Gamma monitors to screen samples for radioactivity have been purchased for the EPA's Water Laboratories in Castlebar, Dublin, Kilkenny and Monaghan.

These instruments can be used to measure key radionuclides (Caesium-137, Caesium-134, and Iodine-131) that would be monitored in the aftermath of a nuclear accident abroad. Any samples with elevated levels of radioactivity would be forwarded on to the Radiation Monitoring laboratory for further analysis. While these instruments are in place, commissioning and training has been delayed due to COVID-19 travel restrictions which have prevented the manufacturer's engineer travelling to Ireland.

Risk Factor (NRA ID): Cyber Incident (I)

The NCSC appointed a specialist third party consultancy to perform a capacity review of the NCSC and produce a report describing the actions that are required to ensure the NCSC is adequately resourced and structured. An action plan and governance structure are being developed to oversee the implementation of the actions under the plan.

Risk Factor (NRA ID): Disruption to Energy supply (J)

Ensuring adequate oil infrastructure is a key element of risk mitigation for a potential oil supply disruption. NORA holds 90 days' worth of strategic oil stocks to mitigate against a major or long-term oil emergency. A significant proportion of these stocks is held in NORA owned facilities, containing necessary jetties and road tanker delivery racks, which provide the capability to NORA to quickly move stock from national or international storage sites, and place it quickly on the Irish market. This infrastructure is tested regularly.

On an industry basis, critical infrastructure identified as being crucial for the supply of product to the market includes the commercial terminals in Dublin Port, the refinery at Whitegate, and the major roads network, which is essential for the distribution of oil product. A degree of surplus capacity exists within Irish oil terminals, thereby ensuring that the loss of a single terminal is mitigated against. Product for the Irish market may also transit through terminals in Northern Ireland, in the event of a significant degrading of terminal capacity within the State, for any reason. Strong regional oil infrastructure also plays a key role in the Irish oil supply chain, including EU and UK refineries, with surplus refining capacity and diverse supply chains providing security of supply. The DECC has developed the Oil Levy Application (OLA) reporting system. This IT infrastructure provides the mechanism which oil companies in the State utilise to submit data to the Department on a monthly basis. In addition to monthly reports, the system may be utilised in an oil emergency, thereby providing the Department and NORA with up to date oil statistical data.

Risk Factor (NRA ID): Pandemic (L)

The Department of Health works collaboratively with the HSE while monitoring the evolving global pandemic situation and implementing the public health protocols put forward by Government in response to developments. To meet the challenges faced in providing the appropriate infrastructure in pandemic response, HSE Estates division initiate an Emergency Capital Programme to support the Government's Action Plan. The Department engages with the Department of Public Expenditure and Reform to provide any additional capital allocation to fund the delivery of the identified building works, equipment, and ICT supports required. The programme of works required in the pandemic response would be immediately prioritised over scheduled, non-urgent capital works. The allocation of any required additional funding enables the delivery of additional surge capacity and the establishment of new services.

Where risk assessment identifies the need for additional resourcing, the HSE Emergency Management team works closely with key HSE services and functions and the Department of Health to prepare business cases for funding as part of the annual service planning process. Should adequate funding not be in place to adequately mitigate risk, these risks are added to relevant risk registers and revisited through HSE management processes.

A strategic multi-year plan for additional critical care capacity has been developed to ensure readiness of the health system for response to the ongoing COVID-19 Pandemic and to support a long-term strategic goal of increasing overall critical care capacity to 446. This will represent an increase from the 2020 baseline of 255 critical care beds, and will address an acknowledged deficit in permanent critical care capacity in Ireland. The Strategic Plan is clinically led, and aligns with broader policy and strategic service reform goals. The additional capacity will be delivered in two phases, and significant funding was made available in 2021 to progress Phase 1 and delivery of the initial 66 additional permanent critical care beds.

Risk Factor (NRA ID): Animal Disease (O)

Each regional veterinary office maintains a 'Go-Kit', stocked with the essential equipment needed to respond promptly to an exotic disease report. The NDCC ensures to keep a contingency supply of equipment for all eventualities. This includes killing equipment, disposal equipment, Personal Protective Equipment (PPE), cleaning and disinfection supplies, etc. This ensures that DAFM is prepared to deal with an outbreak even in times of supply chain disruption.

DAFM maintains contracts for provision of CO₂ gas, PPE and other services that demand a certain capacity from its contractors that help mitigate the risk of supply chain disruption.

Risk Factor (NRA ID): Water Supply (P)

Irish Water has Incident Management Procedures in place, which incorporate Emergency Response and Crisis Response Plans along with associated incident management protocols. The incident management structure includes a Crisis Management Team for national incident events and Incident Management Teams for regional incident events. Incidents considered critical for water supply include severe weather, droughts and flooding, and infrastructure failure. Details are available at <https://www.water.ie/help/supply/incident-management-and-e/>. Cross-sectoral engagement with the EPA, Commissioner for Regulation of Utilities, the HSE, Health and Safety Authority and Civil Defence are incorporated into these processes.

3.10 Focus on Disaster Loss Data Collection and Procedures

Question 18: Assessment of Risk Management Capabilities Questionnaire
State whether a system is in place to collect disaster loss data. Describe how data is collected on the key risks identified.

Risk Factor (NRA ID): Storm (A) / Snow and Ice (B)

Regular communication with the PRAs during a disaster allows the DHLGH to build a picture of the unfolding situation, to maintain updated information and to co-ordinate the response accordingly. Use of a software package (Incident Control Room) allows the DHLGH to collate relevant response information.

Risk Factor (NRA ID): Flooding (C)

Data on flood events is collated by the OPW and published on the OPW flood portal; www.floodinfo.ie. Information relating to approximately 7,000 past flood events around the country has been collated and is assessed on a six-yearly cycle through the PFRA⁴⁷ as required under the EU Floods Directive.

⁴⁷ Available at: <https://www.gov.ie/en/publication/1c7d0a-preliminary-flood-risk-assessment-pfra/>

Risk Factor (NRA ID): Structural Collapse (G)

TII's contract with ERTO requires that all system data in Dublin Port Tunnel is backed up each night at an off-site location. In addition, in recent years the tunnel systems have been migrated onto virtual servers providing an additional level of resilience and independence from any problems resulting from the physical condition of the tunnel control buildings. Periodic workshops are held and are ongoing with ERTO, TII, a private operator and the Tunnel Safety Officer consider and implement safe operational modes in the event of IT systems/data loss. These manifest themselves as part of business continuity plans that are maintained and updated regularly

The TII Network Management team liaise closely with the TII Data Protection team and legal advisors on the establishment and management of policy to deal with tunnel and Motorway Operations Control Centre related risk aspects particularly in relation to the retention of CCTV images.

Risk Factor (NRA ID): Disruption to Energy supply (J)

The OLA reporting system enables oil companies to submit data to the DECC, relating to volumes of stocks in supply chains, consumption and imports/exports. This data is routinely used to report statistics to the EU and IEA, as well as informing NORA of their 90 day stockholding obligation. In addition, OLA is a valuable tool to provide accurate data to decision makers during an oil emergency. The IEA runs emergency exercises every two years to test countries emergency response readiness, a major component of which is the submission of statistical information relating to product availability in the markets. During these exercises, oil companies are required to submit data to the DECC outside normal reporting schedules and this allows for the timely gathering of accurate data for the IEA. This information is crucial to enable the Department to respond in an effective manner in an oil emergency, including as part of the decision-making process relating to the release of strategic stocks to the market.

NORA has also developed an Emergency Release Model which it tests twice a year in an exercise, attended by the oil company distribution managers. In an emergency situation, oil companies would be required to submit daily data to this model, to provide an accurate picture of the extent of stock shortages, augmenting the OLA database system.

Risk Factor (NRA ID): Terrorist Incident (K) / Large Crowd Event (N)

Mechanisms are in place to record human loss. In terms of loss to property (i.e. damage reporting) estimates would form part of the recovery phase of emergency management and would require wide consultation. In the context of criminal proceedings, costs of damages would be documented and stored as evidence.

Risk Factor (NRA ID): Animal Disease (O)

Although no overarching system is in place, data which will allow calculation of losses are recorded in the course of an exotic disease outbreak. As part of compensation of individuals, forms are required to be completed which set out the scale of the losses suffered.

In terms of animal disease, the most substantial losses tend to be generated through killing of animals for disease control reasons. Removal of cattle for disease control will also be recorded on the Animal Information and Movements system (AIM). DAFM engaged the private firm, Indecon, to quantify total losses arising from the FMD outbreak in 2001. DAFM has developed an IT system for managing disease outbreaks known as the Exotic Disease Management System (EDMS). One useful output of this software is the creation of a database of all cases. This will facilitate the collection of disaster loss data.

3.11 Focus on Early Warning Systems Equipment and Procedures

Question 19: Assessment of Risk Management Capabilities Questionnaire
<i>Describe the systems in place for early hazard detection and monitoring of the key risks identified. State whether forecasting methodologies are integrated into the system.</i>

Risk Factor (NRA ID): Storm (A) / Snow and Ice (B)

Crisis Management Teams within the DHLGH continuously undertake horizon scanning to identify potential issues at the earliest possible opportunities. Some scenarios, such as severe weather and flooding, require information from specialists and allow appropriate planning in advance. Met Éireann have developed highly accurate forecasting models and their traffic-light weather warning systems through working with international meteorological organisations. Met Éireann are also developing hydro-meteorological models to support flood forecasting led by a team of specialist hydro-meteorological staff. Interim modelling is being used currently to provide alerts for fluvial and coastal flooding.

Risk Factor (NRA ID): Flooding (C)

With respect to coastal flood risk, a coastal surge forecasting system has been in place in Ireland for approximately 10 years, and has provided reliable, timely warnings for extreme sea levels on numerous occasions. Met Éireann is in the process of establishing a National Flood Forecasting and Warning Service.

Measures for individual flood relief schemes can contain flood early warning systems and associated protocols and arrangements for the deployment of temporary flood defences (demountable barriers). An example exists in the case of the Mallow and Fermoy schemes in County Cork, where there are detailed documented procedures in place for the deployment by Local Authority and private contractor staff of demountable flood barriers as an integral part of the scheme and based on a flood forecasting system for the Blackwater River.

Risk Factor (NRA ID): Maritime Incident (D)

In Dublin Port, procedures and scenario-based formats have been developed to deal with the most likely emergencies. Although scenario formats are developed they are tools for use in the all-hazards approach to emergency management. Training and exercising is reviewed after each event. Expert opinions in emergency management are utilised to facilitate such exercises and reviews to ensure best practice and awareness of risks.

Risk Factor (NRA ID): Air Incident (E)

In relation to aviation systems, the subscription by IAA to the pan-European aviation safety regulatory system allows for the inclusion of that system's detailed procedures for early warning systems.

Risk Factor (NRA ID): Structural Collapse (G)

Dublin Port Tunnel authorities continuously plan for the risk of significant structural damage to the tunnel from an accident leading to a fire/explosion failure through a number of systems in place. Risk of significant structural damage to the tunnel from failure to address a structural defect in a timely manner is also addressed as detailed above. The systems in place allow for early hazard detection and include a robust maintenance regime and independent principal inspections.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

Notification arrangements on a nuclear incident abroad emergency exist through IAEA, EU and bilaterally with the UK as mentioned previously. In the event of an incident, information will be shared with Ireland. The situation will be monitored on an ongoing basis as required. Weather conditions will be a major factor contributing to the potential impact of an incident on Ireland and Met Éireann will be significantly involved in the response with regard to weather forecasting and potential dispersion modelling. Met Éireann are involved in emergency planning exercises and work closely with the EPA on modelling potential impacts on Ireland of a nuclear incident abroad emergency.

Risk Factor (NRA ID): Cyber Incident (I)

The NCSC carry out a number of proactive activities with the goal of improving the cyber security posture of its constituents. These activities include the gathering and distribution of actionable cyber threat intelligence through a world-wide network of trusted colleagues and partners such as other CSIRTs/NCSCs, Law Enforcement Agencies, Researchers/Non-Governmental Organisations and members of the public. The NCSC also has access to a number of proprietary feeds which is typically obtained via network scanning, honeypot sensor networks, sink holed domains, vulnerability assessments, security and appliances/agents.

Risk Factor (NRA ID): Disruption to Energy supply (J)

In the event of a global oil supply disruption a preliminary assessment of a potential risk to security of supply would be received from the IEA. This briefing method is tested through emergency exercises every two years. On a national level, returns from the oil companies received on OLA are closely monitored. In addition, the DECC personnel communicate regularly with NORA and Fuels for Ireland on matters of mutual interest. This close working relationship is invaluable in providing the Department with a strong knowledge of the domestic petroleum product market. In the event of circumstances arising, which have or may potentially lead to a shortage of one or more products in the market, Fuels for Ireland will make contact with and brief the Department on the situation. NORA also maintains close links with the Irish oil companies, making it likely that they will also be made aware at an early stage of any potential product constraint. The procedures in place whereby Ireland, as a member of the IEA receive up to date information from the IEA in the event of a global level disruption and the maintaining of strong links with the domestic oil industry, are integrated into the planning and preparedness stage of the Departments Oil Emergency Response Procedures.

Risk Factor (NRA ID): Terrorist Incident (K)

The nature of the terrorist threat is such that it warrants the highest level of attention. Unlike a severe weather event or natural disaster, early warning might not be possible or appropriate. That said, An Garda Síochána closely monitors any persons or issues of concern and have a range of intelligence and analytical resources and investigatory powers to do so. Cross-border intelligence and the sharing of audience profiling assists in the preparation of event risk assessment and the development of emergency response plans. Once a hazard is detected, the Major Emergency Management pathways are used to communicate the risk.

Risk Factor (NRA ID): Pandemic (L)

HSE Emergency Management maintains close links with key HSE stakeholders, other Government Departments and Agencies both through established fora and alerting systems including the EU's Early Warning and Response System (EWRS), WHO event information Site and the Common Emergency Communication and Information System (CECIS) monitored by NDFEM. Met Éireann alerts are disseminated directly and in a timely manner to all HSE Emergency Management staff enabling full situational awareness and activation as required.

At a national level, the COVID-19 Irish Epidemiological Modelling Advisory Group (IEMAG) was established as a subgroup of the NPHET for COVID-19 on 11 March 2020 to provide advice and expertise in the area of epidemiology data modelling. Plans are in place to transition the IEMAG to a permanent statistical analysis and disease modelling function. In addition to formal NPHET COVID-19 meetings, the Department of Health and the HPSC hold a daily disease assessment meeting to review latest data and discuss any areas of concern.

The National SARS-CoV-2 Surveillance & Whole Genome Sequencing Programme led by the HPSC, with the National Virus Reference Laboratory (NVRL) as the lead diagnostic partner, is operated with logistical support from and under the oversight of HSE laboratory operations. This arrangement provides a legal framework for the collection of patient samples and data for surveillance purposes and leverages working arrangements and data flow pathways already in use for other virus surveillance programmes. The overarching aim of the National SARS-CoV-2 Surveillance & Whole Genome Sequencing Programme at present is to use the programme to inform and enhance the urgent public health response to the COVID-19 Pandemic.

A National SARS-CoV-2 (COVID-19) Wastewater Surveillance Programme has been developed by a specialist team, with input from the HPSC, HSE, Health Intelligence Unit, the NVRL, UCD School of Bio molecular and Biomedical Science, and Irish Water.

Virological surveillance is carried out through sentinel and non-sentinel NVRL weekly aggregated reporting of epidemiological and virological data (using Computerised Infectious Disease Reporting and the Influenza surveillance framework). The regional Departments of Public Health have established at least one sentinel hospital in each HSE Area, to report data on total, emergency, and respiratory admissions on a weekly basis. Surveillance of confirmed hospitalised and intensive care units COVID-19 cases is also performed. Additionally, the use of the established EuroMoMo system to monitor excess all-cause mortality and excess deaths from Influenza and Pneumonia is also performed. The usage of Pandemic Influenza Severity Indicators, also known as PISAs, developed by WHO to assess the severity of a pandemic examines transmissibility (positive virology multiplied by Influenza like illness (ILI) rate), severity (rate of cases hospitalised and in intensive care units) and impact (excess mortality). Finally the COVID TRACKER APP is utilised for close contact tracking of confirmed cases of COVID-19 nationally

Risk Factor (NRA ID): Animal Disease (O)

DAFM has passive and active surveillance plans e.g. the National Residue Plan. EU rapid alert system for food and feed (RASFF) system also provides an early warning system. The HSPC provides input into the EU's EWRS for communicable diseases, which is a communication system where Member States share information to try to prevent or control cross-border threats to health. MS of the EU are required to notify other MS and the European Commission via the EWRS in the event of various types of outbreaks.

Early warning is a vital component for risk mitigation for transboundary disease incursions. DAFM has implemented a working group on early warning surveillance (EWS) and has held a series of cross-divisional expert elicitation sessions to improve EWS performance and avoid duplications of effort in different divisions. Procedures for EWS were agreed including the promotion of passive surveillance (farmer and private veterinarian vigilance as well as DAFM resource to engage with and promote disease reporting), and active surveillance (for example serosurveillance programmes and bulk milk testing for evidence of exposure to exotic pathogens).

DAFM has a dedicated disease surveillance team with responsibility for early warning surveillance as well as surveillance to provide confidence in disease freedom in accordance with EU legislation and World Organisation for Animal Health (OIE) requirements. DAFM contingency plans and operations manuals define the actions to take in the event of an exotic disease suspect, activation of disease control measures, management of outbreaks and post-outbreak surveillance.

Bluetongue is present in several countries in continental Europe. Bluetongue can spread over long distances through movement of plumes of midges on the wind, under the necessary weather conditions. DAFM has worked with Met Éireann on developing a forecasting model which identifies periods of high risk for incursion of Bluetongue into Ireland through wind-borne midges.

Risk Factor (NRA ID): Water Supply (P)

A system of early engagement with the PRAs through the NDFEM facilitates advanced engagement and dissemination of information in advance of any impending events that may affect water supply from a strategic point of view.

3.12 Risk Information and Communication to Raise Public Awareness

Question 20: Assessment of Risk Management Capabilities Questionnaire

Describe how the public is informed of what action to take when facing risks. For example, state whether a strategy is in place to educate the public and raise awareness. State whether and how target groups are involved in the definition of prevention and preparedness measures and in the implementation of the risk information and communication activities.

A suite of information about the SEM is published on the OEP website: www.emergencyplanning.ie. Of particular note for this section is the Strategic Emergency Management Guidance 2 - Emergency Communications⁴⁸. It provides guidance that addresses:

- Effective communications within Departments and Agencies, in order to facilitate each stage of the emergency management cycle.
- Communications with the public and responders, across the full spectrum of media.
- Development of communication strategies and plans by LGDs to include communications with key stakeholders, responders and the public.

The focus is on the strategic and national level, providing guidance for Government Departments and Agencies, particularly for the LGDs responsible for the dissemination of information and advice during an emergency incident and the following recovery period. As with all parts of the SEM, it is intended to ensure that Ireland continues to operate to a level of international best practice in emergency management and communication.

The NDFEM run fire safety campaigns which include a fire safety week promoting key messages on fire safety to the general public. These campaigns also include programmes for fire safety education within primary and secondary schools. NDFEM also support Local Authorities to target specific sectors, providing fire safety familiarisation to vulnerable communities at local level.

Risk Factor (NRA ID): Storm (A) / Snow and Ice (B)

The ‘Be Winter-Ready’ campaign, is intended to raise awareness about the particular challenges that winter can present and provides a co-ordinated and cross-cutting approach to public safety messaging and the dissemination of information on winter preparations.

⁴⁸ Available at: <https://www.gov.ie/en/publication/7ff6f-strategic-emergency-management-sem-national-structures-and-framework/>

This cross-Government information campaign is now a well-established and important annual event impacting across the whole public service. The campaign highlights the ‘whole of Government’ approach being taken to winter preparations. This sort of approach was seen during recent storms and severe weather events that occurred over the past number of years which posed challenges for the country. Importantly, the ‘Be Winter-Ready’ campaign informs the public of what is being done in relation to winter preparations and where they can source valuable information that can assist them prepare for a difficult period. The campaign is disseminated over multiple platforms such as traditional print media, radio advertisements, leaflet distribution and social media. This is to ensure as wide a distribution as possible of the information to the wider public

Risk Factor (NRA ID): Flooding (C)

The public is informed of flood risks generally through the OPW flood portal; www.floodinfo.ie. Information on appropriate actions to take before, during and after a flood event is published by the OPW through the Plan, Prepare and Protect initiative⁴⁹ that is published by OPW on www.flooding.ie. The site also contains relevant contact details, frequently asked questions and a guidance document specifically for riparian landowners along watercourses.

Risk Factor (NRA ID): Maritime Incident (D) / Air Incident (E) / Transportation Risks (F) / Structural Collapse (G)

In the case of the risks outlined, the Department of Transport and its Agencies will follow the Department of Transport Strategic Level Emergency Co-ordination Plan. This outlines how all public communications and messaging from the NECG will be co-ordinated and disseminated by the Department and its Agencies in conjunction with the Government Information Service.

When acting as a Lead Government Department, the Department of Transport will chair the NECG and determine the key messages for inclusion in press releases and media briefings. These will be disseminated by the Department’s Press Office. Relevant transport Agencies will attend meetings, supply information, provide spokespeople and assist with information dissemination via their channels as required.

⁴⁹ Available at: <https://assets.gov.ie/40603/37e2ec17800e4e9a812678edb31024d7.pdf>

Agencies also take proactive communications. For example, during 2021, Dublin Port Company engaged in a media campaign to alert members of the public to the location of shipping lanes and the traffic density of shipping in Dublin Bay and the River Liffey. This campaign will be run again ahead of the summer season in 2022. In relation to their key stakeholders, Dublin Port Company has a suite of Bye Laws and Notices to Mariners that are promulgated directly to ship masters, pilots, pilot exemption holders, skippers of small clubs, ships agents and yacht clubs, and are available on the Dublin Port Company websites. The notices contain specific operational requirements in order to maintain safety of marine operations within the Port Company's jurisdiction. Dublin Port Company also maintains a Marine Co-ordination Group of marine stakeholders that meet four times per year to discuss aspects of marine safety.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

In the event of an emergency arising from a nuclear incident abroad, arrangements are in place to inform the public of the accident, its consequences and of any countermeasures that are to be implemented to reduce doses to the population. This information would be issued through media channels such as for example: radio, television including social media, internet, press statements, press conferences and via national weather forecast broadcasts on television and radio. Regular updates of the situation would be given. In Ireland, Regulation 59 of Ionising Radiation Regulations 2019⁵⁰ outlines the steps that need to be taken in the event of an emergency where members of the public could be exposed.

The EPA maintains content on their website on radiation in general and on radiation emergencies at <https://www.epa.ie/resources/faqs/radiation/radiation-emergencies-faqs/>. This material provides information on the risk from a nuclear incident abroad to the Irish public and the plans in place to deal with this and on how they should respond in the event of an incident occurring. In addition, the EPA use the @EPAIreland twitter account as a method of communicating quickly and easily with the general public. This may be used to keep the public informed during an emergency response.

⁵⁰ Available at: <http://www.irishstatutebook.ie/eli/2019/si/30/made/en/pdf>

Risk Factor (NRA ID): Cyber Incident (I)

The NCSC issues cyber security advisories and alerts regarding specific risks as well as ad-hoc thematic guidance to its constituents. Targeted communications are generally sent via email using specific mailing lists, and more general communications are published on the NCSC website and also distributed using social media channels such as Twitter.

Risk Factor (NRA ID): Disruption to Energy supply (J)

The DECC provide no specific information to the public, in relation to the risk of an oil supply emergency. Similarly, none is provided on the likely Government response in advance of the occurrence of such an eventuality. In the event of the occurrence of a serious or prolonged domestic oil supply disruption, an effective communications strategy is an integral component of the Department's response planning. Where a serious event has occurred which may have the effect of restricting domestic supplies, a public information strategy would include, where applicable, details of any releases of stock to the market, any schemes activated to allocate supplies to priority end-users, or measures taken by Government to conserve fuel.

This would be made available to the general public on the Department's website www.decc.gov.ie⁵¹ and on www.gov.ie⁵², and also disseminated, with the assistance of the Government Information Service, through broadcast, print and social media.

In keeping with the principles outlined in the SEM 2 - Guideline Document on emergency communications, and in the Department's Oil Emergency Response Procedures, the Department would cooperate closely with the Government Information Service on the preparation and delivery of all emergency management communications, including through the established NECG structures, if convened. In addition, emergency communications would be compiled in conjunction with NORA and Fuels for Ireland, to ensure consistency of messaging from Government bodies and the oil industry.

⁵¹ Available at: <https://www.gov.ie/en/organisation/department-of-the-environment-climate-and-communications/?referrer=http://www.dccae.gov.ie/>

⁵² Available at: <https://www.gov.ie/en/>

Risk Factor (NRA ID): Terrorist Incident (K) / Large Crowd Event (N)

Traditional and Social Media channels are used for communication of all relevant information to the public. Given the nature of the risk, while the overall threat assessment may be communicated, for obvious reasons, it is not the practice to disclose publicly the detail of such nor the nature of prevention and preparedness measures.

Risk Factor (NRA ID): Pandemic (L)

The Department of Health's communications activities as part of the COVID-19 response were underpinned by several key principles, informed by best practice international guidance from the European Centre for Disease Control and the World Health Organisation and led by consistently undertaken qualitative and quantitative research programmes. A descriptive overview of the communications strategy applied by the Department is highlighted below.

Regular press conferences, chaired by the Chief Medical Officer, were held in the Department to communicate updates from the NPHET's regular meetings directly to journalists and the general public through broadcast media. On a daily basis, since the first case of COVID-19 in Ireland was notified in February 2020, a press release from NPHET on the epidemiological profile of the disease was prepared and issued. Key decision makers in the Pandemic from NPHET were regularly made available for interview with traditional broadcast media and this was essential for transparency and building trust with the general public. These interviews and media appearances with NPHET officials were strategically planned to effectively convey key public health messages. Attention was paid to both regional and national media, as well as broadcasters and platforms that appealed to different target audiences.

The Department of Health also regularly posts COVID-19 social content on Twitter, YouTube, Facebook, and Instagram. Twitter is used to livestream the NPHET press conferences, which enables the citizen to watch the press conferences on their devices, reaching those who may not be watching traditional broadcasts. The simultaneous release of the daily COVID-19 case numbers and deaths on Twitter as the press release issued allowed the Department to deliver public health information directly to citizens rather than only through traditional media acting as intermediaries. To ensure a trusted, expert and authoritative voice, and to maintain consistency in the tone of voice used, all content posted on social media channels has been underpinned by science and evidence.

In collaboration with the Office of the Government Chief Information Officer (OGCIO), who oversee operations of Gov.ie, and subject matter experts in the form of NPHE and the Chief Medical Officer's team, the Department developed a COVID-19 hub to provide a centralised digital location to house trusted content for the general public on how to protect themselves during the Pandemic.

The Department monitored the public response to both the pandemic itself and the public health restrictions, to ensure ongoing effectiveness of communications activity and gain an understanding of public sentiment. The Department commissioned a weekly qualitative group and in-depth interview research with citizens drawn from a range of geography, age, life stage, health status, education and income. This citizen research was supported by in-depth interviews with healthcare professionals managing COVID and the impact of COVID-19 in health services. These research insights were used to inform and support the substance, priority and tone of public health communication throughout the Pandemic. A research agency was secured to undertake social media research to understand the public perception of Ireland's response. This was done to ensure the successful adherence to public health advice and to measure the response of the Irish public to the Department's communications campaign.

Risk Factor (NRA ID): Food Chain Contamination (M)

The FSAI carry out risk information and communication strategies to raise public awareness through websites, traditional media and social media outlets including TV adverts, newspaper adverts and social media campaigns.

Risk Factor (NRA ID): Animal Disease (O)

DAFM feeds into this process. The NDCC engages in regular two-way communication within and outside of DAFM. The primary focus of these sessions is to communicate information and raise awareness. In this process, NDCC also receives feedback from others on the proposed prevention and preparedness measures. This feedback is a key element of simulation exercises which are run by the NDCC from time to time.

Risk Factor (NRA ID): Water Supply (P)

The abilities of the NDFEM to communicate with cross-sectoral PRAs and the press facilitates the communication of risk information in order to raise public awareness.

3.13 Recent Examples of Good National Risk Management Practices

Optional Question

<i>Outline recent good practices relevant to Questions 9-20.</i>
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Risk Factor (NRA ID): Maritime Incident (D)

Dublin Port Company has developed a number of detailed Port Emergency Plans that clearly sets out the emergency response in the unlikely event of a major incident occurring in the Port area. The Dublin Port Emergency Plan⁵³ is available to the public as it can be downloaded from their website.

Risk Factor (NRA ID): Structural Collapse (G)

A pro-active approach to asset management in accordance with ISO 55000 principles has been employed in recent years and has improved the Dublin Port Tunnel's resilience to equipment obsolescence and premature failures while aiding and informing the process of lifecycle asset renewals and improvements. It should be noted that significant ongoing investment is required to underpin this pro-active approach to asset management which will ensure the provision of resilient infrastructure.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

Ireland hosted an IAEA Integrated Regulatory Review Service mission in 2015 and the following good practices were noted for the area of nuclear emergency preparedness and response. Nuclear and radiological emergencies are well integrated on national and regional levels in a framework for major emergency management system and a national emergency co-ordination system following the all hazards approach. The EPA has a key role if a radiation emergency occurs. The information to the public on emergency planning prior to an emergency is very efficient in reaching all sectors of the population in Ireland. In addition, a co-ordination mechanism to inform the public in case an emergency has been established under the NECG of the Government. The EPA also has an important role in these activities for the information of the public.

⁵³ <https://www.dublinport.ie/wp-content/uploads/2019/01/DPC-EMP-Public-V-3.0-Jan-2019.pdf>

4. **Priority prevention and preparedness measures addressing key risks with cross-border impacts and, where appropriate, low probability risks with a high impact**

4.1 **Key Risks with Cross-Border Impacts**

Question 21: Assessment of Risk Management Capabilities Questionnaire
<i>List the key risks with cross-border impacts.</i>

Risk Factor (Low Probability High Impact): Tsunami

Historical records and geological evidence indicate that, while tsunamis are unlikely to occur around Ireland, the Irish coast is vulnerable to tsunamis from submarine landslides and distant earthquakes. Levels of coastal flooding would be similar to that seen during storm surges, but with much more energetic inundation and much shorter reaction times.

The Geological Survey of Ireland (GSI) commissioned a modelling study of coastal inundation resulting from a repeat of the Lisbon 1755 earthquake and tsunami, commonly regarded as the RWCS. The study found inundation levels comparable to storm surge with strong currents in near-shore water.

Based upon GSI data, the likelihood of occurrence of the RWCS of a tsunami was assessed as very unlikely while the impact, if it were to occur, would be high. For this reason, the risk of tsunami in Ireland is included as a Low Probability High Impact risk which could also have cross-border impacts across a number of EU Member States.

Risk Factor (NRA ID): Flooding (C)

The OPW have identified that a number of watercourses flow between Ireland and Northern Ireland. The downstream extents of the River Finn and most of the Foyle form the border with Northern Ireland. The River Erne and Woodford River discharge to the Upper Lough Erne in Northern Ireland, forming the border in their lower reaches. There is however relatively limited cross-border flood risk due in part to the rural nature of the border area.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

A large risk identified with potential cross-border impacts also includes those posed by an emergency arising from a nuclear incident abroad.

Risk Factor (NRA ID): Cyber Incident (I)

Finally it is also highlighted by the NCSC that due to the interconnected nature of all Critical National Infrastructure Sectors, all essential services in the State have the potential to be impacted by cross-border incidents.

Risk Factor (NRA ID): Disruption to Energy supply (J)

Other risks identified with potential cross-border impacts include an oil supply emergency, due to the regional and cross-border nature of petroleum product production and supply chains.

Risk Factor (NRA ID): Animal Disease (O)

DAFM have highlighted the following diseases as those which represent cross-border risks:

- Highly Pathogenic Avian influenza
- FMD
- Bluetongue
- African Swine Fever

4.2 Priority prevention and preparedness measures

For each key risk with cross-border impacts, please complete the following box:

Question 22: Assessment of Risk Management Capabilities Questionnaire
22.1 Describe existing priority prevention measures and any that are planned.
22.2 Describe existing priority preparedness measures and any that are planned.
<i>If EU legislation or policies already require reporting on priority prevention and preparedness measures addressing this risk, please simply refer to any reports already sent to the Commission.</i>

Ireland is a Member State of the Tsunami Early Warning and Mitigation System in the North Eastern Atlantic, the Mediterranean and Connected Seas (NEAMTWS) and receives tsunami messages from the French and Portuguese authorities, accredited Tsunami Service Providers. Geological Survey Ireland (DECC) is the National Contact Point. There is currently no national system to convert these messages to warnings. Absence of a 24/7 national warning system increases the potential impact on people. Tsunami is included in the National Major Emergency Management guidelines, with the then Department of Communications, Climate Action & Environment, now Department of Environment, Climate and Communications, as the Lead Government Department. The Irish National Seismic Network contributes to international seismic detection networks. A Japan Radio Company tsunami sea level gauge is installed on the West coast. Experimental deployment of sea-floor seismometers and a tsunami pressure gauge is in progress. GSI has partnered in tsunami wave inundation modelling studies for the Irish coast.

Necessary actions, not yet planned, include the expansion of tsunami inundation studies around vulnerable sections of the coast, The improvement of real-time sea level detection around the Irish coast, the establishment of a 24/7 National Tsunami Warning Focal Point within NEAMTWS and the creation of a dialogue with emergency response authorities on preparing the downstream components of tsunami warning.

There are no preparedness measures beyond those detailed above that could be considered as risk prevention. It is necessary to establish a 24/7 system to convert international alerts to national warnings if required.

Risk Factor (NRA ID): Flooding (C)

OPW highlight measures for managing flood risks in border areas and co-ordinated with DfI Rivers through bi-lateral meetings and the National Floods Directive Co-ordination Group (see section 3.5), and at a local level through flood relief scheme project steering groups. With regards to prevention measures, the FRMPs published in 2018 sets out the programme of proposed flood relief schemes, which is published also on: www.floodinfo.ie. The Lifford flood relief scheme is currently at its assessment stage and is associated with cross-border fluvial flood risk, as Strabane (Northern Ireland) and Lifford (Ireland) are located on opposite river banks of the Foyle River.

There is also an ongoing Strategic Flood Risk Assessment Project for Strabane and both project teams are in direct contact, sharing information and undertaking collaboration. Depending on the outcome of the assessment, a flood forecasting system may be implemented which could be used to inform both communities.

Risk Factor (NRA ID): Nuclear Incident Abroad (H)

Due to the identified risk of a nuclear incident abroad giving rise to an emergency situation outside the State, prevention measures are limited. There are a range of priority prevention measures that are described as follows:

- Active participation in nuclear safety discussions internationally through the IAEA and the NEA
- Ireland is a contracting party to the Convention on Nuclear Safety which aims to commit contracting parties operating land-based civil nuclear power plants to maintain a high level of safety by establishing fundamental safety principles to which States would subscribe
- Active participation in nuclear safety discussions in EU including on the European Atomic Energy Community (EURATOM) Nuclear Safety Directive
- Cooperation with other European Regulators through European Nuclear Safety Regulators Group (ENSREG) and Western European Nuclear Regulators' Association (WENRA) Groups
- Participation by Ireland in international peer reviews as appropriate
- Participation by Ireland in international emergency preparedness and response exercises

There are in addition a range of preparedness measures including:

- The maintenance of the GTF structure and the ability to convene the NECG, if necessary
- Statutory provisions, including Ionising Radiation Regulations 2019 (IRR2019)
- National Plan for Nuclear and Radiological Emergency Exposures (which is provided for in IRR2019)
- The conduct by the Department and the EPA of nuclear incident abroad emergency planning, including regular exercises
- EU and IAEA notification arrangements
- IAEA Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency
- Bilateral Agreement with the UK on emergency notification

Under Article 9.1 of the Nuclear Safety Directive (transposed in Ireland through S.I. 332 of 2017)⁵⁴, EU Member States were required to submit a report to the Commission on the implementation of this Directive for the first time by 22nd July 2014, and then by 22nd July 2020. Ireland's report outlines the legislative, regulatory and organisational framework governing nuclear safety and radiation protection at the national, regulatory and authorisation holder level in Ireland. As a non-nuclear country, Ireland's national regulatory framework provides primarily for radiation protection and safety in the context of the use of ionising radiation in medicine, education and industry. This report also includes details of requirements on the EPA, as the designated National Competent Authority, to provide information to the public on any matters relating to radiological safety and provision of prompt information in case of nuclear or radiological incidents and accidents.

The EPA with support from the DECC and other Departments is currently participating in a project sponsored by the European Commission entitled 'Implementation of nuclear and radiological emergency preparedness and response requirements in EU Member States and neighbouring countries'.

⁵⁴ Available at <http://www.irishstatutebook.ie/eli/2017/si/332/made/en/print>

Risk Factor (NRA ID): Cyber Incident (I)

The NCSC have regular engagements with peer State Agencies and Critical National Infrastructure operators through various fora to enhance cross-border cyber resilience. The NCSC also participate in cross-border cyber exercises such as ‘Locked Shields 2021’ which was organised by the NATO Cooperative Cyber Defence Centre of Excellence in April 2021, and pan European cyber crisis exercises run by ENISA.

Risk Factor (NRA ID): Disruption to Energy supply (J)

The DECC note a range of priority prevention measures in this regard as follows:

- The resourcing of the Department’s Petroleum Product Team
- Conduct of regular risks assessments and identification of emerging risks,
- Departmental understanding of product supply chains, internationally and domestically
- Maintenance of adequate oil supply infrastructure in the State
- Consideration of infrastructure on an all-island basis
- Close cooperation between the Department, NORA and industry
- Involvement with international bodies (EU and IEA) disseminating best practice

Similarly the DECC also pose a range of preparedness measures including:

- The maintenance of the Government Task Force structure and the ability to convene the NECG, if necessary
- Statutory provisions, including the NORA Act 2007 and the Fuels (Control of Supplies) Acts 1971 and 1982
- The conduct by the Department of oil emergency planning, including its Oil Emergency Response Procedures
- The capacity to reinforce the Petroleum Product Team, to form a NESO structure in the event of an oil emergency
- The OLA database and the periodic reporting of data at short notice by the oil companies, to test for emergency response capacity
- The holding of a strategic oil reserve by NORA and the maintenance of the capacity to utilise these reserves in the event of an oil emergency
- The testing by NORA of its infrastructure and the holding of regular exercises to test their Emergency Response Model

Additionally, under the EU Oil Stocks Directive (Council Directive 2009/119/EC), Ireland, along with the other Member States, is required to submit an annual Article 9.5 report to the Commission. This report describes the national arrangements around stockholding and the release of stock, as well as new developments in oil emergency planning during the previous calendar year.

Risk Factor (NRA ID): Animal Disease (O)

DAFM carries out awareness raising on biosecurity measures to prevent spread from wild birds and of the need to report suspect cases promptly. There are controls on imports of poultry and poultry products from affected areas. In the event of an outbreak of Highly Pathogenic Avian Influenza (HPAI), movements of birds, poultry products, animals, vehicles, etc. from the farm and area involved are restricted to prevent onward spread. The NDCC maintains a contingency plan and a corresponding manual for HPAI to direct control efforts. The response to HPAI outbreaks has been tested in the past year by several suspect cases in poultry and game birds, and one confirmed case in poultry. Contingency plans and manuals have been refined in response to this experience.

DAFM carries out awareness raising on biosecurity measures to prevent incursion of FMD through feeding of kitchen waste to pigs, of the need to report suspect cases promptly.

There are controls on imports of susceptible animals and animal products from FMD affected areas. In the event of an outbreak of FMD, movements of susceptible animals and their products, vehicles, etc. from the farm and area involved are restricted to prevent onward spread. The NDCC maintains a contingency plan for FMD to direct control efforts. This plan was tested through a simulation exercise in 2017 and was updated in line with outputs of the simulation exercise. One of the reasons for development of the EDMS was to deal with the huge logistical challenge which typically arises in the event of an FMD outbreak. Functionality in EDMS is continually being developed, and it is being rolled out to users during 2021. A simulation exercise “Exercise Fuchsia” whose aim was to test existing functionality in EDMS and discover new functionality which will be useful, was held on 14 September 2021. Ireland is required to report to the European Commission on any simulation exercises conducted which relate to exotic diseases.

DAFM carries out awareness raising on biosecurity measures to prevent incursion of Bluetongue through importation of susceptible livestock, and of the need to report suspect cases promptly. DAFM carries out active and passive surveillance. EU legislation does not allow Ireland to ban imports of susceptible animals from Bluetongue affected areas in the EU, or to impose quarantine measures as would have been in place in past decades. Instead, certain pre-movement risk mitigation requirements are imposed on those supplying the cattle before they leave the Bluetongue affected country of origin.

In the event of an outbreak of Bluetongue, movements of susceptible animals from the area involved would be restricted and animals in the surrounding area would likely be vaccinated to prevent or limit onward spread. The NDCC drafted a contingency plan for Bluetongue in response to the introduction of the disease to northern Europe for the first time in 2006. As part of this plan a vaccination programme, which would cover all susceptible species in the protection zone surrounding the outbreak, would be completed before the next vector season (March-November each year). In line with the new EU Animal Health Law, an eradication plan for Bluetongue is being drafted, for deployment if an outbreak of Bluetongue should occur in Ireland. Because of the nature of the disease (insect vector-borne) it is likely that it would take several years to eradicate the disease if an outbreak were to occur in Ireland.

DAFM also carries out awareness raising on biosecurity measures to prevent incursion of African Swine Fever (ASF) through feeding of kitchen waste to pigs, and on the need to report suspect cases promptly. Ireland does not have a sustained wild boar or feral pig population, which is an advantage in controlling ASF if an outbreak does occur here. When wild boar or feral pigs are identified in the wild in Ireland, arrangements are made by the National Parks and Wildlife Service for the animals to be killed without delay. There are controls on imports of susceptible animals and animal products from ASF affected areas. In the event of an outbreak of ASF, movements of susceptible animals and their products, vehicles, etc. from the farm and area involved are restricted, to prevent onward spread.

The NDCC maintains a contingency plan for ASF to direct control efforts in the event of an outbreak. Control measures would have the aim of immediate eradication. The absence of a sustained wild boar population in Ireland lends itself to relatively rapid eradication of the disease should it occur here (compared to other countries with sustained wild boar populations). That said, the large numbers of pigs present on certain farms, which would need to be killed and

disposed of in the event of an ASF outbreak, presents a substantial logistical challenge. DAFM has run field exercises for veterinary staff in planning the killing and removal of pigs on farms, and in carrying out the killing of pigs. Another such exercise in co-operation with staff from DAERA in Northern Ireland, was carried out in November 2021.

5. Conclusion

Ireland's National Risk Assessment processes and methodologies have been developed and refined in line with the "Reporting Guidelines on Disaster Risk Management" Art.6 (1) d of Decision No 1313/2013/EU. Notwithstanding the efforts made to remain in line with these EU guidelines, international good practice, and cutting edge academic research, certain challenges to the effectiveness of our methods have emerged. While Ireland's National Risk Assessments have always identified pandemics as a key risk, this did not necessarily mean that Ireland was any better prepared for the scale of the COVID-19 Pandemic compared to other EU countries which did not feature pandemics in their national risk assessments. Rather it shows that the impact and scale of these types of complex, transboundary disasters need to be better understood so that risk assessments can better evolve to truly reflect the cross-sectoral dependencies and inter-dependencies affected by such unprecedented risks.

Good governance requires that difficult questions be addressed such as how our National Risk Assessment can capture the lessons which Ireland and other European Member States have learned during the COVID-19 Pandemic in order to ensure risk management is even more effective during and post Pandemic. Also for consideration is how the effectiveness of national emergency management can be improved, including co-ordination and communication across all levels of Government, as the Pandemic continues to evolve.

In addition, anticipated EU legislation such as the proposed Directive to enhance the resilience of critical entities providing essential services in the EU means that the existing risk assessment methodologies must be reconsidered. In order to augment and bolster this process, Ireland must integrate the risk-based approach to Critical Entity Resilience into the current National Risk Assessment process. This is so that the requirements of the National Risk Assessment, as outlined by the EU under Civil Protection Guidelines and the requirements that will be placed on the State under the new Critical Entity Resilience Directive can be delivered within the envelope of available resources.

As an EU member, Ireland must collaborate in the spirit of finding common solutions to common problems. With that in mind, National Risk Assessment efforts must be designed to ensure not only that Member States learn from each other in cooperation and solidarity, but that these learning opportunities are effectively integrated into future risk assessment methodologies.

A new integrated National Risk Assessment methodology should combine what works well in the current risk assessment process in Ireland with a methodology which identifies and risk assesses vulnerabilities in national critical entities. This new integrated methodology can only be developed with the full cooperation of Government Departments and would be required to be designed, developed, communicated and tested with multi-sector and stakeholder involvement under the guidance of the Government Task Force on Emergency Planning.

This report is the result of an extensive consultation with all Lead Government Departments, and associated stakeholders. It is a summary of not only the national ability to identify and assess strategic risks, but also our capabilities to manage them. This capabilities assessment will not only inform all stakeholders of our strengths across all Departments, but also our capability gaps. This report should be viewed as a stepping stone towards improved co-ordination and collaboration between all Agencies, Departments, and Sectors, at all levels of emergency response and preparedness. This honest appraisal of national capabilities will inform the prioritised training and exercising programmes on the emergency management of these key risks in 2022 and beyond.

On this basis, the next steps will include endorsement of this report by the Government Task Force to be followed by its subsequent submission to the EU Commission and its use in reviewing Ireland's assessment of risk management processes and our wider capabilities.

Office of Emergency Planning
15 December 2021



Rialtas na hÉireann
Government of Ireland

Table of Acronyms

Acronym	Title	Acronym	Title
AIM	Animal Information and Movements	DPER	Department of Public Expenditure & Reform
ADIS	Animal Disease Information System	DOT	Department of the Taoiseach
AGS	An Garda Síochána	DT	Department of Transport
AIIE	All Island Information Exchange	ECDC	European Centre for Disease Control
ASF	African Swine Fever	EDMS	Exotic Disease Management System
C3WG	Critical National Infrastructure Cyber Cooperation Working Group	EFSA	European Food Safety Authority
CBEMG	Cross-Border Emergency Management Group	ENSREG	European Nuclear Safety Regulators Group
CECIS	Common Emergency Communication and Information System	EPA	Environmental Protection Agency
CER	Critical Entities Resilience	ESRI	Economic and Social Research Institute
CHO	Community Health Organisations	EU	European Union
CISA	Cybersecurity and Infrastructure Security Agency	EURATOM	European Atomic Energy Community
CFRAM	Catchment Flood Risk Assessment and Management	EWRS	Early Warning and Response System
ComReg	Communications Regulation	EWS	Early Warning & Surveillance
CSIRT	Computer Security Incident Response Team	FAO	Food and Agriculture Organisation
CVERA	Centre for Veterinary Epidemiology and Risk Analysis	FRMPs	Flood Risk Management Plans
CyCLONe	Cyber Crisis Liaison Organisation Network	FSAI	Food Safety Authority of Ireland
DAERA	Department of Agriculture, Environment, and Rural Affairs	GTF	Government Task Force
DAFM	Department of Agriculture, Food and the Marine	HIQA	Health Information & Quality Authority
DEASP	Department of Employment Affairs and Social Protection	HPAI	Highly Pathogenic Avian Influenza
DECC	Department of the Environment, Climate and Communications	HPRA	Health Products Regulatory Authority
DETE	Department of Enterprise, Trade and Employment	HPSC	Health Protection Surveillance Centre
DF	Defence Forces	IAA	Irish Aviation Authority
DH	Department of Health	IAEA	International Atomic Energy Agency
DPER	Department of Public Expenditure & Reform	IAHER	International Animal Health Emergency Response
DOT	Department of the Taoiseach	ICT	Information and Communications Technology
DT	Department of Transport	IEA	International Energy Agency

Acronym	Title	Acronym	Title
IEMAG	Irish Epidemiological Modelling Advisory Group	OGCIO	Office of the Government Chief Information Officer
IHR	International Health Regulations	OIE	World Organisation for Animal Health
LBC	Local Biosecurity Centres	OLA	Oil Levy Application
LDCC	Local Disease Control Centres	OPW	Office of Public Works
LGD	Lead Government Department	PSNI	Police Service Northern Ireland
LPHI	Low Probability High Impact	PRAs	Principal Response Agencies
MEM	Major Emergency Management	PFRA	Preliminary Flood Risk Assessment
MOH	Medical Officer of Health	PPE	Personal Protective Equipment
MOU	Memorandum of Understanding	RANET	Response and Assistance Network
NVRL	National Virus Reference Laboratory	RASFF	Rapid Alert System for Food and Feed
NSP	National Service Plan	RMCA	Risk Management Capability Assessment
NPWS	National Parks and Wildlife Service	RWCS	Reasonable Worst Case Scenario
NCSC	National Cyber Security Centre	SCCAP	Sectoral Climate Change Adaptation Plan
NDCC	National Disease Control Centre	SCoPAFF	Standing Committee on Plants, Animals, Food and Feed
NDFEM	National Directorate for Fire and Emergency Management	SEM	Strategic Emergency Management
NEA	Nuclear Energy Agency	SEQ	Standing Group on Emergency Questions
NECG	National Emergency Co-ordination Group	SOM	Standing Group on Oil Markets
NESO	National Emergency Strategy Organisation	TESSy	The European Surveillance System
NIS	Network and Information Security	TII	Transport Infrastructure Ireland
NORA	National Oil Reserve Agency	TRACES	Trade Control and Expert System
NPHE	National Public Health Emergency Team	UCPM	Union Civil Protection Mechanism
NRA	National Risk Assessment	WENRA	Western European Nuclear Regulators' Association
OECD	Organisation for Economic Co-operation and Development	WHA	World Health Assembly
OEP	Office of Emergency Planning	WHO	World Health Organisation
OES	Operators of Essential Services		

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