

17. Reduction

Summary Reduction involves identifying and analysing risks to life and property from hazards, taking steps to eliminate those risks if practicable, and, if not, reducing the magnitude of their impact and the likelihood of their occurrence to an acceptable level.

Contents The section contents are:

17.1 Introduction.....	2
17.2 Objective.....	2
17.3 Principles.....	2
17.4 Legislation involving aspects of Reduction.....	3
17.5 Reduction at the national level	3
17.6 Reduction under the National CDEM Plan 2015	4
17.7 References and links.....	5

17.1 Introduction

Part 6 Risk reduction

86 Introduction

Reduction involves identifying and analysing risks to life and property from hazards, taking steps to eliminate those risks if practicable, and, if not, reducing the magnitude of their impact and the likelihood of their occurrence to an acceptable level.

17.2 Objective

87 Objective

The objective of reduction is to take preventive steps to avoid or mitigate adverse consequences.

Mitigation involves taking preventative steps to lessen either the likelihood or severity of adverse consequences, and include combinations of both approaches. Avoidance involves deciding not to start or continue with an activity that has potential for undesired consequences.

17.3 Principles

88 Principles

The principles underlying reduction are to—

- (a) achieve acceptable levels of risk through sustainable and practicable reduction measures to provide the best long-term solutions; and*
- (b) reduce the risks to communities from hazards, including a combination of the following measures:
 - (i) modifying factors that affect the likelihood of an emergency where practicable to do so; and*
 - (ii) modifying factors that affect exposure and vulnerability to consequences before, during, and after an emergency; and*
 - (iii) minimising consequences through rapid and effective interventions during and after an emergency; and**
- (c) recognise that every person, community, organisation, and agency has a role to play in reduction; and*
- (d) facilitate a shared understanding of who benefits from, and pays for, risk exposure for the purpose of improving decision making throughout society in determining acceptable levels of risk; and*
- (e) review reduction policies and programmes regularly to reflect changes in community goals and the relevant risks and vulnerability factors; and*
- (f) take a precautionary approach to managing hazards and risks where there is—
 - (i) scientific or technical uncertainty about a hazard or risk; or*
 - (ii) potential for cumulative or cascading risks to arise.**

17.4 Legislation involving aspects of Reduction

89 Legislation involving aspects of reduction

In addition to being addressed through the Act, risk reduction is addressed through other legislation, including—

- (a) the Biosecurity Act 1993;*
- (b) the Building Act 2004;*
- (c) the Earthquake Commission Act 1993;*
- (d) the Epidemic Preparedness Act 2006;*
- (e) the Fire Service Act 1975;*
- (f) the Food Act 2014;*
- (g) the Forest and Rural Fires Act 1977;*
- (h) the Hazardous Substances and New Organisms Act 1996;*
- (i) the Health Act 1956;*
- (j) the Health and Safety in Employment Act 1992;*
- (k) the International Terrorism (Emergency Powers) Act 1987;*
- (l) the Local Government Act 2002;*
- (m) the Maritime Transport Act 1994;*
- (n) the Resource Management Act 1991;*
- (o) the Soil Conservation and Rivers Control Act 1941.*

Legislation addressing reduction

The above list of legislation is based on section 17(3) of the *CDEM Act 2002*. It is not an exhaustive list and only represents the principal statutes containing legislative provisions relevant to the purpose of the *CDEM Act 2002* and the *National CDEM Plan 2015*.

This framework of legislation underpins a wide range of national strategies, plans, policies, codes, and practices supporting risk reduction outcomes. Some examples are the Building Code under the *Building Act 2004*, and the New Zealand Coastal Policy Statement under the *Resource Management Act 1991*.

17.5 Reduction at the national level

90 Reduction at the national level

- (1) Each hazard type presents different circumstances and challenges for the ways in which risk reduction is carried out.*
- (2) Reduction is generally undertaken through—*
 - (a) the mainstream functions and activities of central and local government under their governing legislative and policy mandates; and*
 - (b) the risk management practices of agencies, private organisations, and individuals.*
- (3) At the national level, reduction activities for all hazards include—*
 - (a) the development, administration, and review of policy and regulation that facilitate reduction across society (for example, land use planning, regulations for the storage, use, transport, and disposal of hazardous substances, and performance standards and codes for the design and construction of buildings and other structures); and*
 - (b) the delivery of risk management services (for example, biosecurity border controls, public health programmes, and establishing national priorities and funding for hazards research); and*
 - (c) communication about risks and the roles and expectations of the State sector, private organisations, and individuals in managing those risks; and*
 - (d) the establishment, monitoring, and evaluation of policies and programmes across the social, economic, built, and natural environments that improve and promote the sustainable management of hazards and support increases in individual and community resilience to the risks that those hazards pose.*

Local reduction	<p>Most hazard events occur at the local or regional scale. Even large events will consist of many small incidents that together give the event its scale. Hence, New Zealand's hazard and risk management and CDEM planning frameworks place a strong emphasis on local initiatives for risk reduction. Individuals, communities, and local government are best placed to decide on the management options suited to them, for example through land-use planning and building control activities.</p>
National reduction	<p>National risk reduction policies, programmes, and services across central government aim to support local government, businesses, and individuals to reduce risk at the community and personal level. Central government does so in many different ways. Clause 90 provides the context to support objective A of the <i>National CDEM Plan 2015</i>.</p> <p>In addition to these activities agencies may, along with national professional bodies and private organisations, provide practice guidance to professionals working within different sectors, as well as general information to the public. National lifeline utilities and network providers can also carry out risk reduction nationally, through their business continuity programmes and involvement in regional lifelines.</p> <p>The <i>National CDEM Plan 2015</i> does not specify what exactly the activities and measures currently exist, nor are being developed or proposed, at the national level. This is because the activities and measures are many and varied, and may further evolve over the period that the <i>National CDEM Plan 2015</i> remains operative.</p>
UNISDR	<p>New Zealand is party to the United Nations International Strategy for Disaster Reduction (UNISDR). The Government has signed the declaration adopting the Sendai Framework for Disaster Risk Reduction 2015-2030, and committed to implementing it as a means of enhancing resilience to hazards from the local to the global level. Implementation requires shared involvement and cooperation across all areas of society, utilising and (where desirable) enhancing the institutional structures and processes that are currently in place nationally.</p> <p>The UNISDR approach recognises that resilience to hazards is fundamentally linked to social, educational, economic, and health outcomes that lessen individual and community vulnerability to hazards and their risks. As such, the broader regulation and services of central government in these areas are also relevant to the risk reduction context, and outcomes sought, of the <i>National CDEM Plan 2015</i>.</p>

17.6 Reduction under the National CDEM Plan 2015

91 Reduction under this plan	<p>(1) <i>A guiding principle of the National CDEM Strategy for risk management is that it is—</i></p> <ul style="list-style-type: none"> (a) <i>comprehensive (meaning that it takes a measured approach to dealing with all risks through reduction, readiness, response, and recovery activities); and</i> (b) <i>integrated (meaning that it promotes co-ordinated involvement of all agencies that have a role in managing those risks).</i> <p>(2) <i>Part 5 of this plan outlines the roles and responsibilities of agencies under this plan, which may include reduction.</i></p> <p>(3) <i>This plan may further contribute to reduction through providing for efficient and effective management during the readiness, response, and recovery phases of emergencies, thereby avoiding an escalation of immediate adverse consequences and adverse consequences from future emergencies.</i></p> <p>(4) <i>Each agency with specific roles and responsibilities under this plan should—</i></p> <ul style="list-style-type: none"> (a) <i>carry out its roles and responsibilities in a comprehensive and integrated manner; and</i> (b) <i>undertake to further reduce risk when carrying out readiness, response, and recovery activities.</i>
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National CDEM Strategy	<p>The <i>National CDEM Strategy 2007</i> will be reviewed in the period that the <i>National CDEM Plan 2015</i> remains operative. The review will provide an opportunity to further establish goals, objectives and priorities for hazard risk management at the national level. This may include means for supporting the coordination of policy, programme and practice development, and the monitoring and evaluation of their implementation and outcomes.</p>
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Agencies without identified roles and responsibilities may also support the purpose of the *CDEM Act 2002* and objective A of the *National CDEM Plan 2015*. For example, the Ministry for the Environment has a key role in managing natural hazards at the national level under the *Environment Act 1986* and administration of the *Resource Management Act 1991*.

17.7 References and links

Other sections of the Guide

- ◆ Section 1, Introduction
- ◆ Section 2, Hazards and risks
- ◆ Section 3, Management of emergencies
- ◆ Section 4, General roles and responsibilities
- ◆ Section 5, Ministry of Civil Defence & Emergency Management (MCDEM)
- ◆ Section 6, Civil Defence Emergency Management Groups (CDEM Groups)
- ◆ Sections 8 – 16, for specific roles of agencies and sectors
- ◆ Section 18, Readiness

Other documents

- ◆ Department of Internal Affairs (2008) National Civil Defence Emergency Management Strategy 2007; ISBN 0-478-29453-0 (www.civildefence.govt.nz – search for 'National Civil Defence Emergency Management Strategy')
- ◆ Officials' Committee for Domestic and External Security Coordination, Department of the Prime Minister and Cabinet (2007) National Hazardscape Report; ISBN 0-478-29455-7 (www.civildefence.govt.nz – search for 'hazardscape report')
- ◆ New Zealand legislation (www.legislation.govt.nz)
- ◆ United Nations Office International Strategy for Disaster Reduction (UNISDR) and the Sendai Framework for Disaster Risk Reduction 2015-2030 (www.unisdr.org)

