Focus on Recovery

A HOLISTIC FRAMEWORK FOR RECOVERY IN NEW ZEALAND

INFORMATION FOR THE CDEM SECTOR [IS5/05]

Te Rākau Whakamarumaru

Ministry of Civil Defence & Emergency Management

**Focus on Recovery: A Holistic Framework for Recovery in New Zealand
Information for the CDEM Sector [IS5/05]**

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Resilient New Zealand
A Aotearoa manahau

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Foreword

'Focus on Recovery' provides a framework for recovery planning and management in New Zealand for local government, Civil Defence Emergency Management (CDEM) Groups and government departments.   This document represents a Ministry position on Recovery and has been developed with input from the international Recovery Symposium that was held in Napier in July 2004. It outlines the context and the direction of future work for recovery as part of the 4Rs (Reduction, Readiness, Response and Recovery) approach to CDEM. Although many of the principles and concepts within the document apply to lifeline utilities, businesses (in the broadest context) and other agencies with a role in recovery, this document is not specifically aimed at those groups.

Work on recovery is being undertaken to promote the participation of CDEM stakeholders in all aspects of recovery. The aim is to increase the capability of organisations to undertake short, medium and long-term recovery activities, enabling a timely and effective response to the recovery of affected communities. This document links directly to the National CDEM Strategy, building on its Principles and it's four Goals. Goal 4 of the National CDEM Strategy relates directly to recovery and is the main focus of this document.

'Focus on Recovery' addresses the National CDEM Strategy by providing principles and a framework for Recovery Management. These form the basis of a holistic and integrated framework for recovery. It provides a direction for the envisaged work programme to achieve Goal 4 of the National CDEM Strategy, which includes planning activities for the physical, social and economic impacts of disasters.

'Recovery Management: Director's Guideline for CDEM Groups' is currently being developed, using the principles within 'Focus on Recovery.' In addition, it provides the foundation for the nationally significant aspects of recovery, which are documented in the National CDEM Plan (2005).

The Ministry of Civil Defence & Emergency Management has developed this document with contributions from a range of agencies.

John Norton

Director
Ministry of Civil Defence & Emergency Management

Section 1: Background

1.1 New Approach to Civil Defence Emergency Management (CDEM) in New Zealand

1.1.1 The CDEM Act 2002

New CDEM legislation was enacted in New Zealand in December 2002, replacing the Civil Defence Act 1983. This followed a series of reviews in the 1990's of how CDEM in New Zealand was being carried out under the Civil Defence Act 1983. The reviews identified the need for a new, more holistic approach to CDEM, which has been embodied in the CDEM Act 2002. The Act establishes a framework for CDEM to build resilient New Zealand communities. It does this by placing greater emphasis on reducing the impact of emergencies, through a sustainable approach to hazard risk management and pre-event recovery planning to cope with the long-term impact of disasters. A National CDEM Strategy is a part of the CDEM framework. It will be supported by a National CDEM Plan and by regional CDEM Group plans and the participation of central and local government, emergency services, lifeline utilities, businesses and volunteer agencies that are implementing these new CDEM arrangements.

1.1.2 CDEM Act 2002 & Recovery

The ability to fulfil CDEM functions and carry out responsibilities, including recovery, is a key requirement of the CDEM Act 2002. The Act is not however a guide to recovery. It requires Councils and CDEM groups to carry out recovery and empowers them to do so. It gives flexibility in how recovery is undertaken, so that recovery actions can be suited to local needs and can change as best practice develops. The Act (Part 3, Sections 58-60) also places expectations upon government departments, lifeline utilities and others, to function at the fullest possible extent after a disaster, generating an expectation that these organisations will be involved in recovery.

In complying with any provision in the Act that generally refers to CDEM, consideration needs to be given to recovery needs. However, the Act does contain some requirements specifically dealing with recovery. These include:

Part 1, Section 4 Interpretation

"Recovery Activities means activities carried out under this Act or any civil defence emergency management plan after an emergency occurs, including, without limitation, -

(a) The assessment of the needs of a community affected by the and

(b) The co-ordination of resources made available to the community; and

(c) Actions relating to community rehabilitation and restoration; and

(d) New measures to reduce hazards and risks"

Part 2, Section 17 Functions of Civil Defence Emergency Management Groups

"The functions of a Civil Defence Emergency Management Group, and of each member, are to.... (e) carry out recovery activities".

Part 3, Section 29 Appointment and Functions of Recovery Co-ordinator

Part 3, Section 30 Powers of a Recovery Co-ordinator

1.2 National CDEM Strategy 2003 - 2006

The Crown's vision for CDEM is that New Zealanders will understand and routinely act to reduce, avoid and prepare to manage the adverse effects of hazards because they value the enduring social, economic, cultural and environmental benefits of doing so. This is encapsulated as:

'Resilient New Zealand - Communities understanding and managing their hazards'

The Crown's vision is of communities, in partnership with CDEM stakeholders and government, understanding the risks from hazards to their safety and livelihoods and developing their capability to manage them. Such capability will be dependent upon bringing together an appropriate mix of resources (financial and human), systems (planning and operational arrangements) and a culture of self-help, community caring and leadership.

The Crown places a high value on the health, safety and prosperity of all and wishes to preserve the willingness of New Zealanders to help each other in times of adversity, while encouraging individuals and communities to make responsible choices. The Crown's vision will be realised through individuals, communities, businesses and government living these values.

1.2.1 National CDEM Strategy Principles

The Principles guide action and underpin the development and success of CDEM in New Zealand. The principles apply to all New Zealanders as CDEM Stakeholders.

1. Individual and community responsibility and self-reliance
2. A transparent and systematic approach to managing the risk from hazards
3. Comprehensive and integrated hazard risk management
4. Addressing the consequences of hazards
5. Making best use of information, expertise and structures

1.2.2 National CDEM Strategy Goals

Four goals have been identified in the National CDEM Strategy that will build toward the Crown's vision of resilient New Zealand. The goals reflect the Crown's priorities for CDEM in New Zealand for the next 10 years. These priorities have been established from years of review, policy development and research into CDEM. They also reflect the principles of the CDEM Act 2002. It is Goal 4 that this document will particularly focus upon.

Goal 1: To increase community awareness, understanding and participation in CDEM

Goal 2: To reduce the risks from hazards to New Zealand

Goal 3: To enhance New Zealand's capability to manage emergencies

Goal 4: To enhance New Zealand's capability to recovery from disasters

Section 2: A Holistic & Integrated Framework for Recovery

2.1 Putting Recovery into Context

Disaster events result in consequences that affect individuals, communities, regions and nations depending on the scale and seriousness of the event. This document provides general principles and concepts of recovery management, which can be applied to all scales of disaster.

2.1.1 Defining Recovery

Recovery is defined as:

> *The coordinated efforts and processes to effect the immediate, medium and long term holistic regeneration of a community following a disaster.*

Recovery is a developmental and a remedial process encompassing the following activities:

- Minimising the escalation of the consequences of the disaster;
- Regeneration of the social, emotional, economic and physical wellbeing of individuals and communities;
- Taking opportunities to adapt to meet the social, economic, natural and built environments future needs; and
- Reducing future exposure to hazards and their associated risks.

The establishment of recovery activity begins immediately after the impact of an event and works in parallel with response activities.

2.1.2 Vision for Recovery

The National CDEM Strategy vision underpins the recovery context which aims for New Zealanders to understand the direct and indirect consequences of their hazards. These consequences include impacts on the community as well as on the social, economic, natural and built environments and how these relate to recovery. It is also important to recognise the opportunity that disasters present to address mitigation and promote sustainability.

Realising this vision for recovery will require action from all areas of society. This vision will be achieved when all New Zealanders and New Zealand organisations:

- Are well-informed about the direct and indirect consequences of hazards;
- Recognise the need to plan for recovery, even where risks are reduced;
- Understand the ways in which they rely on others and jointly pre-plan for recovery involving the social, economic, built and natural environments;
- Act to ensure effective recovery arrangements are in place;
- Take immediate post-event response and recovery actions which limit the repercussions of the event on society and the economy;
- Integrate recovery considerations into everyday decision-making processes; and
- Are involved in pre-event planning about how they can use disasters as opportunities to reduce risks for their communities and local economy in the future.

2.2   The Components of Recovery

Following disasters, the very fabric of society and the relationships within the affected communities depend on an effective and efficient process of recovery. It is a complex social process and is best achieved when the affected community exercises a high degree of self-determination[1]. Recovery extends beyond just restoring physical assets or providing welfare services. Successful recovery recognises that both communities and individuals have a wide and variable range of recovery needs and that recovery is only successful where all are addressed in a coordinated way. Recovery is a process that will certainly last weeks and months but may extend for years and possibly decades. Organisations involved in recovery will need to recognise the commitment required to resource (both human and material) and the provision of business as usual services during medium and long term recovery.

A holistic and integrated framework is needed to consider the multi-faceted aspects of recovery which, when combined, support the foundations of community sustainability. The framework encompasses the community and four environments: social, economic, natural and built environments[2]. Recovery activity (the central oval in black) demonstrates the integration between the community and the four environments.
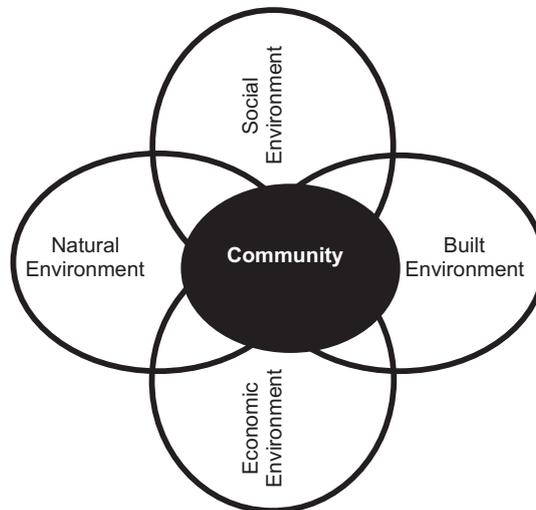
Figure 1: Integrated & Holistic Recovery

2.2.1   Community

Successful recovery needs to recognise that both communities and individuals have a wide and varying range of recovery needs. Recovery can only be successful where all needs are addressed in a coordinated way (including the implications on other communities). Community recovery involves regeneration of a community's functions, social structures and systems following a disaster. The ability of a community to achieve this will involve the holistic interaction between the community and the social, economic, natural and built environments. This interaction must involve members of the community and be supported by the local, regional and national structures.

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[1]   Recovery Plan, Part 2, National Civil Defence Plan (2002) and EMA (2004) Australian Emergency Manual: Disaster Recovery, EMA, Australia.

[2]   It is noted that the recovery framework contains components similar to those found in the HESIG model. HESIG is a quantitative information collection model used in pre-disaster hazard analysis planning and post-disaster Impact Assessment (see Glossary).

Who is the Affected Community?

Following disaster, the affected community is comprised of various individuals, groups and organisations with differing needs. These are:

- Those people directly affected by the disaster in terms of injury, death, and loss of significant others, possessions and accommodation, those evacuated, emotionally affected, or those financially affected through loss of employment or livelihood. People may also be affected by a combination of these consequences;

- Groups with other special needs; such as physical or intellectual disability, language, age or lack of personal or family support;

- Groups directly affected by the disaster will comprise particular suburbs or areas, particular communities such as retirement villages and employees of a particular business closed by the disaster; and

- Those individuals, groups and organisations that suffer the secondary effects of disaster whose information needs may be as great as those directly affected. In particular, there are friends, relatives and neighbours of those directly affected whether they are affected as individuals or as part of a group or organisation[3]. Additionally this group may also include the transition work force provided by response, rescue & recovery workers.

Vulnerability in Communities

Vulnerability is defined as being prone to or susceptible to damage or injury[4]. Vulnerability is the result of a number of factors that increase the chance that a community will be unable to deal with a disaster. Vulnerability relates to the characteristics of a person or group in terms of their capacity to anticipate, cope with, resist and recover from the impact of a hazard. Some groups in society are more prone than others to damage, loss and suffering in the context of hazards. Such groups may be characterised by class, ethnicity, gender, disability, or age.

To increase resilience in New Zealand communities it is vital that during pre-event recovery planning, vulnerable groups within local communities are identified, and where possible strategies for reducing susceptibility to disasters implemented. During recovery post-event, it will be equally important to ensure vulnerable groups are targeted to ensure they have access to resources and assistance needed to facilitate their recovery. Disasters provide an opportunity to strengthen the capacity and resilience of communities to recover but only by ensuring all parts of the community can benefit.

Community Participation

Community involvement in the decision-making process following a disaster is essential. One of the key concepts of recovery management is of community acceptability and participation. While community consultation may be an integral part of any planning process, the need for community involvement following disasters is an important means of contributing to the overall empowerment of individuals and communities to manage their own recovery.

One of the inherent difficulties in ensuring community participation following a disaster is the need for rapid redevelopment. Conflict is likely to arise as a result of this tension between the competing need for a rapid rebuilding process and adequate community consultation in its development and implementation. Processes of community involvement will vary and depend on the nature of the task, the type and impact of the disaster and the affected community. Some of the most effective means of consultation in disaster recovery situations include public meetings, community representation on committees, and the inclusion of representatives from community organisations in decision making processes, as illustrated in the community planning process under the Local Government Act 2002. In each case it is essential that information mechanisms be developed to report to the broader community and that delegates are representative of the community at large. It is also essential that the affected community is provided adequate opportunities to debate and review major issues[5].

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[3] Bullet points adapted from EMA (2004) Australian Emergency Manual: Disaster Recovery, EMA, Australia

[4] Blaikie, Cannon, Davis, Wisner (1997) At Risk, Routledge, London

[5] Section on Community Participation adapted from EMA (2004) Australian Emergency Manual: Disaster Recovery, EMA, Australia

Community Sustainability

Sustainability means the ability to or the capacity of a community to maintain itself over time. It means that the community is a good place to be, that its foundations are solid and healthy, and that it can cope with the changes that time brings. Those involved with recovery planning should consider opportunities to implement activities or frameworks which promote sustainable communities[6].

Disaster recovery is an opportunity to enhance sustainability in a community. The dramatic nature of disasters, and the need to rebuild what has been destroyed, provides an opportunity to improve the sustainability of the community in a manner that rarely presents itself otherwise. Applying the principles of sustainability may provide solutions to other problems that exist or that the community may soon be facing. Sustainability goes far beyond just being an innovative disaster recovery strategy. Communities should consider incorporating sustainability into all development decisions - not just post-disaster redevelopment.

2.2.2 Social Environment

The Social Environment component is comprised of three distinct elements: Safety & Well-being, Health and Welfare (refer to Figure 2).

Figure 2: Elements of the Social Environment

Safety & Well-being

The first priority in any recovery activity is to ensure the safety of those people remaining in the disaster area. Much will have been done during the initial phase of response to the disaster but in some cases danger to life may continue while the recovery operation is underway. Recovery plans may include the demolition of, or barring of access to, damaged buildings, repair of sanitation and hygiene facilities or the provision of temporary facilities, emergency feeding and housing, emergency medical facilities, or the evacuation of inhabitants from the area.

Health

Health provision during recovery includes a broad range of services from those individuals affected/injured from the event and the follow up care they require, through to the case management of individuals/groups who may have been exposed to hazards (e.g. chemicals, dust etc) or traumatised by their experiences. It is also important to recognise that vulnerable groups such as children or the elderly may require specialist care post-event. Additionally, existing health clients may need access to extra resources to ensure the continuity of their care due to access or service limitation following an event e.g. pharmaceutical supplies.

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[6] Community Sustainability Section reproduced from Natural Hazards Research and Application Information Centre (2001) Holistic Disaster Recovery: Ideas for Building Local Sustainability after a Natural Disaster, University of Colorado, USA

Alternatively, existing clients may also be affected by the event and need additional care or resources. Affected individuals may be significant in number and impact a number of health services as outlined below:

- Clinical health services: who provide care not only for those who have suffered injury during a disaster, but those who are reliant on ongoing medical care (e.g. prescriptions, wound dressings, dialysis etc) that may be provided as domiciliary or outreach services. This can become difficult if individuals are isolated from care, case notes are not accessible, regular staffing diverted to assist with the disaster. People will have a wide range of clinical needs. People with pre-existing health needs may require additional support from service providers.
- Public health services have a preventative focus and cover a range of activities - i.e., communicable disease issues (surveillance and review of morbidity that may be occurring in the community and subsequent implementation of interventions - e.g. vaccine programs, if for example there is an increase in those diagnosed with Hepatitis A); health protection/ environmental health (food and water inspections and advice e.g. boil water advisories; review of food preparation procedures in welfare centres; as well as review of sewerage and other contamination issues that may impact on the health of the community).

Welfare

Welfare or Psychosocial Support[7] ensures an individual's emotional, spiritual, cultural, psychological and social needs are addressed in the immediate, medium and long term recovery following a disaster. These needs are addressed through the provision of feeding, housing, financial assistance, counselling and other services. It also addresses the wider community social structure and mechanisms for supporting the community as a whole, such as the culture and heritage, sports and leisure, education and spiritual groups within the community.

It should also be recognised that all those people involved in an event, including rescue workers, support staff and relatives will have been affected by their experiences. The wellbeing of all must be considered during recovery.

2.2.3 Built Environment

The Built Environment component is comprised of five elements, namely: Residential, Commercial/ Industrial, Rural, Stated-owned Public Buildings & Assets and Lifeline Utilities (refer to Figure 3). Planning for recovery of the Built Environment addresses infrastructure recovery, including the repair, reconstruction or relocation of:
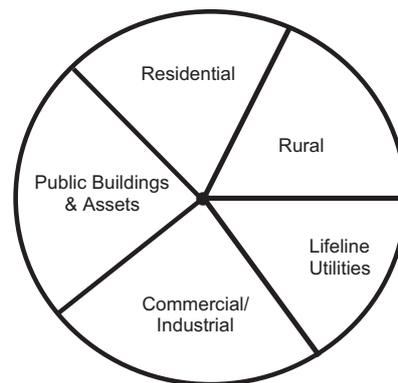

Figure 3: Elements of the Built Environment

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[7] Psychosocial refers to the psychological and social needs of individuals as part of a community.

Residential Housing

Assessment and repair of peoples' homes, to expedite the return of people to normal life functioning is a critical priority.

Commercial / Industrial Property

Reinstatement and continuation of business is vital for the economic viability and sustainability of an affected area.

Rural Farmland

Rural physical infrastructure needs are different from urban needs and must be planned for accordingly.

Public Buildings & Assets

Critical public buildings and facilities need to be pre-identified as priorities. Elements of the Built Environment that have social value, such as landmark sites and significant community sites, may be symbolically and functionally important to recovery.

Lifeline Utilities

The recovery of these elements, along with their supporting structures and systems is underpinned by restoration of essential utility services and transport and communication links (including the management of stopbanks, drainage networks etc).

Physical recovery of the built environment must be based on long-term strategies of sustainability, such as adopting mitigation measures that prevent or reduce the effects of future hazard events. In order to contribute to recovery, plans need to be developed in advance[8] for both the physical elements and activities in the following areas:

- urban planning, so that opportunities presented by destroyed infrastructure can be taken up;
- rivers management and protection works in rural communities as well as urban communities;
- skills and resources required (e.g., tradespeople and professional services); and
- mechanisms for organisations, special interest groups and individuals to work and plan together.

Additionally a process for addressing the needs of the built environment during recovery should include:

- Impact assessment;
- Restoration proposals (i.e., decisions regarding repair, replace, abandon);
- Funding arrangements (insurance, capital investment);
- Design, regulatory approvals and consultation; and
- Physical construction, including logistics support for infrastructure recovery.

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[8]   Schwarb, J., Topping, K.C., Eadie, C.C., Deyle, R.E., Smith, R.A., 1998: Planning for Post-Disaster Recovery and Reconstruction, FEMA/American Planning Association Planning Advisory Service Report 483/484.

2.2.4   Natural Environment

The Natural Environment component is comprised of four distinct elements; Biodiversity & Ecosystems, Amenity Values, Waste & Pollution and Natural Resources (refer to Figure 4).
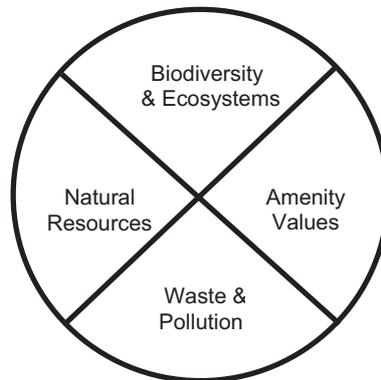
Figure 4: Elements of the Natural Environment

Amenity Value - also see Social Environment

Amenity value describes aspects of our physical environment that have some form of recreational, cultural or social importance. In local government terms, amenities may include physical structures such as libraries and community centres, swimming pools and sports fields. Other amenities may include things like scenic lookouts, riverside walkways, conservation estate, and culturally significant sites such as Wahi-tapu. Pre-identification of the importance of such amenities to peoples' social and emotional recovery, will help prioritise recovery activities

Waste & Pollution Management

In the early stages of recovery, the adverse effects of the disaster in respect of waste and pollution must be addressed. Where physical devastation has occurred and debris removal is underway, access to and sites for waste dumps must be identified and consent processes may be fast-tracked. The very nature of the event may dictate the scale and type of waste - for example pre-planning for volcanic ash disposal is critical to recovery in areas subject to volcanic activity. Society continues to function after any disaster, so both human waste (sewage) and garbage must continue to be disposed of. Systems and access to disposal sites/plants may be impaired by the event.

Biodiversity & Ecosystems

By virtue of its isolated island location, New Zealand has flora and fauna unique in the world but these can be placed at risk by disasters. For example severe storms or droughts may result in the loss of habitat and foodstuffs for species. Pollution events may damage local ecosystems or target specific species. Sound recovery practices can lessen the impacts on biodiversity. Biodiversity recovery activity should be a cooperative process led by the specialist agencies supported by local authorities and involving the wider community. A 'holistic' suite of measures should be employed such as:

- Enhanced emergency feeding programmes for birds by departments and the community;
- Enhanced pest control in the affected areas;
- Temporary bans on public access to fragile areas;
- Temporary hunting bans and kai moana (Rāhui) restrictions;
- Active relocation programmes for threatened species;
- Community involvement in re-planting activities; and
- Use of specialist expertise from around the country and overseas.

Natural Resources

At the same time as recovery action restores and improves access to the environment, its amenities, the biodiversity, and lessens waste and pollution impacts - it also must allow use of the environment for economic recovery.

Natural disasters may alter the landscape, infrastructure and transport routes to such an extent as to restrict or destroy access to resources that form part of the economic and social 'lifeblood' of the area. Whole areas of productive land may be rendered useless for farming, forestry or cropping by severe floods, tsunami or volcanic activity. Crops, trees and stock may need immediate processing via resources outside of the impacted area in order to recoup some of the financial loss. Loss of a quarry, mine or water-source for industry may result in economic downturn and unemployment, with long-term social consequences.

2.2.5 Economic Environment

The Economic Environment component is comprised of four distinct elements, namely Individuals, Firms, Infrastructure and Government (refer to Figure 5).
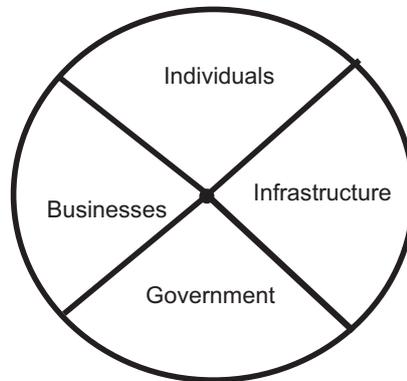
Figure 5: Elements of the Economic Environment

Individual Needs (Microeconomic Level)

The individual simultaneously represents the demand and supply side of economic management during disaster recovery. Individual needs (Microeconomic Level) include maintaining livelihoods such as employment security, payment of salaries and wages, debt servicing, access to bank accounts and insurance payouts. Equally, on the demand side the individual is an important contributor to local economic sustainability through their purchasing behaviours and general consumption.

Businesses

The impact of disasters upon firms, both large and small, may produce partial or complete incapacitation. In any event the window of survival for affected firms will vary and the goal of disaster recovery should be prompt restoration of necessary trading conditions. Aside from infrastructural aspects, recovery action may include direct assistance to individual businesses. For example, asset protection and salvage is important, as is the availability of information to assist decision-making and planning. Reliance on 'just-in-time' deliveries, an available workforce and customer confidence are further issues requiring consideration for recovery processes.

Infrastructure

Restoration of damaged infrastructure is a crucial requirement for normalising business activity. When firms lose the ability to function the negative impacts are both short term, in lost productivity and longer term, with business closures and related domino effect consequences. The infrastructural demands of business activity are diverse, including for example basic utilities, telecommunications, and access to transport. Prioritising the restoration of infrastructure may depend on the economic characteristics and dependencies of disaster affected areas. This may include clearance of major arterial routes and restoration of key utilities.

Central Government (Macroeconomic Level)

Central government will have a role of monitoring the economic impacts of disasters and intervening when economic recovery is seriously impeded. Typically, delivery of assistance should be via appropriate local agencies to secure necessary support and ensure coordination with other relief efforts. Central government assistance should adopt a form that optimises the rate of recovery, or prevents serious negative spillover effects, such as the collapse of affected regional economies.

Additionally, central government (Macroeconomic Level) activities include securing the confidence of stakeholders, including overseas markets and governments and the private sector, all of which may affect New Zealand's ability to recover at a national level.

2.3   Recovery within the '4Rs' (Reduction, Readiness, Response and Recovery)

Comprehensive risk management means dealing with all our hazards, both natural and technological, through the '4Rs' of reduction, readiness, response and recovery[9]. Recovery from disaster is most effective when planning for recovery is embedded within the remaining 3Rs of reduction, readiness and response. This process also promotes a holistic approach to recovery, which considers both the diversity of community needs pre-event and the opportunities that exist post-event to reduce future hazards and their associated risks.

Reduction

When a community is recovering from an disaster there are opportunities to reduce the risks from future events. For example, if buildings have been destroyed, opportunities exist to avoid building in the hazard-prone area, or to build in a way that better addresses the relevant risks. Similarly, if a community has suffered significant losses because of economic or social factors (such as a lack of insurance), assistance can include incentives to address their vulnerabilities.

Readiness

Readiness activities include three elements that overlap with recovery issues:

1. **Training & Exercising** schedules should allow for:

    - Specific recovery-context learning (such as disaster expenditure);
    - A general understanding of recovery roles and the development of competencies;
    - A selection of training processes (for both individual and shared learning experiences); and
    - Regular exercises to validate plans.

2. **Public Education & Information** planning should include consideration of recovery issues such as:
    - Disaster awareness and training;
    - Public understanding of recovery and the processes involved;
    - Public expectations of what assistance might be available;
    - Pre-design of material on where to seek assistance; and
    - Pre-design of material on how to deal with damaged property.

3. **Business Continuity Planning** should be encouraged, to ensure rapid restoration of function and supply, and to free up resources for priority recovery tasks.

4. **Increasing Community Capacity** by encouraging active community participation pre-event in readiness activities and by establishing relationships with community leaders.

Response

Response planning includes a range of provisions relevant to recovery planning. The most significant is the allocation of functions and tasks for response activities. The facilities and coordination arrangements set up for response may also be available for recovery use. In most cases, agencies will carry their response roles over into recovery, changing only the reporting arrangements and the level of resource commitment. As response agencies are involved in recovery activities it is vital that they are included in recovery planning and coordination arrangements pre-event.

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[9] MCDEM (2004) National CDEM Strategy

2.4 The National CDEM Principles in a Recovery Context

The following principles are guides to action. They underpin the development and success of CDEM Recovery in New Zealand. They are derived from the new approach to CDEM laid out in the CDEM Act 2002 and from the National CDEM Strategy. The principles apply to all New Zealanders (from individual level to Central Government) as CDEM stakeholders. In addition, there are key agencies that have an explicit role in CDEM arrangements. The National CDEM Principles have been provided below with explanations of how they relate to recovery:

1. **Individual and community responsibility and self-reliance**

   - The management of disaster recovery is best approached from a range of perspectives including a community development perspective. Successful recovery is most effective when conducted at the local level with active participation of the affected community and a maximum reliance on local capacities and expertise. Relationships with groups and community leaders should be established pre-event for maximum effectiveness and will continue post event (in the short, medium and long term).

   - It is important to recognise the diverse needs of different communities such as those within a rural or urban context, high or low socio-economic groups and the implications of differing cultural diversity and belief systems.

   - Recovery needs to recognise any specific priorities and needs of Māori and also the contribution Māori can make to recovery. This should include participation of Māori leaders in recovery activities both pre and post event and include specific roles such as access to Marae as a community resource and use of Māori networks to disseminate information.

   - Recovery is a highly 'political' process. Leaders (both political and organisational) will be required to make hard decisions that may range from placing a caveat on an individual property title, to closing a school or business in a hazardous location, through to re-locating entire communities. The leader's decisions may alienate or reassure members of their community as they grapple with conflicting recovery needs, reducing future risks and introducing development goals.

   - Recovery management arrangements are most effective when they recognise the dynamic nature of communities and changing needs of people over time so that plans are flexible enough to be adapted to different disasters and different imperatives over time.

2. **A transparent and systematic approach to managing the risk from hazards**

   - Recovery processes need to be pre-planned through an integrated process by local, regional and national stakeholders, including non governmental organisations, community organisations and business. Recovery planning must include clarification of roles and responsibilities in the recovery context and promote an understanding of multi-agency interdependencies.

   - Effective coordination of recovery post-incident is then based on long-term collaboration, cooperation and partnership between agencies. Integrated plans and relationships should enable a scaling up process for recovery as required, including the clear activation of local, regional and national arrangements, whilst dovetailing with other related plans, such as business continuity plans, to ensure coordinated arrangements. (It is important to recognise that commercial and organisational boundaries should not preclude joint recovery planning and management).

   - A systematic approach to pre-incident recovery planning is necessary to ensure that a logical and consistent approach is taken post incident when identifying and assessing risks, consulting and communicating with communities and where possible, implementing cost-effective measures to reduce risk.

   - During the development of the CDEM Group plan the Strategic section should have addressed the risks to the community and the mitigation measures to manage those risks. Following a disaster, communities must be given the ability to review the level of risk and decide what extra measures they need to put in place to manage those risks post disaster.

3. Comprehensive & integrated hazard risk management

- Comprehensive risk management means dealing with all our hazards, both natural and technological, through the 4Rs. Recovery from disaster is most effective when planning for recovery is embedded within the remaining 3Rs of risk reduction, readiness and response. This process encourages a holistic approach to recovery, which considers both the diversity of community needs pre-event and the opportunities that exist post-event to reduce future hazards and their associated risks (such a process should also be documented in District Plans).

- The planning process identifies consequences, enables the exploration of 'what if' scenarios and helps identify possible opportunities for post-event improvements. This means recovery planning should integrate with other business as usual planning (such as Long Term Community Council Plans, LTCCPs).

- Integrated activity promotes the coordinated involvement of all CDEM clusters stakeholders that have a role in managing our hazards[10]. Integrated activity undertaken by clusters[11] and multi-agency local teams produces a seamless approach to recovery at local and national levels.

4. Addressing the consequences of hazards

- Effective recovery from disaster requires addressing the consequences of hazards through the establishment of planning and management arrangements, which are accepted and understood by recovery agencies, government departments and the community before a disaster[12].

- Recovery from disaster is best achieved where the recovery process is embedded within day-to-day practices of New Zealanders from individual level to Central Government. To address the consequences of hazards, recovery must begin pre-event by considering the implications for recovery of reduction options and by pre-planning for recovery activities.

- Recovery planning and activities are about promoting sustainability of communities and their economic base. Continuation of livelihoods are integral to this. A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base[13]. Disaster recovery can add value where opportunities exist within the local economy and community to promote sustainable livelihoods.

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[10] CDEM Act 2002

[11] A cluster approach for CDEM stakeholders introduces the concept of a group of agencies, either within or across sectors that interact to achieve common outcomes, which include the delivery of a function or related functions.

[12] MCDEM (2004) National CDEM Strategy

[13] Reproduced from Carney (Ed.) (1998) Sustainable Rural Livelihoods: What contributions can we make? DFID, UK

5. Making best use of information, expertise & structures

- Recovery services are provided in a timely, fair, transparent and flexible manner.

- Agreed plans, management arrangements and the delivery mechanisms of recovery services are accessible, practiced, and involve the active participation of the community and all disaster management agencies.

- Effective communication is paramount to recovery processes. This includes both internal and external sources of communication, such as the communication that takes place within agencies, between agencies, with agencies and the media and with agencies and the affected community. This demand for effective communication can place significant pressure on agencies involved. It is vital a robust communications plan is developed pre-event to ensure this process is managed both proactively and appropriately.

- Monitoring and reviewing arrangements for recovery information, expertise, and structures are accepted recovery planning 'best practice'.

- Clear accountability and transparency of processes are crucial if recovery is to be successful. Accountability for achievement of outcomes rests with those people and communities who make decisions. Organisations need to identify those people with responsibility for recovery to promote clear lines of communication and accountability.

- Expertise in recovery planning and management arrangements is most effective when supported by training programmes and exercises, which ensure that recovery agencies and personnel are properly prepared for their role.

- Capitalising on lessons identified through operational debriefs from disasters as well as exercises to develop and fine tune recovery arrangements.

- As the frequency of disasters occurring in New Zealand is changeable, it is vital that all those charged with responsibility for an aspect of recovery, are able to demonstrate commitment to ensuring planning for recovery forms part of their organisational culture. This means ensuring all parts of the organisation are aware of their roles and responsibilities, participate in regular exercising and training and view recovery planning as part of day-to-day business.

Section 3: Workplan for Achieving Goal 4

3.1 Goal 4 of the National CDEM Strategy: Focusing on Recovery

Goal 4 of the National CDEM strategy relates directly to recovery and is the main focus of this document. Although the three remaining Goals of the National CDEM Strategy can be related to recovery, they are not the focal point of this document. Goal 4 seeks "*To enhance New Zealand's capability to recover from disasters*". This section addresses how Goal 4 can be achieved, by when and who will be involved in its achievement.

The following 'Recovery Roadmap' (Figure 6) provides a planning interface between the CDEM Act and the related CDEM documents in the context of recovery. The CDEM Act is the foundation for the CDEM environment upon which the National CDEM Strategy has been developed. Focus on Recovery provides a context for recovery and identifies activities which contribute to achieving Goal 4 of the National CDEM Strategy. The Director's Guideline and Information Series in combination with the National CDEM Strategy and CDEM Act assist in driving the planning processes involved in the development of CDEM Group Plans and the National CDEM Plan.
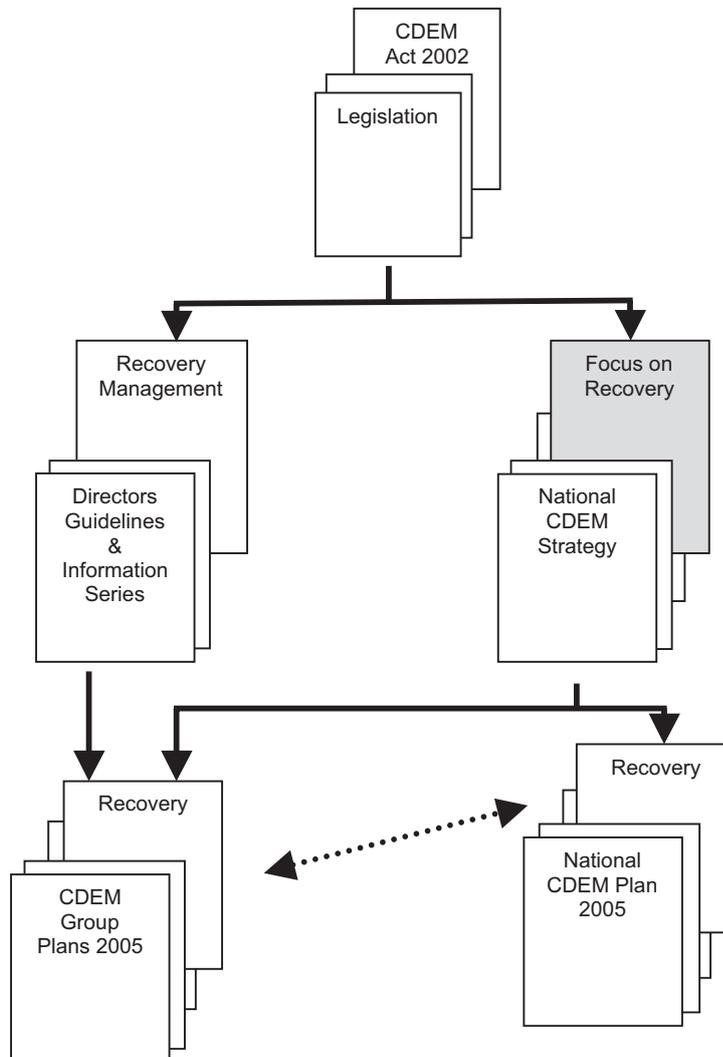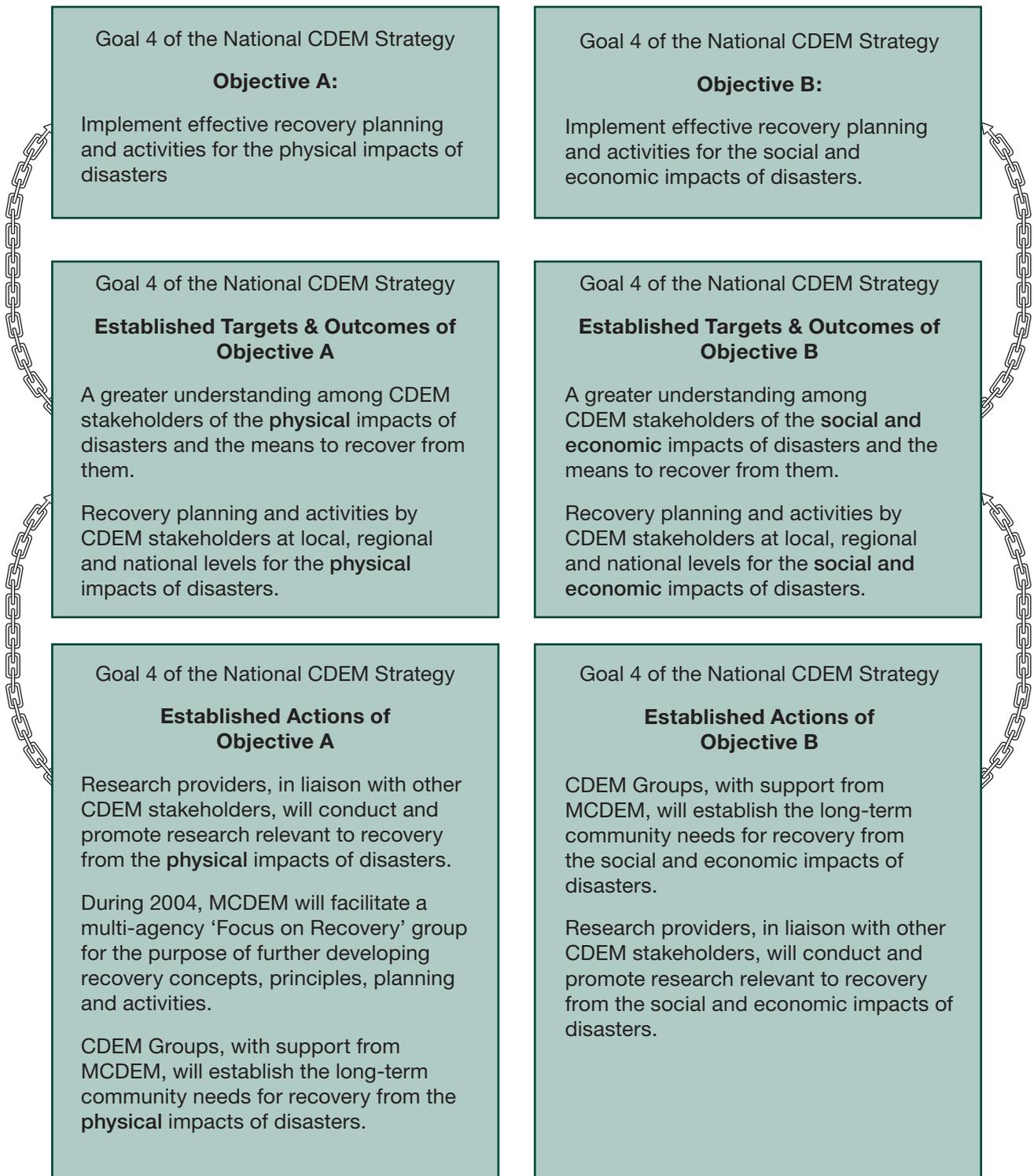

Figure 6: Recovery Roadmap

3.1.1   Recovery Activity & Workplan

The Objectives, Targets & Outcomes and Actions from Goal 4 of the National CDEM Strategy are outlined below (boxes in green). In addition, a range of activities have been identified by CDEM stakeholders, which contribute to achieving Goal 4 of the National CDEM Strategy. The activities and organisations tasked with coordinating each activity are documented in the form of a workplan. Many of these activities are not achievable in the short term but as outlined in the Monitoring and Evaluation section, the progress on these activities will be reviewed regularly and where gaps are identified, new activities will be added to the workplan. The activities are listed with either a short (within 1-2 years), medium (2-4 years) or long term (5 years and over) timeframe.

Goal 4 of the National CDEM Strategy

Objective A:

Implement effective recovery planning and activities for the physical impacts of disasters

Goal 4 of the National CDEM Strategy

Objective B:

Implement effective recovery planning and activities for the social and economic impacts of disasters.

Goal 4 of the National CDEM Strategy

Established Targets & Outcomes of Objective A

A greater understanding among CDEM stakeholders of the **physical** impacts of disasters and the means to recover from them.

Recovery planning and activities by CDEM stakeholders at local, regional and national levels for the **physical** impacts of disasters.

Goal 4 of the National CDEM Strategy

Established Targets & Outcomes of Objective B

A greater understanding among CDEM stakeholders of the **social and economic** impacts of disasters and the means to recover from them.

Recovery planning and activities by CDEM stakeholders at local, regional and national levels for the **social and economic** impacts of disasters.

Goal 4 of the National CDEM Strategy

Established Actions of Objective A

Research providers, in liaison with other CDEM stakeholders, will conduct and promote research relevant to recovery from the **physical** impacts of disasters.

During 2004, MCDEM will facilitate a multi-agency 'Focus on Recovery' group for the purpose of further developing recovery concepts, principles, planning and activities.

CDEM Groups, with support from MCDEM, will establish the long-term community needs for recovery from the **physical** impacts of disasters.

Goal 4 of the National CDEM Strategy

Established Actions of Objective B

CDEM Groups, with support from MCDEM, will establish the long-term community needs for recovery from the social and economic impacts of disasters.

Research providers, in liaison with other CDEM stakeholders, will conduct and promote research relevant to recovery from the social and economic impacts of disasters.

- Lifeline utilities will demonstrate recovery planning and activities for the **physical** impacts of disasters.

- Government departments, including those with responsibilities for infrastructure, resource management, biosecurity and the environment, will engage in recovery planning and activities at local, regional and national levels.

- International research and professional development opportunities regarding recovery from the **physical** impacts of disasters will be promoted by MCDEM and other CDEM stakeholders.

- Government departments, particularly those with responsibilities for health, welfare, education and the economy, will engage in recovery planning and activities at the local, regional and national levels.

- International research and professional development opportunities regarding recovery from the **social and economic** impacts of disasters will be promoted by MCDEM and other CDEM stakeholders.

Recovery Activity Workplan

Activity	Coordinating Agency	Timeframe
PROFESSIONAL DEVELOPMENT		
To capture and harness organisational knowledge about recovery to benefit recovery training.	All Agencies	Ongoing Long Term
Encourage and promote evidence based research specifically in recovery.	All Agencies	Ongoing Long Term
Identification of both individual and shared ongoing training and professional development opportunities for those involved in recovery at local, regional and national level.	MCDEM	Short/Medium Term
Conduct Regional Recovery Awareness Workshops for CDEM Groups.	MCDEM	Short Term
Facilitate recovery training for Central Government Agencies.	MCDEM	Short Term
Facilitate Training for CDEM Group Recovery Managers and other key personnel.	MCDEM	Short Term
Further development of the economic, built and natural environment components of Recovery within the CDEM Sector.	MCDEM	Medium Term
Develop a modular training programme for ongoing recovery professional development.	MCDEM	Short Term
PLANNING & GENERAL GUIDANCE		
Development of CDEM Group Recovery Plans.	All CDEM Groups	Short Term
Review of the National Recovery Functional Plan in consultation with stakeholders for inclusion in the National CDEM Plan (2005).	MCDEM	Short Term
Development of a MCDEM Directors Guideline for CDEM Groups on 'Recovery Management'.	MCDEM	Short Term
COORDINATION		
The integration of planning and activation of a coordinated response for recovery between CDEM Groups and national level (across government, the voluntary sector and non government organisations).	All Local, Regional and National Agencies	Short/Medium Term

Establish a National Recovery Taskforce (from a range of key stakeholders - the Focus on Recovery Working Group may assist in the development of such a taskforce) to develop, coordinate and drive Central Government's recovery policy, planning initiatives (including the activities outlined in this document) and post-event activity.	MCDEM	Short/Medium Term
Development of a Disaster Impact Assessment framework.	MCDEM	Short Term
Development of a Needs Assessment form.	MCDEM	Short Term
COMMUNITY PARTICIPATION		
Promote and encourage community Participation in recovery planning process.	All Agencies	Ongoing Long Term
Facilitating community recovery activities, using community structures and processes.	All Agencies	Ongoing Long Term
Seeking ideas from communities about how they might see future recovery planning.	Local Agencies	Ongoing Long Term
Seek sponsorship for community awards following disasters.	MCDEM	Short Term
Encouragement of community participation through LTCCP process.	Local Authorities	Ongoing Long Term
SOCIAL ENVIRONMENT		
Encourage as part of the CDEM Clusters Approach: • The analysis of gaps in recovery capabilities and coordinated recovery planning. • The development of a project plan for each Cluster which outlines the identification of gaps and the timeline of activities to address those gaps to improve recovery capability.	All Regional and National Agencies Involved in Welfare Advisory Groups	Short Term
Validate recovery plans and arrangements by undertaking regular exercises both within organisations and in a multi-agency context at all levels (i.e. from local to national level).	All Agencies	Short/Medium Term
Encourage all agencies to hold organisational debriefs (both post exercise and post-event) and the identification of a process to address any gaps and issues arising from such debriefs.	All Agencies	Ongoing
Development of post-event information bulletins/leaflets to prevent unrealistic expectations of recovery.	National Welfare Recovery Coordination Group	Short/Medium Term
Development of best practice guideline(s) for Public Information and Public Education for Recovery.	National Welfare Recovery Coordination Group	Medium Term
BUILT ENVIRONMENT		
Encourage as part of the CDEM Clusters Approach: • The analysis of gaps in recovery capabilities and coordinated recovery planning. • The development of a project plan for each Cluster which outlines the identification of gaps and the timeline of activities to address those gaps to improve recovery capability.	All Regional and National Agencies Involved in Infrastructure Cluster	Medium Term
Validate recovery plans and arrangements by undertaking regular exercises both within organisations and in a multi-agency context at all levels (i.e. from local to national level).	All Agencies	Short/Medium Term
Encourage all agencies to hold organisational debriefs (both post exercise and post-event) and the identification of a process to address any gaps and issues arising from such debriefs.	All Agencies	Ongoing

Review of utility recovery processes and restoration time frames by Lifeline Utility sector representatives to identify those utility recovery srategies that can be developed pre-event.	National Engineering Lifelines Committee	Medium Term
NATURAL ENVIRONMENT		
Encourage as part of the CDEM Clusters Approach: • The analysis of gaps in recovery capabilities and coordinated recovery planning. • The development of a project plan for each Cluster which outlines the identification of gaps and the timeline of activities to address those gaps to improve recovery capability.	All Regional and National Agencies Involved in the Natural Environment Component	Medium Term
Validate recovery plans and arrangements by undertaking regular exercises both within organisations and in a multi-agency context at all levels (i.e. from local to national level).	All Agencies	Short/Medium Term
Encourage all agencies to hold organisational debriefs (both post exercise and post-event) and the identification of a process to address any gaps and issues arising from such debriefs.	All Agencies	Ongoing
ECONOMIC ENVIRONMENT		
Encourage as part of the CDEM Clusters Approach: • The analysis of gaps in recovery capabilities and coordinated recovery planning. • The development of a project plan for each Cluster which outlines the identification of gaps and the timeline of activities to address those gaps to improve recovery capability.	all regional and national agencies involved in the Natural Environment component	Medium Term
Validate recovery plans and arrangements by undertaking regular exercises both within organisations and in a multi-agency context at all levels (i.e. from local to national level).	All agencies	Short/Medium Term
Encourage all agencies to hold organisational debriefs (both post exercise and post-event) and the identification of a process to address any gaps and issues arising from such debriefs.	All agencies	Ongoing
Development of best practice guideline(s) for Financial Management and Insurance in Recovery;	Insurance Council/ MCDEM	Medium Term
Development of best practice guideline(s) for Businesses	MED	Medium Term

3.2   Monitoring and Evaluation

MCDEM will monitor progress and outcomes from the National CDEM Strategy while it is in effect. It is anticipated that monitoring of the implementation of Focus on Recovery will be undertaken as part of the monitoring programme for the National CDEM Strategy.

The National CDEM Strategy will be reviewed in 2006. While the vision is not expected to change, and the goals and objectives are expected to hold for periods longer than five years, the targets and actions will be amended with further performance measures developed by the monitoring and evaluation programme. It is anticipated that Focus on Recovery will be reviewed alongside the National CDEM Strategy in 2006. It is envisaged that by reviewing in parallel the Focus on Recovery with the National CDEM Strategy, both documents can be harmonised to reflect progress on the work programme and the structure of the New Zealand recovery framework.

Reference Group

The development of Focus on Recovery has been an eighteen month process, beginning with some initial conceptual work before a project group was formed within MCDEM to build on this thinking. To inform the framework, a multi-agency reference group (Table 1) came together in December 2003 to contribute to the document. A six month consultation period (March - August 2004) then followed, which encompassed the discussions at the Recovery Symposium (July 2004). An amended Focus on Recovery has been developed with input from the Reference Group during October, November and December 2004. This completed document reflects the views of CDEM stakeholders.

Table 1: Focus on Recovery Reference Group

Department of the Prime Minister & Cabinet	Ministry of Agriculture and Forestry
The Treasury	Ministry of Social Development
Earthquake Commission	The Panguru Trust
Department of Child, Youth & Family	Local Government New Zealand
Ministry of Health	National Lifeline Utilities
CDEM Groups	MCDEM Recovery Coordinators
Ministry of Economic Development	CDEM Group Recovery Manager Representatives
Ministry of Civil Defence & Emergency Management	

Glossary

Unless otherwise stated to the contrary, the following terms and words used in this document have the meaning specified below.

Capability: Ability or power of action to deliver resources in the event of a emergency (Note: capability = capacity + delivery, and therefore includes process).

CDEM: Civil Defence Emergency Management:

(a) means the application of knowledge, measures and practices that -

    (i) are necessary or desirable for the safety of the public or property; and

    (ii) are designed to guard against, prevent, reduce or overcome any hazard or harm or loss that may be associated with any emergency; and

(b) includes, without limitation, the planning, organisation, coordination and implementation of those measures, knowledge and practices.

CDEM Groups: Consortia of local authorities working in partnership with emergency services, major utilities and others to ensure that emergency management principles are applied at the local level.

Community: A collective of people unified by a common interest.

Consequence: The outcome of an event expressed qualitatively or quantitatively, being a loss, injury, disadvantage or gain. There may be a range of possible outcomes associated with an event.

Disaster: An event that causes significant loss or damage and that overwhelms the capability of the community to manage it. Such an event could require significant additional resources.

Emergency: means a situation that -

(a) Is the result of any happening, whether natural or otherwise, including, without limitation, any explosion, earthquake, eruption, tsunami, land movement, flood, storm, tornado, cyclone, serious fire, leakage or spillage of any dangerous gas or substance, technological failure, infestation, plague, epidemic, failure of or disruption to an emergency services or a lifeline utility, or actual or imminent attack or warlike act; and

(b) Causes or may cause loss of life or injury or illness or distress or in anyway endangers the safety of the public or property in New Zealand; and

(c) Cannot be dealt with by emergency services, or otherwise requires a significant and coordinated response under this [CDEM 2002] Act.

HESIG: The HESIG Model is outlined as follows:

(H) Human impact (in terms of numbers of dead, injured, displaced);

(E) Economic cost (total dollar costs for all HSIG categories, short and long-term recovery, business loss, direct and indirect costs, including net income);

(S) Social impact (disruption to normal social function e.g. education, sports, religion)

(I) Infrastructure impact (e.g. buildings, structures, utilities); and

(G) Geographic impact (e.g. impact on environment, topography, natural resources).

Hazard: Something that may cause, or contribute substantially to the cause of, an emergency.

Holistic Recovery: An approach which considers all the components that make up recovery.

Recovery: The coordinated efforts and processes to effect the immediate, medium and long term holistic regeneration of a community following a disaster.

Resilience: The community's ability to withstand the damage caused by emergencies and disasters; it is a function of the various factors that allow a community to respond to and recovery from emergencies[14].

Risk: The probability and consequences of a hazard.

Risk Management: The culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects. It is a process involving the systematic application of management policies, procedures and practices to the tasks of establishing the context, identifying, analysing, evaluating, treating, monitoring and communicating risk.

Vulnerability: Being prone to or susceptible to damage or injury[15].

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[14] World Health Organisation (WHO), (1999) Community Emergency Preparedness: A Manual for Managers and Policymakers, WHO, Geneva, p. 30

[15] Blaikie et al (1997) At Risk: Natural Hazards, People's Vulnerability and Disasters, Routledge, London

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