

Lessons on Recovery:

Key learning from past crisis events

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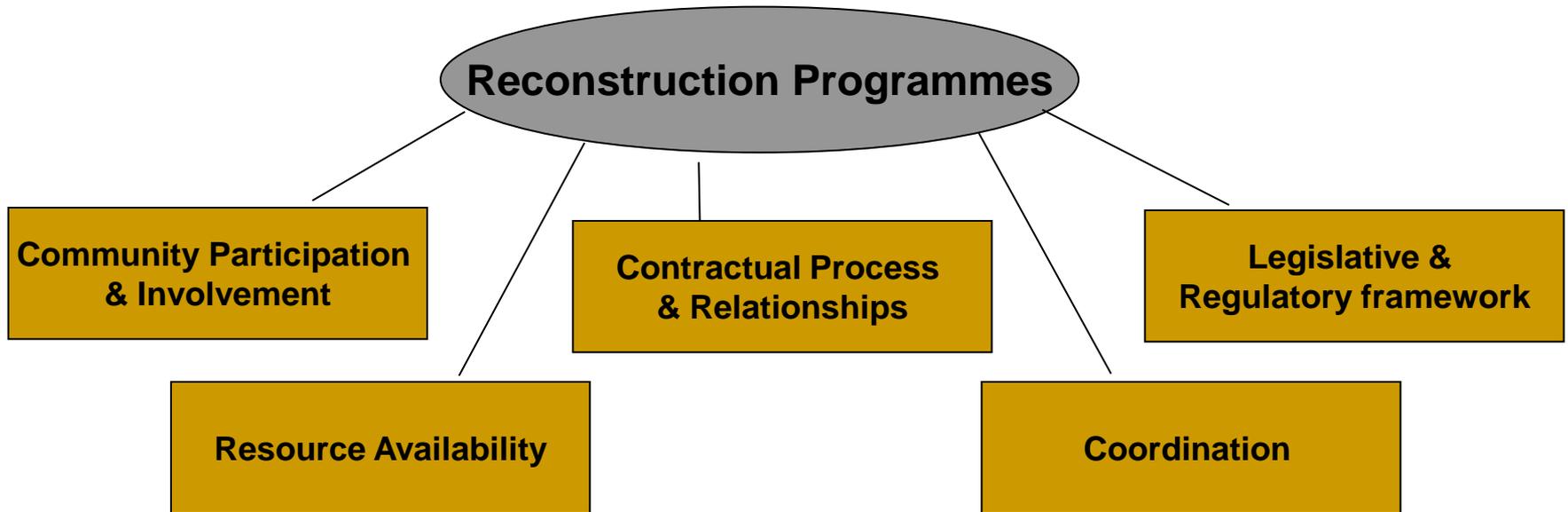


Six year research project designed to assist New Zealand organisations to recover economic competitiveness after hazard events by improving their resilience.

Planning, prioritisation and deployment and legal issues faced by New Zealand institutions.

1. Organisational planning for hazard events (Erica Saville)
2. Prioritisation and deployment of physical and human resources for recovery (Andre Dantes)
3. Legal and contractual frameworks for post-disaster reconstruction (Suzanne/Regan)

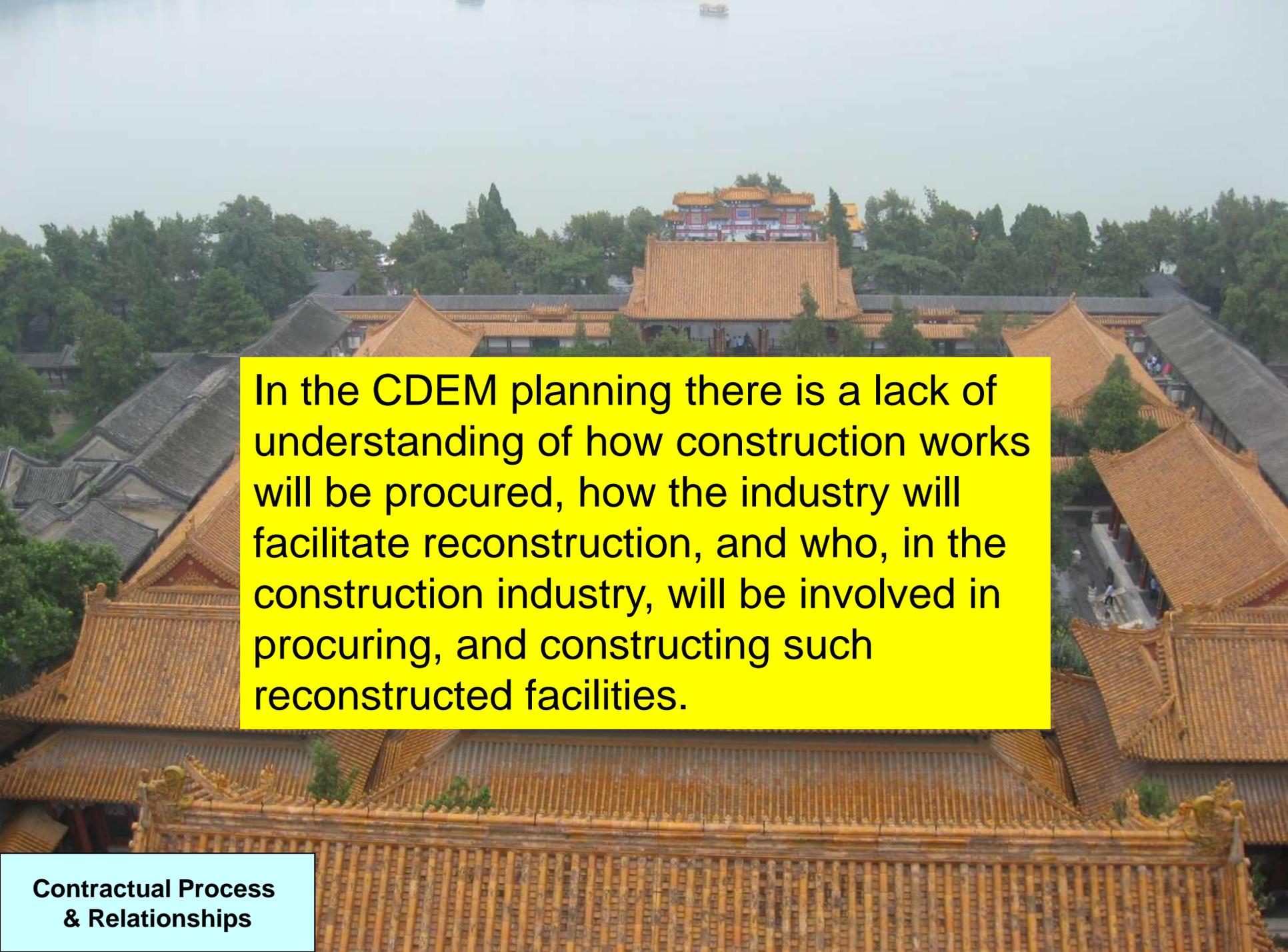




Construction Industry – Role in a major crisis?

- **Project management and stakeholder participation in reconstruction**
- **Legal and policy frameworks for reconstruction**
- **Finance and resources for reconstruction**
- **Urban planning and design for post-disaster reconstruction**





In the CDEM planning there is a lack of understanding of how construction works will be procured, how the industry will facilitate reconstruction, and who, in the construction industry, will be involved in procuring, and constructing such reconstructed facilities.

Collaborative relationships may be useful post-disaster

Requirements: shared project objectives, shared risk and reward mechanisms, high degree of trust



**Contractual Process
& Relationships**

Client's expertise

Serial clients will generally have established relationships with construction companies. They will have systems in place for procuring construction and may have ongoing projects from which resources can be diverted. Govt. needs to capitalise on this expertise and experience

Scenario:

- The coordination and management of reconstruction
- Procurement and delivery of projects
- Engagement of stakeholders in the process.
- Understand reconstruction needs of a community during response and recovery stage



MCDEM- communities are to lead recovery

housing/infrastructure projects by local communities show success (*lessons from Indonesia Ache*)



Involvement of community in housing design and rebuilding is effective (*lessons from India*)



rebuilding and reconstruction planning
– construction industry involvement
with communities?- need training,
management, direction



AGENCIES AND PARTNERSHIPS

Construction business, Govt and NGO's have different projects, they lack overall coordination (lessons from Turkey)

Collocating of staff (of NGO /Agencies/ industries) has worked well to build trust and develop deeper understanding of each others programs and ways of working.



Planning, management and coordination of disaster recovery

Requires an integrated, multi-level and Multi-stakeholder

Current disconnect between Govt, business, agencies



Key Messages

Partnerships work

Collaboration works

Community Involvement works

How do we instil these ideals in National Recovery and Reconstruction Plans?

Can the construction industry cope with a disaster?



Consent Processes

- ❑ Will be cumbersome during a large scale reconstruction
- ❑ Councils will struggle to meet the requirements for processing
- ❑ Consent applications will overwhelm the local councils' capacity



Legislative &
Regulatory framework

Procuring reconstruction requires innovative administrative mechanisms *and...*

Assistance required from central governments to develop the administrative and legal means to be able to alleviate recovery pressures.

Need to simplify the consents process

Need to understand full implications of administrative and legislation impacts post-disaster



Without effective legislation it is difficult to implement solutions post-disaster (*Turkey*)

Essential to plan ahead for robust legislation and administrative systems in post-disaster scenarios



**Between councils in NZ,
for resource sharing in the
event of a major disaster,
there are loosely written
MoU's.**

These memoranda are:

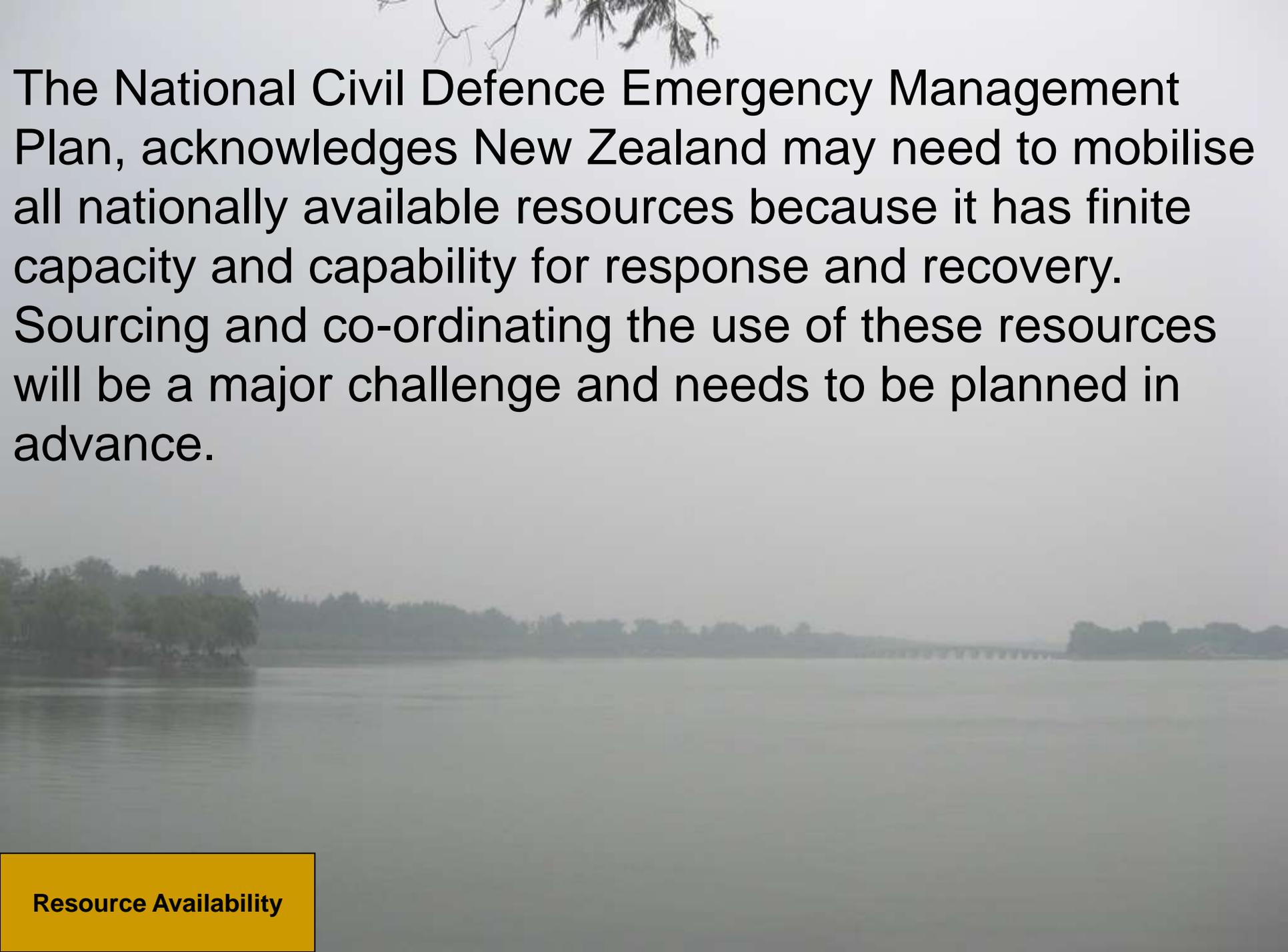
- very generic**
- may not commit
neighbouring councils to
their implementation**

**People are generally not
aware/unsure of MoU
existence in their councils
or not aware of the
contents.**



**Legislative &
Regulatory framework**

- 
- **Reconstruction should be facilitated through prior arrangements for resources**
 - **Local councils need to prepare memoranda of understanding that details the exchange of resources and of receiving external aid and assistance.**



The National Civil Defence Emergency Management Plan, acknowledges New Zealand may need to mobilise all nationally available resources because it has finite capacity and capability for response and recovery. Sourcing and co-ordinating the use of these resources will be a major challenge and needs to be planned in advance.

Problematic Resources?

Aggregates, concrete, cement (yes)

Steel (yes, limited production lines, long lead times, import from overseas)

Fuel (yes, stockpile)

Construction Plant and Equipment (no, national coverage, inventory required)

Human Resource (yes – import/ train/ community)

Funding (confused picture)



Lessons: Finance and resources for reconstruction

Do we understand the cost implications of a major disaster?

- *Need to incorporate cost-escalation into rebuilding budgets... demand increases the need... demand requires planning.*
- *Resources are scarce post-disaster and pre-planning is required*



Problematic Resources?

Competition, cost-inflation, importation required, low supply, high demand, lack of skilled labour

Requires: priority resource use, inventory of resources



Resource Availability

Lessons: Finance and resources for reconstruction

- People are willing to **invest** in their own housing construction post-disaster
- It is possible to incorporate disaster risk reduction features to housing reconstruction **without much additional cost** if it is incorporated at the stage of planning (India)
- Competition affects supply, need to prioritize scarce resources



Resource Solutions

Govt. MOUs with major resource suppliers

National perspective, resource inventory

Priority list for resource use

Use of alternatives of recycled materials, most notably recycled concrete which could be in good supply

Transportation - utilisation of barges

Coordination of industry parties (suppliers)

An aerial photograph of a large stone gate structure, likely a historical site, with a bus and a traditional Chinese pavilion in the foreground. The scene is set in a hazy, mountainous area.

Resource Availability

- An inefficient or poorly planned response can impose additional social, economic and environmental burdens on an already impacted community

Relocation of towns, viability of land for building, accept that some land is not suitable for reconstruction post-disaster.



What gets built and when it gets built is critical for the long-term recovery and resilience of a community

Community, Government, agencies and organisations need to be agree what gets built first, from major arteries, infrastructure, public facilities, houses



Coordination

Reconstruction Requires:
Flexible legal frameworks with suitable procurement
strategies and robust delivery mechanisms.
Reconstruction planned for in advance



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