

# **LEARNING FROM DISASTER RECOVERY**

## **Guidance for Decision Makers**

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## **Annex 1 (Chapter 1)**

### **Case Study: Recovery from Flooding in Inhambane Province, Govuro District, Nova Mambone, Mozambique 2000-2004 (Linked to Figure 1. The Experiential Learning Cycle)**

#### **Experience**

The first experience for this community was the trauma of the devastating flood of 2000 that killed 700 people, displaced 650,000 and affected a quarter of the population of Mozambique. This was then followed by the experience of the flood recovery the government organised. For the communities in Nova Mambone the plus experience was to be resettled on higher ground about 15 km from their original homes in improved housing with better infrastructure. However the negative consequence of being relocated to safe lands was that the majority of the community lost their previous livelihoods. For women, these consisted of agricultural work, trading and brewing traditional alcohol and the men's occupations were fishing, working in the salt flats, wood cutting and charcoal making.

#### **Description.**

The community took stock of their new situation weighing up the advantages and disadvantages of their new situation. The Government also monitored progress with the relocation schemes which were undertaken for 43,400 families.

#### **Analysis**

One economic solution for relocated workers was to return to their original home at the beginning of each week to continue their work that took place before the flood, and then return to their families at the end of the week. Another option was to seek to find new jobs in the area around their new homes. But this was not easy on account of two problems. First they only had a small house plot of some 30-40 square metres, that was too small for farming and in some areas there was resentment by local families who had lived there for many years, not wanting to share their work opportunities with newcomers.

#### **Generalisation**

For the community fishing activities have declined and farming has been difficult due to drought conditions. Due to the lack of money in the economy, small-scale trading has not been revived. But men are unable to find work or alternative income sources since they no longer have boats or cattle, both lost in the flood. Despite a ban on development in dangerous areas, this has continued and the vacated areas released by the relocation have been reoccupied. Thus the aim to create safer environments by relocation has not been realised.

However, the disaster recovery did bring unique opportunities to Mozambique. The international funding support made possible:

- repairs and replacement of the infrastructure (roads, railways and basic services) that had been neglected without maintenance during the long years of civil war as well as from the damage caused by the flooding;
- the building of new facilities that did not exist before the flooding, such as schools, health posts, new roads, bus services, ferry services etc. In Chokwe, 249 classrooms were built in the recovery phase. 101 schools were rehabilitated and an additional 4,500 children were enrolled in schools within the district.

#### **Action Plans**

##### **By the Community...**

- Some families are beginning to keep chickens again
- Some women have started a new business selling meat from game hunted by the men

##### **By Government...**

- Two years after the flood the relocated families were surviving on food for work projects.
- The government has invested heavily in economic commercial and social infrastructure. New road building has made previously isolated areas more

accessible. Electricity and a good water supply are now available.

- For the authorities the experience of the loss of livelihoods in communities such as Nova Mambone, as well as the re-occupation of vacated zones is encouraging them to re-think the viability of the relocation option as a future disaster recovery strategy.
- There is recognition in government that actions are still needed to create jobs in resettled areas.

**Annex 2 (Chapter 1)**

**Summary of Chapter 1: Guiding Principles (The Scope of Disaster Recovery)**

	<b>Ethical Principles</b>	<b>Strategic Principles</b>	<b>Tactical Principles</b>	<b>Implementation Principles</b>
<p><b>The Scope of Disaster Recovery (learning from experience)</b></p>	<p>1. Responsible officials working for committed agencies supervising disaster recovery operations make it part of their work to gather evidence concerning the way in which different societies have recovered, or declined following major disaster events .</p> <p>This knowledge is needed to promote effective disaster recovery. It will assist officials to implement proven strategies and tactics that create sustainable environments where people as well as their livelihoods and property are secure.</p>	<p>1. Disaster recovery is a highly complex multi-layered process, therefore it is essential to recognise the key dimensions of recovery as well as their interaction. This awareness is needed to pinpoint priority concerns to address that will either accelerate or retard recovery progress.</p> <p>2. As a strategic principle recognise the importance of past disaster recovery experience and its preservation and dissemination. Therefore, document this knowledge in any present or future disaster recovery operations in a systematic manner. Note decisions made, projects planned and implemented and progress secured. Such experience then needs to be made accessible both nationally and internationally via the International Recovery Platform (IRP)<sup>1</sup></p> <p>2. Develop sets of <i>Guiding Principles</i> to support recovery tasks. These principles can usefully cover four categories:</p> <ul style="list-style-type: none"> <li>• Ethical</li> <li>• Strategic</li> <li>• Tactical</li> <li>• Implementation</li> </ul>	<p>1. In the work of any agency or department consider the various stages of learning:</p> <ul style="list-style-type: none"> <li>* Experience</li> <li>* Describe</li> <li>* Analyse</li> <li>* Generalise</li> <li>* Develop Action Plans</li> </ul> <p>2. Collect data that is <u>quantifiable</u> concerning recovery as well as <u>qualitative</u> data</p> <p>3. Be precise in the use of definitions. (The discussion in this chapter has highlighted the various words in current use and their important implications.)</p>	<p>1. The creation of a ‘learning culture’ requires a number of key steps to be taken:</p> <ul style="list-style-type: none"> <li>• An example needs to be set from the top of any organisation to respect knowledge, and learn from past experiences.</li> <li>• A budget is needed to support the anchoring of experiences</li> <li>• Training is required to equip staff to identify what data to collect, how to obtain data, how to organise it, store it and disseminate it to those needing this knowledge.</li> </ul>

<b>Summary: The Scope of Disaster Recovery- (learning from experience)</b>	
<b>Overarching Principle:</b>	<p>1. It is essential to gather evidence concerning the way in which different societies have recovered, or declined following major disaster events. This knowledge is needed to promote effective disaster recovery. It will assist officials to implement proven strategies and tactics that create sustainable environments where people as well as their livelihoods and property are secure.</p> <p>2. Disaster recovery is a highly complex multi-layered process, therefore it is essential to carefully analyse the process recognising the key dimensions of recovery as well as their interaction. This awareness is needed to pin-point priority concerns to address that will either accelerate or retard recovery progress.</p>
<b>Policy Advice:</b>	<p><b>1. Value and Share Knowledge</b> As a matter of policy, recognise the importance of past disaster recovery experience in your own country. Therefore, document this knowledge in any present or future disaster recovery operations in a systematic manner. Note decisions made, projects planned and implemented and progress secured. Such experience then needs to be made accessible both nationally and internationally via the International Recovery Platform (IRP)<sup>2</sup></p> <p><b>2. Apply the Experiential Learning Cycle</b> In the work of any agency or department consider the various stages of learning:</p> <ul style="list-style-type: none"> <li>• Experience</li> <li>• Description</li> <li>• Analysis</li> <li>• Generalisations</li> <li>• Action Plans</li> </ul> <p><b>3. Apply Guiding Principles</b> Develop sets of <i>Guiding Principles</i> to support recovery tasks. These principles can usefully cover four categories:</p> <ul style="list-style-type: none"> <li>• Ethical</li> <li>• Strategic</li> <li>• Tactical</li> <li>• Implementation</li> </ul> <p><b>4. Collect both Tangible and Intangible Information</b></p> <ul style="list-style-type: none"> <li>• <u>quantifiable</u> data concerning recovery (<i>e.g. numbers and type of dwelling rebuilt -an <u>easy</u> task</i>) as well as</li> <li>• <u>qualitative</u> data (<i>e.g. indicators of psycho-social recovery in the affected population.-a <u>difficult</u> task</i>)</li> </ul>

## Annex 3 (Chapter 2)

### <Resilience Models>

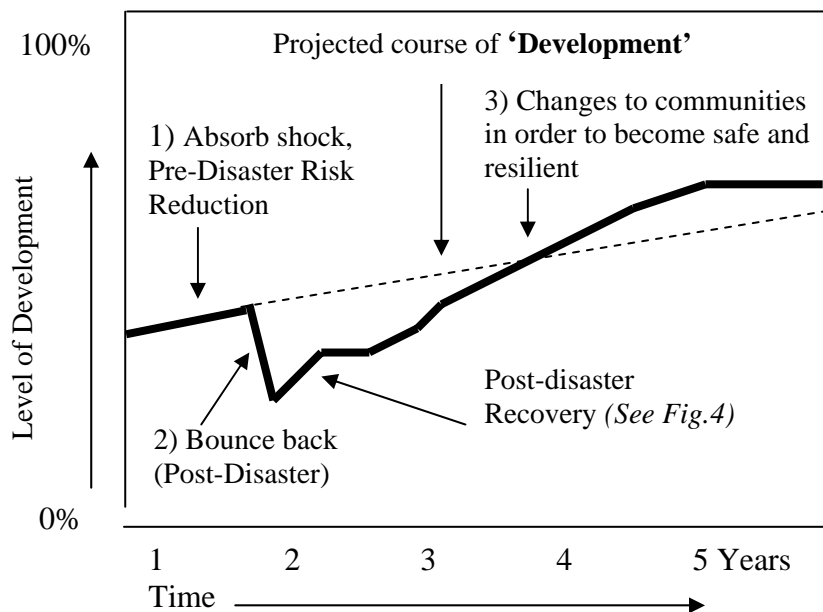
Resilience can apply at different scales: country, region, city, village and community. It is a powerful capacity that can operate in three phases of disasters:

**Phase 1** The ability to **absorb the shocks** of hazard impact, so that they do not become disasters (thus to reduce the *probability* of failure);

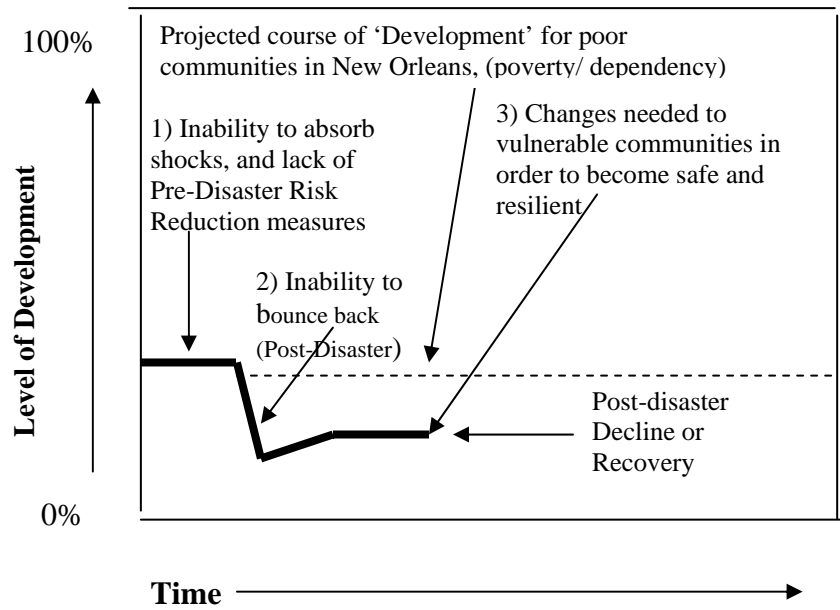
**Phase 2.** The capacity to **bounce back** during and after disaster (thus to reduce the *consequences* of failure);

**Phase 3.** The opportunity for **change and adaptation** following a disaster (thus to reduce the time needed for recovery as well as patterns of vulnerability as part of the reconstruction process).

The three contexts can be understood visually on the following matrix.



*This Model has been used in conjunction with Case Study, The lack of resilience when Hurricane Katrina struck New Orleans on August 30<sup>th</sup> 2005*



## **Annex 4 (Chapter 2)**

### Case Study: The Resilient System of Disaster Risk Management in Cuba

The Web Model can be effectively applied to Cuba, and its system of disaster risk management which has often been described as one of the most effective in the world, despite the harsh economic pressures on the society. The preparedness, response, recovery and reconstruction system is community-based and follows the social and political structure of the Cuban society. This contains basic cells called the Comités para la Defensa de la Revolución (CDR's). These are block level organisations which operate in factories and rural areas. The strength of the system is that every single leader, at every level, knows exactly what has to be done in case of an emergency situation in which the whole structure is activated and coordinated by the Civil Defense.

Through a very strong social and political web Cubans have been able to withstand the effects of the economic blockade that have been imposed against the island for more than 45 years ago and they were able to sort out the consequences of the so called "special period", a time of terrible restrictions that came after the fall of the Soviet Union. Compared with those hard experiences, hurricanes are just normal situations to be faced at least once a year.

Relating their situation to the Web Model the weakness of **'the economy nail'** and the high vulnerability of buildings in places like Old Havana, **'the physical nail'** are compensated by the strength of the links between other nails that support the web. These strong nails are **'the socio-cultural nail'**, **'the political nail'**, **'the organisation nail'** and **'the education nail'**

Cuba is a highly participatory society in the community level. All this is reflected, for example, in the efficiency that they regularly demonstrate in massive evacuations prior to hurricanes, that include the possibility that people can take their animals and pets to safe places as well as their electrical appliances and other goods. Children receive in their schools a basic Civil Defense preparation and in the provinces of Holguin and Guantanamo the British NGO 'Save the Children' works closely with the Civil Defense, the education authorities and the local governments. This joint program aims to deepen children's training in early warning systems, community education for disaster preparedness, first aid and other risk management related topics. Reconstruction processes in the island have to face additional problems that relate to the scarcity of available financial resources.

WILCHES –CHAUX (2006); IRP DATABASE (2006)

Gustavo Wilches-Chaux has developed this Web Model to represent a robust system of recovery management that builds in redundancy, high levels of resourcefulness and contains the potential for rapid recovery involving nine elements in a given society. The model provides a vivid picture and is largely self explanatory. It is made up of nine nails and a web of interconnecting threads.

#### **NAILS (or hubs)**

The Nails that surround the model represent the key elements in any society.

*(These nails, as pictured in this web metaphor hold the web together. Some nails are firmly embedded, while others are barely strong enough to support the web.)*

One hub has a heavy line around it to represent a powerful element. Other hubs are contained by thin lines, indicating elements that with average strength. Then certain hubs are surrounded by dotted lines, indicating their fragility

## **THREADS**

The threads represent patterns of inter-dependency. Some of the connections in the model below are well developed. These are fat red lines while other threads are much weaker, these are represented as thin black lines. The denser the web, the stronger it becomes.

## **RESILIENCE**

Therefore, the level of resilience, (or its opposite, a lack of resilience or vulnerability) is thus indicated by:

- **The number of nails.** (more elements will create a stronger recovery )
- **The strength** of the nails (well developed elements in any society will build resiliency and aid effective recovery)
- **The level of inter-connections** (the elements in any functioning society are inter-related)
- **The strength of inter-connections** (the elements in any functioning society become more effective when strong ties are established and institutionalised in working agreements)

## **Annex 5 (Chapter 2)**

### **Case Study: The Management of the recovery process following the Venezuela Landslides, December 1999**

There appears to have been a poor recovery in Venezuela after the Vargas mudslides and floods of December 1999 that killed between 10 and 20 thousand people and affected directly or indirectly around 100 thousand people.

The existence of apparently sufficient resources available to the national government to implement this integrated risk management project raises questions concerning why so little progress has been made. These may resemble successive turns of the Ratchet Wheel.

**Stage 1.** The disaster recovery operation has taken place within a highly politicized environment, with the Government regarding the capitalist model as the root cause of the disasters that have affected their country

**Stage 2.** There has been a marked lack of political will to put risk management into practice.

Where measures have been taken they have been uncoordinated.

**Stage 3.** The Government has claimed that there has been a lack of financial resources to implement recovery actions

**Stage 4.** However, finance is not really the issue since there has been serious neglect by government to maintain flood mitigation facilities that have been constructed since the flooding and landslides

**Stage 5.** Where people have been relocated there has been a failure to provide proper economic incentives to encourage the relocate families to remain in their new locations. The result is that most of the relocated families have now returned to their place of origin, re-occupying hazardous areas to await the next disaster

#### **Conclusions**

- While the international assistance could have supported risk reduction measures as part of the recovery programme (such as building dams to contain flood waters etc.) there has been no coordinated mitigation plan by government.
- There has been a lack of maintenance to the sediment retention dams and overflow channels. Five years after the disaster most of the preventive construction works are already filled with sediment, thus making them ineffective as risk reduction measures.
- Relocated families have returned to their dangerous sites. Thus this is a case where vulnerability has increased during the recovery programme.

**Annex 6 (Chapter 2)**

**Summary of Chapter 2: Resilient Disaster Recovery**

	<b>Ethical Principles</b>	<b>Strategic Principles</b>	<b>Tactical Principles</b>	<b>Implementation Principles</b>
<b>Resilient Disaster Recovery</b>	<p>1. Achieving full recovery from a major disaster requires the commitment of all stakeholders. This is needed to assist vulnerable communities to resist hazard forces, to bounce back after impact and to adapt and change to assist the recovery process.</p> <p>2. When conducting recovery operations aim to achieve post-disaster safety standards that are above the pre-disaster vulnerable conditions that gave rise to the disaster.</p>	<p>1. Place emphasis on pre-disaster planning to lay down the foundations of resilient communities.</p> <p>2. Develop Robust Communities through various ways to enable them to become stronger and more resilient.</p> <p>3. Build Redundancy into all critical facilities, so that if one part fails there is always a back-up system in place.</p> <p>4. Create resourceful people and organisations, so that they are able to apply creative initiatives to build resilience.</p>	<p>1. Build the capacity and resilience of governmental officials through training and staff development programmes.</p> <p>2. Conduct detailed risk assessment in all hazard prone areas. From the data gained from vulnerability and capacity assessments identify the critical facilities that require specific attention to protect them from future risks.</p> <p>3. Strengthen all disaster emergency services to enable them to function effectively in disaster situations to enable communities to 'bounce-back' from disaster impact.</p> <p>4. Maintain investment in preparedness programmes to make society resilient.</p>	<p>1. Monitor the progress in building resilience by evaluating progress against agreed benchmarks at least every six months. Consider the following elements:</p> <ul style="list-style-type: none"> <li>• Staff training</li> <li>• Protection of critical facilities</li> <li>• Building redundancy into disaster risk management systems</li> <li>• Disaster preparedness</li> <li>• Strengthening emergency services</li> </ul> <p>3. Devise ways to ensure that lessons concerning the growth of resilience have been learnt, documented, stored and widely disseminated from the recovery experience. This can be assisted by local universities and the International Recovery Platform.<sup>3</sup></p>

<b>Summary: Resilient Disaster Recovery</b>	
<b>Over-riding Principle:</b>	The creation of resilient communities, towns, cities and countries is essential if disaster risks are to be managed effectively within a holistic recovery process. The overarching intention is to build more resilient societies to resist hazards, to bounce back rapidly and adapt and change following disaster to create safer conditions.
<b>Policy Advice:</b>	<p><b>1. Before disaster events:</b> seek to introduce a range of robust risk reduction measures that will resist hazard impact and thus create resilient buildings, infrastructure, economies, environments and human societies. The focus should be on strengthening vital lifeline facilities, such as schools, hospitals, essential services etc. (<i>see chapter 4</i>)</p> <p><b>2. To prepare for disaster events:</b> strengthen the system of disaster management and preparedness to enable any given society to bounce back rapidly. Essential systems to incorporate redundancy by being in duplicate.</p> <p><b>3. In disaster recovery operations:</b> recognise the need to adapt working patterns, change existing structures etc to promote a rapid and sustainable recovery where patterns of vulnerability are not reproduced</p>

## ***Organisational Models of Disaster Recovery***

An extensive collection of variables that constrain or provide opportunities for recovery is listed in Chapter 1.8. Given this wide range of factors as well as differences in governmental political and administrative systems it is inevitable that there is considerable variety in the way in which countries organise recovery operations. From these experiences certain patterns, or options, can be detected.

### **Model 1. Work within existing Governmental Structures**

Seek to organize the recovery using the normal line ministries or departments of Government without any significant organisational changes. The recovery process following the Mozambique floods of 2000 and 2001 applied this model

*This pattern may be appropriate where there has been significant past experience of recovery management, where there are strong disaster management systems in place, where there has been a level of pre-planning for recovery management and where there is surplus capacity in Government to cope with the increased demands..*

### **Model 2. Form a new Recovery Task-Force or Commission**

Form an 'ad-hoc' task- force or government commission drawn from existing governmental agencies to manage the recovery process.

The recovery process following the Mexico City Earthquake of 1985 applied this model. The President created two Emergency Commissions (in the national level and in the city level) that were not part of the existing National Emergency Plan. The model was also adopted in the Philippines following the volcanic eruption of Mount Pinatubo. Here, an initial task force evolved into a commission to manage the ongoing disaster events that followed the eruption as well as the recovery process.

*This pattern is often initially followed but can be overwhelmed by the scale of the task they are called upon to address. In such a situation the task force may evolve into the next option.*

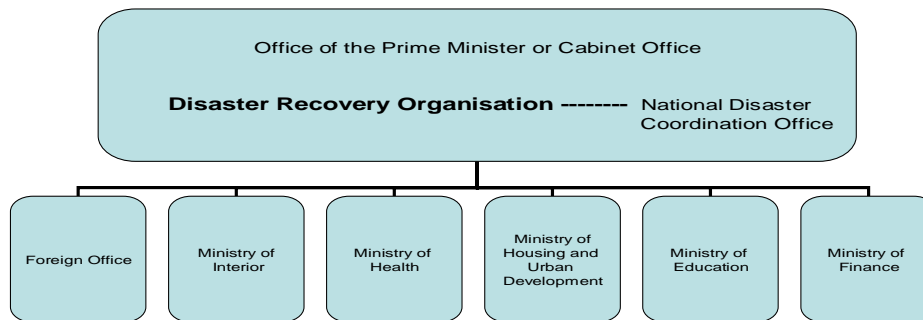
### **Model 3. Create a new Recovery Organisation**

Create a new organisation charged with the recovery task. The new body is needed for the following reasons:

- To cope with the scale of cash flow- especially in dealing with the complex administration of international grants and loans,
- To cope with unprecedented demands that may cross all sectors,
- To cope with new recovery work, that is on top of the existing work load of government to address normal tasks in areas unaffected by the disaster. If recovery work is added to existing roles and responsibilities without additional resources it can easily overwhelm the work of government.
- In countries with weak or fragile governments, (such as Afghanistan or Sudan) it is essential to have dedicated organisations concerned with

disaster risk management, disaster management and disaster recovery management firmly established, so that these functions take place.

This new body can be represented in the following organ gram.



### ***Organisational Structure of a Disaster Recovery Organisation***

The following issues are depicted on Figure 7.

1. The Disaster Recovery Organisation has been placed within the apex of political power and authority- within the Office of the Prime Minister. This pattern appears to have now become the generally accepted norm when a high impact disaster has occurred. This model has several advantages over placing it within one of the line ministries, such as the Ministry of the Interior.
2. The diagram indicates a typical set of some of the line ministries that are likely to play key roles in recovery following a major disaster. The important principle here, frequently stressed within this chapter, is for the key officials and politicians who are involved with the recovery to be drawn from *existing* line ministries to avoid any conflicts or duplication and to make certain that responsibility is not removed from where it naturally belongs within the governmental structure.
3. Therefore the Disaster Recovery Organisation is staffed by officials drawn from all appropriate line departments or ministries, with the possibility of additional staff temporarily relocated by the central government. Such a body may be established with legislative authority and may be given a specific target date to complete the recovery, when the body will cease to exist with a hand-over of their role to existing authorities.

A dedicated disaster management organisation has to cope with a ‘scaling-up’ to cope with the expansion of resource flows and the work load. This process requires the prioritisation of tasks. Within the organisation new mechanisms will be needed and new resources will be required needed in order to make things happen. Also new prioritization will be also needed in relation to scaling up process (need to building institutional memory).

The recovery process following the Gujarat Earthquake of 2001 applied this model and it has also been followed in the Tsunami recovery operations in Sri Lanka and Indonesia.

**Model 4. Create a new Recovery Organisation that evolves into a Permanent Body**

In a similar manner to Model 3. create a new organisation charged with the recovery task. However, unlike Model 3. this organization does not cease to exist when recovery is achieved, rather it evolves into a permanent body with disaster management/ preparedness functions.

The recovery process following the Popayan Earthquake in Colombia of 1983 applied this model. Ten years after the disaster, in 1993 the body responsible for managing the recovery process evolved into a regional environmental body.

*Where this happens there is probably an absence of a well conceived National Disaster Management Authority. This form of evolution may not be satisfactory since the functions of a body to manage recovery are totally different than Disaster Management and Preparedness.*

## **Annex 8 (Chapter 3)**

### **Case Study: Evolving Disaster Recovery Organisational patterns within Colombia 1983-2006**

#### ***Popayan Earthquake 1983***

After this earthquake, a corporation was created by the national government to coordinate the reconstruction efforts (CRC). This government agency with coordination functions was new, but most of the reconstruction was actually undertaken by existing government institutions, each one acting in their field of responsibility. (Many of those institutions have now disappeared or have been merged or privatized with the intention to reduce the size of the government). After 1993 CRC changed his purpose and is now the environmental authority in the region of Cauca, of which Popayan is the capital city.

#### ***Nevado del Ruiz Volcanic Eruption 1985***

After the disaster of this volcanic eruption and the mudslide that destroyed Armero, a new institution was created by the government to run the reconstruction of the affected region. After 1988 RESURGIR was liquidated.

#### ***Creation of a National Disaster Risk Management ‘System’***

As a result of the lessons learned from the way the Armero disaster was managed and with the support of UNDP, a National System for Disaster Prevention and Attention was created. This relatively highly decentralized system operates at national, regional and local or municipal level. In theory most of the government institutions, as well as some private sector organizations and the local communities, are integrated into this structure. However, the results are variable, since in some parts of the country the System is non-existent while in other parts, (such as the large cities of Bogotá, Manizales and Medellín) the System is quite strong and effective.

#### ***Tierradentro Earthquake, 1994, leading to the creation of a new Disaster Recovery Organisation NASA KIWE 1994***

After the creation of the ‘System’ other major disasters have stricken several Colombian regions and in these two cases two *ad hoc* government structures were created to run the reconstruction, leaving the National System behind. Three days after this earthquake in the mountainous region of Colombia, the National Government declared this to be a social, economic and ecological disaster situation. A new recovery organisation was formed called the NASA KIWE Corporation, charged with the task of formulating and executing a “*General Reconstruction and Sustainable Development Plan of the Affected Area*”. The body is also required to coordinate and link the communities affected with governmental authorities.

The main strategy was to relocate communities that were at risk, support productive projects, and provides the population with service infrastructure. This required a detailed soil investigation within the affected area. Twelve years later in 2006, most of the program has been executed, but some investments are still being made, which is why the corporation is still active.

After the Tierradentro earthquake, this body was created. The main argument for running the reconstruction process outside the formal structure of the ‘System’ was that most of the affected communities were Indian communities, with cultural and ethnic particularities that demanded specific treatment. The Board of Directors of NASA KIWE included representatives from all the Indian and not Indian actors of the region, the Governors of the affected regions, the Catholic Church (that has a special political status in the region), the private sector of the affected area, etc. The purpose of the first Director of NASA KIWE was to integrate the institution to the structure of the ‘System’, and to use it to reinforce the ‘System’, not to replace it. NASA KIWE is now (2006) being liquidated. There has not been any comprehensive evaluation to determine whether, as a result of the reconstruction process the affected communities and their relation with their environment are more or less sustainable than before the 1994 earthquake.

One of the main strengths of the recovery process is that a community, political and cultural organization now exists in the affected area as a direct result of the earthquake recovery programme. Even though the style of intervention and orientation from the central levels persisted, the communities participated in the decisions that were made throughout the whole recovery process. The positive

result in the development programme was to strengthen the cultural values of the native community. To share the experience a one-day workshop to analyze post-disaster experiences was conducted in Bogotá, with the participation of all key stakeholders

***The Coffee Growing Region Earthquake, 1999, leading to the creation of a new Disaster Recovery Organization: FOREC 1999***

After the coffee growing region (central Colombia) earthquake in 1999, a new government organization –FOREC– was created. FOREC was a coordination agency and all the reconstruction work was made by 31 national NGOs, appointed by the national government, most of them not belonging to the affected region. Three years later the EQ FOREC was liquidated. Perhaps the main success of FOREC was the speed with which they managed to achieve the physical reconstruction of the affected area, and perhaps its main failure was the lack of appropriation of the process by local institutional and community actors. This problem has affected the continuity and sustainability of the process and its achievements.

***The Sustainability of the National System 2006***

Despite the fact that in many opportunities the Colombian National System for Disaster Prevention and Attention has been successful, and that its structure has been adopted (with different results) by other countries of Central and South America, various attempts have been made to replace this system. Every year a group of Senators introduce a project of law that -if approved- in practice will replace the System by an army-focused security structure that gives disasters a war-operation or anti-terrorism treatment. Their main argument is that Colombia needs to be able to prevent and respond to emergencies “in the manner of developed countries”. However, they may drop this argument after the Katrina situation. Different factors, including the opposition of many persons belonging to the risk management community, have impeded this Senator’s initiative to achieve its goals.

## **Annex 9 (Chapter 3)**

### **Case Study: Organisational Patterns of Disaster Recovery Management following two Indian Earthquakes. The Latur Earthquake, Sept 1993 and the Gujarat Earthquake, Jan 2001.**

#### *Comparison between the Recovery Organisations in Latur and Gujarat*

##### *In Latur...*

the MEERP was a temporary creation and was merged with the regular Relief and Rehabilitation Department after the completion of the Latur earthquake rehabilitation work. Many of the lessons learned and results of the earthquake rehabilitation, including the disaster management plans developed for the districts were not institutionalized and followed through.

The MEERP arrangement with a state level committee or a task force under the most senior civil servant played a valuable role in prioritising the implementation of the rehabilitation programmes amongst many other priorities facing the Government. It also helped to channel financial resource speedily to implementing agencies and to monitor progress and trouble-shoot obstacles to progress. But there were weaknesses such as the lack of a risk reduction focus and there was no attempt made to institutionalise disaster risk management at the state level. This was due to MEERP focussing on a rapid completion of the implementation of the World Bank funded project.

##### *In Gujarat...*

the GSDMA had a more permanent institutional basis. Hence it could sustain the risk reduction and disaster preparedness agenda, even after the work of earthquake rehabilitation was near completion.

#### **Conclusion**

How does the experience in Latur and Gujarat answer the question whether there would be an advantage in establishing a new institution or organization devoted to the post-disaster recovery process in comparison with using existing systems of government?

A new recovery management institution has much potential strength. A key asset would be for the new body to have a long-term mandate of disaster risk reduction, first using the opportunity of recovery to incorporate risk reduction measures. But there could be a key role after the completion of the recovery to remain in existence to continue to sustain risk reduction policies with Governments. This could apply in situations where no disaster risk reduction institution existed prior to the disaster. The organisation could also work through Government to address other stake-holders, and use the lessons learnt and interest groups mobilized during the earthquake reconstruction to promote longer term risk awareness and reduction.

**Annex 10 (Chapter 3)**

**Summary of Chapter 3: Guiding Principles (Organisation and Implementation of Recovery)**

	<b>Ethical Principles</b>	<b>Strategic Principles</b>	<b>Tactical Principles</b>	<b>Implementation Principles</b>
<b>Organisation of Disaster Recovery</b>	<p>1. The Recovery Organisation is based on fully accountable, transparent approaches.</p> <p>2. The Recovery Organisation is structured according to needs and gaps rather than being supply driven.</p> <p>3. There is a commitment, based on ethical considerations, to use locally available resources to support the recovery process.</p> <p>4. The Recovery Organisation is based on participatory Management.</p> <p>5. There is a commitment to learn from past national and international experiences.</p>	<p>1. Create a new Recovery Organisation that operates in close coordination with the existing system of government</p> <p>2. The Recovery Organisation is run by existing officials, within existing line ministries.</p> <p>3. The Recovery Organisation functions most effectively when led from the apex of political authority.</p> <p>4. The Recovery Organisation, and its mandate are supported by appropriate legislation.</p> <p>5.. Close liaison is established and maintained with the National Disaster Coordination Office</p> <p>6. The organisation functions in a 'top-down' manner to promote the efficient deployment of resources. But it is also structured in a devolved 'bottom-up' management pattern to promote participatory decision making.</p> <p>7. There is a strategy to use local skills, local</p>	<p>1. Strengthen, rather than weaken local governmental capacity after a Disaster</p> <p>2. Prepare for disaster events and disaster recovery in pre-disaster planning.</p> <p>3. Create strong governmental facilities that will resist extreme hazard forces.</p> <p>4. Recognise that due to the dynamic, rapidly evolving situation after a disaster, the recovery planning process is more cyclical than linear.</p> <p>The sequence is to assess needs, to plan, to test the plan, to implement, to monitor and evaluate to reassess, to plan, to test etc.</p> <p>5. Capacity enhancement is essential to empower the Recovery Organisation.</p> <p>6. The Recovery Organisation will need to scale up</p>	<p>1. Monitor the progress of the Recovery Organisation by evaluating its performance against agreed benchmarks at least every six months.</p> <p>2. Develop exit strategies to close the organisation when recovery is completed, or adapt it into a new permanent body concerned with disaster risk reduction.</p> <p>3. Devise ways to ensure that lessons have been learnt, documented, stored and widely disseminated from the recovery experience. This can be assisted by local universities and the International Recovery Platform.<sup>4</sup></p>

		<p>labour and locally available building materials, (wherever possible) in the reconstruction process, in order to revitalise the local economy and to create work for the surviving community</p> <p>8. The ethical principle to learn from past experiences requires a strategic commitment to document recovery actions and progress.</p>	<p>rapidly as the work expands and in due course the reverse scaling down will need to occur as recovery draws to a close</p> <p>7. There is tactical policy in place, with budget support, to promote collective learning from the experience by all stakeholders.</p>	
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## Summary: Organisation of Disaster Recovery

<p><b>Over-arching Principles:</b> (see the <i>Strategic Principles in the above table</i>)</p>	<p><b>1. Build from what exists</b> The organisation of the recovery process following a major disaster is best served when the tasks are managed by existing senior officials working within their own sectors within existing line ministries. This can best be achieved by creating a new recovery organisation that operates in close coordination with the existing system of government. A new organisation is needed to cope with the many pressing additional demands posed in the recovery situation.</p> <p><b>2. Focus the Organisation’s priorities.</b> The Recovery Organisation is structured according to needs and gaps rather than being supply driven.</p> <p><b>3. Secure the authority of Prime Minister</b> The Recovery Organisation will function most effectively if it is led from the apex of political authority and is supported by legislation to confer the necessary powers to move forward efficiently and rapidly. Close liaison is needed with the National Disaster Coordination Office (See Figure 7.)</p> <p><b>4. Manage ‘Top-Down <u>and</u> ‘Bottom-Up</b> The organisation needs to function in a ‘top-down’ manner to promote the efficient deployment of resources but it must also be structured in a devolved ‘bottom-up’ management pattern in order to promote participatory decision making with the surviving population.</p>
<p><b>Policy Advice:</b> (see the <i>Tactical Principles in the above table</i>)</p>	<p><b>1. Strengthen, rather than weaken Local Governmental Capacity after a Disaster</b> Since it is of critical importance to have effective local governmental authority after a disaster, donor organisations, as well as national and international NGO’s need to strengthen rather than weaken local governmental capacity after disasters. One way to seriously weaken local government is to poach key governmental officials from their existing positions by offering them well paid jobs within the donor organisations.</p> <p><b>2. Prepare for disaster events and disaster recovery:</b> The best policy for effective post-disaster recovery is to prepare for the event before disaster strikes. This can be achieved by strengthening the system of disaster management and preparedness within Government at all levels. In addition disaster recovery planning needs to feature in higher education to prepare key professions for the challenge of recovery planning and management</p> <p><b>3. Create strong governmental facilities</b> It is vital to regard government offices and facilities, as well as their contents and information systems as critical facilities that are strong enough to survive the impact of extreme hazards. In effect the approaches routinely observed in promoting business continuity within the private sector need to be fully applied to governmental resources.</p> <p><b>4. Plan in a Cyclical Manner</b> Recognise that due to the dynamic, rapidly evolving situation after a disaster, the recovery planning process is more cyclical than linear. The sequence is to assess needs,</p>

	<p>to plan, to test the plan, to implement, to monitor and evaluate to reassess, to plan, to test etc.</p> <p><b>5. Build Organisational Capacity</b> Capacity enhancement is essential to empower the Recovery Organisation.</p> <p><b>6. Expand and Contract</b> The Recovery Organisation will need to scale up rapidly as the work expands and in due course the reverse will need to occur as recovery draws to a close</p>
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## **Learning from Disaster Recovery**

-- Guidance for Decision Makers --

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