

# Helen Clark: 'Building Resilience: the importance of prioritising disaster risk reduction'

15 August 2012

**Helen Clark, UNDP Administrator**

*'Building Resilience: the importance of prioritising disaster risk reduction – a United Nations Development Programme Perspective'*

Hopkins Lecture, University of Canterbury

Aurora Centre, Burnside High School, Christchurch

6.30 pm, Wednesday 15 August 2012

I am pleased to be delivering this year's University of Canterbury Hopkins Lecture here at Aurora Centre, Burnside High School.

I understand that this annual lecture was established to recognise the many years of distinguished service of Professor H. J. Hopkins in the field of engineering. Professor Hopkins was known as a man of vision, dedication, and extraordinary talents.

His inaugural lecture presented in 1978 was titled "A Land of Bridges - A Story of New Zealand". Now, 34 years on, I hope the core message of my address will not only do justice to the memory of Professor Hopkins, but also in a sense focus anew on the need to build bridges – this time figuratively – between the capacity for disaster risk reduction which exists here in New Zealand and the needs of others also challenged by major disaster risk.

The topic of my lecture, *Building Resilience: The Importance of Disaster Risk Reduction*, also encompasses creating bridges between emergency relief, recovery, and sustainable development. I will allude to the need for greater collaboration between those working in the humanitarian and development fields, so that disaster-devastated communities can build back better in order to withstand future shocks.

The United Nations Development Programme (UNDP) which I head works in 177 partner countries and territories. Many of these have experienced and/or will experience disasters. Building resilience to disaster is part of our organisation's core mandate.

Whether it is in the arid lands of the Sahel, such as Niger, or in Haiti's densely populated capital, Port au Prince, I have been able to see for myself the human suffering and environmental, and economic harm caused by natural disasters. The personal stories of suffering are harrowing – but one also gains inspiration from the stories of survival and determination to recover, thus demonstrating the tremendous resilience of people and communities.

*Let me now turn to some sobering facts:*

The UN's Office for Disaster Risk Reduction (UNISDR) estimates that over the past twenty years 1.3 million people have been killed and 4.4 billion have been affected by disasters caused by natural hazards. In 2011 alone, almost 30,000 people were killed in 302 disasters, and 206 million people were affected, including 106 million by floods, and sixty million by drought - mainly in the Horn of Africa.

The Christchurch earthquake and the Great East Japan earthquake and its flow-on impact in March last year remind us that even countries assumed to be well prepared are not immune to the destructive impact of forces of nature. But much can be done, and has already been done in many places, to reduce that impact by better preparing citizens and communities to withstand the related shocks and disruption.

Japan and New Zealand have demonstrated over long periods of time that making investments in prevention and preparedness, including through civil defence exercises, is a necessary part of systematic efforts to increase resilience to disaster.

While the loss of life and property has been devastating in Christchurch, it would have been much worse if significant investments in resilience had not been made in the past. The earthquake in Haiti in January 2010 was about the same magnitude as the major February quake in Christchurch, but the human toll was significantly higher. The loss of 185 lives in Christchurch was 185 too many. Compared with the estimated 220,000 plus killed in Haiti in 2010, it becomes evident that it is not the magnitude of the disaster or natural hazard alone which determines its impact.

The truth is that many countries are still not investing enough in prevention and preparedness, and many development actors are not yet prioritizing enough such support to poor countries. The result is another stark reality of our times – that striking inequalities persist, with global disaster risk disproportionately concentrated in poorer countries with weaker governance. More sobering figures:

- 95 per cent of disaster-related deaths occur in developing countries;
- overall, the risk of being killed by a cyclone or flood is lower today than it was twenty years ago, but the poorest countries remain the most vulnerable. For example, under two per cent

of global deaths from cyclones occur in countries with high levels of development, while more than half of cyclone deaths occur in least developed nations;

- 85 per cent of people exposed to disasters live in countries with medium to low levels of human development, compounding existing poverty and inequality.

According to World Bank estimates, almost 2.5 billion people on this planet (43%) live on under NZ\$ 2.50 per day. A natural disaster is devastating for people living in a developed country. For those living at or below internationally established poverty lines, the consequences are particularly dire, as disasters disrupt the long-term progress of development and prevent people escaping from poverty. This is especially noticeable in communities which are repeatedly affected by drought, where many households are forced to sell assets and engage in subsistence activities, thus remaining in poverty.

In summary, around our world it is the poor who live in the most drought- and flood- prone regions. Within poor countries, it is the most marginalized, including women and girls, who suffer the greatest impact.

From a development perspective, therefore, disaster risk reduction is vital for building a more equitable and sustainable future.

#### Defining Disaster Risk Reduction

The United Nations defines disaster risk reduction as:

*“The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.”*

That definition directs us to address the drivers of risk, such as uncontrolled urbanisation in earthquake prone areas, and settlements on floodplains. It also guides us to prepare for the consequences of disaster, and ensure that institutional and community systems are in place to provide relief and recovery.

A comprehensive approach to reducing disaster risk was established by the UN General Assembly, through a process which led to the Hyogo Framework for Action for 2005-2015. The framework was endorsed by 168 countries following the Indian Ocean Tsunami. Its goal is “the substantial reduction of disaster losses in lives and in the social, economic and environmental assets of communities and countries.” Its ten- year plan sets out what is required from governments, multilateral organisations, regional institutions, disaster experts, and many others to reduce disaster loss.

Five priorities identified for action are:

- to ensure that disaster risk reduction is a national and a local priority, with a strong institutional basis for implementation of necessary measures;
- to identify, assess, and monitor disaster risks and enhance early warning systems;
- to use knowledge, innovation, and education to build a culture of safety and resilience at all levels;
- to reduce the underlying risk factors; and to strengthen disaster preparedness for effective response and recovery at all levels, from the local to the national.

The United Nations International Strategy for Disaster Reduction (ISDR) promotes co-operation among governments, international and national organisations, and civil society actors – what we in New Zealand would call community-based organisations - to assist in the implementation of the Framework.

UNDP is an important player in this global initiative. We are one of the world's largest development agencies with a commitment to help build and develop capacity for sustainable human development. One of our mandated areas of work, into which disaster risk reduction falls, is crisis prevention and recovery.

I see our work in disaster risk reduction being about building fences at the top of cliffs, rather than being content to place ambulances at the bottom. Our overall mission statement is: *Empowered Lives, Resilient Nations*. That statement speaks to both means and ends. Empowered people can build resilient nations. Investing in disaster risk reduction is an essential component of building such resilience.

*Against this factual background, let me now expand on some current debates around disaster risk reduction, and offer four key take-home messages:*

- First, investing in disaster risk reduction is cost effective and smart development. While the investments required may seem costly in the short-term, they will pay off in the long-term.
- Second, building resilience at every level - by empowering individuals, supporting communities, and developing government capacity – will lead to better and more sustainable development results. I will illustrate how disaster risk reduction is supported at a country level through UNDP's work, and relate some success stories from different settings.
- Third, sharing knowledge and experience is an essential element of prevention and preparedness. I will allude to Christchurch, the response, and the recovery, and the importance of sharing what has been learned from this tragedy to help others.
- Finally, better incorporating disaster risk reduction in future global development frameworks and thinking is imperative. I will present some observations about the international policy framework for disaster risk reduction and how the development and humanitarian communities can better work together to take this agenda forward in the years to come.

#### I. Invest in disaster risk reduction – it is worth it!

Recent work done by the UN and the World Bank shows that, while specific cases may vary, for every dollar invested in minimising risk, about seven dollars will be saved in economic losses from disasters. At the country level, cost-benefit analyses by the United Kingdom's Department for

International Development suggest that building resilience to drought in Ethiopia can save that country US\$3.3 billion over twenty years, compared with the costs of funding humanitarian responses to drought. In Kenya, the savings over the same period are estimated at nearly US\$21 billion.

Minimising seismic disaster risk at the local level also makes good economic sense. In many countries, I am told that it costs less than an additional ten per cent to build a new house to be earthquake resistant. To retrofit an existing house to the same state, however, can be significantly more costly, with some estimates suggesting this can reach up to fifty per cent of the total initial building cost.

Despite the growth in the intensity and number of natural hazards, the global investment in disaster risk reduction remains very low. The UN's *2011 Global Assessment Report on Disaster Risk Reduction*, finds that most countries, across all geographical and income regions, reported relatively little progress in dedicating resources to strengthening capacities for disaster risk governance. Figures, provided by only some countries, ranged from 0.005 per cent (Lesotho) allocated for these purposes in national budgets to 2.58 per cent (Sri Lanka).

Between 2000 and 2009, donors provided the world's forty poorest countries with US\$363 billion in aid. Just one per cent of that went to fund disaster risk-reduction activities.

A UN Report on the global status of disaster risk reduction released last year did note that in the Asia-Pacific region the risk of mortality from tropical cyclones and floods has fallen by two thirds since the 1980s. That is good news.

While more lives are being saved, however, less progress has been made on saving livelihoods. The number of people affected by disasters and the costs of the damage of disasters are increasing. Returning to normalcy often takes time because of the size of the impact and the cost. Among recent disasters with wide impact, along with Christchurch itself:

- the floods in Thailand last year cost the country over US\$ 45.7 billion – nearly fourteen per cent of its GDP;
- in Haiti, more than two years following the earthquake, approximately 400,000 people remain homeless; and
- in the Maldives, schooling was disrupted for eighteen months following the devastating Indian Ocean tsunami of 2004.

Gains made by countries in human development are often at risk of being reversed by disasters. For example, children may not make up for missed school time. The spread of disease may cause further death and distress. Therefore disaster risk reduction must be viewed as an indispensable part of the commitment to human development of any country, as well as a contributor to maintaining economic momentum.

Climate change makes extreme weather events more likely than before. The average temperature of the globe has already increased by 0.8 C° since records began to be taken just over 130 years ago. Observational data on glaciers all over the world records them noticeably decreasing in volume since at least the 1960s. Arctic summer sea ice this year is at record low levels - and has been consistently below average every year for the last six years, signalling the potential for more damaging weather events. Heat waves, droughts, floods, and violent storms could become much more common in the decades to come, making disaster risk reduction around such events an even more urgent priority.

Just as disasters can disrupt the process of development, so too can development choices contribute to or exacerbate the impact of disasters. In many countries, the building of physical infrastructure, such as transport and energy systems and commercial and residential buildings, has not taken into account disaster risks.

For example, in the case of the recent Thai floods, some experts have argued that the failure to consider natural drainage patterns, including the role of wetlands, when buildings and roads were constructed, exacerbated flood risk and increased the damage from the flooding.

The growth of informal settlements, fuelled by urbanization and migration, has led to the growth of unstable living environments in many countries. Often located in ravines, on steep slopes, along flood plains, or adjacent to noxious or dangerous industrial or transport facilities, the disaster risks for already vulnerable and marginalized communities are exacerbated by their location.

Another example: while development choices made to promote water-intensive cash crops in semi-arid regions may boost local economies in the short term, such practices depend so heavily on canal irrigation that even a slight variation in rainfall can have serious consequences. Poor development planning has contributed therefore to increased exposure to drought risk in many arid and semi-arid regions of the world.

Recognizing the relationship between development and risk and investing in disaster risk reduction can lead to better development practices which are also cost-effective.

## II. How does UNDP support Disaster Risk Reduction – building on more than twenty years of partnerships and experience?

UNDP is supporting more than sixty countries to develop strategies for disaster risk reduction. That work is based on five assumptions about resilience-based sustainable development.

- To build resilience and sustain development, natural hazards must be addressed in ways which will reduce vulnerability and economic and social impact.
- Resilience-based sustainable development requires respect for national ownership and leadership. The success stories in disaster reduction I will share shortly from Bangladesh, Mozambique, and Indonesia all share an important characteristic: they are the product of sustained, nationally-led efforts to build disaster resilience.
- Resilience-based sustainable development must be comprehensive in nature, and it requires integrated responses to complex challenges. Disasters touch all sectors of society. If people and assets are to be protected, resilience must be built into planning, infrastructure, livelihoods, and broader economic and social strategies.
- A commitment to innovation and learning is needed. Disasters reveal latent vulnerabilities. By analysing where damage has occurred in the past, and how effective preparedness and response measures were during a disaster, we can all learn how to improve disaster risk management. Rebuilding also provides an opportunity to address those vulnerabilities.
- Long-term and strategic engagement. Substantial reductions in disaster losses are not achieved overnight through one-off interventions or ad-hoc measures, but rather are achieved through careful analysis, long-term planning and sustained effort. Building disaster resilience takes time and investment.

*Let me now share three examples of how this kind of approach has been proved to work:*

*Bangladesh* has significantly reduced disaster risk, with UNDP proud to have been a partner in its efforts. When Cyclone Sidr hit Bangladesh in 2007, 4,000 of the nine million people affected died. That was 35 times lower than in 1991, when 140,000 were killed when a similar-sized cyclone hit the country.

*What happened to achieve such a dramatic reduction in cyclone losses?*

Among the measures taken, UNDP provided support for the government to design better risk reduction policies, train people, and implement measures to protect livelihoods. These efforts included the building of small embankments to protect agriculture and steps to improve emergency response systems. Development partners overall helped support the development of infrastructure, including cyclone shelters. Civil society organisations, including the Red Cross and Red Crescent Societies, worked with local government and the UN to improve community-based preparedness.

Disaster risk reduction and management are now very much part of Bangladesh's development plans. Practical and relatively inexpensive risk reduction measures, such as warning systems and raised mounds and shelters, protected people and their assets from being lost when Cyclone Sidr hit. These measures contributed to the dramatic reduction of loss of life and property from cyclones and flooding.

In 2000, *Mozambique* was battered by cyclones and floods which left 800 people dead, half a million people displaced, and more than one million without income. In 2007, when a similar-sized cyclone hit the country, the death toll and displacement numbers were significantly lower, with 29 people killed and 70,000 displaced.

In 2010 16,000 people were affected by floods in Mozambique. That was less than ten per cent of the average number of people who have been affected by floods in each year of the last decade.

In the last twelve years, Mozambique, with UNDP assistance, has established a National Disaster Management Institute. It co-ordinates disaster risk reduction measures, and developed a nationwide master plan which was adopted in 2006.

Key components of the plan are: standardised procedures for preparing communities for storms, cyclones, and floods; training of communities in methods to monitor water levels and to inform the authorities by radio communication of rising water levels; and the dissemination of evacuation warnings to exposed communities.

*Indonesia's* efforts on disaster risk reduction are another success story. The country is ranked second in the world for extreme natural hazard risk. In the years following the 2004 Indian Ocean Tsunami, which claimed over 126,000 lives in Indonesia and caused US\$ 4.45 billion worth of damage, the Government made major policy changes to address disaster risks. Among them was a UNDP-supported *Safer Communities for Disaster Risk Reduction* programme, which, since 2007, has established local disaster risk-management agencies in all high-disaster risk areas.

More broadly, UNDP has worked with Indonesia to integrate disaster risk reduction into its national five-year development plan, meaning that future activities to reduce disaster risk will be prioritised in the state budget.

Indonesia now has comprehensive guidelines and tools for assessing damage, loss, and needs for post-disaster recovery. It is recognised as having some of the best policy and institutional capacity for large-scale disaster recovery in South-East Asia.

The result of this investment in preparedness and recovery was demonstrated when a 7.6 magnitude earthquake hit Aceh province in January 2012. There was very little damage and, most important, no lives were lost. The community response systems worked efficiently, tsunami warnings by the Aceh Government were issued on time, and people managed to evacuate.

### III. Lessons from the Canterbury earthquake – and how can New Zealand promote disaster risk reduction elsewhere

Let me now turn my attention closer to home, and bring some perspective to what Christchurch and New Zealand can share with others following the tragedy of February 2011.



First, New Zealand has much to be proud of in its general disaster preparedness and response. The immediate actions of the emergency services, civil defence authorities, armed services, and local communities to the Canterbury earthquake merits great praise. So do the investments in preparedness made years in advance.

Our civil defence system is extensive, and the Earthquake Commission is perhaps unique in the world. Those who created the EQC decades ago had great foresight. Without it, we would not be able to have so much of the costs of the disasters we experience covered by insurance.

Successive governments have invested in prevention and better understanding of the risk posed by natural hazards. In my time in government, Michael Cullen ensured that there was funding for seismic detection and analytical equipment, with some of it I understand used right here in Canterbury. Such investments help put New Zealand at the forefront of knowledge in this area.

Thus New Zealand can contribute a great deal to the global disaster risk reduction agenda. Many developing countries increasingly require little if any help with the humanitarian response to disasters. What they need most is information on how to put in place appropriate risk reduction. From New Zealand have come:

- innovative technologies, including the use of the lead-rubber bearing to buffer building foundations from earthquakes;
- expertise in earthquake engineering, volcanology, and tsunami warning systems, which has been taken by our people to many countries including, for example, volcano lahar warning systems to Yogyakarta, Indonesia;
- specialist earthquake engineering assistance made available to India, Iran, Nepal, the Philippines, Romania, Taiwan, Turkey, and the United Arab Emirates – to name but a few. The prominent engineering company, BECA, wrote the Indonesian earthquake code in the early 1980s.

There is now a growing appreciation of the need to plan for and think through how recovery could be managed *before* disaster strikes. UNDP has been working in this area, with other partners, through the International Recovery Platform (IRP) established in 2005 for the implementation of a key pillar of the Hyogo Framework for Action.

The mission of the IRP is “to identify gaps and constraints currently experienced in the context of disaster recovery and to serve as a catalyst for the development of tools, resources, and capacity for resilient recovery.”

Building on the experience of our post-disaster recovery programming in more than twenty countries, UNDP has prepared guidelines, a training package, and a capacity building programme which is currently implemented in two countries and is due to be expanded to fifteen.

Some of the key messages from this work on the design of recovery response are that:

- recovery is a particularly difficult phase of disaster response. Expectations are high, and people want things to return to normality quickly. Having a plan *before* a disaster strikes is important for meeting these expectations;
- inequities can be exacerbated during and following a disaster, leading to tensions between and within communities. It is important to ensure broad participation in framing decisions around response and recovery; and
- affected populations often do not receive the emotional and psychosocial support they need. Long-term needs of communities should not be ignored, when the 'emergency' phase ends.

Christchurch City Councillor Peter Beck is quoted as saying that: "The wisdom of the local community always exceeds the knowledge of the expert." Engaging with local communities is about drawing on their knowledge and expertise, as well as ensuring that there is participatory decision-making.

Moving from the community to the global level, let me share some observations on the international policy framework for disaster risk reduction.

#### IV. Observations on the international policy framework for disaster risk reduction

Regional and international initiatives and dialogues help develop norms and guide policy for disaster risk reduction.

Regional organisations, like ASEAN and the Inter-Governmental Authority on Development (IGAD) in North Eastern Africa, increasingly count disaster reduction among their highest priorities. At the global level, the Hyogo Framework for Action, described earlier, has been successful in setting standards, encouraging co-operation, and putting disaster risk reduction on the agenda of international development agencies.

As the Hyogo Decade comes to a close, the post-2015 Framework on disaster risk reduction, which will be determined by the UN Member States, is an opportunity to reflect on good practices and lessons learned. UNDP will consolidate its own lessons learned from the implementation of the current framework to help guide the direction of post-Hyogo arrangements. For example:

- one of the key strengths of the Hyogo Framework is that it is a voluntary non-binding arrangement. It has worked quite well, as reflected in the high uptake it has had by national governments, and in the high number of references in policy and programme documents, as well as in voluntary progress reporting. More than 100 countries and territories have been monitoring and reporting on progress towards the Hyogo Framework, in recent years. There is value in continuing a similarly structured voluntary arrangement after 2015.
- The Hyogo Framework itself does not have any specific targets, but a number of countries have voluntarily committed themselves to targets. For example, Viet Nam committed to working towards reducing its average annual disaster losses to under one per cent of its annual GDP. The framework which succeeds the current Hyogo one could specify

measurable outcomes, rather than just processes. That would make for a more effective agreement and enable progress to be measured.

- More than ninety per cent of disasters are related to climate events. The post-Hyogo Framework needs to find ways to converge with the development and environment agendas, including in the area of climate change adaptation. Building capacity to deal with climate-related disaster risks will be fundamental to future risk-reduction strategies. Disaster managers cannot continue to develop risk-reduction strategies based only on past trends. They urgently need to begin accounting for the added impact of climate change.
- In view of mounting disaster losses, investment in disaster risk reduction needs to be scaled-up exponentially. The negotiations around the post-Hyogo Framework will be an opportunity to explore financing mechanisms for disaster reduction, particularly at the local level.
- Disaster risk reduction needs to cut across development sectors. The post-Hyogo discussion is an opportunity to engage with sectors of governments beyond national disaster risk management authorities, including those responsible for finance, planning, health, and gender equality. All sectors need to be part of the dialogue.
- As of 2008, and for the first time in human history, there are more people living in urban areas than in rural areas globally; by 2030 this pattern will apply in all developing regions including Asia and Africa, which adds new dimensions to disaster risk. The post-Hyogo framework must take this new reality into account with a focus on urban planning and building safer cities.
- Current thinking is leading to seeing sustainable recovery from disasters as a human right. Post-Hyogo Framework negotiations will be an opportunity to place greater emphasis on recovery, and work towards developing robust policy and institutional, and legislative arrangements which are human rights-based and support inclusive and sustainable post-disaster recovery.

The post-Hyogo discussions also need to link to other processes. 2015 is the date for achieving most of the Millennium Development Goal targets which have guided international development since 2000. Disaster risk reduction needs to become central to mainstream development planning and action, and be reflected in discussions on the overall post-2015 development agenda.

The outcome document from the recently completed Rio+20 United Nations Conference on Sustainable Development has already helped the debate move in that direction. It explicitly mentions disaster reduction as an essential ingredient of sustainable development. It calls for governments, international organisations, the private sector, and civil society to protect people, infrastructure, and other national assets from the impact of disasters.

For UNDP, this will mean increased commitment to strengthening support to disaster-prone countries, including by:

- increasing our overall support for disaster reduction, with an intention of doubling it over the next five years;
- ensuring that management of hazard-related risks continues to feature prominently in our work across governance, poverty reduction, and environment, including in the specific areas of climate change adaptation and climate risk management; and
- working through UNDP's Country Offices on comprehensive programmes in countries at high risk of disaster. These programmes need to have sufficient scale and scope to achieve substantial reductions in disaster losses. I mentioned earlier the successes at scale of disaster risk reduction in Bangladesh, Indonesia and Mozambique. Nepal, Ghana, and others also have experiences to share.

- In the next five years, UNDP will seek to add five additional countries per year to this growing list of countries on track to becoming champions in disaster resilience, working with governments, UN partners, International Finance Institutions, donor countries, and civil society.

## Conclusion

While this century has seen unprecedented progress in human development, an ever greater number of people and assets are now exposed to natural hazards. The risk of losses from disasters is higher than ever before. Events of the last few years convincingly demonstrate the consequences of failing to reduce these risks.

That risk can be modelled and analysed - and there is enough accumulated experience – in both developing and developed countries - to manage it *if* the appropriate strategies and measures are put in place.

Responsibility for disaster risk management does not lie with disaster managers alone. It is rather a concern for everyone - from citizens who must be empowered to make decisions which reduce risk, to political leaders, government institutions, the private sector, civil society organisations, professional bodies, and scientific and technical institutions. Engineers have a critical role to play.

Whole-of-society approaches to disaster risk reduction will become increasingly important as climate change alters hazard patterns. New Zealand has a key role to play in sharing its knowledge and experiences across communities at home, in our region, and at the global level.

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## Leadership



Helen Clark became the Administrator of the United Nations Development Programme on 17 April 2009, and is the first woman to lead the organization. She is also the Chair of the United Nations Development Group, a committee consisting of the heads of all UN funds, programmes and departments working on development issues.

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## Our Perspective



### **Building resilience: The importance of disaster risk reduction | Helen Clark**

From a development perspective, disaster risk reduction is vital for building a more equitable and sustainable future. Making investments in prevention and preparedness is a necessary part of systematic efforts to increase resilience to disaster.