



# DISASTER PROOFING THE MILLENNIUM DEVELOPMENT GOALS (MDGs)

Minimise Disasters : Maximise Development





This brochure is developed as the first step under the joint advocacy on 'Disaster Proofing the Millennium Development Goals' by the Asia Regional Office of the UN Millennium Campaign and the Asian Disaster Preparedness Center (ADPC). It has been developed for the occasion of the 2nd Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR), 7-8 November 2007, New Delhi, India and the Asian Forum of the Parliamentarians on Population and Development (AFPPD); "Brainstorming Meeting of Parliamentarians Advocacy on MDG", 6-7 November Bangkok, Thailand.

Standing at the mid point between the adoption of the Millennium Goals and their target completion date of 2015, the AMCDRR and the AFPPD provides a unique platform to demonstrate the commitment of the Asian countries in progressing towards the fulfillment of Millennium Goals by addressing issues related to disaster risk reduction.

Millennium Development Goals (MDGs)

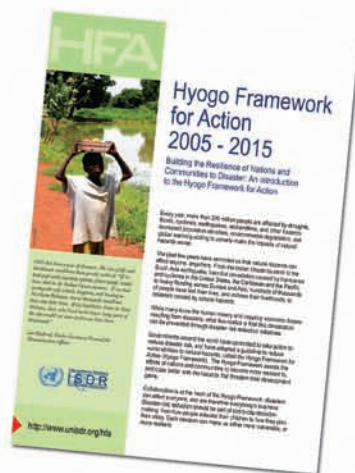


The eight Millennium Development Goals (MDGs) form a blueprint agreed to by 189 member states of the UN and major international development agencies at the Millennium Summit in 2000. They define a series of concrete, well defined quantitative targets across key development sectors which are to be met by the year 2015.

While there have been concerted efforts by the Governments to achieve the Goals, which have made definite progress, much more needs to be done in the remaining eight years to completely these objectives.

Therefore countries cannot afford to face set back to developmental initiatives from either natural disasters or other events.

Hyogo Framework for Action (HFA) 2005-2015



In January 2005, at the World Conference on Disaster Reduction, 168 Governments adopted the Hyogo Framework for Action (HFA); a 10 year plan to make the world safer from natural hazards.

Forming the global blueprint for disaster risk reduction efforts, the HFA offers guiding principles, priorities for action and practical means for achieving disaster resilience for vulnerable communities.

While significant progress has been made in Asia in implementing the HFA, much more needs to be done to integrate disaster risk reduction into sustainable development policies and planning, thus contributing towards achievement of the Millennium Development Goals.

Why **disaster risk reduction** is a must to **achieve the MDGs?**

**The cost of disasters is just far too high.**

In 2004 alone, the World Bank estimated annual costs from the world's natural disasters were around US\$55 billion

**Disasters do not discriminate between rich and poor, but their impacts do.**

11 percent of people exposed to natural hazards live in low human development index countries, but account for more than 53 percent of the total recorded deaths resulting from natural disasters

**Investing in disaster preparedness can save huge economic losses in the long run.**

In Vietnam, 12,000 hectares of mangroves planted by the Red Cross protect 110 km of sea-dykes. Planting and protection cost US\$ 1.1 million but have reduced the cost of dyke maintenance by US\$ 7.3 million per year



## How disasters set back each of the Millennium Development Goals (MDGs)?



### MDG 1: ERADICATE EXTREME POVERTY AND HUNGER

Halving the world's population of poor people by 2015 is impossible to achieve without taking widespread measures to minimise the impacts of recurrent floods, droughts and other natural or man-made hazards that push people back into poverty.

**In Aceh, Indonesia, the 2004 tsunami is estimated to have increased the proportion of people living below the poverty line from 30 per cent to 50 per cent. (Source; DFID 2006)**

Precious food and livestock resources can be wiped out overnight by a sudden disaster...

**One-fifth of Cambodia's rice crop was destroyed by a flood followed by a drought in 1994. The effect of the flood and drought led to a 20 percent reduction in the volume of rice crop produced, which resulted in a reduction in the overall share of GDP by two percent.**

**It is estimated that nearly 2.7 million domestic animals died as a result of the Indian Ocean tsunami. (Source: ADPC, 2005)**

**Hunger rises.**

*"We only eat when I can manage to get some money, but I have not worked for the past three months. Now, I have taken a loan from a money lender at ten per cent interest every month. It's a trap I cannot escape."*

- Bangladesh flood victim



### MDG 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION

Every disaster sets progress back from achieving universal education for all...

**Losses to the education sector during the Indian Ocean tsunami are estimated to have been US\$230 million (Source: ADPC, 2005)**

Schools and other educational infrastructure suffer extensive damage...teachers lose their lives...classes get disrupted...

**In the Gujarat earthquake of 2001, of the 1359 primary schools and 5168 schoolrooms in the affected region, 992 schools and 4179 classrooms were destroyed (Source: Global Education website)**

For a family hit by disaster, sending children to school becomes a second priority...

*"We lost everything in the floods last year...and had to move to the city looking for work to feed ourselves...now all of us work on this construction site...even my 10-year old daughter...we can't afford to send her to school now..."*

- Cambodia flood victim

forced by circumstances to migrate, the continuity of children's schooling gets disrupted...



## MDG 3: PROMOTING GENDER EQUALITY / EMPOWERING WOMEN

### Women always tend to suffer most from the impact of disasters...

Their workloads and the pressure of managing household resources increases...

they consume less, so as to save scarce emergency rations for the family...

they are subject to greater violence and abuse...

young girls are often forced to stop their education and enter the workforce because of increased economic pressures...

*"I lost my husband in the earthquake... his father took all the compensation and gave me no share...now I have to feed my children all on my own...so I have started doing some tailoring work to earn an income...that means I have to get up even earlier to do the cooking and fetch the water...and I always feel unsafe when it is dark..."*

- Pakistan earthquake victim



## MDG 4: REDUCING CHILD MORTALITY

### Child mortality rates during disasters are usually much higher compared to those of adult populations...

In the 1971 Bangladesh cyclone, children aged less than 10 years made up about a third of the population but accounted for half of all deaths (Source: www.bmj.com)

Smaller children are more likely to drown in a flood, or die in a house collapse when an earthquake occurs....

Children are also more prone to death from disease and epidemics in post disaster situations...

*In recent years, annual flooding in the Mekong Delta of Vietnam has claimed hundreds of lives, the vast majority of which have been young children. The worst year was 2000, when 400 children died, closely followed by over 300 child deaths in 2001. In 2002, 99 children died – out of a total death toll of 106 in the Delta. Most deaths were among children aged under six from poor families.*

## MDG 5: IMPROVING MATERNAL HEALTH



*"Our experience in responding to the earthquake in Bam, Iran, and to the tsunami, has confirmed that needs relating to pregnancy and hygiene must be addressed from the outset. Maternal care, including emergency obstetric care, saves lives."*

-Thoraya Ahmed Obaid,  
Executive Director UNFPA

Pregnant women and young mothers are an especially vulnerable group in disaster situations....During the Pakistan earthquake of October 2005, the estimated number of pregnant women in the affected areas was 40,000 (Source: Medical news today)

**Theresa Shaver, executive director of the White Ribbon Alliance for Safe Motherhood: "Pregnant women face greater risks -- like premature births, low birthweight babies and infant deaths -- during the stressful conditions of a disaster. This can make delivering a child difficult and potentially life-threatening".**

"Medical officials during and after the hurricane encountered "distracted pregnant women arriving with no records, ... desperate mothers searching for their babies and ... women who delivered on their way" to a medical facility"(Source: Washington Post report on Hurricane Katrina)





## MDG 6: COMBATING HIV, AIDS, MALARIA AND OTHER DISEASES

*"The experience from emergency situations, like in South Africa or in East Timor, has demonstrated how the incidence of sexually-transmitted disease, including HIV / AIDS can change...the mass displacement of people, social instability, worsening poverty due to income loss, and the influx of new populations, including reconstruction and relief workers, soldiers and transporters, are factors associated with its transmission"*

- Yannick Guegan, Humanitarian affairs department of UNAIDS

Disasters cause widespread damage to hospitals and the medical infrastructure....Epidemics like malaria, dengue or diarrhoea that spread in the wake of a disaster could take as high a toll of life as the disaster itself....

An outbreak of diarrhoeal disease post flooding in Bangladesh in 2004 involved more than 17,000 cases. (Source: WHO)

**In Muzaffarabad, Pakistan, following the 2005 earthquake, an outbreak of acute watery diarrhoea occurred in an unplanned, poorly-equipped camp of 1,800 persons. The outbreak involved over 750 cases.** (Source: WHO)

HIV infection rates are observed to increase in the wake of a disaster...Men who migrate in search of work from disaster prone areas are likely to indulge in high risk sexual behaviour...poverty may push more women into the sex industry...



## MDG 7: ENSURING ENVIRONMENTAL SUSTAINABILITY

*"Current estimates place the number of flood-affected people migrating to Bangladesh's largest city, Dhaka at around 3,000 a day, which is in addition to the normal flow of rural to urban migration. This is frightening. Dhaka does not have the space, neither physical nor economic, for so many people. If the flow continues for more than a month we should prepare ourselves to face a catastrophe in human terms"* Professor Atiur Rahman of the Department of Development Studies at Dhaka University. (Source: IRIN: 28th October, 2007)

Disasters have severe large scale impacts on key natural resources...fields, soil, forests, biodiversity...restoring such assets is often near impossible in the short run...

**At Mao town in Nagaland, a major landslide occurred in July 2004. With a width of about 150 meters and stretching along 1,100 meters, the landslide destroyed 80 houses and blocked a major road transport corridor for more than one month.**

**More than 38,600 latrines and septic tanks were destroyed in the rural areas, some of which overflowed discharging its contents in the surrounding areas, thus posing an additional health hazard to its users.**

Migration to cities increases in quantum amounts in the wake of a disaster...which translates into greater numbers of slum dwellers...and a reduced quality of life, as pressure increases on urban resources...

During the Indian Ocean tsunami, more than one million people across 12 different countries were displaced...(Source: UNHCR)



## MDG 8: DEVELOPING A GLOBAL PARTNERSHIP FOR DEVELOPMENT

Disasters divert huge amounts of resources from aid programmes to relief and rehabilitation...

Small national economies are the ones usually hit the hardest ...

Antigua lost the equivalent of 66% of its GDP to Hurricane Luis in 1995

The burden of debt increases, and unemployment rises...

**Indonesia, Sri Lanka, India, Thailand and the Maldives – pay \$23.1 billion a year to rich countries and multi-lateral institutions such as the World Bank and International Monetary Fund in debt repayments for tsunami relief** (Source: World Development movement website)

In late 1991 and early 1992, Zimbabwe experienced a severe drought which had devastating impacts on the agricultural sector: Real GDP was reduced by nine percent, with an increase in food prices by 72 percent.

# How disaster risk reduction (DRR) can help achieve the Millennium Development Goals (MDGs)?



## Better land use planning enhances food productivity, and strengthens sustainability... (MDG 1/ MDG 8)

"The drought planning experts give us advice on when to plant our crops...and we've also been given a new variety of seeds at subsidized rates...which need much less water..."

## Income diversification projects broaden the livelihood base (MDG 1)

"I took a loan to buy two cows under the drought relief scheme...now we make a good income from the milk, and don't have to worry so much about what will happen if the rains don't come."

## Investments in disaster risk reduction assets can have other development spin offs (MDG 1/ MDG 8)

In Semarang, Indonesia, a dam is planned upstream of a major river for flood control purposes, but will also provide water and will act as a source of electricity through hydroelectricity generation.



## Public warning systems bring in new information and communication technologies to disaster prone communities and widens access to these...(MDG 8)

"Our local government office has been provided with a mobile phone and internet facility after the last cyclone...now we can be informed as soon as there is a cyclone warning in our area... its also made communicating with the district headquarters so much easier..."

## Shelters built to protect communities against natural hazards can double up as schools or medical facilities...(MDG 2 /4/5/6)

Schools in Bangladesh built at a raised level also double up as a refuge for the community when there are floods...

## Women's participation in resilience building and recovery efforts improve their status in the community (MDG 3)

In India, women supported by Swayam Shikshan Prayog in earthquake- hit areas of Maharashtra, Gujarat and in tsunami hit Tamil Nadu women have organized their own federations of savings and credit groups. These federations provide thousands of women with access to crisis credit and enterprise loans.(Source alertnet.org)



# How **disaster risk reduction (DRR)** can help achieve the **Millennium Development Goals (MDGs)?**



## **Women's participation in resilience building and recovery efforts improve their status in the community (MDG 3)**

The Joint Land Titling Policy in Aceh has enabled women to register their names in the title deed as exclusive or joint owner of land distributed by the authorities in the aftermath of the tsunami. Previously, property was held only in the men's names.

## **Schoolchildren trained in first aid and emergency drills can save lives (MDG 4)**

At the end of the May 2006, when an earthquake hit Yogyakarta in Indonesia, although 5,000 people lost their lives, the figures would have been much higher had the children not just learnt at school what to do in the case of an earthquake, and had they not passed this knowledge to their parents.

## **Strengthening and improving the quality of the health infrastructure builds the resistance of communities to disease and raises life expectancy...(MDG 4/5/6)**

Before last year's cyclone, the nearest hospital was twenty kilometers away...now we have one in our own village, which was built under the cyclone relief program...all our children have been inoculated now against cholera and typhoid...and there's even a trained midwife who does deliveries."

## **More resilient infrastructural construction results in huge savings...(MDG 7)**

A year after constructing a deepwater port in Dominica, Hurricane David necessitated reconstruction costs equivalent to 41% of the original investment; while building the port to a standard that could resist such a hurricane would have cost only about 12%.

## **Disaster mitigation efforts can create new cross border partnerships and mobilization of resources for development...(MDG 8)**

The Indian Ocean tsunami affected India, Sri Lanka, Maldives, Burma, Thailand, Malaysia and Indonesia...the amount of assistance generated was on an unprecedented scale...there was huge international media coverage... thirty-five different armed forces were involved in the relief effort... and a strong spirit of global solidarity was created...

## **Periodic hurricanes and cyclones have brought the problems of smaller island states into global focus, and compelled the world community to address them.....(MDG 8)**

Clearly, if the initiative to attain the MDGs is to succeed, it is imperative to mainstream disaster risk reduction into every component of its strategy.

According to the World Bank and the US Geological Survey, if \$40 billion had been invested in physical or engineering DRR type measures like adequate design of buildings or bridges, \$280 billion of economic losses worldwide from natural disasters would have been avoided in the 1990s.

**ADPC and UNMC strongly believes that disaster proofing should be the key element of the national development strategies, which are being developed towards achieving the MDGs by national governments as part of their international commitment.**

# DISASTER PROOFING THE MILLENNIUM DEVELOPMENT GOALS

## Minimise Disasters : Maximise Development



United Nations



### UN Millennium Campaign

The UN Millennium Campaign was established by UN Secretary General in 2002. The Campaign supports citizens' efforts to hold their governments to account for the achievement of the Millennium Development Goals. The Millennium Development Goals were adopted by 189 world leaders from the north and south, as part of the Millennium Declaration which was signed in 2000. These leaders agreed to achieve the Goals by 2015. Our premise is simple, we are the first generation that can end poverty and we refuse to miss this opportunity. For more information, please visit us at: [www.endpoverty2015.org](http://www.endpoverty2015.org).



Asian Disaster Preparedness Center

### Asian Disaster Preparedness Center (ADPC)

Established in 1986, ADPC is a leading regional resource center based in Thailand dedicated to create safer communities and sustainable development through disaster risk reduction. ADPC's programs demonstrate a wide diversity in application, address all types of disasters, and covers all aspects of the disaster management spectrum—from prevention and mitigation through preparedness and response, to damage and needs assessment, rehabilitation and reconstruction endeavors. ADPC's activities are implemented by five teams: Climate Risk Management (CRM), Disaster Management Systems (DMS), Early Warning Systems (EWS), Public Health in Emergencies (PHE), and Urban Disaster Risk Management (UDRM). For more information, please visit us at: [www.adpc.net](http://www.adpc.net).

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