

# Disaster Monitor

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asiapacific  
fact sheets

Photo: K. Cook

■ **The Series:** Looking at countries in the context of natural catastrophes positions World Vision to better predict, prevent or prepare for the onslaught of disasters. The rationale is simple: disasters can wipe out years of development in mere minutes. Reducing disaster risks is not an optional extra – but an extra obligation. It is at the heart of sustainable development.

## Indonesia

World Vision

### I. The Facts

*Spread across a chain of more than 17,000 islands, Indonesia is both the world's fourth most populous nation and its largest archipelagic state. With the world's largest Muslim population and more than 300 local languages, Indonesia is a potpourri of ethnic and linguistic diversity. People range from rural hunter-gatherers to city dwellers. More than half of the population subsist on less than two dollars per day. The fast facts follow:*

| Republic of Indonesia   | Population: 226.1 million <sup>(1)</sup>                     |
|---|--|
| Extreme Poverty – Population living below \$1 a day in percent [real figures] | 7.5% [17.0 million] <sup>(2)</sup>                           |
| Poverty – Population living below \$2 a day in percent [real figures]         | 52.4% [118.5 million] <sup>(2)</sup>                         |
| Life expectancy at birth, annual estimates (2005)                             | 69.7 years <sup>(1)</sup>                                    |
| Adult illiteracy rate (15 and older, 1995-2005)                               | 9.6% <sup>(3)</sup>  |
| Children underweight for age (under age 5, 1996-2005)                         | 28% <sup>(4)</sup>   |
| Population undernourished in percent [real figures]                           | 6% [13.6 million] <sup>(5)</sup>                             |
| Physicians (per 100,000 people, 2000-04)                                      | 13 [equals one doctor per 7692 people] <sup>(6)</sup>        |
| Human Development Index (HDI) value [rank]                                    | 0.728 [rank: 107 of 177] <sup>(7,8)</sup>                    |
| Natural Disaster Index (NDI) value [risk; rank]                               | 2.48 [risk: "extreme"; rank: 37 of 204] <sup>(9,10,12)</sup> |

## 2. The Forces

**“Indonesia faces significant challenges as a country prone to volcanoes, earthquakes, tsunamis and now rising sea levels brought about by climate change. Unless the government, the international community and local partners invest in mitigation efforts millions of people will be at significant risk from disasters.” (Richard Rumsey, Regional World Vision Humanitarian & Emergency Affairs Director, Asia Pacific)<sup>(11)</sup>**

**Disaster Environment:** The severity of any disaster depends on two factors: the country context within which the disaster occurs, and the nature and force of the onslaught itself. Given a country context like that of Indonesia with 119 million people (52.4% of the population) fighting for survival on less than two dollars a day, and with only one doctor for every 7,700 people, the impact of a catastrophe can be cataclysmic.

Indonesia's disaster environment is defined in large by its geographical location on the edges of the Pacific, Eurasian, and Australian tectonic plates. This makes it the site of numerous active volcanoes and frequent violent earthquakes. Recent natural disasters due to seismic activity include the 2004 tsunami (167,736 people killed in northern Sumatra)<sup>(15)</sup> and the 2006 Yogyakarta earthquake (5,778 people killed across Java).<sup>(12)</sup> Indonesia is also vulnerable due to low-lying islands and cities such as Jakarta.

**Disaster Definition:** The Center for Research on the Epidemiology of Disasters (CRED) defines a disaster as a "situation or event, which overwhelms local capacity, necessitating a request to national or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering." For a disaster to be entered into the EM-DAT<sup>(12)</sup> database, at least one of the following criteria must be fulfilled:

- 10 or more people reported killed
- 100 people reported affected
- Declaration of a state of emergency
- Call for international assistance

**Past Years:** Using this definition, the years 1990-2007 have seen Indonesia impacted by 203 natural disasters. The vast majority of Indonesia's disasters feature little in international news but amount to great destruction when added together (figure 1). The pie charts show the prevalence of natural catastrophes by disaster types (figure 2) and the number of people affected by them (figure 3).

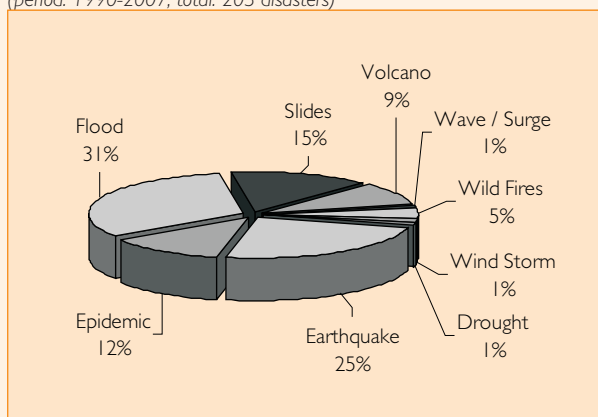
Floods are the most prevalent (31%) and destructive disaster type (more than 4.6 million people affected), earthquakes (25%) the most deadly (10,391 people killed), and wild fires the most costly (US\$ 9.3 billion).

**Past Century:** Mega-disasters – sometimes called "disasters of the century" – occur less frequently, but their destructive force can overpower a vulnerable nation. Figures 4 and 5 show two perspectives of the top three natural disasters in Indonesia since record-keeping began in 1907. [Data based on <sup>(12)</sup>.]

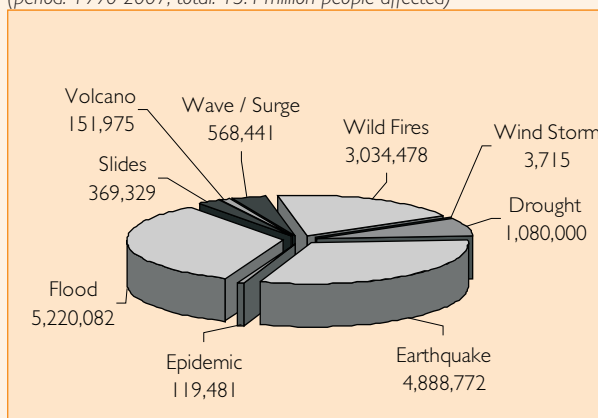
■ Figure 1: Impact from 203 natural disasters (summary for 1990-2007)

| Human Impact       | Cumulative Total  | Annual Average   |
|--------------------|-------------------|------------------|
| 1. People killed   | 185,911           | 10,328           |
| 2. People affected | 15.4 million      | 856,000          |
| 3. Damage caused   | US\$ 20.6 billion | US\$ 1.1 billion |

■ Figure 2: Prevalence of natural disasters by types (period: 1990-2007; total: 203 disasters)



■ Figure 3: Number of people affected by natural disaster types (period: 1990-2007; total: 15.4 million people affected)



■ Figure 4: Worst disasters (by people killed; period: 1907-2007)

| Top Three Disasters (Date)      | People killed |
|---------------------------------|---------------|
| 1. Wave / Surge (2004 Tsunami)  | 165,708       |
| 2. Earthquake (21 January 1917) | 15,000        |
| 3. Drought (January 1966)       | 8,000         |

■ Figure 5: Worst disasters (by people affected; period: 1907-2007)

| Top Three Disasters (Date)   | People affected |
|------------------------------|-----------------|
| 1. Drought (1972)            | 3,500,000       |
| 2. Earthquake (27 May 2006)  | 3,177,923       |
| 3. Wild Fires (October 1994) | 3,000,000       |





*“Run as fast as you can!” Those were her mother's last words. Nadya (9) never saw her again. As tsunami orphans she (second from right) and her friends often comfort each other.*

Photos: E. Balina

### 3. The Faces

**Seismic disasters caused by shifting tectonic plates can be violent and deadly. Figures from the EM-DAT database show that since 1990 earthquakes have killed 10,391 people. (12) While tsunamis – classified as “Wave / Surge” – are not directly reflected in earthquake statistics, their root cause is the same. This was violently demonstrated by the 2004 Tsunami which killed 165,708 people in Indonesia.**

**“I sometimes cry,”** Nadya says softly, looking down at her toes. “I had a sister called Nurmawaddah. If she was still alive, she would be ten years old now. My younger brother Muhammad was two and a half, and my youngest sister Zahra only seven months old when they died. I often miss them.” When the sadness becomes overwhelming Nadya runs to find her friends so they can distract and comfort each other. But even friends are scarce – only seven children in her village survived the tsunami. “It is quiet here. There are not many friends left.”

**Nadya was at home** with her family when the earthquake which triggered the tsunami jolted her village. Seeing the waters coming, Nadya’s mother ordered her daughter to run for her life. Nadya did. She raced down the road and crossed over a bridge which collapsed just as she reached the other side, taking everyone still on the bridge with it. It was then that Nadya realised her family was not with her. When she suddenly saw her grandmother, they jumped onto a traditional “becak” motorbike taxi and sped off, escaping the gigantic wave. “We were searching for Nadya’s parents for three weeks,” Nadya’s grandmother Rusniah recalls, “but they were never found.”

**After the tsunami,** Nadya and her grandmother lived in a tent provided by an aid agency. Later they moved to a relative’s house and finally they were assigned to a Transitional Living Centre (TLC) where they lived for 18 months, sharing a small room with Rusniah’s aunt and uncles. Six of them crammed into a space of four by five metres. “Everybody lived in one room, plus our belongings and the stove,” Rusniah remembers. The cramped conditions were compounded by hot weather, often reaching 42° C.

**Three months into** the recovery operations a tedious process of verifying land ownership was put in motion. Many survivors could not recognise their own land as the village was too devastated. And for people like Nadya’s grandmother the government had to locate new land as most of the old village had been claimed by the sea. Thanks to World Vision, Nadya could move into a new home, one of 58 houses that have been constructed on a hillside, far from the dangers of another tsunami.



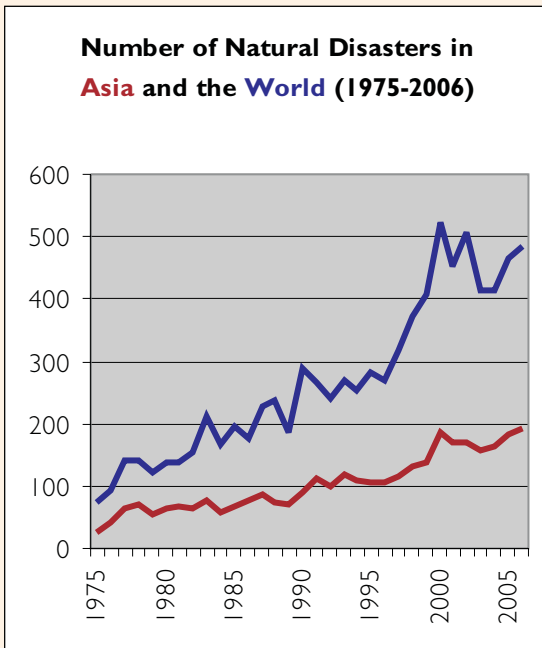
**A New Beginning:** Only 86 people from Nadya’s village of 500 survived the tsunami, among them only seven children. But she is grateful she can live with her grandmother in a brand-new house painted in her favourite colour – pink. ■

## 4. The Forecasts

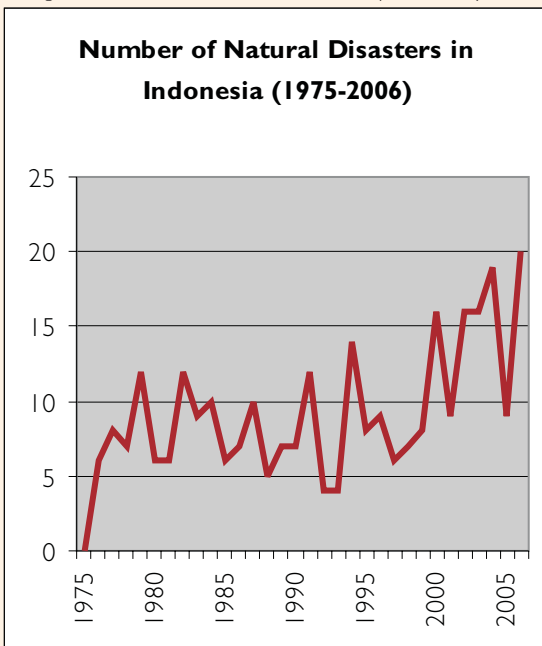
**“The countries most vulnerable are least able to protect themselves.” (Kofi Annan)<sup>(16)</sup> “The future is knocking at our door right now. Make no mistake, the next generation will ask us one of two questions. Either they will ask: ‘What were you thinking; why didn’t you act?’ Or they will ask instead: ‘How did you find the moral courage to rise and successfully resolve a crisis that so many said was impossible to solve?’” (Al Gore)<sup>(17)</sup>**

**The Trends:** Over recent decades, the number of natural disasters has steadily risen, both globally, regionally (figure 1) and nationally (figure 2). Past progressions (below) and future forecasts (right) speak the same language.

■ Figure 1: Natural disasters trend, Asia / World (1975-2006)<sup>(12)</sup>



■ Figure 2: Natural disasters trend, Indonesia (1975-2006)<sup>(12)</sup>



**Global Forecasts:** Recent assessment reports by the UN Intergovernmental Panel on Climate Change (IPCC), the recognised global authority on climate change honoured with the Nobel Peace Prize 2007, have released substantive scientific forecasts about global climate change:<sup>(18)</sup>

- Probable temperature rise by 2100: 1.8-4.0° C
- Possible temperature rise by 2100: 1.1-6.4° C
- Probable sea level rise: 18-59 cm
- Increase in droughts, tropical cyclones and extreme high tides: "likely" (>66%)
- More frequent warm spells, heat waves and heavy rainfall: "very likely" (>90%)

Rising sea levels mean more and more severe floods. The trend is not only expected to continue but to accelerate. During the last century, global sea levels rose 10-25 cm which – given the predictions – amounts to a two- to five-fold acceleration.<sup>(14)</sup> The effects are undeniable. In 2006 the world was impacted by a record 226 floods (up from an average 162 over previous years).<sup>(19)</sup> Pacific islands and low-lying countries are particularly vulnerable, and the world's first climate change-related evacuation of low-lying islands is now underway in Papua New Guinea's Carteret Islands. More such evacuations are expected as storms, surges and floods continue to inundate low-lying land.<sup>(20)</sup> About 1.5 billion people were affected by floods in the last decade of the 20th century.<sup>(21)</sup>

**National Forecasts:** Many of Indonesia's 17,000 islands – the majority of them uninhabited – are in danger of being swallowed by the rising sea. Authorities have hastily begun mapping and naming coral-fringed islands. The 50,000 km<sup>2</sup> of coral reef, 18 percent of the world's total, is deteriorating rapidly. One survey in Bali Barat National Park in 2000 found that the majority of the reef had degraded.<sup>(22)</sup> Environment Minister Rachmat Witoelar recently predicted that Indonesia could lose 2,000 of its islands by 2030, a warning echoed by Armi Susandi, meteorologist at the Bandung Institute of Technology, who forewarned that 400,000 km<sup>2</sup> of land mass could be lost by 2080. With 42 million people in Indonesia living less than 10 metres above sea level, "it will be like permanent flooding," Susandi said, stressing that Jakarta was at great risk.<sup>(23)</sup> Climate models have also foretold falling crop yields (4 percent for rice and 50 percent for maize), with losses especially marked in coastal areas vulnerable to salt water incursion.<sup>(24)</sup>

**Climate change has the potential to undo the last 50 years of development work. The poorest will be hit first and worst. Policy makers and NGOs must help them prepare themselves. ■**



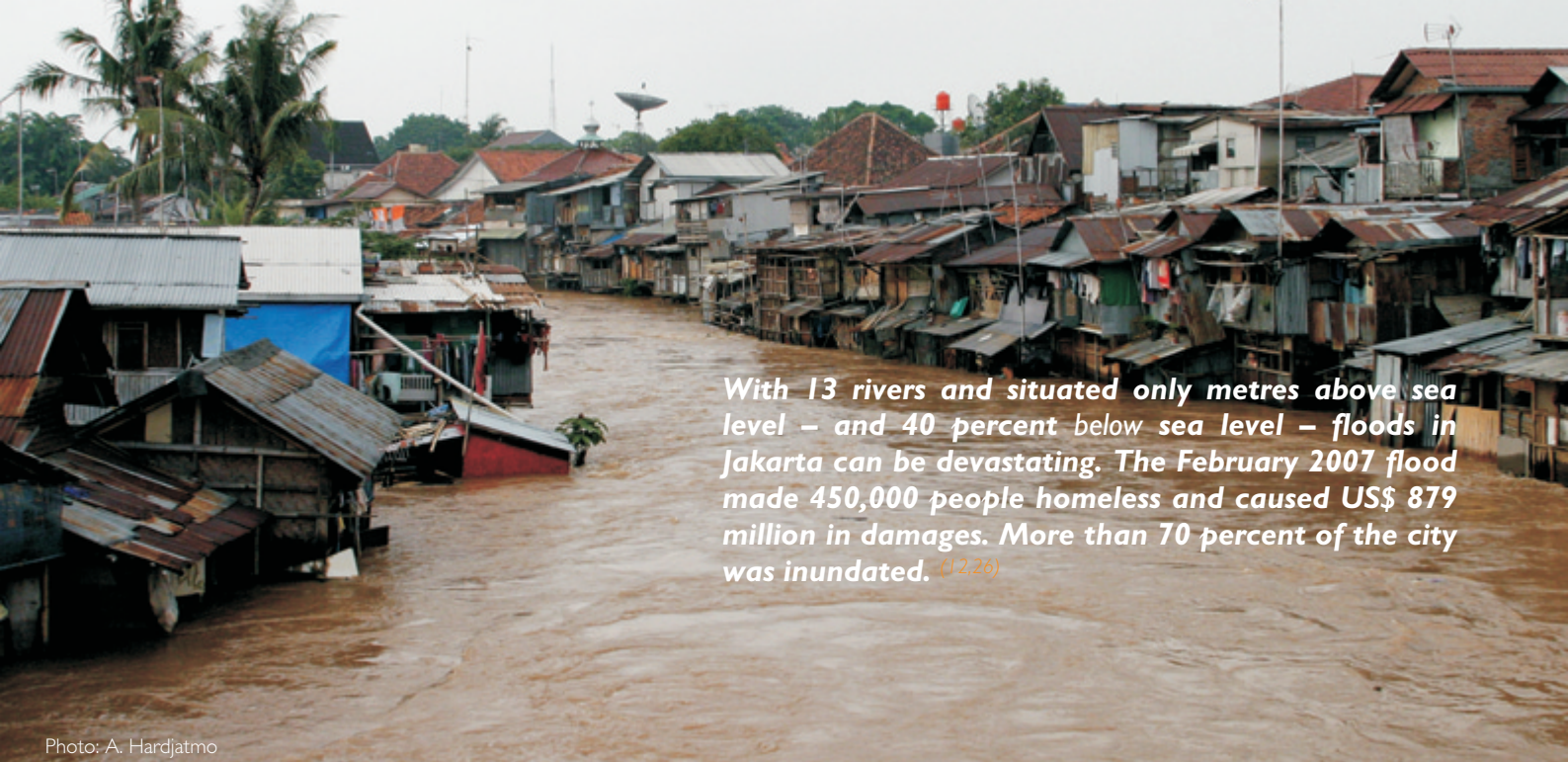


Photo: A. Hardjatmo

*With 13 rivers and situated only metres above sea level – and 40 percent below sea level – floods in Jakarta can be devastating. The February 2007 flood made 450,000 people homeless and caused US\$ 879 million in damages. More than 70 percent of the city was inundated.* <sup>(12,26)</sup>

## 5. The Focus

*“Recent years have seen a dramatic rise in the frequency and severity of catastrophes and the trend is towards greater vulnerability and larger losses.” (OECD Secretary-General Angel Gurría) <sup>(25)</sup> “In Indonesia, warmer temperatures have already led to the mutation of the dengue virus, leading to an increase in fatalities during the rainy season.” (UNDP) <sup>(7)</sup>*

**Lowlands:** Indonesia is among the top ten countries in the world with the largest number of people living at or under 10 metres above sea level – an at-risk zone for floods and storms. <sup>(13)</sup> Jakarta – population nine million – finds itself in the centre of this high-risk zone. As a low-lying coastal megacity it faces double jeopardy. First, it attracts large human populations to its metropolitan area which already contains more than 23 million people – doubling on weekends and making it one of the largest and most densely populated cities in the world. Second, its urban developments degrade the very ecosystems that once protected it. Mangroves which have traditionally served as natural barriers against rising sea levels by breaking big waves and halting salt water intrusion have been weakened. The net effect is simple: more and more people are moving into a high-risk zone for floods and storms – but are less and less protected from them.

**Skyscrapers:** Jakarta's challenges are further exacerbated by the recent discovery of yet another trend termed "land subsidence," a process which denotes gradual "sinking." In 1993 Central Jakarta lay 3.42 metres above sea level, by 2005 it had "dropped" 102 cm to 2.40 metres above sea level. According to the Jakarta Mining Agency, the main causes of land subsidence include the construction of high-rise buildings and associated groundwater withdrawal. This increasing mismatch between extensive groundwater extraction and stunted replenishment is one of the major causes of land subsidence. According to an article published by *The Jakarta Post*, "Reducing the use of groundwater and protecting water catchment areas will decelerate the land subsidence and decrease the vulnerability of Jakarta." <sup>(26)</sup>

**Conclusion:** Jakarta is one of many coastal cities in the world that needs to prepare for climate change-induced sea level rises. It also needs to protect its population from the effects of land subsidence. The compounded effects of rising sea levels and sinking land areas – 40 percent of which already lie below sea level – could spell future disasters of dire dimensions. Amri Susandi, meteorologist at the Bandung Institute of Technology, recently warned that by 2050, 24 percent of Jakarta could disappear, forcing the capital to move to Bandung 180 km away. <sup>(23)</sup> Policy makers and the development community must take urgent action to prepare vulnerable communities.



Photos: J. Luetz

**A Sinking Feeling:** Ratih lives with her children in East Jakarta's Cawang District. Her simple two-storey house by the river is subject to frequent flooding. The last flood impacted 80 percent of her community – 600 households and 2,000 individuals – and lasted two months, from 3 November, 2007 to 8 January, 2008. On the picture (left) she is seen pointing out the floodwater line – her house was almost entirely submerged. She and her family were evacuated. <sup>(27)</sup> ■





## Planting the seeds of new thinking

“The creation of a thousand forests is in one acorn.”

—Ralph Waldo Emerson

Photos: A. Wijayanti (UNDP)

## 6. The Future

**“Impacts will require adaptive responses such as investments in storm protection and water supply infrastructure, as well as community health services. ... The global community needs to coordinate a far more proactive effort towards implementing adaptation measures in the most vulnerable communities and systems in the world.” (R. K. Pachauri, Chairman of the Intergovernmental Panel on Climate Change, Nobel Lecture) (29)**

**The Investment:** Recent years have seen a shift from disaster response to disaster readiness and mitigation. Increasing resilience means promoting *preparedness*. This is one of the most critical challenges facing policy makers and NGOs in the new millennium. By positioning to reduce the impact of disasters *before* they occur, unnecessary harm can be averted and decades of developmental achievements protected. Reducing risks is at the heart of sustainable human development – predict, prevent, prepare, protect!

Reaping the benefits of disaster preparedness requires investment. One study found that for every dollar invested in pre-disaster risk reduction activities in developing countries seven dollars in losses can be prevented. (28) However, most donor funding comes in response to appeals *after* major disasters. Making the shift from post-disaster recovery to pre-disaster preparedness is the most critical success factor facing governments and aid agencies today.

**Preparedness:** Reducing risk and raising resilience is a multi-tiered approach. It involves fine-tuning early warning mechanisms, improving emergency response capabilities, monitoring weather patterns, advocating for public protection policies and cultivating a culture of disaster readiness at the grassroots levels of local communities and at national policy making levels. It also entails training primary health care staff to manage and care for evacuees, identify-

ing strategies to deal with mass casualties and large-scale disaster homelessness, coordinating regular preparedness drills with the government and local organisations, and identifying the best routes for transporting the injured, food and first aid supplies. At the policy making level it also requires river dredging and a commitment to mangrove protection and reforestation. Healthy mangroves are instrumental in protecting thousands from death or injury when cyclonic surges strike.



Disaster Games



**Teaching Children:** Most countries at risk from natural disasters are in the developing world. The fact that 98 percent of people affected by climate disasters live in developing countries highlights the link between *levels of development and natural disaster risk*. (30) Educating children about natural disasters, evacuation strategies, the mechanics of earthquakes, windstorms, floods, etc., and how to prepare for and survive them is already part of preparedness drives in Sumatra. (31,32) Such initiatives (including earthquake simulations, drawing competitions, story-telling, mock disaster drills, games and skits) promote a culture of disaster readiness in children and help raise up a new generation of resilient people who are ready, responsible and response-able. ■

## World Vision Capacity

- **5 Regional Disaster Management Team members** are on stand-by for deployment in emergency responses in the Asia-Pacific region
- **5 National Disaster Risk Reduction instructors** assess hazards, vulnerabilities and capacities and facilitate disaster risk reduction workshops with communities, local staff and government officials
- **6 Editions of comic books** have been published and distributed to communities in disaster-prone areas to raise disaster awareness about floods, earthquakes, landslides, droughts, conflicts and malaria
- **13 Area Development Programmes** are integrating risk reduction into community development programming with plans underway to incorporate it in 70% of all area programmes by 2011
- **45 Operational field staff** have been trained to provide emergency relief in country-wide disaster situations
- **47 Area programme staff** are currently undergoing disaster risk reduction management training, learning to direct preparedness activities
- **70 Students and teachers in 13 schools** have been trained in school-based disaster risk reduction
- **250 Community representatives** are currently undergoing community-based disaster risk reduction training
- **78,224 World Vision sponsored children** are steered for natural disasters through education and health care, bolstering overall community resilience (a growing number of sponsored children are undergoing school-based disaster risk reduction training)

## 7. The Footnotes

- 1 United Nations Development Programme (UNDP). Human Development Report 2007/2008. Indonesia. {Source: UN (United Nations). 2007e. World Population Prospects 1950-2050: The 2006 Revision. Database. Department of Economic and Social Affairs, Population Division. New York. Accessed July 2007.}
- 2 UNDP. Human Development Report 2007/2008. Indonesia. {Source: World Bank 2007b. World Development Indicators 2007. CD-ROM. Washington, D.C. (Data refers to the most recent year available during the period specified, 1990-2005.)}
- 3 UNDP. Human Development Report 2007/2008. Indonesia. {Source: calculated on the basis of data on adult literacy rates from UNESCO (United Nations Educational, Scientific and Cultural Organization) Institute for Statistics. 2007a. Adult and youth literacy rates. May. Montreal.}
- 4 UNDP. Human Development Report 2007/2008. Indonesia. {Source: UNICEF (United Nations Children's Fund). 2006. State of the World's Children 2007. New York. Data refers to the most recent year available during the period specified.}
- 5 UNDP. Human Development Report 2007/2008. Indonesia. {Source: FAO (Food and Agriculture Organization). 2007a. FAOSTAT Database. [http://faostat.fao.org/]. Accessed May 2007. Data refers to the average for the years specified.}
- 6 UNDP. Human Development Report 2007/2008. Indonesia. {Source: WHO (World Health Organization). 2007a. Core Health Indicators 2007 Database. Geneva. [http://www.who.int/whosis/database/]. Accessed July 2007. Data refers to the most recent year available.}
- 7 UNDP. Human Development Report 2007/2008. Fighting climate change: Human solidarity in a divided world. 2007. New York. USA.
- 8 The Human Development Index (HDI) is a composite index that measures the average achievements in a country in three basic dimensions of human development: a long and healthy life (measured by life expectancy at birth); knowledge (measured by adult literacy rate and enrollment ratio for primary, secondary and tertiary schools); and a decent standard of living (measured by GDP per capita in purchasing power parity (PPP) US dollars). While the concept of human development is much broader than any single composite index can measure, the HDI offers a powerful alternative to income as a summary calculation measure of human well-being and development. It is used to distinguish whether a country is a developed, developing, or under-developed country. The index was developed in 1990 by Pakistani economist Mahbub ul Haq and has been used since 1993 by the United Nations Development Programme in its annual Human Development Report.
- 9 The Natural Disaster Index (NDI) is a unique composite index developed by Maplecroft. The NDI measures the relative risk to human health from natural disasters. The NDI incorporates the following types of natural disasters: hydro-meteorological disasters (droughts, extreme temperatures, floods, slides, wildfires, and wind storms); geological disasters (earthquakes, tsunamis, and volcano eruptions); biological disasters (epidemics and insect infestations). To calculate the risk to human health from natural disasters, the NDI analyzes the following indicators: number of deaths; number of people injured; number of people made homeless; number of people otherwise affected. By using the indicators above, rather than the number of deaths alone, the NDI renders a more holistic perspective of the risks posed by natural disasters.
- 10 Data for the NDI has been obtained from two main sources. First, *natural disaster data* has been obtained from the EM-DAT International Disaster Database (2005). Second, *population and economic data* comes from the World Development Indicators (2005), compiled by the World Bank Group. A disaster must fulfill at least one of the following criteria: 10 or more people reported killed (incl. 'persons confirmed as dead and persons missing and presumed dead'); 100 people reported affected (covering those 'requiring immediate assistance'); declaration of a state of emergency; call for international assistance.
- 11 Richard Rumsey (Regional World Vision Humanitarian & Emergency Affairs Director, Asia Pacific). Richard\_Rumsey@wvi.org
- 12 The EM-DAT International Disaster Database, Université Catholique de Louvain, Brussels, Belgium [www.em-dat.net] is a joint project of the Centre for Research on the Epidemiology of Disasters (CRED) and USAID's Office of Foreign Disaster Assistance (OFDA). According to EM-DAT classification, natural disasters comprise droughts, earthquakes, epidemics, extreme temperatures, floods, insect infestations, slides, volcanos, waves / surges, wild fires, and wind storms.
- 13 New Scientist Environment. Coastal living – a growing threat. Catherine Brahic. 28 March 2007.
- 14 Maplecroft Map Issue Report. Climate Change. Feb. 2007. Page 14.
- 15 UN Office of the Special Envoy for Tsunami Recovery. http://web.archive.org/web/20070519133441/http://www.tsunamispecialenvoy.org/country/humantoll.asp
- 16 Cited on page 72 in (7)
- 17 Nobel Lecture. Al Gore. Oslo. 10 Dec. 2007. http://nobelprize.org/nobel\_prizes/peace/laureates/2007/gore-lecture\_en.html
- 18 Intergovernmental Panel on Climate Change (IPCC). Feb. 2007. Climate Change 2007. The Physical Science Basis Summary for Policymakers. Fourth Assessment Report.
- 19 United Nations International Strategy for Disaster Reduction (ISDR). Press Release dated January 29, 2007. www.unisdr.org
- 20 World Vision Policy Brief: Climate Change and Poverty. Nov. 2007.
- 21 World Meteorological Organization (WMO). Natural hazards. http://www.wmo.ch/pages/themes/hazards/index\_en.html
- 22 PEACE 2007. Cited on page 104 in (7)
- 23 Climate change may wipe some Indonesian islands off map. S. Katyal and A. Arga. Reuters AlertNet. 3 Dec. 2007.
- 24 PEACE 2007. Cited on page 94 and in (7)
- 25 OECD Secretary-General Angel Gurría speaking at the inaugural meeting of the OECD International Network on Financial Management of Large-Scale Catastrophes in Paris, Sept. 8, 2006. OECD Observer.
- 26 Jakarta's Vulnerability to Global Warming. The Jakarta Post. 28 Apr. 2007.
- 27 On-site interview by the author. Cawang, East Jakarta. 17 Jan. 2008.
- 28 Cited on page 176 in (7)
- 29 Nobel Lecture. R. K. Pachauri (IPCC). Oslo. 10 Dec. 2007. http://nobelprize.org/nobel\_prizes/peace/laureates/2007/ipcc-lecture\_en.html
- 30 Cited on pages 30 and 77 in (7)
- 31 IRIN. Indonesia: Disaster-preparedness drive in West Sumatra. 31 Dec. 2007.
- 32 Personal interview with UNDP Disaster Risk Reduction Unit in Banda Aceh, Malikh Amril and Asri Wijayanti. Banda Aceh. 15 Jan. 2008

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# exploring new horizons:

highlighting  
vulnerabilities, risks and  
opportunities for improved  
pre-disaster **preparedness!**

*“Prevention is not only more humane than cure; it is also much cheaper. Above all let us not forget that disaster prevention is a moral imperative...”*

—Kofi Annan

**Issues highlighted** in this fact sheet are discussed in more depth in the World Vision annual disaster reports.

Photo: M. Vliet

■ **World Vision** is a Christian humanitarian organisation dedicated to working with children, families and communities to overcome poverty and injustice. Motivated by our Christian faith, World Vision is dedicated to working with the world's most vulnerable people. World Vision serves all people regardless of religion, race, ethnicity or gender.

■ **Fact Sheets:** The Asia-Pacific fact sheet series is a joint initiative by regional World Vision players. Partnering together, Advocacy, Communications and Humanitarian and Emergency Affairs (HEA) are aiming to position for heightened disaster preparedness in the Asia-Pacific region.

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