

# Disaster risk reduction makes development sustainable

## A CALL FOR ACTION

### KEY MESSAGE

**The post-2015 development framework offers an unparalleled opportunity to ensure that disaster risk is significantly reduced all over the world, especially for those most vulnerable.**

“Disaster risk reduction and building of resilience to disasters to be addressed with a renewed sense of urgency in the context of sustainable development and poverty eradication, and, as appropriate, to be integrated into policies, plans, programmes, and budgets at all levels and considered within relevant future frameworks.”<sup>1</sup>

**UN General Assembly Resolution on Sustainable Development**

“We must ensure that development strategies and programmes prioritise the building of resilience among people and societies at risk from shocks... Investing in resilience and risk reduction increases the value and sustainability of our development efforts.”<sup>2</sup>

**Busan Partnership on Aid Effectiveness**

“Natural disasters can be a serious impediment to poverty reduction and affect poor and vulnerable people the most, and their impact is on the rise.”<sup>3</sup>

**World Bank Development Committee**

We need effective adaptation strategies that “...help manage disaster risk now and offer near-term development benefits, while reducing vulnerability over the longer term.”<sup>4</sup>

**Intergovernmental Panel on Climate Change**

“We recognize the value of Disaster Risk Management tools and strategies to better prevent disasters, protect populations and assets and financially manage their economic impacts.”<sup>5</sup>

**G20**

“Integrating disaster risk reduction into sustainable development strategies — by strengthening risk assessment, disaster prevention and humanitarian responses — will be critical to protecting the gains of development, particularly among those most deprived.”<sup>6</sup>

**United Nations Task Team**

“Development cannot be sustainable if the disaster risk reduction approach is not fully integrated into development planning and investments... Development investment that does not consider disaster risk will lead to the accumulation of more risk.”<sup>7</sup>

**UN Secretary General**

“We must stop calling events like these [Typhoon Haiyan] as natural disasters. Disasters are never natural. They are the intersection of factors other than physical. They are the accumulation of the constant breach of economic, social and environmental thresholds.”

**Yeb Sano, Philippines Negotiator, UNFCCC**



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# THE DEVASTATING IMPACT OF DISASTERS

## KEY MESSAGE

**Disasters big and small devastate families, communities and nations.**

**In the last 20 years the impact of disasters has been devastating**

**4.4 billion people affected**

**1.3 million people killed**

**US\$2 trillion in economic losses**

## Disasters come in all sizes

**The last 10 years have seen some of the largest disasters on record:**

**Pakistan floods 2010:** 20% of the country underwater; 20 million people affected.

**Haiti earthquake 2010:** killed more than 200,000 people in seconds<sup>8</sup>.

**East African drought 2010-11:** worst in decades; caused acute food crisis in six countries; up to 258,000 killed in Somalia alone<sup>9</sup>.

**But smaller, localized disasters often go unnoticed:**

The attrition of small-scale disasters affects the poorest families, and accounts for significant disaster impact: 54% of houses damaged, 80% of people affected, and 83% of people injured<sup>10</sup>.

The uncounted impact in low-income households and informal businesses, outside of 'official' indexes, could increase total losses by 50%<sup>11</sup>.

**US\$3 trillion**

## Disasters do not respect borders

### Neighbors

In 2008 a breach in the Kosi embankment in Nepal redirected 95% of the river through rural communities, affecting 54,000 people. The same flood forced nearly 3 million people from their homes in India.

### Human Impact

The 2004 Indian-Ocean Tsunami killed over 230,000 people in 15 countries, including nationals from a further 46 countries.

### Global Supply Chains<sup>12</sup>

The 2011 Great East Japan Earthquake led to a 20% drop in vehicle production in Thailand. The Chao Phraya Thailand floods of 2011 closed 451 Japanese factories in Thailand, as well as other factories in Malaysia, North America and Japan itself.

# DISASTERS UNDERMINE DEVELOPMENT

## KEY MESSAGE

Every aspect of sustainable development is undermined by disasters, whether social, economic or environmental.

### Disasters affect countries in different ways

#### Low income countries

**9%** of disasters

**3%** of financial loss

**39%** of deaths

#### Lower-middle income countries

**24%** of disasters

**25%** of financial loss

**42%** of deaths

#### Upper-middle income countries

**20%** of disasters

**8%** of financial loss

**12%** of deaths

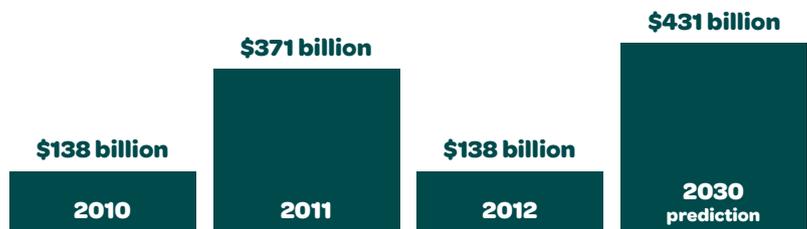
#### High income countries

**47%** of disasters

**64%** of financial loss

**7%** of deaths

### The economic impact of disasters is growing<sup>13</sup>



**In developed countries, growth cannot keep pace with disaster loss:**

**Superstorm Sandy:** affected 24 states in the USA, cost US\$65 billion<sup>14</sup>.

**Great East Japan Earthquake:** US\$210 billion<sup>15</sup> in damages, the costliest disaster on record.

**In OECD countries,** since 1980, the risk of economic loss due to floods has increased by over 160%; loss due to tropical cyclones has increased by 265%<sup>16</sup>.

**Disasters in developing countries destroy gains built up over decades:**

- Hurricane Ivan (2004) cost Grenada over 200% of gross domestic product (GDP) and the earthquake in Haiti (2010) reached costs close to 120%<sup>17</sup>.
- In larger economies, such as Bangladesh or Mozambique, the loss of 3 to 5% of GDP every five to ten years has a heavy cumulative impact on development<sup>18</sup>.

### The social impact of disasters expose inequities and keep the poorest poor

**Low-income and lower-middle income countries have accounted for only 33% of disasters, but 81% of all deaths.**

**In the 2004 Tsunami children made up a third of all deaths<sup>19</sup>.**

**Disasters trap people in poverty:**

**Haiti:** Numbers of poor fell 8% between 2001 and 2010. After the 2010 earthquake it was back to 2001 levels<sup>20</sup>.

**Pakistan:** The 2000-2001 drought in Sindh province increased poverty by up to 15%<sup>21</sup>.

**Philippines:** Typhoons Ondoy and Pepeng nearly doubled poverty in Rizal province in just three years, from 5.5% to 9.5%<sup>22</sup>.

**The future for the poor is bleak without action:**

Up to 325 million extremely poor people will be living in the 49 most hazard-prone countries in 2030<sup>23</sup>.

### Inadequate investments in DRR lead to massive levels of emergency response

Since 1991 the international community has spent US\$69.9 billion in response to disasters, and only US\$13.5 billion on risk reduction<sup>24</sup>.

**US\$69.9 billion** in response to disasters

**US\$13.5 billion** on risk reduction

# RISKS ARE GROWING

## KEY MESSAGE

**Unchecked by the integration of risk into development, the impact of disasters will grow and grow. Development must be risk-proofed now, so as to prevent massive losses of life, livelihoods and growth in the future.**

# DISASTER RISK

## Vulnerability remains intractable for billions of people

1.29 billion people living on less than US\$1.25 a day (2008)

1.15 billion people living in slums (2010)

925 million people undernourished (2010)

## Exposure is Rapidly Increasing

Population will increase from 7 to 9.3 billion by 2050

Population living in urban areas will grow from 3.3 billion to 4.9 billion by 2030

Developing countries will have 80% of the world's urban population by 2030

## Natural Hazards are Global and Increasing

### Global Scale of Hazards

179 different countries saw natural hazards become disasters between 2006 and 2010

### Climate Hazards Intensifying

Climate is responsible for  $\frac{3}{4}$  of all disaster events; The Special Report on Extreme Events suggests climate change could result in "unprecedented extreme weather and climate events"

## The rising price of climate risk

**2010 69.4 million** people<sup>25</sup>

**1970 32.4 million** people

**Flood Exposure**

**2009 122.5 million** people<sup>26</sup>

**1970 65.9 million** people

**Cyclone Exposure**

there have been **3 in the last 10 years** used to strike **once a decade**

**Food Crisis in the Sahel**

# DISASTER RISK REDUCTION DELIVERS ON DEVELOPMENT

## KEY MESSAGE

Development is never disaster neutral; it creates, exacerbates or reduces risk. Disaster risk reduction is a no-regret investment that protects lives, property, schools, businesses and employment.

## Disaster risk reduction saves lives and livelihoods

### Bangladesh

**1991** category four cyclone made landfall south of Chittagong: 138,000 killed.

#### Risk Reduction:

Significant investments in embankments and protective mangrove planting; early-warning, risk awareness and contingency planning; and the construction of cyclone shelters.

**2008** a category five cyclone struck the low-lying west, resulting in approximately 10,000 killed.

### India

**1999** a category four cyclone struck the state of Odisha. Deaths were as high as 15,000<sup>27</sup>.

#### Risk Reduction:

Odisha becomes the first state to have a dedicated disaster management agency. It builds cyclone shelters, evacuation routes and coastal embankments. It conducts contingency planning drills every year.

**2013** category five cyclone Phailin, strikes North-East India, 38 deaths recorded<sup>28</sup>.

Disasters impact on every aspect of life and living targeted by the Millennium Development Goals	Millennium Development Goals	Disaster Risk Reduction protects life and living, and is fundamental to achieving Development Goals
In Aceh, the 2004 tsunami is estimated to have increased the proportion of people living below the poverty line from 30 – 50%.	 1 Eradicate poverty and hunger	Better land use planning enhances food productivity and strengthens sustainability.
The 2008 Sichuan earthquake destroyed 7000 classrooms.	 2 Achieve universal primary education	Only through building earthquake-proof schools can seismic-prone countries and regions protect children and their education.
61% of those that died in Cyclone Nargis in Myanmar, were female.	 3 Promote gender equality and empower women	Participatory DRR puts women at the forefront of protecting and sustaining their communities.
The 2005-2006 Drought in the Horn of Africa increased child wasting up to 8%, and up to 25% for pastoralist communities <sup>29</sup> .	 4 Reduce child mortality	Training schoolchildren in a knowledge of disaster risk, first aid and emergency lives, saves both theirs and adult lives.
During the 2005 Pakistan earthquake, the estimated number of pregnant women in the affected areas was 40,000.	 5 Improve maternal health	Shelters built to protect communities against natural hazards can function as medical facilities or schools in times of disaster.
There were over 17,000 cases of diarrheal disease after flooding in Bangladesh in 2004.	 6 Combat HIV/AIDS, malaria and other diseases	Water and sanitation systems built to hazard-resistant standards, can resist becoming a breeding ground for disease.
Cyclone Nargis affected about 16,800 ha (41,514 acres) of natural forest and 21,000 ha (51,892 acres) of forest plantations <sup>30</sup> .	 7 Ensure environmental sustainability	Switching from traditional trades in woodcutting in drought-prone areas to sustainable agriculture, can both reduce deforestation and provide a more secure form of income.

# THE WAY FORWARD: MAKE RISK REDUCTION CENTRAL TO DEVELOPMENT

## KEY MESSAGE

**Disaster risk reduction is a development issue. Making risk reduction a central component of the future development agenda is the only way to ensure that disasters do not derail development itself.**

## Messages for Decision-Makers

1

**A specific target in the post -2015 framework that calls for the reduction and management of disaster risk will support sustainable and equitable development;**

2

**Disaster risk reduction is a cross-cutting, multi-sectoral challenge and can only be fully realized if it is integrated throughout sustainable development;**

3

**Sustainable development goals should commit countries to measure risk and account for losses associated with disasters and other extreme events;**

4

**In order to ensure equity, those most vulnerable to disasters and other shocks – whether due to age, gender or disability – must be specifically empowered and protected.**

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- 2 Busan Partnership (2011) outcome document of the Fourth High Level Forum on Aid Effectiveness
- 3 World Bank (2012) IMF Development Committee Communique
- 4 IPCC (2012) Special Report on Climate Extremes
- 5 G20 Leaders Declaration (2012)
- 6 UN System Task Team on the Post-2015 UN Development Agenda, 2013 Realizing the Future We Want for All
- 7 UN Secretary-General's report into the Implementation of the International Strategy for Disaster Reduction
- 8 Centre for Research on the Epidemiology of Disasters, mortality figure given as 222,570
- 9 FEWS NET (2012) Mortality among populations of southern and central Somalia affected by severe food insecurity and famine during 2010-2012
- 10 UNISDR, 2011. Global Assessment Report
- 11 UNISDR, 2013. Global Assessment Report
- 12 Ibid
- 13 Figures from 2010, 2011 and 2012 come from UNISDR Press Release (2012) Economic Losses from Disasters Set New Record in 2012. 2030 is based upon calculations that economic losses will double by 2030, from (United Nations 2013) Secretary General's Report on the Implementation of the International Strategy for Disaster Reduction
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This document was prepared by Jan Kellett and Plain Sense.



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