Also in this edition...

- Satellites provide help from the heavens for disaster management
- Big Voice: UN’s top disaster specialist explains why education is the key to reducing risks
- Toe-tapping through crises: Development songs help raise money for the stricken

Dealing with Disasters

Asia faces the daunting task of protecting growing economies from the ravages of recurring disasters
As a climate-changing greenhouse gas, methane is more than 20 times more potent than carbon dioxide. Unfortunately, methane emissions from livestock waste are growing, and increasing fastest in developing countries. ADB offers funding for biogas technology that uses animal waste for generating clean energy for cooking and electricity. Providing renewable energy for thousands of poor households. And switching Asia on to a low carbon growth path.

ADB. Investing in climate change solutions for Asia and the Pacific.
Bracing for Disaster

Natural disasters wreak havoc without discrimination, wiping out homes, livelihoods, a country’s economic gains, and often many individual lives. Africa, the Americas, Asia, and Europe have all been struck by catastrophes in recent years. Asia, however, has been hit hardest: 40% of the world’s disasters have occurred in the region in the past decade, resulting in a disproportionate 80% of disaster deaths. And Asia’s poor, lacking in resources and more vulnerable and exposed to the elements, have borne the brunt of these catclysms.

Touted as the next economic power, Asia cannot afford to continue along this path. Countries in distress will be hard-pressed to reach their development goals as funds meant for fortifying social and economic infrastructure get diverted for emergency relief and reconstruction. Efforts to reduce poverty and improve the quality of life in developing countries could suffer sizeable setbacks.

With extreme weather conditions attributed to climate change increasing in frequency and complexity worldwide, setting up disaster risk management initiatives at all levels has become even more imperative. Lessons learned from disaster response and recovery experiences show that a well-coordinated community response is just as vital as emergency action at the national or even international level.

This edition of Development Asia looks at the state of disaster preparedness in the region, the economics of risk mitigation and the politics of disaster relief, and proactive strategies and innovative solutions. We put the spotlight on Bangladesh, long a victim of recurring disasters, where a community-led program has dramatically reduced disaster-related deaths and damage. In The Big Voice, Margareta Wahlström, who heads the United Nation’s Secretariat for the International Strategy for Disaster Reduction, talks about the challenges of preaching preparedness. On the fundraising side, we examine the sometimes controversial role that celebrities have played in rallying international support for disaster victims.

On a lighter note, we also explore how the tiny seahorse is helping to reduce poverty in coastal communities across the region, and chime in about the musical traditions of international development.

As with all the development issues presented here, we sit back objectively and invite you, the reader, to join in the discussion by sending us your comments at editor@development.asia.
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Very good and informative reading, especially for someone living outside the region. Good format.

Paul Obrist
Economist
Switzerland

The various features on energy in the July–September 2010 issue of Development Asia are well-written and extremely well-researched. They reveal both sides to pressing issues today and in tomorrow’s energy scenario. Industry insiders should be just as captivated by the articles as someone reading about the sector with just passing interest.

Sebastian Lacson
Chief Reputation Officer
Aboitiz Equity Ventures
Philippines

I got a copy of Development Asia from my editor. I found it well-written, full of information, and very educational. The edition on Asia’s energy challenges was really helpful in writing some of my stories for which I didn’t have much information. I also enjoyed the two websites that you have mentioned [in the section “On the Web”]. Books that you have reviewed are also interesting.

Nidup Gyeltshen
Journalist
Thimphu, Bhutan

Email your comments to letters@development.asia or mail your letter to:
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Asian Development Bank
6 ADB Avenue, Mandaluyong City
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Please include your full name and contact information. Letters may be edited for space and clarity.

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Dana Williams has worked as a journalist in the United States and in the Pacific for more than 20 years. She has covered economics, international affairs, criminal justice, and health issues.
Worrying Trend

“We’re not supposed to attribute a couple of bad harvests, or the floods in Pakistan, to a changing climate. But this volatility in grain prices was not caused by farmers’ decisions or failures of government policy. It was caused by drought and flood. If this looks like a pattern—or simply a glimpse of things to come—it is worrying.” — The New York Times, 27 August 2010

A Rock and a Hard Place

“The conditions driving the divergence of economic policies—in particular, sluggish growth in the rich world—are likely to last for years. As fiscal austerity kicks in, the appeal of using a cheaper currency as a source of demand will increase, and the pressure on politicians to treat [the People’s Republic of China] as a scapegoat will rise. And if the flood of foreign capital intensifies, developing countries may be forced to choose between losing competitiveness, truly draconian capital controls or allowing their economies to overheat.” — The Economist, 14 October 2010

New Players, New Rules

“Globally, the rules-based system that the West set up in the second half of the 20th century brought huge benefits to emerging powers. But it reflects an out-of-date world order, not the current global balance, let alone a future one. China and India should be playing a bigger role in shaping the rules that will govern the 21st century.” — The Economist, 19 August 2010

Skewed Spending

“The real question donors should answer is this: why does infrastructure spending have to come back? . . . It appears likely the answer lies with the MDGs [Millennium Development Goals], or at least MDG-style thinking. I am a big fan of the MDGs, but I also accept they have sometimes skewed spending priorities. If you are set on reaching particular social development targets by certain dates, there is a strong temptation to focus spending on addressing them directly, at the cost of building and maintaining the infrastructure required for long-term growth.” — Centre for Aid and Public Expenditure of the Overseas Development Institute research fellow Jonathan Glennie writes in The Guardian’s Poverty Matters blog on 18 October 2010

Justified Profit

“No Excuse

“Does the possibility that some of the aid will be wrongly used prove that it is better to give nothing and watch people die? Not even aid’s fiercest critics think the failure to eliminate corruption means you should turn your back on mass suffering. Is there actually any good reason for not giving something, however small, to the victims in Pakistan?” — The Sunday Telegraph’s Alasdair Palmer asks on 15 August 2010 why donations have been slow in coming

Not the Answer

“The lesson from America is that economic growth is no guarantee of wellbeing or political stability. American society has become increasingly harsh, where the richest Americans buy their way to political power, and the poor are abandoned to their fate. In their private lives, Americans have become addicted to consumerism . . . The world should beware. Unless we break the ugly trends of big money in politics and rampant consumerism, we risk winning economic productivity at the price of our humanity.” — Jeffrey D. Sachs, professor of economics and director of the Earth Institute at Columbia University, writes for Project Syndicate on 30 September 2010

The Confidence Fairy

“Thanks to the IMF, multiple experiments have been conducted—for instance, in east Asia in 1997–98 and a little later in Argentina—and almost all come to the same conclusion: the Keynesian prescription works. Austerity converts downturns into recessions, recessions into depressions. The confidence fairy that the austerity advocates claim will appear never does, partly perhaps because the downturns mean that the deficit reductions are always smaller than was hoped.” — 2001 Nobel laureate Joseph Stiglitz arguing that Britain and the world need another economic stimulus in The Guardian on 20 October 2010
Global Number Crunching

AidData

http://aiddata.org

Anyone who has tried to sift through the funding, lending, and grant programs of a major development organization knows how daunting it can be to make the numbers meaningful and understandable. That makes the efforts of the team at AidData all the more admirable. They are not trying to capture the data of just one organization. They want it all.

AidData, which is supported by several universities in the United States, is attempting to build “an easy-to-use, comprehensive, and timely resource describing the universe of development finance project-by-project, including all grants and loans committed by all major bilateral and multilateral aid donors.” It claims to have the world’s most comprehensive database on development finance, which includes data on commitments and disbursements from 1945 through 2009.

The website allows users to search for data organized by donor, recipient, purpose, and activity (or sector), as well as by geographical region and by donor type (multilateral or bilateral). For example, a search can be conducted of the Asian Development Bank’s lending and grant activity in the education sector in Mongolia, or users can bore deeper into the sector, focusing on curriculum development.

Such simple searches, which rely primarily on data from the annual reports of the organizations involved, are not where the power of AidData lies. The most interesting aspects of the database include detailed searches across multiple finance organizations, regions, and sectors. At a conference at Oxford University in March 2010, scholars gathered to discuss use of the database for even more sophisticated research, such as one presentation on “China’s Development Cooperation with Southeast Asia.”

RSA Animate

http://comment.rسابlogs.org.uk/videos/

Speeches and presentations have always had an uneasy relationship with the internet. Sitting in someone’s presence and watching that person speak, or give a presentation, requires a degree of concentration and mutual attention. The speaker feeds off the energy of the audience and vice versa.

Once you put that same speech onto YouTube, there is a different dynamic. It requires a much more engaging presentation to hold your attention. You know you should listen to all 20 minutes on that weighty topic of importance to your career, but you also know that you are just one click away from those funny cat videos.

The solution of course is animation and illustration, and the website RSA Animate is a leader in this area. It offers engaging—at times hypnotic—animated versions of important speeches and presentations. The organization hires talented artists to draw detailed illustrations of what is being explained and then speeds up the video of their actual animation process (you can see the hand drawing the illustrations) to match the timing of the speech. The result is a simultaneous visual explanation of what is being said.

The website is hosted by the Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA) of the United Kingdom, which describes itself as “a cradle of enlightenment thinking and a force for social progress.” It has presented fascinating animated presentations on “changing education paradigms” and “the surprising ethical implications of charitable giving.” Other weightier, philosophical topics are also presented in this engaging format.

Researched and written by Floyd Whaley
Be Prepared

Asia faces the daunting task of transitioning to a culture of preparedness and prevention from a disaster response mindset

BY John Otis

Nestled on an island in the Chenab River, the Pakistani village of Laskhar Pur has seen its share of water-induced tragedy. In 1992, an epic deluge washed away nearly all the village’s mud houses. Despite the precarious location, abandoning land that had been in their families for generations was not a realistic option for the island’s impoverished cotton farmers. So they did the next best thing. They built embankments around their homes, set up a village-wide early warning system, and held evacuation drills.

That is why the village was in better shape than most when heavy monsoons last summer provoked massive flooding across much of Pakistan. When word came over the radio that the fast-rising Chenab River would inundate Laskhar Pur within 16 hours, volunteers sprang into action. They spread the word via loudspeakers atop the hamlet’s two mosques. They herded goats, donkeys, and buffaloes into livestock pens with raised platforms. After collecting food, first-aid kits, blankets, and identity papers, the villagers met at an emergency shelter and called the roll. Finally, they used prepositioned wooden boats with diesel outboards to motor all 300 residents across the river to the mainland and safety.

“This was the largest flood we had ever seen,” says Qasim, a longtime resident who manages a community-based organization in Laskhar Pur. “We’ve lost a few houses, all of the crops, and some people forgot to store dry food and fodder at a higher level. But compared to other villages, we have lost a lot less because of the work we’ve been doing.”

Among international development and relief groups, the prep work in Laskhar Pur goes by the rather
them from mudslides, flash floods, and storm surges? And why is less than 1% of humanitarian assistance devoted to prevention if it has been proven that every dollar spent on risk reduction can save $7 in economic losses from disasters?

FOCUSED ON PREVENTION
There has been progress. Disaster preparedness programs are now high on the agenda of UN agencies, multilateral development banks, some governments, and most nongovernment organizations such as Oxfam—which introduced a disaster risk reduction program in Laskhar Pur in 2006. “In the 1990s, disaster risk management was more about post-disaster relief and recovery, and there wasn’t much thought given to what could be done to prevent and reduce the impact of disasters,” says Abhas Jha, the World Bank’s coordinator for disaster risk management in East Asia and the Pacific. “Now, governments are much more focused on prevention and risk reduction. Finance and planning ministries are recognizing the benefits of investments in disaster risk reduction.”

Yet due to foot-dragging, shifting demographics and weather patterns, and the fact that mass-scale disaster risk reduction programs can be extremely complicated to put in place and institutionalize, more people are vulnerable to disaster than ever before. Perhaps partly due to global warming, the number of weather-related disasters around the world has jumped to 350 annually over the past decade from 200 per year in the 1990s, according to a 2009 report by the International Federation of Red Cross and Red Crescent Societies. Meanwhile, billions of poor Asians have settled in mega-slums that often lack vital protective measures such as enforced building codes and drainage canals.

The International Strategy for Disaster Reduction, a UN agency based in Geneva, recently estimated that the share of the global economy at direct risk from floods has doubled since 1990, and that in 2007, 28% more people are now vulnerable to losing their homes, incomes, and lives than 2 decades ago. According to the report, Asia is home to 75% of the world’s at-risk population for floods. The result is that millions of dollars and years of effort to lift people out of poverty can be erased in seconds. Some development experts feel they are chasing their own tail. Others describe the pace of progress as one step forward, then two steps back.

More and more nations have become overexposed to natural hazards. “We are still to some extent sleepwalking our way into disasters,” John Holmes, the former UN undersecretary-general for humanitarian affairs and emergency relief coordinator, said at a 2009 news conference in Geneva.
In the same year, a UN study indicated that while the economic cost of disasters has jumped, this cost as a percentage of the global economy has remained flat. But that's cold comfort to people like Saroj Kumar Jha, program manager for the Global Facility for Disaster Reduction and Recovery, a partnership established by the World Bank, the UN, and major donors. “My worry is that more and more people are in harm’s way,” he says. “Now even minor events, like small amounts of rain, can trigger a major disaster. And if we continue to get distracted by responding to disasters, it leaves very little time for the international community and governments to focus on prevention.”

FATALISM AT WORK
Disaster prevention theories emerged in the 1960s but were nearly always overshadowed by the pressing needs and headline-making lure of emergency relief. And they still are. According to the Organisation for Economic Co-operation and Development, global humanitarian assistance was $16.9 billion in 2008, with $12.8 billion coming from governments and $4.1 billion from private funding. Of that amount only 0.7% was allocated to prevention. That figure is up from 0.1% in 2001. Though on the rise, current funding is a long way from the targets of 10% for relief and reconstruction aid and 1% for development aid recommended in 2009 by the Global Platform for Disaster Risk Reduction, the main world forum on disaster preparedness which meets every 2 years.

In some ways, these figures make perfect sense. After all, aid organizations attract more donations by focusing on post-event work. The UN and multilateral development banks spend more on response because that is what member nations demand. Hurricane insurance and other pre-disaster financing tools have only recently been invented and remain a hard sell. Many politicians eschew the slow, invisible work of prevention because they can win more votes by riding to the rescue in the wake of cyclones and tsunamis. After all, when was the last time a mayor or governor was elected on a platform of purchasing catastrophe bonds?

There is also a certain amount of fatalism at work. For many average folks, floods and earthquakes are simply acts of God, making them helpless victims. This position alarms Ban Ki-moon. “Almost as dangerous as the cyclones or earthquakes themselves,” the UN secretary general writes, “is the myth that the destruction and deaths they cause are somehow unavoidable.”

Another factor is that people tend to believe that once disasters strike, they will not strike again for a long time, says Yang Zhang, a professor at Virginia Tech and a research fellow in hazards sponsored by the National Science Foundation, an independent United States government agency. Thus, he says, “there is not a constant constituency that demands disaster risk reduction.”

A CATALYZING EVENT
The sad truth is that people must endure Mother Nature’s spin cycle multiple times for prevention programs to take hold. Ian O’Donnell, a disaster risk specialist at the Asian Development Bank (ADB), points out that it may require an especially grave “catalyzing event” for government and community leaders to finally come together and say: “never again.”

For much of the world, the tipping point was the 2004 tsunami. Not only was it a multinational tragedy but it also laid waste to popular international tourist sites. What is more, it was painfully obvious that thousands of deaths were preventable. Ilan Kelman, senior research fellow at the Center for International Climate and Environmental Research – Oslo (CICERO), points out that government officials had been discussing an Indian Ocean early warning system since the late 1970s but dithered. In the wake of the tsunami that killed more than 200,000 people, however, the system was up and running within 18 months.

A few weeks after the disaster, 168 governments signed the Hyogo Framework for Action, a global blueprint for disaster risk reduction that sets targets and timetables on such issues as flood prevention, early-warning systems, and building codes. The framework also aims to get everyone working toward the same goal. The idea is to infuse or “mainstream” disaster risk reduction principles into all development work—from poverty reduction and education initiatives to urban renewal and dike construction.

But in any field, cross-pollination is no easy trick. In warfare, joint military operations can be the hardest to pull off due to clashing visions and festering rivalries between service branches. The same holds true for government ministries and humanitarian aid...
groups. “We need the urban planners talking to the risk reduction experts. We need the climate change people talking to the urban planners. We need to break people out of these silos and talk about integrated, multisectoral solutions,” says Abhas Jha. “Disaster risk management is just plain commonsense processes integrated into development, but it’s often seen as a separate entity to be handled by disaster agencies.”

A driving force behind the effort to address this bureaucratic spider’s web is the Global Platform for Disaster Risk Reduction, which identifies itself as the forum for “accelerating world-wide momentum on disaster risk reduction.” Some development organizations now build risk-reduction requirements into nearly all the projects they finance. Disaster preparedness has also become a big issue for traditional first-responders such as the International Federation of Red Cross and Red Crescent Societies and the World Food Programme which, beyond nutritional assistance, is also teaching farmers how to terrace land and diversify their crops in case of floods and droughts.

CITIZEN SOLIDARITY
And while more money is needed, it is not always the expensive, high-tech gizmos that save lives, but often good planning, imagination and, perhaps most of all, citizen solidarity. Studies have shown that people remember 20% of what they hear, 40% of what they hear and see, and 80% of what they discover for themselves. That is why it is crucial for average people to get involved in training seminars, mock evacuations, and other activities that can embed the ideas of disaster preparedness in communities.

Some of the best programs have been developed in the smallest countries, like in Bangladesh where cyclones that once killed hundreds of thousands now kill hundreds. As Cyclone Sidr came rolling in from the Bay of Bengal in 2007, for example, 40,000 volunteers pedaled bicycles through neighborhoods spreading the word with bullhorns. They helped evacuate 3.2 million people. In some parts of the Philippines, villagers warn of approaching typhoons with everything from cell phone text messages to traditional bamboo clappers known as tala-tala.

RISING THREAT Tourists flee from the first of six tsunami rolling toward Hat Rai Lay Beach, near Krabi in southern Thailand, following a 9.2-magnitude earthquake on 26 December 2004.

Many Nepalese come away convinced of the need for better home construction following seminars in which small-scale model houses stand side by side on a table. When the seminar leader shakes the table, the model house with seismic-resistant measures holds firm while the weaker house collapses. The Thai Red Cross Society uses mascots, mobile theatre, cartoons, and calendars to promote disaster preparedness. In most cases, these small-scale investments have paid off. In one Filipino village, residents built a hanging footbridge to ensure children’s safety on the way to school and to sustain the local economy during floods. A follow-up study by the International Federation of Red Cross and Red Crescent Societies showed that it produced a 24 peso return for every peso invested.
A TIME-CONSUMING HASSLE
But if local and grassroots efforts sometimes seem haphazard, top-down approaches can also backfire because they tend to dismiss the value of local knowledge. Who better to draft geohazard maps indicating products can remain proprietary to the contractors and have limited downstream utility to governments and other development partners. The confusion over who is doing what and whether projects have made a difference leads to duplication and waste.

BLURRY VISION
But some experts argue that there has been too much action and not enough coordination and foresight. The overall vision remains blurry.

Part of the problem is the way development and relief agencies are structured. Rather than supporting long-term changes in countries where they operate—which may require bigger budgets and more staff—aid organizations prefer to fund projects with short-term, easily quantifiable objectives, says a new Red Cross report on disaster risk. “There are also still too many disaster risk reduction programs designed by outside experts with no real ownership or assimilation by local stakeholders,” the report says. “This has to change.”

Peter Clark, an ADB consultant on risk issues, says while “hundreds and hundreds of organizations are working on risk reduction and often that work has failed to percolate up into integrated national systems. Too many people are doing their own thing which has produced a patchwork landscape. The results tend to be localized, unscalable, and unsustainable.”

ADB’s O’Donnell agrees. “We need to be bolder,” he says. “We need to reach for solutions that will be effective in larger development dynamics and not just pilot test ideas in isolated corners.”

Another problem is that there is no central clearinghouse for information. Disputes have even broken out over who owns the data. For instance, when international development agencies contract private companies to put together risk models predicting the likelihood of a disaster, the resulting products can remain proprietary to the contractors and have limited downstream utility to governments and other development partners. The confusion over who is doing what and whether projects have made a difference leads to duplication and waste.

FOREWARNED IS FOREARMED
Experts say an early warning system could have prevented thousands of deaths in Indonesia and other countries hit by the 2004 Indian Ocean tsunami.

“A TIME-CONSUMING HASSLE
But if local and grassroots efforts sometimes seem haphazard, top-down approaches can also backfire because they tend to dismiss the value of local knowledge. Who better to draft geohazard maps indicating products can remain proprietary to the contractors and have limited downstream utility to governments and other development partners. The confusion over who is doing what and whether projects have made a difference leads to duplication and waste.

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“WE NEED TO BE BOLDER. WE NEED TO REACH FOR SOLUTIONS THAT WILL BE EFFECTIVE IN LARGER DEVELOPMENT DYNAMICS AND NOT JUST PILOT TEST IDEAS IN ISOLATED CORNERS”

—Ian O’Donnell, a disaster risk specialist at the Asian Development Bank
at the center of decisions about where and how to rebuild is ignored,” says the Red Cross report on disaster risk. “Fine words about ‘rebuilding a new, safe city’ and ‘decentralizing’ to avoid the previous high concentration of informal settlements usually (produce) distant camps and reconstruction sites where no one wants to live.”

The proliferation of crowded, unplanned neighborhoods amid Asia’s economic boom is often held up as one of the main factors making people more vulnerable to natural hazards. In East Asia alone, 2 million people are moving into urban areas every month, according to Abhas Jha. But urbanization need not automatically spell trouble. Indeed, well-constructed and managed cities are considered the safest places on Earth. Once these slum areas become more consolidated and people start demanding government services, it is more likely that officials will start paying attention to their safety. In other words, economic growth and disaster preparedness are not a zero-sum game.

“Risk reduction cannot succeed without economic growth,” argues Zhang of Virginia Tech. “Poor people are the most vulnerable to natural disasters. When they are lifted out of poverty, they will be more conscious of their safety and have a bigger capacity to deal with natural disasters.”

However, it would be a mistake to downplay institutional resistance, especially in high-growth nations such as the People’s Republic of China (PRC) where entire cities are being built in a matter of months. Economic expansion dominates the PRC’s national agenda, thus promoting risk management can be

unsafe structures and escape routes than long-time residents? Yet the folks who best know the lay of the land are regularly ignored. The lack of input from people with ground-level knowledge helps explain why drainage canals, constructed recently to protect Delhi neighborhoods from floods, ended up putting more people at risk when they became prime living space for squatters. Still, many government officials insist on viewing citizen participation in development projects and urban planning as a time-consuming hassle.

Take the case of housing policy when floods and earthquakes devastate slum areas. Usually there is a knee-jerk reaction from on high to relocate residents to faraway “safe havens.” That may be intended to prevent the next tragedy. Then again it may be an excuse to open up the land to well-connected developers—as occurred in many coastal areas following the 2004 tsunami. Either way, these new settlements are usually located great distances from where the displaced people work, which can make their lives even more difficult.

“The obvious and essential principle of allowing those most affected to be
The 2005 Sumatra earthquake flattened thousands of buildings in the Indonesian island of Nias, but the traditional, wooden *omo* homes held up better than most modern structures.

Politically toxic for government officials. Putting up seismic-resistant structures may cost an additional 10%, which is small change compared to rebuilding from scratch following disasters, but with so many projects in the pipeline, the added cost can be seen as an impediment to development.

Even when solid building codes are in place, they are often ignored by construction companies or not enforced by officials amid the construction bonanza. In many developed countries, the promise of lower insurance premiums often spurs building and home owners to upgrade their properties more than any law. But nothing resembling a nationwide insurance industry exists in the PRC, says Paul Procee, a Beijing-based senior urban environment specialist for the World Bank.

“Community involvement in risk reduction issues is still limited (in the PRC); however, there is an increasing understanding by Chinese officials that, besides infrastructure projects, like dikes, levees and pumping stations, there is a need to work more closely with local communities to raise awareness and better protect vulnerable groups,” Procee says. And in a vast nation where the state is considered all-powerful, many average citizens eschew taking their own protective measures, he says. If mudslides bury their homes, they rely on the government to build them new ones.

Yet by ignoring sound risk reduction practices, the PRC stands to lose the most. In 2008, for example, earthquakes and other natural hazards cost $181 billion in economic losses worldwide. According to the UN, the PRC absorbed the lion’s share of those damages with $110 billion in losses. Moreover, the building boom will not last forever. “Even China will reach its limit in the next 10 to 15 years,” Procee says. “They need to be smarter about how they build.”

Across much of rural Asia, low-income families have traditionally built their own homes. How are they faring? When economies were still based on small-scale farming, fishing, and herding, people were more in touch with their environment, recognized potential hazards, and built their homes accordingly, say experts.

In the Indonesian island of Nias, for example, the 2005 Sumatra earthquake killed hundreds and flattened thousands of buildings, but the traditional, wooden *omo* houses held up better than most modern structures. In response, ADB’s reconstruction efforts focused on restoring the traditional architecture of damaged homes with the help of local residents.

The houses along the flood-prone Mekong River provide another example. People built bamboo houses with moveable floors that offered protection from high water. But now, many rural families commute to towns and cities to punch the clock in factories. Bamboo is seen as backward, and the upwardly mobile aspire to houses made of reinforced concrete. During this transition, a disconnect developed between people and nature, and many traditional building techniques were lost.

What’s more, new building materials can be more complicated. It takes a practiced hand to incorporate reinforcing steel bars (rebar) with concrete and get the correct ratios for beams, walls, and floors. Getting it wrong can be deadly. Garry de la Pomerai, an independent disaster risk consultant, recalls pulling the bodies of children from the rubble of shoddily built concrete school houses following the 2005 Kashmir earthquake. “People still don’t understand how concrete should be mixed,” de la Pomerai says. "They’ll put 18-inch roofing slabs on top of walls that are not strong enough to hold them up. They will build two
stories and leave the rebar sticking up so they can build a third when they get more money. But that allows water penetration and as they build up, the structure becomes weaker.”

**LOW-PRIORITY PROJECTS**

Schools can be an ideal entry point for teaching sound building practices and other concepts of disaster preparedness in isolated communities. Students spend half their waking hours in classrooms and by constructing stronger schools, often with the direct participation of classmates, new generations may absorb the message and pass it on.

But schools are often low-priority projects built on the least valuable pieces of land, which are often susceptible to flooding, earthquakes, or landslides. That helps explain why 10,000 schools caved in during the Kashmir quake, killing 17,000 students and seriously injuring another 50,000. The 2008 Sichuan quake destroyed an estimated 7,000 schools and killed more than 7,000 school children.

The challenge now is to build back stronger by retrofitting existing schools or by putting up new ones that can better withstand natural hazards. Meeting the UN Millennium Development Goal of putting all children worldwide in school by 2015 “will constitute, collectively, the biggest building project the world has ever seen. Some 10 million new classrooms will be built in over 100 countries,” says an Inter-Agency Network for Education in Emergencies publication. “It is critical to get safer school construction right the first time around.”

It is also critical to get building-education programs right. Rather than face-to-face meetings, most aid groups teach construction techniques indirectly by distributing printed materials. But they are not always clear. “A typical image provides a bird’s-eye view. But most people are not trained to read that kind of image and will not understand it,” says Marla Petal, co-director of Risk RED, a nonprofit organization that promotes improved education in disaster risk reduction.

**SHAKY GROUND** The children who survived the Kashmir earthquake sit in front of their destroyed school. Experts note that schools are often low-priority projects built on the least valuable pieces of land, often susceptible to flooding, earthquakes, or landslides.

“If you want local people to build safer but you’re not going to be there watching over them, you had darn well be sure that the education materials are tried, tested, and excellent.”

Which raises a larger point about the whole issue of disaster risk reduction: people want to protect themselves but if building instructions or any other advice is too complicated, they may give up in frustration. In the interest of clarity, Petal even advises aid groups against using the phrase disaster risk management. “That’s like an actuarial term,” she says. “It’s what aid people say when they’re talking among themselves. Normal people don’t understand it. That’s why we should call it what it really is: ‘disaster prevention.’”
Concentrated Risk

Natural disasters may strike anywhere; however, they wreak much more havoc on the poor and those living in poor countries with weak governance and economies. Steps to reduce risk have proven successful. Still, effective action must be encouraged.

**Poor Populations**
The poor tend to live in more exposed areas and have vulnerable livelihoods and few resources to fall back on.

**Poor Countries**
A major disaster can derail a small, weak economy for decades, and weak governance can impede risk reduction.

**Increasing Divide**
As climate change shifts patterns in weather-related disasters, the poor and economically vulnerable will suffer a greater proportion of risk.

Deadly Math
While 40% of the world’s natural disasters occurred in Asia from 1999 through 2008, the continent accounted for 80% of disaster deaths.

Disaster Types and Deaths They Cause
From 1999 to 2008, 1,501 natural disasters killed more than 975,000 people. Almost half the deaths resulted from earthquakes and tsunamis.

**EARTHQUAKES AND TSUNAMIS**
- 12% of events
- 46% of deaths

**DROUGHT AND FOOD INSECURITY**
- 5% of events
- 31% of deaths

**WINDSTORMS**
- 27% of events
- 17% of deaths

Sources:
Asia’s Deadliest Disasters, 1990–2009

More than 2,200 natural disasters struck the region in the past 20 years, claiming an estimated 900,000 lives. Five mega disasters alone—the Indian Ocean tsunami, Cyclone Gorky, Cyclone Nargis, the 2008 earthquake in the People’s Republic of China, and the 2005 earthquake in Pakistan—accounted for more than 70% of fatalities, with 660,000 deaths.

Mega Disasters are Rare but Deadliest by Far

Worldwide, 0.28% of natural disasters caused 78% of disaster deaths from 1975 to 2008.

Deaths

Mega Disasters 78%
Others 22%

Natural disasters

Mega Disasters 0.28%
Others 99.72%

Keys to Reducing Risk

REDUCE EXPOSURE

- Accelerate infrastructure improvements to keep up with ballooning urban population.
- Provide realistic alternatives to those living in high-risk areas.
- Protect and restore ecosystems that buffer the impact of natural disasters.

EARLY WARNING

- Ensure warnings reach individuals.
- Develop flexible systems ranging from global monitoring, regional, and national preparation to local emergency action.
- Customize wording of warnings and methods used for local communities.

STRENGTHEN RESILIENCE

- Expand income options in rural areas, reducing reliance on a single crop.
- Encourage regional cooperation that helps stricken economies recover.
- Protect and restore ecosystems that provide and enhance the livelihood of rural populations.

RESEARCH AND DESIGN: MARK BLACKWELL
Disasters by Design

The top United Nations official dealing with disaster risk reduction is trying to change the way the world thinks about disasters

BY Floyd Whaley

Margareta Wahlström once dreamed of becoming a librarian. That career aspiration didn’t work out. Instead of living a life organized by the Dewey decimal system, she ended up spending much of the past 3 decades in some of the world’s most remote areas in the aftermath of disasters.

The 61-year-old Swedish national has served as the deputy United Nations (UN) envoy in Afghanistan, the UN Special Coordinator for Humanitarian Assistance to Tsunami-Affected Communities, and the UN Deputy Emergency Relief Coordinator. In November 2008, UN Secretary-General Ban Ki-moon appointed Wahlström to lead the Geneva-based Secretariat for the International Strategy for Disaster Reduction (ISDR). The daunting task of this tiny office is to “build more resilient communities and reduce the human, social, economic, and environmental losses due to disasters.”

Wahlström may labor in relative obscurity compared to UN officials dealing with disaster relief and response, but her task is monumental: change the way people and many political leaders view disasters. She travels the world with the simple message that preparing for disasters can prevent some of the most horrific and damaging effects of these events. As the world has watched widespread suffering from Haiti to Pakistan and elsewhere, her message has gained resonance.

IN CHARGE Margareta Wahlström, head of the Geneva-based Secretariat for the International Strategy for Disaster Reduction (ISDR)

Floyd Whaley spoke with Wahlström about the challenges of preaching preparedness, the politics of disaster relief, and the interests of Sean Penn and Angelina Jolie.

DA: What brought you from the high-profile field of disaster relief into the lesser-known area of disaster risk reduction?
MW: The change in my perspective came from seeing the same scenarios repeated over and over again, seeing governments and individuals absorbing the costs of losses. It just seemed that there must be a different way of dealing with the challenge than to pay up every time with increasing frequency and cost. That’s why I wanted to work in this area, to broaden this agenda and contribute to raising the political priority of trying to prevent and reduce risk rather than just absorbing the impact of the disaster.

DA: You have a significant public education challenge in front of you. There are some who feel that disasters are inevitable. They simply are risks that countries must accept.
MW: Senior officials tell me: “It’s quite difficult in our country because people believe that disasters may be acts of God.” The way I approach this is to recognize that hazards are acts of God, but disasters are manmade. An earthquake is not a disaster if it happens in an empty desert; it only becomes a disaster when it happens in a chaotic environment.
urban environment where no one has ensured that the public infrastructure can hold up to the well-known risk in the area. That’s part of the education: to show what actually causes disasters. It is people. It is not nature.

Disasters will always happen. No matter how much we invest in prevention, there will always be unpredictable and sometimes totally unimaginable events. In order to deal with the residual risk of disasters that will happen in even a perfectly well-organized environment—we can dream about that—governments must have credible preparedness and a response system that takes care of communities and people when disaster strikes.

This message is being heard. The cost of disasters is really beginning to bite in some countries, albeit a bit differently depending on the nature of the country and the economy. In [the People’s Republic of] China (PRC), for example, 2.7% of the annual average gross domestic product (GDP) is lost to disasters. That’s an average cost. For some years, it can be significantly higher or lower. A big country like the PRC can probably absorb that, but it doesn’t need to because it also has the capacity to improve its risk assessment. It has the capacity, both legally and financially, to improve the quality of building standards, roads, highways, and railways—all of these things. They invest in these areas enormously, so why not incorporate risk resilience, both to seismic hazards and to climate impacts for the longer term?

DA: How do you see the impact of disasters on development outcomes in poor countries?

MW: Development investments are being destroyed by disasters. People like me who have worked with disasters for a long time have seen how in practice the disasters that are more damaging to poor countries, and to poor people in rich countries, are the ones that rarely get into the headlines: the annual flooding of a river that sweeps away farm animals and destroys houses and schools. There is no buffer for these people. They are not insured and they have no savings; their loss is absolute.

Although the research is not satisfactory, there is increasingly good knowledge about the long-range and medium-range impact of disasters. There is clear evidence of educational impact: schools are destroyed or don’t function, teachers are killed, families are shattered, kids drop out of school to work, and children lose a year or 2 of school. Research has shown that this impacts longer-term educational and income possibilities. Similarly, in the health sector, it is quite evident that there are long-term impacts on people’s health, not only in terms of the loss of health services but also for emotional health and stress. These impacts are the not very well understood.

We are now focusing on how the economic impacts of hazards slow down growth. We want to be able to provide evidence and stimulate much better research and data collection on how to mitigate economic impact by encouraging regional collaboration and getting donors to see that their partner countries have the right to demand that donor investments are risk sensitive.

Poorer countries, particularly small islands with economies focused on one sector, can see a 10% to 15% decline in GDP from a single disaster. Is it long term or short term? Of course this depends on the nature of the economy, the ability to get immediate support from the outside world, how many people have been killed, and which groups of the population have been most affected. These are complex
MANNING UP  Soldiers battle through an avalanche of sludge and debris as they race to find survivors of mudslides in the People’s Republic of China in August 2010.

events but there is no doubt, and the data is clear, that they have an impact on poverty.

DA: In Asia, where there are high economic growth rates pulling large numbers of people out of poverty, cities are being built quickly. Some would say that not every building in a fast-growing city can be earthquake proofed, not every floodplain left undeveloped, that measures like this could hinder economic growth. How do you balance this need for rapid growth with disaster reduction and risk mitigation?

MW: Sooner or later, we will pay. I don’t think it is possible to control the growth of cities. There is no government, no matter how strong their positive intention is, that will be able to keep up with the need to develop infrastructure to accommodate the enormously rapid urban growth right now, so of course you must pursue no-regrets, doable things, but you must do these things in order not to pay later.

I think the PRC, without expressing a view on their previous economic choices, clearly now is doing very wise things to compensate for this very rapid and hard-driving development. They are also very sensitive to the fact that disasters hamper their ability to reduce poverty. They will not be able to reduce poverty if the very high frequency of disasters keeps people locked in poverty. In the PRC, though this may not be a very large part of the population, it’s a significant element in reaching the final leg of reducing absolute poverty.

DA: What are your thoughts about this calamitous flooding in Pakistan? Is this one of those events that goes beyond disaster risk reduction? How can you possibly plan for something like this?

MW: I believe that this is the type of event we will see more of. This is climate unpredictability. What the scientists are saying—and as practitioners we always try to pressure them for precise guidance, which just like lawyers they will rarely give—is we should expect more of the same and more extremes. More extremes really are in line with what is taking place in Pakistan.

What could a country do that has one of the mightiest rivers in the world if they had a chance to think through this scenario, both in terms of how to manage the enormous amount of water, and the fact that people are living at such high densities close to the river? What does it mean for the further evolution of the economy of that country? Should they try to make sure that the population doesn’t live just along the river, that future towns can be planned a little bit further away, that their warning system is effective enough?

The weakness of early warning systems is that often they don’t have institutional links to the people who have to make the decisions. You can get a warning about a massive monsoon system—in fact there were two monsoon systems meeting in this case—and someone, probably a meteorologist, saw this happening; but there wasn’t a system that led a chain of decision makers to say we need to take certain actions to be ready for this. In many ways, dealing with increasing disaster risk is about strengthening the institutional capacity for preparedness and action, in addition to the prevention measures.

DA: Some feel that risk reduction is too ambitious. It involves all levels of society and government, and requires nations and communities to rethink completely the way they are living and building. Is real disaster risk reduction too lofty a goal?

MW: Sometimes we talk about it in such a way, as a completely unachievable task. We need to mobilize political leadership in countries and help create alliances. It’s not our job as a UN office to execute, but rather to push and pull and motivate everyone else. And also, particularly right now, we have a historically unique moment because of this concentration of crises that has hit the planet in the past few years.

We have the realization that the climate is actually changing our physical environment. We have had the financial crisis, which shows that we are no longer living in the historical period of endless economic growth.
DA: There is a political element to disaster relief. Rich countries gain influence in poor countries by responding to disasters. Disaster reduction and mitigation is a much quieter, lower-profile activity. Do you have to deal with a political agenda in your work?

MW: I don't think there is a severe political obstacle to our work. The challenge is how to make sure that you reward a community leader, a mayor, a governor, even a president of a country, if their legacy is that they strengthened their country's resilience, making their country safer from hurricanes, earthquakes, and floods. There are some political leaders who have stepped forward and said: I have been re-elected three or four times on the political agenda of making the community safer, and I believe they will elect me again because they can see what I have done.

DA: When are we going to see Sean Penn and Angelina Jolie making commercials, and musicians doing concerts, for disaster risk reduction?

MW: I sometimes ask myself the same question. I think they will do that when we have been able to show that there is a social movement for safety.

DA: What is the relationship between disaster relief and disaster reduction?

MW: It is crucial that disaster relief operates in a way that reduces both the disaster impact and the future risk. Every disaster is also an opportunity for change. We need to immediately commit to using 10% of disaster relief resources toward sustainable and safe recovery. We need to find opportunities to change practices to avoid repeating the mistakes that contributed to the previous disaster. This is not as simple as it sounds, but at least we can create the financial space for governments that are rebuilding to take that responsibility as they move ahead.

There is particular responsibility for the international community to exercise much more integrated wisdom on the impact of disasters. Yes, contribute to the relief, but also be much more patient when it comes to recovery and reconstruction. Give time for planning. Don't apply the 6- to 12-month horizon on spending on recovery and reconstruction. Collaborate. Don't be such a hard rolling machine. Engage with national governments to help them to correct some of the practices that led to the disaster's impact, which hopefully will contribute to risk mitigation.

Reducing the cost of future disaster relief must be an objective. This is feasible in many countries. Very often some of the money from disaster relief funds is used for disaster prevention and mitigation. If international donors stand behind this, we can achieve so much more in a 5- to 10-year period than we might think.

DA: What was the impact of the 2004 tsunami and efforts to “build back better” on the relationship between disaster response and disaster reduction and mitigation?

MW: It was very good that (“build back better”) was introduced by (former US) President (Bill) Clinton, which gave it the political impact that was needed. It has not yet led to sufficient impact in changing practices but clearly the concept has been coined forcefully. If we don’t lose it, it will keep adding value to this idea that we can do better.

DA: There is a political element to disaster relief. Rich countries gain influence in poor countries by responding to disasters. Disaster reduction and mitigation is a much quieter, lower-profile activity. Do you have to deal with a political agenda in your work?

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MW: I sometimes ask myself the same question. I think they will do that when we have been able to show that there is a social movement for safety.
It’s an ordinary day in a bustling city. Suddenly the ground buckles and shakes. As buildings crumble, terrified families scurry to save their lives. Moments later, silence descends, punctuated with the screams of those trapped beneath ruins billowing with smoke and dust. Blood streams down the shocked faces of survivors searching for their children among debris. With the hospital destroyed, there is no place to seek medical treatment; with water mains ruptured, there is no clean drinking water under a sweltering tropical sun. Roads are blocked, and the airport is in ruins, making it nearly impossible to reach survivors.

The first to mobilize into this chaotic landscape of grief, fear, and danger are a dash of early assessment teams from the world’s biggest humanitarian aid agencies such as the United Nations (UN) relief agencies, the International Federation of Red Cross and Red Crescent Societies (IFRC), and Oxfam. Within hours, funds are unlocked for emergency response and the first internal situation reports are painting a rough map of the catastrophe. Logisticians are figuring out where supplies are most needed and how to move them through a broken city. And as word of the disaster hits the evening news, appeals for donations hit the airwaves.

Most Disaster-Prone
Today, more people than ever are vulnerable to natural disasters. And Asia and the Pacific is the world’s most disaster-prone region: between 2000 and 2008, 40% of registered disaster events occurred in the region. What’s more, growing populations and increased urbanization mean disasters such as earthquakes generally affect many more people when they strike in this region.

Just one type of natural disaster—earthquakes and the tsunamis they sometimes generate—has killed more people than any other type over the past 40 years.

Indeed, the disaster threats to the region come on all fronts: by land, sea, and air, according to experts. Due to climate change, food security will be threatened in the future by more frequent droughts. Delta regions throughout Asia are in danger of increased flooding. Pacific island states face greater risk of inundation and erosion. With more than a billion people worldwide now living within 100 kilometers of an ocean, an estimated 10 million are affected by floods annually, and climate change is expected to quintuple that number by 2080.

Major natural disasters may rule the airwaves, yet there are many more small and medium-sized emergencies that the international system of...
disaster response is ill equipped to handle. Their cumulative effect can have just as big an impact over time as larger disasters, according to the IFRC World Disasters Report. In regions such as Bangladesh, where heavy rainfall causes recurring floods, residents are especially vulnerable. “In multiple disaster situations, if there is not time for the population to return to its previous livelihood, to rebuild infrastructure and a working economy,” says Nicolas Moyer, coordinator of the Humanitarian Coalition representing CARE Canada, Oxfam Canada, Oxfam-Québec and Save the Children Canada, “they are more vulnerable in future crises.”

One of the most pressing challenges for disaster response is that no one organization effectively coordinates the staggering number of aid agencies that descend on a disaster zone. Within 6 weeks of the 2010 Haitian earthquake, about 10,000 groups arrived at the island nation to offer assistance. The major players have their own goals, systems, and supply chains that others may duplicate. More problems often develop as organizations try to outshine each other, wasting precious resources and life-saving time.

The 2004 Indian Ocean tsunami that killed more than 200,000 people was a watershed event in disaster response. Airports and supply routes clogged as thousands of groups participated in the biggest international aid effort ever. Shipments of food forgotten in depots were but one of a litany of avoidable problems that intense media coverage brought to the world’s attention.

SYSTEM-WIDE REFORMS

As a result, the UN Office for the Coordination of Humanitarian Affairs (OCHA) launched in 2005 the Humanitarian Response Review to assess the global humanitarian system. This led to a number of reforms. In particular, OCHA created “clusters” within countries to share information and to avoid duplication between UN agencies, the IFRC, international aid organizations, and nongovernment organizations (NGOs). OCHA became a de facto designated leader during disasters, a buffer between the onslaught of international agencies descending on a major disaster and the national actors who might otherwise be overwhelmed. Every country has clusters operating at the national and field levels, each focused on either health, education, shelter, or other essentials. Various humanitarian agencies participate with the cluster in their field.

In Asia, OCHA admits its size and capacities do not measure up to the challenges posed by the frequency and scale of natural disasters.

As well, in late December 2009, the 10-member Association of Southeast Asian Nations (ASEAN) ratified an agreement to improve the region’s ability to work together to handle natural disasters with a pact called the ASEAN Agreement on Disaster Management and Emergency Response (AADMER). The organization addresses one of the keys to ameliorating disaster preparedness in Asia—greater regional cooperation and decentralization.

“The Philippines has expertise in earthquakes and Viet Nam in flooding,” Adelina Kamal, head of the ASEAN Disaster Management and Humanitarian Assistance Division, told IRIN, the humanitarian news service, in August. “If each country focuses on their specialties and shares
that with the rest of the region, we’ll be better off.”

In disaster response, early action is essential to save lives. As a result, agencies are increasingly “pre-positioning” response funds. (Ideally, slow onset disasters such as droughts and floods can be predicted and preventative action taken to save lives; in this way, these funds could help avert much suffering.) Unlike a military or commercial distribution system, the process of delivering humanitarian aid to the hands of the needy is often inefficient. Alas, during the chaos of the 2004 tsunami, food and supplies cost too much and took too long—up to 14 days—to reach victims in Indonesia.

The IFRC tasked researchers from European business schools to improve logistics. In 2006, the emergency services providers overhauled their supply system by setting up more supply hubs—reasonably safe and politically stable logistics bases near disaster-prone areas with good transportation and communication links, competent local staff, and simple import–export rules—including depots in Dubai and Kuala Lumpur. “Our hubs have shortened the time it takes us to set up a supply chain from 15 days to 3 to 5 days,” Birgitte Olsen, IFRC head of logistics explained to Wired magazine. And the new system has cut the price of helping a family by about 75% to $185 from about $740.

While huge stocks of bulk items can be warehoused in anticipation of disasters, food and medications have a shelf life, and every crisis prompts specific needs. Many aid agencies prefer to purchase locally, not only to support the domestic economy, but also to lower transport costs and ensure the assistance is culturally appropriate. During the 2004 tsunami, for example, pork was shipped to victims in Indonesia, and shelters were built inside Buddhist temples—which prevented Muslims from accessing food and shelter.

Another priority is to quickly hire legions of local people to help with aid delivery and reconstruction. Locals speak the language, know the culture and issues, and desperately need jobs to survive in a shell-shocked economy. Training gets them up to speed on the mandates of aid agencies to ensure a minimum standard is provided.

The Sphere Project, a broad set of voluntary guidelines created after the widely criticized response to the 1994 Rwanda genocide, set baseline standards for aid. Individuals should receive 7.5 to 15.0 liters of water for drinking, cooking, and washing, 2,100 calories of food per day, and 3.5 square meters of covered shelter.

**DISASTER DRILLS** The Philippine Coast Guard joins a disaster response drill organized by the Association of Southeast Asian Nations (ASEAN) in Manila in 2009. Greater regional cooperation and decentralization are key to ameliorating disaster preparedness in Asia.

MILITARY INTERVENTION

Soldiers are often among the first responders to disasters. Military units can have the capacity to react rapidly, set up water purification systems, repair bridges, save people from the rubble or floods, and control crowds desperate for food and water. Across Asia and the Pacific, national militaries are increasingly engaging in humanitarian activities. The Indonesian military plays an important role in disaster relief, just as most national disaster management is run by former military officials in the Philippines. In India, the National Disaster Response Force consists of eight battalions stationed around the country specially trained in disaster response. Pakistan’s army was roundly praised for its work after the 2005 earthquake; their disaster response, in combination with other military contingents, the UN, and aid agencies represented a coming of age in terms of military–civilian cooperation and coordination.

While the military’s role is tremendously valued, some experts point out that disaster relief is not their first priority, even when they are actively assisting affected communities. In addition, soldiers may not be familiar with the neutrality
of aid delivery, local community development, or cultural sensitivities. Disaster response may also enhance the military’s clout, political and otherwise. “The military in a disaster zone is always controversial,” says Moyer. “Aid implies a power relationship. You have power because you have food and water and they don’t. Throwing guns into the mix is always risky.”

Throughout the disaster response, there is a scramble to raise money to pay for humanitarian relief from a fickle donating public. Slow onset disasters like floods and droughts simply do not elicit the same volume of donations as earthquakes, tsunamis, and volcanic eruptions with their dramatic images of destruction and suffering. The massive 2010 flooding in Pakistan, for example, has affected more than 20 million people—more than the 2004 Indian Ocean tsunami, and the 2005 Kashmir and 2010 Haiti earthquakes combined—and has been called the worst natural disaster in recent history by the United Nations. So why did western donors keep their wallets sealed. Whether the reason was disaster fatigue, timing, proximity, or Pakistan’s politics, the amount pledged in the first 2 weeks after the floods began was roughly $100 million, a far cry from the $1 billion promised in the 10 days after the Haiti quake.

CNN EFFECT
The “CNN effect” is when journalists focus 24-hour coverage and commentary on a natural disaster with a blizzard of images and videos. The phenomenon is named for the pioneering US Cable News Network, but it applies to all media including the internet and other television channels. “Saturation coverage” often incites the public to donate money and has likely increased the amount of aid donated to major natural disasters worldwide. But when that coverage wanes, so does the flow of donations. Robert Fox, executive director of Oxfam Canada, told The Globe and Mail: “There is no question there is a window. When the window closes, the world moves on, people become inured to the images and are less likely to respond.”

The UN estimates that at least 18 million “forgotten” people—so named because their plights do not attract sustained media coverage—are “consigned to the shadows of unfashionable crises and disasters” and struggle with insufficient funding. In contrast, victims of the 2004 Indian Ocean tsunami—a high-profile disaster—have received more than $1,000 per person, upwards of 5 times the amount requested.

All that money flowing into an often poor region in a short period of time stokes the potential for corruption. Disasters can exacerbate existing power and wealth inequalities and create a roll call of opportunities for the exploitation of people and resources from nepotism and bribes to oversupply and post-disaster property disputes when land titles have been lost. Transparency International’s Corruption Perceptions Index lists many disaster-prone and conflict-affected countries near the top of its list of corruption hotspots. Well-established aid agencies and NGOs have audit systems to guard against corruption. In a disaster zone, however, systems can break down. Recognizing that a major challenge during a disaster is making sure that enough money is available
at the right time and is spent on the right kind of assistance, the Good Humanitarian Donorship Initiative has created guidelines to encourage greater donor accountability; 36 donor countries have signed on to date.

In general, humanitarian aid has become more effective over the past decade as better mechanisms have been developed to improve the flow of aid. Part of that includes better disaster preparedness and readiness planning. For example, OCHA now maintains a large pooled disaster response fund financed by governments to respond to crises early.

In response to the increasing frequency of natural disasters, the number of emergency humanitarian workers worldwide has grown at 6% annually for the past decade to more than 210,000. Government and private donations to international disaster response reached $6.6 billion in 2008, nearly triple the 2000 amount. The effort is showing promising results: the number of people killed by disasters annually has dropped by almost half since 1975.

The long recovery stage of a disaster, after the world’s attention has moved on, is still a difficult, often underfunded period. Survivors, community leaders, and other local officials need to be part of the planning and implementation process from the outset and recovery should begin concurrently with emergency relief. After the 2004 tsunami, the US Agency for International Development set aside funds to support 40 small grants to promote participation by Acehnese in the rebuilding process, provide cash for work activities that employed almost 25,000 people, and put a much-needed $2 million into the local economy.

“Aid is not just about saving a life today,” says Humanitarian Coalition’s Moyer, “but making sure that in the long term those we save can take care of themselves and hopefully be less vulnerable to crises in the future.”

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**Early Action Saves**

A dollar spent on early action—preparation for disaster—is as effective as $4 spent on response after an event.

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<thead>
<tr>
<th>TIMEFRAME</th>
<th>ACTION</th>
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<tbody>
<tr>
<td>YEARS</td>
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<tr>
<td>2015</td>
<td>Improve infrastructure, such as ports, flood control systems and emergency shelters</td>
<td>Reduces exposure to risk, preventing and reducing damage and injury</td>
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<tr>
<td>2020</td>
<td>Improve programs, such as evacuation planning, reforestation, housing, and early warning systems</td>
<td>Improves understanding and prediction of risk</td>
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<tr>
<td>2025</td>
<td>Identify at-risk groups and areas</td>
<td>Ensures effective and efficient action</td>
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<td>Analyze long-term trends, develop plans</td>
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<td>MONTHS</td>
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<tr>
<td>2015</td>
<td>Prepare adequate supplies and equipment</td>
<td>Saves costs of transporting emergency relief supplies and saves valuable time for distribution to site of disaster</td>
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<tr>
<td>2020</td>
<td>Inform organizations, volunteers, and communities of potential heightened risk, and ensure that they are prepared</td>
<td>Saves time and costs of communicating risk close to an event</td>
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<td>Monitor trends</td>
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<td>WEEKS</td>
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<tr>
<td>2015</td>
<td>Closely monitor forecasts</td>
<td>Reducing personnel, systems, and equipment, such as making sure volunteer and staff passports are in order</td>
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<tr>
<td>2020</td>
<td>Alert organizations, volunteers, and communities to the probability of an event</td>
<td>Avoids last-minute redistribution</td>
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<td>Ensure preparations are in place, such as operational shelters</td>
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<td>DAYS</td>
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<tr>
<td>2015</td>
<td>Make sure personnel and communities are poised for immediate, targeted action</td>
<td>Ensures rapid action, saving lives and reducing need for and levels of response after a disaster</td>
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<tr>
<td>2020</td>
<td>Emphasize alerting communities</td>
<td></td>
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<td>HOURS</td>
<td>Evacuate</td>
<td>If proper preparations are made, evacuation is efficient and effective</td>
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RESEARCH AND DESIGN: MARK BLACKWELL
The low-lying, densely populated islands and coastal plains of Bangladesh are among the world’s most vulnerable regions for killer storms. Cyclones develop in the Bay of Bengal, and surging walls of water sweep over settlements built just a few feet above sea level, flooding property and killing people and livestock.

Poverty and lack of electricity increase this vulnerability. Homes built with substandard materials are unable to withstand storm-force winds, and with limited access to radio and television, officials face a challenge in communicating timely storm warnings to residents.

Yet in a country where disasters and poverty are endemic, emergency management officials and community volunteers have put into practice an early warning system credited with saving thousands of lives. In Bangladesh, the high-tech methods of meteorological forecasting and the simple methods of neighbors helping one another are used in tandem to protect lives and property from killer storms.

By working together, the people of Bangladesh have proven that widespread death and destruction can be minimized, even in the most powerful cyclones.

“The key to this success is the partnership of government and NGOs (nongovernmental organizations) and the local communities,” says C. Emdad Haque, director of the Natural Resources Institute at the University of Manitoba in Canada who has studied the effects of cyclones in Bangladesh. “There is a high degree of trust. That’s why it works so well.”

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REDUCING THE DEATH TOLL
Some of the deadliest storms on record have formed in the Bay of Bengal, where intense monsoons produce two cyclone seasons a year. One such storm is considered among the worst natural disasters in human history: the 1970 Bhola cyclone killed an estimated 500,000 people in Bangladesh and India.

“The primary reason for the huge loss of life caused by the 1970 cyclone was the absence of an early warning and cyclone-tracking system,” writes researcher Bimal K. Paul, a geography professor at Kansas State University in the United States who has studied the effectiveness of Bangladesh’s early warning system. After Bhola, the Government of Bangladesh and the...
Red Crescent Society began mobilizing community members to spread the message about approaching storms. The Cyclone Preparedness Program (CPP) was established, emergency shelters were constructed, and thousands of volunteers armed with megaphones were trained to travel into villages and issue warnings.

As a result, death tolls from storms have dropped dramatically in the last 4 decades. In 1991, Cyclone Gorky hit the densely populated Chittagong coast and killed about 140,000 people. At that time, there were about 20,000 CPP volunteers and just over 300 shelters.

In the years since then, more volunteers have been recruited and trained, more shelters have been constructed, and more community outreach has been conducted to inform people about the dangers of cyclones and the various types of warnings issued when cyclones approach. The volunteer program has been incorporated into the government’s official disaster plan.

When Cyclone Sidr struck in November 2007, the system was tested. Before the storm made landfall on the evening of 15 November, more than 44,000 volunteers were mobilized—twice as many as during the 1991 cyclone. Bulletins were relayed from the Bangladesh Meteorological Department to regional offices and field coordinators. Using microphones, megaphones, bicycle-mounted loudspeakers, and sirens, volunteers spread out through villages, alerting residents about the storm and urging them to move to shelters.

In sharp contrast to the storms of 1970 and 1991, the death toll from Cyclone Sidr was about 4,000. Although Sidr struck in an area less populated than Gorky, the early warning program is still widely credited with reducing the storm’s death toll.

MEMBERS OF THE COMMUNITY
Haque, who advised the Bangladesh Disaster Management Bureau on community programs in the 1990s, says the CPP could serve as a model for other areas.

“It could be replicated in many Southeast Asian countries,” Haque says, as long as good relationships can be developed between government institutions and civilian groups. “Building this partnership is the key element.”

The partnerships extend beyond the relationship with the Red Crescent Society. Academic groups, private scientific research agencies, United Nations agencies, and development organizations are involved. Under the country’s Comprehensive Disaster Management Program, emphasis is placed on risk reduction and community empowerment.

Paul says community empowerment is a crucial part of the CPP’s success. From disaster education to search-and-rescue and relief efforts, villagers are trained to help one another in crisis situations.

“EARLY WARNING SYSTEM In the Cyclone Preparedness Program in Bangladesh, authorities and volunteers warn villagers of impending storms with loudspeakers and sirens. They also conduct search-and-rescue and relief efforts.”

“In coastal Bangladesh an inverse relationship exists between cattle ownership and compliance with evacuation order”

— Bimal K. Paul, a geography professor at Kansas State University in the US who has studied Bangladesh’s early warning system
SAFE HAVEN Residents of Koyra make fishing nets in a center where they found shelter after their homes were flooded by Cyclone Aila in 2009. A study shows the need to equip emergency shelters with facilities and other accommodations for the disabled.

“CPP workers are members of the community,” Paul says. “They know the people.” With knowledge comes trust.

The responsiveness of the government and program coordinators when problems arise also helps build trust. One challenge has been convincing people to leave their homes and move to the shelters.

After Gorky in 1991, Haque conducted a study that found that almost everyone heard the storm warnings, yet most people did not evacuate. Residents, especially those living in poverty, worried about losing belongings or livestock if they abandoned their homes. They also worried that there would be no room at the shelters.

In addition to doubling the number of volunteers in the field between 1991 and 2007, the number of shelters increased nearly fivefold. In a report issued after Sidr, the government notes that future shelters “should be built more like community centers, closer to population centers, and more conducive to being used for regular community activities such as weddings or as school houses.”

To accommodate livestock, raised platforms known as killas were constructed in coastal areas. In a study conducted after Sidr, Paul notes that “in coastal Bangladesh an inverse relationship exists between cattle ownership and compliance with evacuation orders.” The country’s current National Plan for Disaster Management calls for more killas to be built, as well as more shelters.

CLIMBING A TREE

In the report after Sidr, the Government of Bangladesh states that 3 million people were evacuated and 1.5 million were accommodated in emergency shelters. Some of the problems found after Sidr were similar to the problems found after the cyclone 16 years earlier, particularly when it came to convincing people to evacuate.

Paul’s research team surveyed 257 households in 4 coastal districts to determine how many people were alerted to the danger of the storm and what factors played into their decision to leave their homes. The researchers found that with a few exceptions, the citizen volunteers did a good job of letting people know the storm was coming. More than 78% of the respondents in Paul’s study knew about the storm in advance, and most of them heard about it through program volunteers.

Most people heard the message to evacuate; not everyone heeded it. The study notes that “at least 41 respondents from various study sites who did not evacuate climbed a strong tree and tied themselves to it.” None of them died, but some were hurt by debris.

In its own report issued after the 2007 storm, the Government of Bangladesh states that “the cyclone confirmed that there were not enough shelters available to the high-risk communities. Many people had to walk long distances and still could not find safe haven.” Most of the shelters made no provisions for the needs of women. In Bangladeshi culture, men and women who do not know each other should not be housed under the same roof. Few of the shelters made accommodations for the disabled.

Problems with shelters are being addressed as new facilities are constructed, and despite the shortcomings, researchers agree the country’s early warning program has saved many lives.

“We found no casualties among those who took refuge in public cyclone shelters,” Paul reports.
Playing Savior

Supporting a worthy cause is de rigueur among celebrities these days, but do they really serve the cause?

BY Margo Pfeiff

If you dialed a certain toll free number on 22 January 2010, you might have recognized the voice at the other end of the line as Robert De Niro, Jack Nicholson, Drew Barrymore, or Leonardo DiCaprio, all of whom were manning phones during the Hope for Haiti Now telethon. The event was organized and hosted by American actor George Clooney and featured performances from Madonna, Bruce Springsteen, Stevie Wonder, and Sting. The Entertainment Industry Foundation, Hollywood’s leading charitable organization, says $66 million had been raised to help Haiti after the country’s devastating earthquake.

This was Clooney’s third telethon. His first raised more than $100 million for victims of 11 September 2001 in the United States. During his effort to help survivors of the 2004 Indian Ocean tsunami, women had their choice of heartthrobs, such as Matt Damon and Johnny Depp, answering phones and taking pledges, while Norah Jones and Christina Aguilera sang, actors told tsunami stories, and NBC showed footage of the devastation. Tsunami Aid: A Concert of Hope aired in January 2005 and brought in $18.3 million.

Clooney is one of a barrage of high-profile musicians, actors, filmmakers, and even broadcast journalists including CNN’s Anderson Cooper, who use their star power to focus attention on international disasters. Irish artist Bob Geldof kicked off a string of charity songs and concerts in the 1980s featuring musicians donating their efforts to raise money for disaster relief. Larry King turned over his CNN interview show to a 2-hour telethon to raise money for the oil spill-affected Gulf of Mexico region.

In Asia, Jackie Chan, the Hong Kong, China-born actor and filmmaker has a charitable foundation for causes including victims of natural disasters, and Jet Li, martial artist from the People’s Republic of China (PRC), teamed up with the Red Cross Society of China to raise funds to benefit PRC nationals affected by natural disasters.

There are cookbooks penned by celebrities and even the US National Hockey League has hooked up with the United Nations Children’s Fund (UNICEF) to bring attention to Haiti relief efforts.

So many celebrities are now involved in fundraising that the website Look to the Stars keeps a running tally of celebrities (2,450) and their charity affiliations (1,660). Celebrity disaster relief has become such a phenomenon that some stars hire staff to fend off celebrity recruiters and to screen and sift charitable
American actor George Clooney (United Nations Messenger of Peace); Hong Kong, China-born actor and filmmaker Jackie Chan (UNICEF Goodwill Ambassador); Chinese actor Jet Li (Goodwill Ambassador for the International Federation of the Red Cross and Red Crescent Societies); and Malaysian actress Michelle Yeoh (Global Ambassador for the Make Roads Safe campaign).

Haiti earthquake of January 2010, the pace of fundraising picked up as celebrities harnessed the connectivity offered by internet and communications technology. UNICEF raised $3 million online for Haitian relief in less than 48 hours with the help of celebrities—from gossip blogger Perez Hilton to Jordan’s Queen Rania. “Our celebrities were mobilized and tweeting within an hour and a half of this, telling people how they could give,” Vice-President for Public Relations at the US Fund for UNICEF, Lisa Szarkowski, told ABC News.

After American singer Lady Gaga used Twitter to voice support for victims of flooding in Leh, Pakistan in August 2010, “tweeting” the contact information for various help lines, Bollywood celebrities followed suit. Actresses Priyanka Chopra, Deepika Padukone, and Kunal Kapoor also tweeted their support, urging people to contribute to Save the Children, which has a rescue team in Leh.

Some stars are even taking their disaster relief roles into the field, showing up as first responders. Academy Award-winning actor Sean Penn was in New Orleans to lend a

opportunities; publicists say their major clients get dozens of requests every week.

Celebrities attract attention and charities and aid agencies are often more than delighted to link up with them for the free publicity. The American Red Cross maintains a National Celebrity Cabinet, a changing roster of talented individuals that includes Pierce Brosnan, Jamie Lee Curtis, Miley Cyrus, and Reba McEntire who are “on-call” to donate their time, skills, and passion to help response efforts. UNICEF appoints Goodwill Ambassadors—among them Myung-Whun Chung of the Republic of Korea, one of the world’s most renowned pianists and conductors—to marshal their talents and fame to raise funds for children worldwide.

TWEETING FOR A CAUSE
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Sometimes celebrities find themselves confused by the complexity of the causes they throw their weight behind.

“P. Diddy” Combs who sent out a “STATE OF EMERGENCY!!” alert to his 2.4 million Twitter followers funneled mobile device users to make an instant donation of $5 to the charitable Yele Haiti Foundation of Haitian-born, Grammy-winning musician Wyclef Jean. The fund received $2 million—$1 million in a single day—but Jean’s income tax records revealed questionable spending.

Sometimes celebrities find themselves confused by the complexity of the causes they throw their weight behind. After an impassioned account by Tanzanian President Benjamin Mkapa of the tragedy of malaria in his country at the 2005 World Economic Forum in Davos, Switzerland, American actress Sharon Stone leapt from her seat and pledged $10,000 to buy bed nets, challenging others in the audience to also make donations. Five minutes later, she had garnered $1 million in pledges.

A year later, Columbia economics professor Xavier Sala-i-Martin inquired about the funds and learned that Stone was only able to collect about $250,000 and that UNICEF was forced to

hand to survivors of the flood damage; he then made his way to Iraq and Iran, and flew into Haiti last year with his two teenaged children to set up in a tented camp, grab a shovel, and pitch in, closely followed by a CNN crew. Pulp Fiction star John Travolta piloted his own Boeing 707 into the Haitian capital of Port-au-Prince with 6 tons of ready-to-eat military rations and medical supplies, as well as doctors and ministers from the Church of Scientology.

MORE HARM THAN GOOD?
While celebrities’ efforts can produce often astonishing feats of fundraising and publicity, some question the value or relevance of these high-profile individuals in disaster response management. Critics say some celebrities use disaster aid as a means of self-promotion. Others debate that triggering short-term interest in one area, then moving on to shine their lucrative light on the next disaster takes the focus and funds away from long-term rehabilitation and can cause more harm than good.

Certainly, the target for the next big telethon or charity music concert is not necessarily dictated by the severity of the disaster. The 2010 flooding in Pakistan was named the worst natural disaster in recent history by the United Nations. Though it affected more than 20 million people—more than the 2004 Indian Ocean tsunami and the 2005 Kashmir and 2010 Haiti earthquakes combined—there had been no major fundraisers blasting the airwaves or celebrity reporters on site. Whether the reason is donor burnout, timing, proximity, or Pakistan’s politics, the amount pledged in the first 2 weeks after the disaster was roughly $100 million, a far cry from the $1 billion promised in the 10 days after the Haiti quake. Sometimes there are concerns over use of the funds raised, including corruption. Systems for accountability and financial tracking can become overloaded and ignored in the rush to supply relief. Most agencies continued to raise funds for the 2004 tsunami well beyond the point where their initial appeals were met; some major US agencies estimate they raised the equivalent of twice their normal global humanitarian budget at the time, yet few had the courage or integrity of Doctors Without Borders to announce that they had received enough funding.

After the Haiti earthquake, celebrity tweeting like that of musician Sean
Martin agrees that celebrities can do some good, he too worries that some celebrity aid projects are not based on rational decisions, but rather the whims of superstars not accountable to anybody. “The rich and famous tend to be more interested in raising money than making sure it is spent productively, perhaps because monitoring is more difficult and less glamorous than fundraising,” he writes in the Wall Street Journal. “It is not about inputs. It is about outputs.”

Step in to fill the $750,000 gap with its own funds, diverted from other projects. Sala-i-Martin was unable to determine how many bed nets actually arrived in Tanzanian villages—typically many are stolen along the way and sold on the black market to be used as fishing nets and wedding dresses. He did learn, however, that a small bed net supplier who sells to locals at a modest price was put out of business by Stone’s flood of free nets. The local supplier had 15 employees, each supporting about 10 family members. In the end, Stone’s well-intentioned donations drove 150 Africans into poverty.

Though some may blame UNICEF for not managing the situation properly, the case illustrates the problems celebrity fundraisers can create by failing to familiarize themselves with developing world issues. Stone had not researched the causes and consequences of malaria, consulted public health experts on other solutions, or asked the citizens of Tanzania if bed nets were what they wanted. Had she done so, she might have been surprised to learn that some African governments already distributed free bed nets through public hospitals.

Although she has no issues with emergency disaster funding, Zambian economist Dambisa Moyo, author of the controversial book, Dead Aid: Why Aid Is Not Working and How There Is a Better Way for Africa (2009) criticizes the influence of what she calls “glamour aid.” She quips, “How would British people feel if tomorrow Michael Jackson started telling them how they should get out of the housing crisis?”

While Sala-i-Martin agrees that celebrities can do some good, he too worries that some celebrity aid projects are not based on rational decisions, but rather the whims of superstars not accountable to anybody. “The rich and famous tend to be more interested in raising money than making sure it is spent productively, perhaps because monitoring is more difficult and less glamorous than fundraising,” he writes in the Wall Street Journal. “It is not about inputs. It is about outputs.”

Typhoon Conson howls ashore on the northern coast of Viet Nam. Rising floodwaters from monsoonal rains inundate Pakistan. After 400 years of quietude, Mount Sinabung erupts in Indonesia. Wildfires sweep through forests in Nepal. Mudslides engulf a town in northwest People’s Republic of China. Whenever such natural calamities strike, thousands often need to be evacuated ahead of their path or rescued in their wake. For disaster risk reduction and management authorities struggling to assess the situation quickly, earth observation satellites can literally be life savers. For all of these disasters that occurred in 2010, satellite emergency observation requests focused the power of observation and communication satellites to deliver critical images and information, thanks to well-developed regional cooperation in Asia and the Pacific between space and disaster agencies.

In the 5 decades since the world’s first artificial satellite, Sputnik 1, was lofted into space by the Soviet Union and beeped its way around the world to the amazement of millions, more than 40 nations have launched a growing
armada of satellites into earth orbit. A torrent of data now streams between Earth and space from more than 900 operational satellites dedicated to everything from global communications and weather forecasting to global positioning system navigation and military and scientific purposes. For national and international disaster management and mitigation agencies, space-based technology now plays a vital role in reducing the toll of lost lives and livelihoods from an increasing number of natural disasters.

When most people think of space technology, it is the Russian Federation and the United States that come to mind, but nations of Asia and the Pacific, including the People’s Republic of China, India, and Japan, also have advanced space programs, with launch facilities for their own and other nations’ satellites, such those of the Republic of Korea; Taipei, China; and Thailand. Over the past 4 decades the Indian Space Research Organisation has launched more than 50 satellites and now boasts the largest civilian remote sensing satellite constellation in the world, including nine earth observation satellites.

Launched in 2006 by the Japan Aerospace Exploration Agency (JAXA), the Advanced Land Observing Satellite (ALOS) has contributed greatly to relief and recovery efforts for disasters in the region, including a landslide in Leyte, Philippines; the eruption of Mount Merapi in Indonesia; and an earthquake in Solomon Islands. Typical of the sophistication of a new generation of satellites that are more like orbiting robots, ALOS has three sensors: the panchromatic remote-sensing instrument for stereo mapping, featuring three optical systems to measure precise land elevation; the advanced visible and near infrared radiometer type 2, which observes what covers land surfaces; and the phased array type L-band synthetic aperture radar, which can penetrate cloud cover and delivers day-and-night and all-weather land observation.

CAPTURING DATA
Putting satellites into orbit is hugely expensive, yet it is only part of the job. Capturing the vast wealth of data Earth-observing satellites gather and transmit requires receiving stations on the ground. Converting that digital stream into usable images and information and distributing it means computerized data processing power and a workforce of specialists. An example is Singapore’s Centre for Remote
Imaging, Sensing and Processing, which operates a satellite ground station to acquire data from nine remote sensing satellites, and processes the archived data into standard or value-added products for distribution and research as well as to disaster-related organizations.

In the wake of the 2004 Indian Ocean tsunami, which killed more than 200,000 people in 14 countries, a United Nations General Assembly resolution in 2006 established the UN Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER). A program within the UN Office for Outer Space Affairs, UN-SPIDER linked disaster management and space communities with the goal of ensuring all countries and international and regional organizations have access to critical space-based information and the capacity to use it for disaster risk reduction.

Part of the growing international cooperation in the use of space-based technology, the Asia-Pacific Regional Space Agency Forum (APRS AF), established in 1993, holds annual meetings jointly organized by JAXA, Japan’s Ministry of Education, Culture, Sports, Science and Technology (MEXT), and organizations of host countries. Members are committed to developing open access to space-based technology and building space-based technology capacity through projects such as Space Applications for the Environment, Satellite Technology for the Asia-Pacific Region, and Sentinel Asia.

Sentinel Asia traces its roots to Sentinel Hotspots, an Australian system that draws on the National Aeronautics and Space Administration’s Moderate Resolution Imaging Spectroradiometer (MODIS) sensors on the Terra and Aqua satellites, which overly all parts of the globe up to four times a day. The bushfire warning and monitoring system was created in 2002 after wildfires overwhelmed firefighters and caused loss of life and property around Sydney. “We developed this methodology to downlink data from MODIS to a ground station at Alice Springs, operated by Geoscience Australia,” explains Alex Held, with the Commonwealth Scientific and Industrial Research Organization in Canberra, who lead the team that established the system.

Computers in Alice Springs scan for unusually high amounts of thermal and short-wave infrared radiation temperatures detected by MODIS sensors 700 kilometers away in space, which indicate possible fires, and the data is processed to create a surface temperature image. Held says a computer automatically processes the images to create maps of hotspots.

“The computer then sends a small file across the internet to our web mapping system in Canberra, like a Google Earth interface, which then places the coordinates given by the system on a map of Australia and highlights them as possible fires,” he says.

Using a geographic information system (GIS), the maps can show towns, roads, and other details and allow firefighting authorities and other users of the website to identify fire locations with a potential risk to communities and property. Firefighters can receive information from the system through web-enabled mobile phones or other devices to monitor the direction and growth of fires. When Sentinel Hotspots went live in 2003, it was used successfully to provide information in support of fighting bushfires around the capital city, in remote regions, and more recently in the state of Victoria.

The web-based system was showcased at an APRSAF meeting in Japan in 2005. It was decided at the meeting that a “Sentinel Asia” pilot project be implemented as the first step to establishing a disaster risk management system. Led by APRSAF and supported by JAXA, Sentinel Asia is a collaborative effort of space and disaster management agencies with the goal of open sharing throughout the region of disaster-related and other information from earth observation satellites. Data and images are combined with other spatial information and products and made available to emergency and disaster agencies and the public through a user-friendly web-based platform accessible through a standard web browser. Held says the vision of Sentinel Asia is a community system with Earth-orbiting satellites from various countries contributing images before, during, and after major disasters. JAXA’s Kazuya Kaku, of Sentinel Asia’s Joint Project Team Secretariat in Tokyo, says the organization now has 70 joint project team members, including international organizations such as the UN Economic and Social Commission for Asia and the Pacific, the Association of Southeast Asian Nations, and the Asian Disaster Reduction Center.

Satellite emergency observation requests from members are routed to space agencies of Sentinel Asia, such as JAXA and ISRO, through the Asian Disaster Reduction Center.

**PINPOINTING HAZARDS FROM SPACE**

Effective disaster management involves not just emergency response, but also mitigating damage and loss of life through prevention and preparedness. Anggraini Dewi, a specialist in remote sensing and GIS at the Asian Disaster Preparedness Center in Bangkok, uses satellite images and data to create hazard maps, one of the most useful applications of space-based technology for disaster preparedness. Layering satellite images over existing thematic digital maps, Dewi’s team creates maps of various hazards that disaster risk reduction and emergency planning authorities can use to see which areas are at high risk in order to better
plan for emergencies. Dewi’s work has benefited from recent advances in satellite technology. “About 5 or 7 years ago the best resolution available to us was about 10–15 meters. Now, with high resolution satellites like IKONOS and QuickBird we can see far better detail. For example, QuickBird’s resolution is less than a meter.” Comparing pre- and post-disaster satellite images can help pinpoint such things as collapsed buildings, allowing damage to be assessed much more easily.

Dewi’s team has created flood hazard maps of the Lao People’s Democratic Republic and Nepal at national and provincial levels, which help local authorities to make better plans for disaster risk management. Using stereoscopic satellite images from satellites, such as JAXA’s ALOS, together with a digital elevation model, slope angles and ground elevation can help provide hazard maps of which areas are at risk of landslides and floods.

Areas prone to such potential disasters as earthquakes, tsunami inundation, and storm surge during cyclones can also be mapped. Even for countries without good survey maps, space-based technology coupled with high-quality resolution images from earth observation satellites can still produce hazard maps.

Perla Delos Reyes, supervising science research specialist at the Geology and Geophysics Research and Development Division of the Philippine Institute of Volcanology and Seismology, is involved in an interagency pilot project to create multi-hazard maps for 18 provinces in the Philippines. Another project will use MODIS Terra for active fault monitoring. Satellite images and data are so accurate they can validate if a particular fault is moving.

The most important challenge for reducing the impact of disasters through such space-based technology in the region, says Anggraini Dewi, is having more satellites provide free access to high-quality imagery and data for developing countries that cannot afford expensive commercial sources.

COMMUNICATING FROM SPACE

The first thing to be knocked out during many disasters is land-based communications, such as mobile phones and landlines, making communication satellites riding in geostationary orbits above the Earth’s atmosphere disaster management lifelines. Of all operating satellites, about 58% are dedicated to communications. One of the bottlenecks in disseminating image files and data from sites using web-based GIS, such as Sentinel Asia, is conventional internet bandwidth, which is too narrow and too slow in some parts of Asia. A new JAXA satellite however is changing that.

Launched on 23 February 2008, the 2,700-kilogram Wideband InterNetworking engineering test and Demonstration Satellite (WINDS), which orbits at an altitude of 36,000 kilometers, allows ultra-high-speed data communications with a ground antenna of 45 centimeters or less in diameter, claims JAXA. The ultra-high-speed international internet access, especially with countries in Asia and the Pacific, means large volumes of high-resolution images or even video can be transmitted quickly, even in nations with slow internet speeds. WINDS also helps rescue efforts in disaster areas by collecting urgently needed information quickly, especially if ground communications facilities are damaged or if areas lack advanced communications infrastructure.

Anggraini Dewi says: “Not all countries have the capacity to take advantage of space technology. They need assistance to build capacity from nations with advanced space programs.”
First Responders

Disaster risk reduction programs should focus on supporting local efforts over national and international agencies’ responses

BY Floyd Whaley

While international aid organizations, the military, and other high-profile entities took center stage in the aftermath of the 2004 Indian Ocean tsunami, the group that played arguably the most important role in relief and recovery received much less attention: the affected local communities.

“Local communities in each of the three countries [Indonesia, Sri Lanka, and Thailand] responded quickly to the challenge of providing emergency assistance in the aftermath of the disaster—the period most important in terms of saving lives,” according to a new study.

The recently released report by the Asian Development Bank Institute (ADBI), *The Asian Tsunami: Aid and Reconstruction after a Disaster*, looks at the effectiveness of aid delivery in the three countries with the aim of improving disaster risk reduction policies in the region. The study finds that emergency preparedness funding is best invested in the local communities, rather than in national or international relief organizations.

“One of the single most important conclusions of the study into tsunami relief is that it is local communities—rather than the national or international communities—who are quickest to provide the most valuable practical immediate assistance following a great disaster,” the report notes.

“It is usually the poor who are at highest risk, particularly in developing countries, because the places where the poor live and work tend to be especially vulnerable when disasters strike”

—Masahiro Kawai, Dean of the Asian Development Bank Institute
major disasters, the Indian Ocean tsunami was unprecedented. The 26 December 2004 tsunami was triggered by an earthquake off the coast of Sumatra in Indonesia. Waves traveling up to 1,000 kilometers per hour hit Indonesia, killing more than 160,000 people in the first hour. Before it was over, the colossal waves spread to Thailand, South Asia, and Africa, killing more than 200,000 people, displacing more than 1 million, and causing more than $10 billion in damage across Asia and Africa.

PRIORITIZING NEEDS
The ADBi report finds that the large number of actors—including the media, policymakers, and donors—included in the effort had differing objectives, only one of which was the delivery of humanitarian relief. It also notes that coordination of the activities of the different agencies was extraordinarily complex.

The report finds that donors tended to be “supply-oriented rather than demand-responsive” when it came to providing basic needs. “Mechanisms are needed to ensure that local communities affected by a natural disaster have adequate opportunities to indicate what they see as their priority needs,” the report notes.

emergency relief measures in poor countries, much greater priority needs to be given to strengthening local preparedness rather than funding delayed responses after the event.”

Asian countries need community-based preparedness. Of the 10 major natural disasters with the highest death tolls since 1975, 6 have occurred in developing countries in Asia, the ADBi report notes.

“It is usually the poor who are at highest risk, particularly in developing countries, because the places where the poor live and work tend to be especially vulnerable when disasters strike,” notes Masahiro Kawai, the dean of the institute, in the study’s foreword.

Even for a region experienced in

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Donors, states, nongovernment organizations, and United Nations agencies “tend to concentrate on the achievement of their own institutional programme objectives achieved through projects, which are relatively short term for the most part.”

—A Ripple in Development? Long Term Perspectives on the Response to the Indian Ocean Tsunami 2004, a landmark report published by the Swedish International Development Cooperation Agency (Sida) in 2009

The report notes that the overall aid program involved thousands of agencies over several countries and totaled about $17 billion. “Many lives were saved,” it states. “Much long-term assistance was delivered. One clear conclusion, therefore, is that the major assistance program was highly successful in achieving the goal of providing widespread help following the 2004 tsunami disaster in Asia.”

While identifying that success, the report finds significant problems, particularly in recognizing “the critical role of local agencies and communities in delivering relief during the critical early phase of a natural disaster.” “International agencies should aim to strengthen their capacity to cope with natural disasters and see their own efforts as complementing them,” the report adds. “When mega disasters strike in poor countries… too many agencies from too many countries with too many goals compete rather than cooperate to provide aid. The result is that scarce coordination resources in recipient countries are stretched close to the breaking point.”

BAND-AID SOLUTIONS
The ADBI study built upon the findings of A Ripple in Development? Long Term Perspectives on the Response to the Indian Ocean Tsunami 2004.

RECONSTRUCTION
These aerial photos of Calang town in Aceh Jaya district taken on August 2005 (left) and December 2007 show the progress in the reconstruction of houses destroyed by the tsunami that hit Indonesia in 2004.

The Sida report, commissioned by governments in the region and researched by independent consultants, sought to examine if organizations trying to help tsunami-affected people in Indonesia, the Maldives, and Sri Lanka were able to work together to produce effective results.

The report gives credit to the achievements of the mammoth relief and reconstruction efforts after the tsunami in the face of unprecedented damage, but notes that the organizations did not have a significant impact on reducing poverty in the affected areas or on building the capacity of the affected people to deal with future disasters.

This was due in large part to the low priority given long-term considerations in recovery efforts.

Donors, states, nongovernment organizations, and United Nations agencies “tend to concentrate on the achievement of their own institutional programme objectives achieved through projects, which are relatively short term for the most part,” the Sida report states. “They are also little inclined to analyze the cultural and governance environment in a systematic way, and, more damagingly, few have developed strategies for local capacity building.”

The report concludes national governments need to take the lead in establishing unifying themes and clear priorities during major disasters, and partnering with organizations that support those efforts.

“By designing long-range assessments and clear planning priorities, national governments can better cooperate with international organizations, and build local capacity,” the Sida report notes. “This could turn the ripple of the response into a wave more equal to that of the tsunami.”

Organizations involved in disaster risk reduction in Asia and the Pacific are developing an online tool to enhance coordination of preventive measures as well as response and recovery efforts.

The Disaster Risk Reduction (DRR) Project Portal for Asia and the Pacific (www.drrprojects.net) was launched at the 4th Asian Ministerial Conference on Disaster Risk Reduction in Incheon, the Republic of Korea on 26 October. The web portal catalogs “who is doing what and where” in disaster risk reduction to improve regional planning and identify opportunities for cooperation as well as gaps in assistance.

Planning for the database began after the 2004 Indian Ocean Tsunami, the region’s proverbial wake-up call on disaster preparedness and coordination. The Asia Partnership for Disaster Reduction of the United Nations International Strategy for Disaster Reduction, also known as IAP, began the DRR Project Portal as part of the stocktaking and mapping of disaster risk reduction projects across the region, an initiative involving the Asian Development Bank (ADB), UN agencies, the World Bank, and other humanitarian and regional organizations.

“The project extension [phase 2] will also provide a methodology for tracking DRR investments, which will assist in avoiding duplication and improve overall consistency,” says Woochong Um, deputy director general of ADB’s Regional Sustainable Development Department, during the launch.

Currently, there are about 500 projects listed in the portal.
The Honor Code

How Moral Revolutions Happen
By Kwame Anthony Appiah, W. W. Norton & Company, September 2010, $25.95

In The Honor Code, Cambridge-educated philosopher Kwame Anthony Appiah seeks to show the key role that the concept of honor has played in moral revolutions throughout history. He argues that the honor code, not laws, has put a stop to the practice of dueling in England, foot-binding among the Chinese, and slavery. The author has taught at Yale, Cornell, Duke, and Harvard universities and lectured at many other institutions in the United States, Germany, Ghana, and South Africa, as well as at the École des Hautes Études en Sciences Sociales in Paris. He joined the Princeton University faculty in 2002 as Laurance S. Rockefeller University Professor of Philosophy.

A leading scholar of the Scottish Enlightenment traces how Adam Smith developed the ideas that earned him the title “founder of modern economics.” Nick Phillipson looks at how Smith, a professor of moral philosophy, was influenced by and contributed to the intellectual and cultural milieu of 17th century Scotland, which was then going through the Industrial Revolution. He also shows to what extent Smith’s greatest works, The Wealth of Nations and The Theory of Moral Sentiments, formed part of the “Science of Man” experiment spearheaded by fellow philosopher and close friend David Hume.

Phillipson is an honorary research fellow in history at the University of Edinburgh. He has held visiting appointments at Princeton, Yale, the Folger Library, and the Ludwig-Maximilians-

The Crisis Caravan

What’s Wrong with Humanitarian Aid?
By Linda Polman, Metropolitan Books, September 2010, $24.00

The veteran war correspondent criticizes how humanitarian aid is administered in war zones around the world. Amsterdam-based journalist Linda Polman gives an account of how warring factions manipulate the use of aid according to their interest, and how humanitarian groups’ adherence to traditional principles of impartiality and neutrality can make development aid an easy target for abuse and exploitation. Polman has reported from war zones for a range of European radio stations and newspapers for 15 years. She is the author of We Did Nothing, which was short-listed for the Lettre Ulysses Award for the art of reportage.

“Polman takes aim at everything from the mixture of world-weary cynicism and entitled self-righteousness by which aid workers insulate themselves from their surroundings to the deeper decadence of a humanitarianism that paid war taxes. . . . She does not spare her colleagues in the press either, describing how reporters are exploited by aid agencies to amplify crises in ways that boost fund-raising, and to present stories of suffering without political or historical context.”—Philip Gourevitch, The New Yorker

“The Crisis Caravan is a hard-boiled portrait of how good intentions can make things worse in distant, scary places we hope aid money will make nicer.” —Peter Christian Hall, The Huffington Post
The Climate War

True Believers, Power Brokers, and the Fight to Save the Earth

By Eric Pooley, Hyperion, June 2010, $27.99

Award-winning journalist Eric Pooley tells the story of the American campaign to arrest global warming as the battle moved from the scientific to the political arena. Pooley has written about climate politics for Time, Slate, Bloomberg News, and other publications. He uses his access to 2007 Nobel Peace Prize laureate Al Gore, environmental groups, scientists, and corporate leaders to provide a ringside view of the climate change debate in The Climate War.

Pooley is currently deputy editor of Bloomberg BusinessWeek.

“The book shows just how arduous the climate fight has been—and will likely continue to be—for years, if not generations, to come.” —Harry Hurt III, The New York Times

“In The Climate War, which ends with the Copenhagen summit, Mr. Pooley gives us a detailed, if sometimes longwinded, account of the political battle to get Congress to take legislative action on global warming.” —Michiko Kakutani, The New York Times

23 Things They Don’t Tell You About Capitalism

By Ha-Joon Chang, Allen Lane (UK)/Bloomsbury Press (US), September 2010, £20.00/$25.00

This book seeks to dispel myths and prejudices about capitalism. It starts by asserting that there is “no such thing as a free market” and ends by declaring that “good economic policy does not require good economists.”

The author is himself an economist. Ha-Joon Chang, who was born in the Republic of Korea, is a specialist in development economics and Reader in the Political Economy of Development at the University of Cambridge. In 2005, Chang was awarded the Wassily Leontief Prize for Advancing the Frontiers of Economic Thought. He is author of Kicking Away the Ladder: Development Strategy in Historical Perspective (2002), which won the 2003 Gunnar Myrdal Prize, and Bad Samaritans: Rich Nations, Poor Policies and the Threat to the Developing World (2007).

“Dip into this witty, iconoclastic and uncommonly commonsensical guide to the follies of economics. . . . Each of Chang’s 23 propositions may seem counterintuitive, even contrarian. But every one of them has a basis in fact and logic, and taken together they present a new view of capitalism. . . . For anyone who wants to understand capitalism not as economists or politicians have pictured it but as it actually operates, this book will be invaluable.” —John Gray, The Observer

“The crucial point he makes is that capitalism doesn’t come in one ‘flavour’, and the only reason for keeping any economic system is if it ‘delivers the goods’.” —Sean O’Grady, The Independent

Universitat. He was codirector of the Science of Man in Scotland project and past president of the Eighteenth-Century Scottish Studies Society.

“An Enlightened Life delivers on its original promise: to trace the intellectual development of Smith’s mind through the making of his own, essentially philosophical, texts. For all that subsequent generations, no less our own, have taken from Smith’s economic contributions, it is indeed enlightening to understand the broader sweep of his vision.” —Nancy F. Koehn, The New York Times

“A fascinating book. . . . Adam Smith finally has the biography that he deserves, and it could not be more timely.” —Jeffrey Collins, Wall Street Journal

“Having failed so royally to predict or ameliorate our present distress, some economists may come to examine their assumptions and be drawn to this fine book and its mighty subject.” —James Buchanan, The Guardian

“Smith’s writings were an immense success in his lifetime and inevitably provoked a backlash in the next century among those who disputed that there could be a science of morals. But they have lasted. Phillipson’s exposition of their author’s ‘enlightened life’ could scarcely be bettered.” —Oliver Kamm, The Times (London)
In remote Handumon village in the central Philippines, a man slips into the silky black sea of the Bohol Strait in the middle of the night. Aided by a gas lamp attached to the tip of his small wooden outrigger boat, he searches the ocean floor for his quarry.

Minutes later, he has snatched a tiny seahorse hiding in a coral bed and brought it to the surface. When he sees that it is a juvenile, he takes it to a marine sanctuary area near his village where it can grow safely to adulthood.

Like other fishers in the area, he patrols the sanctuary a few nights a week to keep poachers out and to allow the fish to breed. The result has been a huge upsurge in the village's catch, the genesis of a project that over the last 2 decades has transformed Handumon from an impoverished fishing village to a vibrant one.

The project in Handumon is one aspect of the life's work of Amanda Vincent, an energetic and forceful marine biologist from Canada who has spent decades working to better understand and conserve seahorses. She is credited by many with almost single-handedly putting seahorses on the radar screens of the world's scientific and conservation communities.

Her conservation efforts have led to innovative work in the field of human development, closely linking coastal communities to the marine life upon which they rely. She has used the seahorse, a beguiling but beleaguered group of fishes that resemble miniature horses, to promote not only conservation but antipoverty efforts among some of Asia's most vulnerable people.

**ENDANGERED PEOPLE**

Vincent came to her seahorse work in a roundabout fashion. Much of her childhood was spent in Latin America, where she first became aware of the crippling limitations of poverty. After earning a degree in zoology from the University of Western Ontario in 1981, she traveled the world for 3 years, gaining an interest in marine conservation. In graduate school at Cambridge University in England, she chose to study the reproductive ecology of the seahorse, in part to explore male pregnancy in seahorses (the group's most distinctive trait). She learned that seahorses had a rich mythical history and were featured on Greek and Roman pottery. But from a scientific viewpoint, the fish seemed to have dropped off the map.

“It came as a bit of a surprise to discover the most recent papers on seahorses had basically been written 35 to 40 years before, and that none of them had been focused on modern theoretical thinking in biology,” says Vincent.

Vincent studied captive seahorses at Cambridge, and later did a year of field work in Australia. There she spent as much as 9 hours a day underwater observing the fish. Her methodical research laid the groundwork for today’s scientific understanding of this popular creature.

Seahorses have an external skeleton that acts like armor to repel marine predators. Some crabs prey on seahorses, and large fish will periodically eat them, but Vincent learned that people are the greatest threat to the animal. This motivated her to move from research to conservation when she obtained her doctorate degree from Cambridge in 1990.

“I never anticipated that the animals about which I knew more than most biologists would turn out to be animals that were under heavy pressure,” she
says. “Everything I knew about them suddenly became relevant.”

With funding from the National Geographic Society, Vincent set out in 1993 to explore the previously undocumented global trade in seahorses. Her investigation took her from the Chinese medicine shops of Hong Kong, China to the harbors of the Philippines and Thailand. Undeterred in her work despite threats on her life, she found that the creatures were exported from almost every country where they lived, but that India, the Philippines, Thailand, and Vietnam were the largest exporters. She estimated that more than 20 million seahorses a year were taken from the ocean.

One of her most important discoveries was that the people who were overfishing these equines of the deep are impoverished fishers, primarily in Asia. They sell them to middlemen who market them for Chinese medicine and the lucrative aquarium trade worldwide. Teaching these fishers to conserve the natural resources in their coastal areas, as well as to develop alternative ways to make a living other than fishing, have changed the lives of thousands.

PROJECT SEAHORSE

Project Seahorse, the global program that Vincent runs, is the culmination of this understanding that the conservation of the seahorse is directly linked to the development of the people living near them. It is an interdisciplinary and international organization committed to conservation and sustainable use of the world’s coastal marine ecosystems.

The organization includes about 40 professional members plus local support staff working in Australia; Canada; Hong Kong, China; the Philippines; Portugal; Sweden; the United Kingdom; and the United States. Project Seahorse has also managed projects in South Africa and Vietnam, and collaborates with colleagues in many more countries.

Since its founding in 1996, Project Seahorse has been considered the world’s foremost authority on the fish family that includes 300 species of seahorse, pipefish, seadragon, and pipehorse. The organization’s complex conservation and development efforts include teaching grade-schoolers to appreciate sea life, working with local officials to regulate fishing, helping villagers develop a handicraft industry, and encouraging fishermen not to overfish. Project Seahorse has been active in coastal communities worldwide. In Vietnam, it is involved in such activities as small-scale seahorse aquaculture and community education programs, and it has entered into formal research partnerships with 18 institutions in Canada, Asia, Europe, and North America.

Vincent is particularly proud of the organization’s achievements in the Philippines. In Handumon, Vincent’s group and the foundation have helped create a 50-acre marine sanctuary to allow coastal fish a safe place to breed. Most recently, Project Seahorse has been looking at expanding income-earning opportunities for coastal communities in the Philippines and evaluating the relationship between seaweed farms and marine conservation.

The organization has been particularly active in helping to promote and understand the role of women in fisheries. Project Seahorse studies and evaluates gender roles in the management of small-scale coastal fisheries, particularly in coral reef ecosystems, and helps make women equal partners in management and conservation efforts.

The work of Vincent and Project Seahorse has been recognized around the world. In 2008, Project Seahorse received the Best Field Conservation Project award from the British and Irish Association of Zoos and Aquariums. In 2007, Vincent was awarded the Yves Rocher Foundation Women of the Earth prize.
Songs of Freedom

A small but growing genre of popular music features songs that support development, lifting people out of poverty and fighting injustice

BY Margo Pfeiff

On Saturday, 5 December 2009, more than 20 top Filipino OPM (Original Philippine Music) artists and 25 bands rocked Manila’s SM Mall of Asia Concert Grounds during the Pilipino, Kaya Natin Ito Benefit Concert. The event’s theme song, “Kaya Natin Ito!” (We Can Do It!), was written by well-known Filipino singer-songwriter Ogie Alcasid and recorded a month earlier by an impressive roster of 80 of the country’s biggest pop, folk, rock, hip-hop, and classical music singers.

SINGING FOR CHARITY
What made this concert different was that everyone volunteered their voices to help victims of devastating typhoons Ondoy and Pepeng that ravaged the Philippines in September 2009. All proceeds from the event—roughly 3 million pesos—were handed to the Manila-based nongovernment organization (NGO) Gawad Kalinga to build new, safer communities for the poorest of the poor left homeless by the disasters. “The concert also inspired the country to unite and rise above their differences for a common good,” says Myra Ortega, Gawad Kalinga’s events marketing manager. “Change is possible if everyone shares their time and talent to help those in need.”

TSUNAMI RELIEF Briton Yusuf Islam, formerly known as Cat Stevens, sings “Indian Ocean” at a concert in Jakarta to help Indonesia’s Aceh province, which was devastated by the 2004 tsunami.
The inspiration for the concert came from a string of similar charity songs and events that soared to popularity in the early 1980s. One of the first was the high-profile pop group, Band Aid, assembled by Irish singer Bob Geldof in 1984 to record “Do They Know It’s Christmas?” Profits from sales were donated to aid famine victims in Ethiopia. The song went on to become one of the biggest selling singles in chart history in the United Kingdom (UK).

The following year, Michael Jackson and Lionel Richie wrote the hit “We Are the World” to help African famine relief. A supergroup called USA (United Support of Artists) for Africa including Paul McCartney, Bono, George Michael, Ray Charles, Bob Dylan, and dozens of others lent their voices to the recording of what would become the biggest selling single of all time. “We are the World” won three Grammys and an American Music Award and, as of 2009, had raised more than $63 million for humanitarian aid in sub-Saharan Africa. The song was re-recorded in early 2010—25 years later—by more than 80 performers including Barbra Streisand, Celine Dion, Natalie Cole, and hip-hop artists Kanye West and Haitian Wyclef Jean, to raise funds for survivors of the January 2010 earthquake in Haiti.

Worldwide, charity singles, records, concerts, and projects such as Comic Relief, Sport Relief, Music for Relief, and the month-long Oxjam Music Festival, which fundraises annually for Oxfam with concerts around the UK, continue to help the world’s poor.

While superstars are a high-profile example of music coming to the aid of the needy, international development with a back beat has been around for a long time in various forms, a little known but persistent genre. Folk and protest songs are classic tools to advocate the rights of the poor, and a groundswell of ditties to ballads most people never hear improve the lives of the poor on a daily basis by educating and raising awareness.

In Banda Aceh, Indonesia in 2006, as part of the United Nations Volunteers program, Acehnese musicians Mahrisal Rubi and Eddy Erwinsyah released a song that mixes Acehnese and western...
jazz-type rhythms to commemorate the second anniversary of the Asian tsunami that hit several countries. “Bersama Kita Bisa” (Together We Can Do It!), celebrates the role of volunteerism in the recovery of the affected regions in Indonesia. On the other side of the globe, to spread word about the European Union’s efforts in international development, the second annual Music Against Poverty Contest was launched in early 2010 as part of the EU’s I Fight Poverty campaign, designed to raise awareness about poverty worldwide among teenagers in developed countries. European musicians between 15 and 25 are invited to submit songs supporting the fight against poverty. The prize is a professional studio recording and a high-profile live performance in Brussels.

BEATS THAT TEACH
On a very local level, simple jingles with informative lyrics are often used as awareness-building tools for literacy, hygiene and family planning, health matters, and social peace. Sung in local languages, they can successfully reach even the poorest and least educated members of the general public when other means of education fail.

“In Haiti, few people have television or electricity, but they do have access to radio,” says Kathryn Bolles, director of emergency health and nutrition for Save the Children, a Washington, DC–based NGO. After the January 2010 earthquake, the NGO tapped into Haiti’s highly musical culture that already used songs to convey information such as the importance of staying in school and washing hands. They provided local radio stations with broadcast-quality Creole songs set to well-known local tunes with lyrics that gave mothers simple tips about breastfeeding, clean water, and food to help them protect their newborns and children from malnutrition.

“Many women believed the disaster had soured their breast milk so they stopped breast feeding and began using formula at a time when they were surrounded with contaminated water,” says Bolles. “So we adapted songs we already use to include references to the trauma people had just experienced so they could relate to the messages.” They also warned of the threat of malaria and diarrhea in the coming rainy season. “When people hear a song, they are more likely to remember it, sing it, and pass on the message,” she says.

WaterAid has the same philosophy. The London–based NGO works in partnership with local organizations in Africa, the Pacific region, and Asian countries, including Bangladesh, India, Nepal, Papua New Guinea, and Timor-Leste, to help poor communities establish sustainable water supplies and latrines. British songwriter Richard Stilgoe penned five songs about drought, evaporation, and sanitation—including the catchy pun- and fun-filled “Poo Song”—that WaterAid supplies to schools in the developed world as a means of raising money for the charity and to teach children in developing countries simple hygiene habits and the importance of clean water. “Songs and music sneak into children’s minds in a way that nothing else does,” says Stilgoe in his video on the charity’s website.

Western superstars, notably the band U2, pepper their CDs with songs about international development. At world music festivals from Brazil to Timbuktu, bands and individual musicians from developing countries are leading grassroots efforts to bring the voices of the poor to a wider audience.

Leading up to World Malaria Day 2008, Senegal–born star Youssou N‘Dour performed at the World Bank in Washington, DC before African ambassadors, Roll Back Malaria partners, World Bank staff, and other guests to call for more action and
“Music is not just entertainment, but also dialogue”

—Indian economist and Nobel laureate Amartya Sen

more partners in the global effort to defeat malaria. Youssou has long been involved in development issues, particularly in encouraging participation in the fight against hunger. In 2000, he was appointed Goodwill Ambassador of the Food and Agriculture Organization of the United Nations.

Fellow Senegalese Baaba Maal is one of Africa’s most celebrated musicians. He uses music to address crises facing African society, from the scourge of HIV/AIDS and corrupt governments to ethnic strife and poverty. In 2003, he was appointed a Youth Emissary for the United Nations Development Program. He is also an ambassador for Nelson Mandela’s 46664 Project, which aims to raise awareness through entertainment.

Maal was involved with the UN in recording the rhythmic song “8 Goals for Africa,” a catchy call for world leaders to keep their promise to achieve the Millennium Development Goals (MDGs), a set of internationally agreed objectives designed to reduce poverty, hunger, disease, and maternal and child deaths by 2015. He was one of eight African musicians—one for each MDG—including the multi-award-winning South African Soweto Gospel Choir, Yvonne Chaka Chaka from South Africa, UNICEF Goodwill Ambassador Angelique Kidjo from Benin, Oliver Mtukudzi from Zimbabwe, and Eric Wainaina from Kenya.

For their collaboration, all were appointed UN MDG ambassadors after the song was released in May 2010 and widely screened at the World Cup in South Africa. Jimmy Dludlu, a South African instrumentalist on the track along with renowned jazz musician Hugh Masekela, said at the launch: “I was inspired by this initiative. We want to help promote the Millennium Development Goals and I am optimistic that the song will convey a message of peace, hope, and promise of a better future.”

At a World Bank-sponsored workshop on the development of the music industry in Africa, the Indian economist and Nobel laureate Amartya Sen spoke eloquently. “Music is not just entertainment, but also dialogue. The destituted and the marginalized can use music as a vehicle of communication and expression, and a well-developed music industry, with firm channels of transmission, can give eloquence to voices that are otherwise muted and muffled.”

ALL-STAR CAST Secretary-General Ban Ki-moon (fourth from left) poses with the participants of In My Name: End Poverty campaign in New York in September 2008. From left to right: Apl.de.Ap, musician; Rahul Bose, actor and Oxfam Global Ambassador; Mary Robinson, Honorary President of Oxfam International; Mr. Ban; Ela Bhatt, the founder of India’s Self-Employed Women’s Association; Will.I.Am, musician; Angelique Kidjo, UNICEF Goodwill Ambassador and Oxfam campaigner; Jeffry Sachs, UN special adviser on the Millennium Development Goals; Kristin Davis, actress and Oxfam Global Ambassador; Kumi Naidoo, co-chair of the Global Call to Action against Poverty and honorary president of the World Alliance for Citizen Participation; Elle Macpherson, model and actress; and Barbara Stocking, director of the Great Britain office of Oxfam International.
“We have been used to aid budgets rising year on year—and now they are going to tighten. Donors are saying they are only going to pay for things where they can see results.”

The Financial Times quotes Todd Moss, vice-president for programs and senior fellow at the Center for Global Development, a Washington think tank, in September.

“Those development programs that are most precisely and easily measured are the least transformational, and those programs that are most transformational are the least measurable.”

Andrew Natzios, former director of the US Agency for International Development.

“A lot of other economies in the region are essentially riding on China’s coattails, and this is remarkable for an economy with a low per capita income.”

EsWar PrAsAd, a professor of trade policy at Cornell University, senior fellow at Brookings Institution, and former head of the International Monetary Fund’s China division.

“Even with modest UN projections for population growth, consumption and climate change, by 2030 humanity will need the capacity of two Earths to absorb CO2 waste and keep up with natural resource consumption.”

WWF’s Living Planet Report 2010 released in October.

“Whatever you give, we will give an account of every single penny.”

Prime Minister YouSuf Raza GilAni of Pakistan assures aid agencies as the country struggles to recover from the worst flood in its history.

“Funding agencies are increasingly imposing extraordinary demands in terms of reporting against indicators of achievement that bear little relation to the manner and possibilities development activities have for supporting social transformation.”

Rosalind Eyben, fellow at the Institute of Development Studies, University of Sussex in the United Kingdom.

“Enough countries are saving mothers in large enough numbers to prove that we know how to achieve our goals. Unfortunately, most countries have failed to make it a priority.”

Imagine a harmless 400 kilo shark. Now imagine it heaved onto a boat. Its prized fins severed. The fiiless shark is then heartlessly dumped back into the water. It’s enough to turn your stomach.

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Samoa Islands, 30 September 2009

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