

Decrepit infrastructure denies millions urgent natural disaster aid, study says

World risk report underlines need for major improvements to transport and power networks in poor countries vulnerable to extreme weather events

Kate Hodal

Thursday 25 August 2016
10.00 BST

Countries with dilapidated transport networks and unsafe power grids stand a greater risk of extreme natural events becoming humanitarian disasters, a report has found.

Using analysis of floods, typhoons, earthquakes, tsunamis and other natural disasters, the 2016 world risk report (pdf), claims that decrepit infrastructure and logistics systems can become a “direct threat” to societies because they can trap or injure victims, as well as impeding the delivery of humanitarian relief.

“Once you have a disaster situation, you need infrastructure to deal with it in the short term and long term, to get supplies and relief into the right places,” says report co-author Dr Matthias Garschagen of the UN University - Institute of Environment and Human Security, which publishes the annual reports.

“Not only are the quality and quantity of the infrastructure important, but issues of redundancy are important as well: if you only have one main highway into a disaster area and that highway is blocked, do you have a helicopter, an alternative railway line, or elephant or donkey even in really remote areas, to get there?”

Last year’s series of devastating earthquakes in Nepal are a case in point: half a million homes were destroyed, and another 250,000 badly damaged as entire villages were reduced to rubble; roads into remote mountain regions were blocked by landslides and avalanches; power supplies were cut off and telephone lines destroyed; and eight million people, nearly a quarter of Nepal’s population, needed urgent humanitarian relief.

Although Nepal’s international airport at Kathmandu escaped major damage, the volume of relief goods received was so high - and the road networks out to the areas affected so damaged - that aid effectively languished for days in the capital as a result, leaving millions of people in need of sanitation, shelter, food and water, and urgent medical care.

Poor infrastructure systems can also have far-reaching effects that go beyond the scope of the natural disaster itself, the report says. The 2011 floods that effectively shut down huge swaths of Bangkok also crippled the city's regional airport and deluged major industrial parks, costing billions of dollars in damage and lost revenue.

Such situations demonstrate just how much infrastructure can shape disaster risk, says Garschagen. As natural disasters have increased dramatically and intensity over the past three decades, investment in better logistics and infrastructure systems would not only save lives but also billions of dollars annually. According to UN figures [PDF], 346 natural disasters were recorded worldwide last year, killing 22,000 people, affecting another 100 million, and costing \$66.5bn (£50bn) in total.

The world risk report analyses various data each year in an attempt to rate 171 countries by their disaster risk. This year's focus was on logistics and infrastructure.

A number of developing countries, like Vietnam and Bangladesh, are now looking at designing and implementing disaster-resilient infrastructure systems, says Garschagen, taking into particular account flood patterns over the past few years and projections for the next 20 years. While this is a major step in the right direction, effective law enforcement is also needed, says Garschagen, pointing to the 2008 Sichuan earthquake in China that killed thousands of children when school buildings collapsed, effectively because the schools had not been built to code.

According to World Bank estimates, additional investments of up to \$1.5tn in low- and middle-income countries are needed annually until 2020, simply to establish an "adequate level" of infrastructure. This could be an opportunity for humanitarian organisations to branch out and look at investing in preventative areas instead of focusing solely on relief after a natural disaster has already occurred, says Garschagen.

The world risk report also commends the use of new technologies - such as smart phones and drones - in sharing logistics information and mapping out relief zones, for example in the Philippines after Typhoon Haiyan. But the authors warn that depending on these advances as a "panacea" for disaster efforts is a short-sighted mistake.

"A lot of the humanitarian assistance from many of the organisations today are so keen to jump on these new technologies that they forget the more political story that needs to be told," says Garschagen. "Smart phones and drones will only take you so far if you don't even have the basics in place."

More news

Topics

Humanitarian response Natural disasters and extreme weather Nepal earthquake 2015 Aid

Save for later Article saved

Reuse this content