Rebuilding better after a disaster
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Prof. Jacob Barnhardt was correct when he said, “Only at the precipice do we evolve.”

It’s a provocative notion. From the rubble emerge flowers. From the ruins, a chance to reboot.

The Philippines has long enjoyed high status in the Olympics of vulnerability, occupying prime rank in global indices over the past decade. In the last few years, we’ve gone from top five to the ignominy of bouncing around the top three positions.

The impact of persistent poverty and growing inequality – the outcome of decades of flawed development policies, ranging from myopic land-use planning, environmental neglect and short-sighted industrial and agricultural policy, are now increasingly amplified by the impacts of climate change.

The result? Rampaging risks, magnified misery, and more difficult access to means by which the poor can escape penury. And for households that are about to or have just escaped cycles of destitution, climate change impacts will likely throw them down several steps again in the development ladder.

But climate change offers to the Philippines a window through which it can contribute to the global good at the same time as it ushers in long-term solutions to the country’s development challenges. At the heart of this approach is the recognition that our current vulnerable status might just show the way forward too.

In the last few years, a spate of extreme typhoons has hit poor Filipino communities, resulting in widespread suffering, injury, and the horrific loss of lives. The super storm Haiyan in 2013 even topped the record of strongest typhoon ever to make landfall in recorded history.

Among the places most devastated by Haiyan was Tacloban City, where thousands drowned under the storm surge that brought tsunami-level waves and sent massive ships inland.

In response to the government’s call to help rebuild devastated communities , we chose to put together a solar and sustainable transport services and training facility in Tacloban -- to not only build back better but build back brighter as well.

Our message has often been controversial. We’ve said many times that the division between climate change mitigation and adaptation exists mostly in the world of climate change advocates. Down below, in communities that find themselves in the frontline of the climate crisis, the distinction does not matter much, because the best response to climate change is not necessarily a climate response but better development.

It is not enough to just cope with the increasing impacts of climate change. What is essential is to transform the way economies operate, to promote low carbon trajectories that enable the generation of green jobs and green energy together with local level resilience.

The RE-Charge Tacloban facility uses a 9.75-kilowatt hybrid off-grid solar photovoltaic system with battery backup and grid-tie capability that is connected to the geothermal-powered Leyte grid. The

system uses 39 250-watt and a 48-volt inverter that converts the direct current (DC) to alternating current (AC).

The center is likewise home to a small fleet of electric jeepneys, or eJeepneys, which helps promote sustainable social enterprise by integrating energy efficient, low-carbon transport programs and renewable energy generation.

The sun mostly powers the facility. When extra power is required, the geothermal-powered grid is utilized to complement power from the solar array, allowing the facility's battery bank to be recharged. Combining solar and geothermal power allows the electric vehicles to be 100-percent fossil fuel-free. More importantly, in the event another extreme typhoon topples the grid, the facility will have its own power source – from the site's battery bank as well as the batteries of charged ejeepneys.

Yet the task of the facility is not only about showing the operational viability of alternatives to fossil-fueled power.

In the Philippines, the continued failure of humanitarian groups to integrate renewable energy early in their disaster risk reduction programs has resulted in serious deficits in the delivery of response programs. Without reliable power, emergency water and sanitation services become inadequate, especially at night because they are unable to provide lighting to ensure the safety of women and girls in evacuation shelters, communication is severely limited, because computers, mobile phones and radios run out of juice, and planning is circumscribed with the absence of power.

More importantly, because renewable energy has not been integrated early in the response arsenal of humanitarian teams, survivor communities are unable to integrate sustainability during the phase of reconstruction. They are denied the opportunity to begin to transition to new pathways. By the time the emergency phase is over, once the heroic humanitarian teams have left for new emergencies elsewhere, entire communities will likely return to inefficient, polluting, wasteful practices that were likely contributory to their vulnerabilities to begin with.

What we need therefore is to re-conceptualize adaptation itself as a continuously transformative process – where even conventional mitigation initiatives are folded into resilience-building programs – where changes can be instituted in the way development at the local level is designed and directed.

It's one of the reasons why we are running what we call the Solar Scholar programs, which trains representatives of survivor communities not only to use technology systems we've developed and adapted for community deployment. Participants also gain deep understanding of how they can harness renewable energy to develop business plans, to reduce risks, and to provide access to energy as a prerequisite to escaping the cycle of poverty.

One of the interesting aims of the Solar Scholar program is to form the kernel of the RE-Serve Corps, a group composed largely of members of survivor communities. Their job? When the next disaster takes places, Corps members will provide reliable, sustainable energy to humanitarian teams to ensure communications, lighting, cold storage for medicines and other power needs are met. It will be their chance to give back at the same time as they help drive home the message that the transition to sustainability is urgent, doable and already underway. #