Typhoon Haiyan: effective response, preparedness and resilience in the Philippines

Implementing innovative, practical animal protection measures

While disaster responses prioritise the immediate needs of people, effective risk reduction measures must address a community's long-term resilience and recovery. Such activities focus on mitigating the negative effects that extend beyond the initial disaster. For people reliant on animals, this means a 'big picture' approach encompassing the welfare of both people and animals.

The world's poorest people rely heavily on livestock and working animals. This means their ability to resist and recover from disasters is inextricably linked with their animals' wellbeing.

For such vulnerable communities, an integrated disaster response and recovery plan addressing the needs of both people and animals is critical. These plans protect livelihoods, build resilience, mitigate climate change, guarantee food security and deliver long-term recovery.

Typhoon Haiyan, one of the worst meteorological disasters on record, hit the Philippines in 2013 affecting around 14 million people. During the first two weeks of Haiyan's aftermath, livestock and poultry smallholders in some of the heaviest hit areas lost 20-30% of their animals. These included buffalo, goats, cattle and poultry.

World Animal Protection responded immediately to the crisis. We provided fodder and mineral supplements for livestock, and a mobile veterinary clinic to reach animals in the remotest areas. We also piloted a typhoon-resistant farming model and an improved early warning system to better protect people and their animals in the future.

Image: Working hands on – World Animal Protection's Juan Carlos Murillo restrains a water buffalo before treating her for worms and vitamin deficiency.

The context

Typhoon Haiyan – also known as Yolanda – struck land in the Philippines on 8 November 2013. Within six hours it had cut a huge swathe of destruction across the central Philippines.

Despite countrywide preparedness, the typhoon quickly overwhelmed communities and disrupted infrastructure and services on an unprecedented scale. Some of the poorest areas of the country were the most badly affected.

On 11 November, the Philippines declared a national state of emergency. Homes, roads, trees and power lines were destroyed leaving whole communities cut off. And because it struck between two planting seasons, the typhoon destroyed harvests, ready to harvest and newly-planted crops. Animal casualties were high. This caused great distress to communities which mostly rely on poultry and cattle for their livelihoods and on buffalo to help plough and harvest rice fields.

1 Meeting immediate needs – World Animal Protection responds

After assessing the damage and investigating community needs, we deployed a team to some of the worst-affected municipalities. These were in the North West provinces of Antique and Aklanon the island of Panay as well as Cebu and Leyte.

Our mobile clinic gave animals urgently needed care. This included antibiotics, deworming, vitamins and vaccinations to reduce mortality and maintain their conditions. For five weeks after Haiyan, we provided direct assistance to more than 17,500 farm and companion animals.

When our emergency response was over we ensured that local vets had enough supplies and animal feed to continue treating animals for a further two months. Consequently, we not only decreased animal suffering and deaths, we increased communities' ability to cope and secure their livelihoods by protecting surviving animals.

Image: Dr. Nartisorn Pholperm treats a cow with vitamins and antibiotics in Daanbatayan, Northern Cebu.

2 · Reducing risk – typhoon-resistant farm model

Because the Philippines experiences an average of 20 typhoons every year, it was clear a typhoon-resistant model was urgently needed. Its aim was to prevent future animal losses for communities whose farm animals were suffering in Haiyan's aftermath through lack of shelter and protection.

With the University of Aklan we are piloting a typhoon-resistant pig and cattle farm with two core elements to reduce risk. The first of these elements was an underground shelter to protect animals during the storm. The second is a typhoon-resistant shelter with a roof that can be easily dismantled and protected from high winds.

The design means pigs and cattle can be moved to safety before a typhoon. The shelter can be dismantled to avoid destruction, and then reassembled to give shelter when the winds subside.

Underground protection
The first element of this model farm is the underground protection shelter designed for housing animals during a cyclone. It protects them from high winds and potential injury or death keeping them safe for their owners and livelihoods. The design was inspired by an ancestral Cuban model (vara-en-tierra). We built two underground shelters using local materials, one for pigs and one for cattle.

Shelter matters
Shelter for animals in the aftermath of cyclones was a clear priority in the Philippines. Shortly after Typhoon Haiyan, many pigs who survived the typhoon's initial destruction subsequently died from heat stress through lack of shelter when their pen roofs were destroyed.

The typhoon-resistant shelter is a World Animal Protection modular design and holds 10–12 pigs. It has a deep bed flooring system made of layers of natural materials. These layers include micro-organisms that decompose pig waste, reducing the requirement for tens of thousands of litres of water to clean the floors. It is a non-polluting system that produces healthy compost at the end of the production cycle.

This allows pigs to be raised in high welfare farming conditions that respect their natural behaviours and needs. Animals raised humanely are healthier which is better for the animals, people and the environment. The process can use less feed, fuel and water than intensive farming, reducing costs. And because healthy animals produce more it is an economically viable option.

The shelter's removable roof can be taken down by three people and secured in the ground in less than half an hour. This facility leaves behind only ground and vertical foundations that pose little resistance to high winds. This means small producers can protect the roof and wider infrastructure from strong winds.

World Animal Protection not only decreased animal suffering and deaths, we increased communities' ability to cope and secure their livelihoods by protecting surviving animals.

Building veterinary capacity within community preparedness plans

During Haiyan's aftermath, local veterinarians from the seven most affected municipalities of Antique participated in training provided by World Animal Protection.

The training focussed on disaster management; community risk mapping and analysis; weather data forecasts and analysis, and early warning systems.

We also ensured veterinarians had the tools they needed to put their new skills into practice. This involved providing veterinary kits, mobile phones for communications and data transmission, and transportation in the form of scooters and mountain bikes.

Providing alternative forms of transport increases the mobility of vets in the aftermath of disasters when roads are blocked; allowing them to reach areas that would otherwise be cut off.

As part of their training the vets devised an early warning system for small farmers. They guided communities to create local risk maps and identify what they could do to protect their animals. The system involves the vets, via SMS, issuing specific typhoon preparedness warning messages for small producers.

The producers are expected to act according to the preparedness plans previously developed with their communities and the vets. They are then expected to report back on how the warnings and actions decreased the negative impact of typhoons. After each event (or on an annual basis), the vets will update the plans accordingly.

Improving community resilience

To sustainably safeguard communities' food security and ultimately resilience, healthy, well-cared-for animals are vital in maintaining life and preventing reliance on aid. By combining best-practice farming models with early warning systems that include animal protection, our approach offers practical community level solutions to improve the resilience of small farmers and communities.

Ultimately as our work in Aklan and elsewhere demonstrates, integrating the welfare of animals and people in disaster risk reduction can:

- reduce the effects of future disasters
- protect livelihoods, the economy and social wellbeing
- decrease animal loss and suffering
- value the participation of citizens in increasing a community's resiliency
- involve the most innovative thinking from across different fields of expertise
- demonstrate that humane farming methods are economically viable.

Our extensive experience in disaster management clearly illustrates that helping animals helps people.

Front cover image: A typhoon-resistant shelter that can protect pigs and cattle from death and injury.

Section 3 image: Evacuation drills help prepare communities for future disasters.

Image below: World Animal Protection is building and piloting typhoon resistant shelters in the Western Visayas.

World Animal Protection has 50 years' experience of helping people help animals in disasters. We partner with local and national governments, inter-governmental and non-governmental organisations and communities to deliver expert emergency responses, world-leading risk reduction and preparedness planning. This is to find the best possible solutions for animals and people alike. To find out more about our vital work – and discover how we can help you – visit worldanimalprotection.org/disasters

▶ **worldanimalprotection.org/disasters**