



Animals and economics in disasters

In areas vulnerable to disaster, building community resilience is a vital preparedness activity and a risk reduction priority. The close relationship between economic security and poverty alleviation means resilience includes safeguarding employment and income opportunities.¹ With animals crucial to local and national economies, providing employment, delivering products for local market and export, and often representing people's primary income stream, animal welfare must be integral to effective disaster planning.

At **World Animal Protection**, we have 50 years of experience in helping people to help animals in disasters. We partner with local and national governments, intergovernmental and non-governmental organisations and communities to deliver expert emergency response and world-leading risk reduction and preparedness planning that brings about positive solutions for animals and people alike.

We cannot afford to ignore animals

When we are faced with the devastating human and environmental impacts of disasters, the cost can seem impossible to quantify. However, disasters can be viewed as economic events: they do physical damage to people and to the things that enable them to earn their livelihoods. For 70% of the world's poorest people² the assets they need to make a living include animals.³

A healthy economy affects everything. Critical development issues facing many of the world's lower income countries can be attributed back to a country or region's economic situation, including food security, health and gender equality. It is a vicious cycle, as these development issues in turn represent some of the most basic barriers to people attaining social⁴ and economic wellbeing.

Currently studies that seek to calculate the economic impact of disasters focus on key systems such as infrastructure and the economic market, paying little attention to the economic role that animals play in supporting wellbeing and growth. Yet given that agriculture is widely acknowledged as one of the most important global industries,⁵ it is surprising that protecting its most intrinsic component - animals - has not already become a norm in disaster planning.



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Calculating the cost of poor animal welfare

It is argued⁶ that the indirect impacts of a disaster (the effect on development, for example) can be hard to quantify. However, these less obvious effects, which include the death and ill health of livestock, can be estimated and can reveal much more about the true long-term impact. For example, the loss of working animals to till the land affects both the amount of labourers hired during the harvest season and the amount of crops produced for market, which can make the long-term economic effect on both people and market processes significant.

More direct, short-term impacts can themselves go on to have long-term effects; the loss of livestock can have huge immediate consequences on the economic stability of a community that go on to affect people over an extended period. For example, when in 2010 Mongolia was hit by the extreme snows of a dzud, over 8 million animals died. This had a severe impact on community livelihoods as many of the goats that perished were used to produce angora for sale at market. This loss of income meant many herders were unable to pay back loans they had taken out on their herds, resulting in financial ruin.⁷ Beyond harsh impacts on the local and national economy, this had a devastating effect on the social structure of the herder communities - poverty forced many families to migrate to the capital city, uprooting them from their homes and cultural norms.

This type of economic loss is particularly keenly felt in lower-income countries, where it impedes the ability to recover from disasters and subsequently to grow. As the disaster management sector increasingly recognises this, more efforts are being made to accurately estimate long-term and indirect impacts of disasters. If we can quantify the effects, we can better mitigate them through ever more effective disaster risk reduction and preparedness plans.

We focus on a way forward

At **World Animal Protection**, our disaster management experience encompasses responding to the needs of animals and to those communities that rely on them, placing us in an excellent position to offer solutions to critical sustainable development issues.

From 2012, we began to evaluate data gathered from our interventions in order to prove the theory that integrating animals into disaster planning has positive long-term economic impacts for disaster-affected regions.⁸

We have also worked in partnership with respected global economists to develop a model which helps calculate the economic impacts of the loss of animals in disasters. This pioneering model will be the first of its kind and we believe the findings will help us advocate for the integration of animals into emergency plans and policy to effectively safeguard both people and animals from disasters.

Our cost benefit analysis demonstrates the critical consequence between economic productivity and losing livestock in a disaster. As an example, it is estimated that \$96 dollars of economic value was directly supported for every \$1 spent in **World Animal Protection's** response to rapid-onset flooding in India.⁹ In Kenya, **World Animal Protection's** drought intervention generated \$2.74 of benefits in the form of avoided losses for every \$1 spent over a one-year period. While if the time period is extended to three years, the benefit-cost ratio increases to \$6.69 in benefits for every \$1 spent.¹⁰



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World Animal Protection offers advice and assistance to a range of partners on integrating animal welfare into disaster planning. We do this to achieve our vision of a world in which animals and the people who depend on them are protected from disasters. To find out more about what we can do for you, visit worldanimalprotection.org

- 1 Otte, J., Costales, A., Dijkman, J., Pica-Ciamarra, U., Robinson, T., Ahuja, V., Ly, C., & Roland-Holst, D. (2012). Livestock sector development for poverty reduction: An economic and policy perspective - Livestock's many virtues. Rome: FAO.
- 2 Campbell, R., & Knowles, T. (2011). The economic impacts of losing livestock in a disaster, a report for World Animal Protection. Prepared by Economists at Large, Melbourne, Australia.
- 3 *ibid.*
- 4 Beyond its economic importance, animal ownership has significant social and cultural impacts - individuals or families with large herds may achieve a higher community status and authority.
- 5 Food and Agriculture Organization of the United Nations. (2012, September 25). Livestock and Livelihoods. [www.fao.org](http://www.fao.org/ag/againfo/themes/en/protecting_livelihoods.html). Retrieved April 17, 2012, from http://www.fao.org/ag/againfo/themes/en/protecting_livelihoods.html
- 6 Campbell & Knowles, *op. cit.*
- 7 Gunchinmaa, T. (2010). Dzud disaster and herder livelihoods. Unpublished report commissioned in Mongolia by World Animal Protection.
- 8 Economists at Large. (2013). Cost-benefit analysis of World Animal Protection's Mwingi Intervention in Kenya: A report for World Animal Protection. Melbourne: Economists at Large.
- 9 Economists at Large. (2014). A Benefit-cost analysis of World Animal Protection's 2012 Intervention in the Dhemaaji district of Assam, India. A report for World Animal Protection, prepared by Economists at Large, Melbourne, Australia.
- 10 Economists at Large. (2013). Cost-benefit analysis of World Animal Protection's Mwingi Intervention in Kenya: a report for World Animal Protection. Melbourne: Economists at Large.