



WorldHorseWelfare



THE DONKEY  
SANCTUARY



**ONE HEALTH AND ONE WORLD:  
WORKING ANIMALS TO HELP ACHIEVE  
A SAFE AND SUSTAINABLE WORLD**

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## INTRODUCTION

Environmental-related crises have grown quickly and prominently over the past few years. Air and water pollution, biodiversity loss, deforestation, accelerated sea level rise and severe heatwaves are just some of the disastrous effects of climate change. Alongside these issues, we have recently experienced a marked increase in the occurrence and spread of infectious diseases, mainly caused by environmental, demographic and social changes<sup>24</sup>. The Donkey Sanctuary and World Horse Welfare will take you on a journey to find out more about the role of working animals towards mitigating the effects of climate change and reducing the spread of infectious diseases.

According to the Global Risks Report 2019<sup>1</sup> issued by the World Economic Forum, extreme weather events, failure of climate change mitigation and adaptation and natural disasters occupy the first three positions in the top 10 risks in terms of likelihood; while failure of climate change mitigation and adaptation, extreme weather events and water crises occupy respectively the second, the third and the fourth positions in the top 10 risks in terms of impact.

In parallel with climate change's disastrous effects, growing infectious disease occurrence has represented another critical challenge we have faced in recent years. Animal species are inherent repositories of contagious agents that generate "zoonoses", which are defined as "[...] disease[s] or infection[s] that is naturally transmissible from vertebrate animals to humans"<sup>25</sup>. Approximately 60% of infectious agents for humans stem from zoonoses<sup>26</sup>.

Climate change can directly affect the transmission of diseases depending on the season the disease

agent appears; a striking example is malaria whose occurrence is greatly influenced by temperature variations and climate and is responsible for the death of more than 400,000 people every year<sup>27</sup>.

On the occasion of Earth Day, the 22nd of April 2020, a powerful statement was released by the Acting Executive Secretary of the Convention on Biological Diversity:

*"Human actions are the basis for the environmental and health challenges before us. Climate change, deforestation, land-use change, unsustainable agriculture including livestock production and the illegal wildlife trade are the results of our actions. The consequences are, including on our health, felt by all people. The way out of these unsustainable paths is through human action – collective and individual steps to build a sustainable future".*

Climate change and health crises are critical issues facing us. Their impact is unprecedented in terms of capacity and extent. We are at a turning point.



## WORKING ANIMALS DELIVER FOR DEVELOPMENT

In many low and middle-income countries, people are highly dependent on draught animals. Considering that about 95% of animal keepers live in conditions of severe poverty<sup>9</sup>, working animals represent people's biggest and most precious asset. Not only do they enable their owners to participate in work, boosting their economic capacity, but they also promote gender equality, access to essential services and provide opportunities to take part in money-saving schemes<sup>22</sup>.

Animal labour proves to be a particularly suitable and accessible energy source to smallholders and family-level production. Approximately 100 million<sup>19</sup> working animals are the driving force behind agricultural systems, generating essential

income for their owners and enabling them to save about 20 million tonnes of fuel yearly<sup>4</sup>.

As a means of rural traction and transport, agricultural use of working animals is common. They help to tend land by pulling ploughs and carts, herd livestock, collect water and other supplies for production and deliver goods to market. In urban areas, they are also a reliable workforce, carrying people and goods as well as facilitating industry and local services including construction and refuse collection. Where cost or terrain restrictions mean that mechanical vehicles are not practical, working animal transport enables communities to utilise local food markets, increasing the potential for quality nutrition.

## WORKING ANIMALS AND THE RURAL WORLD: CLIMATE AND HEALTH CRISIS

Achieving sustainable change and ending poverty begin in the rural world, where approximately three billion people live totally dependent on small-scale agriculture<sup>2</sup>. Severely undermined by both the intensity and frequency of prolonged drought and floods, the resilience of many agricultural systems is currently under huge pressure. These settings suffer the repercussions of the climate crisis the most, with some suggesting that a further 100 million people will fall into poverty by 2030<sup>3</sup>. Climate change especially affects small and rural systems in communities where animal labour is an indispensable power source. The majority of the current 200 million working animals are vital for the livelihoods of between 300 and 600 million people in some of the poorest areas of the world<sup>4</sup>.



Addressing environmental emergencies is key to attaining the Sustainable Development Goals (SDGs)<sup>23</sup>. Global commitment focusing on strengthening pertinent policies represents the starting point of such challenges... and working animals can help. Strong working animals can play a crucial role in building community resilience. Donkeys and mules, in particular, are better suited to arid zones and can support livelihoods to adapt to climate change<sup>22</sup>; they can assist with restoring income and productivity after a disaster and help their owners resume work<sup>22</sup>.

Both humans and animals are encountering new challenges and facing the same devastating impact of climate change. When disasters such as heatwaves, storms, drought and floods take place, they severely harm animals - killing millions every year<sup>5</sup> - and critically undermine the lives of the people who heavily rely on them. Animals suffer physical injury, high disease prevalence, hunger and stress, and with a significant risk of resultant mortality, the consequences for their owners are extremely serious.

Some years are critical in terms of setting global agendas that can positively impact on people, the planet and animals. Since 2015, the adoption of the SDGs and the Paris Climate Agreement have provided a roadmap towards a more sustainable way of living. In April 2019, the United Nations Environment Programme issued an important statement regarding the excessive extraction of resources and its negative effect on the

environment, specifically highlighting the role of donkeys for rural livelihoods: *“The unsustainable extraction of a resource, whether it’s donkeys, plants, trees or minerals, can have adverse effects on the environment and communities in distant lands. In the case of donkeys, a valuable mode of all-weather, carbon neutral transport is removed from those most in need of transport in remote rural settings”*<sup>6</sup>. In September 2019, the High Level Heads of State UN General Assembly review of the delivery of the SDGs showed that we are not yet on the right path but it also enabled working animals to be seen as part of the solution.

Although largely focused on human lives, the UN Sendai Framework for Disaster Risk Reduction 2015 – 2030<sup>7</sup> explicitly recognises that working animals are crucial to people’s livelihoods and, as significant economic assets, must be protected from the effects of natural disasters: *“Priority 3: Investing in disaster risk reduction for resilience – National and Local level – (p)To strengthen the protection of livelihoods and productive assets, including livestock, working animals, tools and seeds”*<sup>8</sup>. Yet recognition regarding their contribution to the economy and life of people, particularly in the agriculture sector and environment crisis management, remains limited. Stronger provisions regarding the protection and welfare of working animals are therefore a key consideration within disaster preparedness and implementation plans.

Evidence shows that poverty is more often than not a direct cause of poor health<sup>30</sup>. Despite good health being an undisputable human right, millions of people worldwide suffer from medical conditions that jeopardise their entitlement to economic opportunities, education and social development<sup>31</sup>. Infectious diseases connected to zoonosis arise partly from poor management of the interactions occurring between humans and animals as well as of environmental changes. Research has shown, for example, that climate change may increase the hazard of human vulnerability to leishmaniosis, especially in areas that have undergone significant modifications that in turn have created an ideal setting for the spread of infectious agents and vectors<sup>32</sup>. The link between climatic conditions and illness has strong evidential support: in India, for instance, disproportionate rain and humidity are now considered determining factors promoting the lifetime of the malaria mosquito<sup>32</sup>. Weather-related events such as rainfall, as well as contaminated water and food, can have a substantial impact on the length of the vectors’ growth and survival and the consequent dissemination of diseases.

The Donkey Sanctuary and World Horse Welfare have been raising awareness of the role that working animals can play in building community resilience into adaptation plans of developing countries. We believe that recognising the relevance of working animal issues is key to achieve sustainable development and tackle climate change and health crises.

*\*for the purposes of this document the following SDGs have been selected as believed to be more relevant to the context of climate change. For more general information regarding the contribution of working equids towards sustainable development, please refer to “Achieving Agenda 2030 – How the welfare of Working Animals delivers for Development, International Coalition for working Equids (ICWE 2019)”.*



## SDG 13 – WORKING ANIMALS BUILD RESILIENCE AND HELP LOWER CARBON EMISSIONS

“[Climate change] is disrupting national economies and affecting lives, costing people, communities and countries dearly today and even more tomorrow. The poorest and most vulnerable people are being affected the most. Affordable, scalable solutions are now available to enable countries to leapfrog to cleaner, more resilient economies. The pace of change is quickening as more people are turning to renewable energy and a range of other measures that will reduce emissions and increase adaptation efforts.”<sup>10</sup>

Working animals are critical to the efforts to prepare, adapt and mitigate the impact of severe environmental implications and can be a valid coping mechanism in building the resilience required to absorb the consequences of natural disasters.

Climate change tolerance differs among species: donkeys and mules, in particular, can efficiently support livelihoods to endure, accommodate and recover from environmental adversities.

### ► MOUNTAIN REGIONS

Mountain regions occupy approximately 26.5% of the world's land surface<sup>11</sup> and directly contribute to the livelihoods of nearly 900 million people<sup>12</sup>. Nowadays these areas are confronted by the effects of climate change, as well as depopulation, which significantly compromise their resilience. In these territories, traditionally, animal traction has provided sustainable energy for agriculture, transportation and forest management. Today it can be easily tailored to adapt to and mitigate the impact of climate crises. Working animals require minor external inputs, can tolerate severe weather conditions and create clean power, turning biomass into energy and organic manure. Recently, animal traction has been acknowledged as a progressive solution to decrease the excessively industrialised agriculture sector as well as a valid method to reduce carbon emissions.

- The quantity of biodiesel required by a 35 horsepower tractor to be used one hour per day for a year would occupy five hectares of land, whereas 1.5 hectare of grassland is enough to feed a horse for the same amount of time, for five hours per day in order to perform the same work<sup>12</sup>;
- As far as pulling efficiency is concerned, a draught horse can quickly and easily convert 17% of its feed intake into the same amount of tractive power<sup>12</sup>;
- With regards to forest management, comparative studies have proven that animal traction can dramatically half the percentage of damaged trees compared to machine traction<sup>12</sup>.



## SDG3 – HEALTHY WORKING ANIMALS FOR HEALTHY HUMANKIND

“Good health is essential to sustainable development and the 2030 Agenda reflects the complexity and interconnectedness of the two. It takes into account widening economic and social inequalities, rapid urbanization, threats to the climate and the environment, the continuing burden of HIV and other infectious diseases, and emerging challenges such as non-communicable diseases”<sup>33</sup>.

SDG 3 targets 3.3 and 3.9 refer to water-borne diseases as well as water and soil pollution<sup>34</sup> as major issues affecting human health that must be solved with a matter of urgency in order to deliver the overall objectives of Agenda 2030.

Although antimicrobial resistance and zoonotic diseases are not explicitly included in the SDGs, they were highlighted in the final agreed text of the 2030 Agenda for Sustainable Development, which includes the SDGs, as new and emerging issues. The severe health implications the global world population has suffered in recent times have highlighted the urgency of taking action. As UNEP has recently pointed out, 75% of all emerging infectious diseases are zoonotic and they do not exclusively emanate from wildlife<sup>35</sup>. Domesticated animals and livestock can be carriers too, as seen in other previous epidemics such as Middle East Respiratory Syndrome (MERS) in 2012 and Avian Influenza Virus H7N9 epidemic in 2013.



### ► ANIMAL HEALTH AND WELFARE ISSUES

Evidence suggests that the unregulated trans-national or global movement of animals, especially if sick, poses an extraordinary and unacceptable range of risks to animal populations that may be susceptible to the diseases. The very recent outbreak of African Horse Sickness in Thailand<sup>37</sup> apparently followed the importation of a single infected zebra. Unofficial reports state that cases have now been seen in six provinces and that spread appears to be rapid with an infection zone extending into Malaysia. This has placed a huge and avoidable risk on working animals and the thousands of families and communities who depend on them for an income in the region. Working with our ICWE<sup>38</sup> partners and the OIE (World Organisation for Animal Health)<sup>39</sup>, The Donkey Sanctuary and World Horse Welfare have produced material to be distributed in equine-dependent communities on how to protect working animals from this devastating disease.

All animal trade needs to be regulated, but we are increasingly seeing less regulation and oversight, or even a complete absence of it. The Donkey Sanctuary’s “Under The Skin” report<sup>36</sup> evidences donkeys being stolen and illegally moved across

borders, including sick individuals, which are then slaughtered in mobile abattoirs and their skins and meat shipped to China.

Slaughter of animals represents another area of high risk as sick animals should not enter the human food chain. “Under The Skin” underlines the concerning conditions both in legal slaughterhouses and mobile slaughterhouses where clear evidence of soil and water contamination can be found all across Africa.

- In spring 2019, the OIE stated donkeys being trafficked on foot from Mali through Niger and into Nigeria for slaughter was a likely cause of the deaths of 62,000 donkeys in Niger from equine influenza<sup>41</sup>;
- In mid-April 2020, South China Morning Post<sup>40</sup> reported that two separate consignments of table salt from Egypt were intercepted in which were hidden a total of 32 tonnes of donkey skins, tonnes of shark fins and 500kg of sea cucumbers worth some HK\$2 million. The salt was destined for the consumer market though the presence of hides posed a risk to its safety for human consumption.



## SDG 5 - WORKING ANIMALS AND EMPOWERMENT OF WOMEN

“Women and girls represent half of the world’s population and, therefore, also half of its potential. Gender equality, besides being a fundamental human right, is essential to achieve peaceful societies, with full human potential and sustainable development. Moreover, it has been shown that empowering women spurs productivity and economic growth. Women have a critical role to play in all of the SDGs, with many targets specifically recognising women’s equality and empowerment as both the objective, and as part of the solution<sup>16</sup>”.

According to the International Labour Organisation (ILO)<sup>17</sup>, women represent approximately 70% of the people living below the poverty line. They are therefore most likely to suffer from the heaviest consequences of climate change effects<sup>20</sup>. Evidence shows women often rely on working animals to do tasks they would otherwise have to perform themselves. In many women-headed households, the more affordable draught power provided by working animals enables them to be economically active, increasing their resilience and social standing and reducing previous demographic or financial resource restrictions.

### ► GENDER EQUALITY

- In Senegal, young women working with animals are being trained in new skill sets, enabling them to earn a living from roles that were traditionally designated for men<sup>15</sup>;
- In India, the creation of female-led animal welfare groups has resulted from training women to act as community change agents<sup>15</sup>.

## SDG 6 - WORKING EQUIDS AND EFFICIENT WATER MANAGEMENT

“Despite progress, billions of people still lack safe water, sanitation and handwashing facilities. [...] More efficient use and management of water are critical to addressing the growing demand for water, threats to water security and the increasing frequency and severity of droughts and floods resulting from climate change. Water is at the core of sustainable development and is critical for socio-economic development, energy and food production, healthy ecosystems and for human survival itself. Water is also at the heart of adaptation to climate change, serving as the crucial link between society and the environment”<sup>13</sup>.

Water availability and water management have been severely affected by climate change. The UN Environment Programme estimates that by 2030 the demand for water will exceed supply by up to 40%: “When clean water is consistently unavailable, the world’s poorest must spend much of their disposable income buying it, or a large amount of time transporting it, which limits development”<sup>14</sup>.

Across the world, millions of people, mainly women and girls, spend up to 200 million hours per day collecting clean water<sup>15</sup>. Livestock production is also dependent on ready-to-access water. The simple act of animals carrying water reduces the time required to access it.

### ► WATER COLLECTION

- In Tunisia, 80% of respondents to a survey in remote and mountainous regions relied on their donkeys or mules to access and carry fresh water<sup>15</sup>;
- In Mauritania, access to clean piped water is scarce. In the city of Nouakchott, water carriers use donkeys to carry 400 litres of water at a time supplying the majority of households and businesses<sup>15</sup>.



## RECOMMENDATIONS

Despite their invaluable functions, working animals remain largely excluded from development and emergency programmes. In the aftermath of a natural disaster, animals become indispensable for rebuilding communities. When they are not adequately protected and die following environmental calamities and hazards, recovery for dependent livelihoods drastically decelerates. By taking care of working animals, community safeguarding can improve worldwide.

- Climate change, water management, gender equality and the welfare of animals are strictly interlinked and should not be tackled in isolation from one another;
- Governments, international institutions and local authorities should include provisions for the protection of working animals in disaster preparedness plans and relief operations;
- Policies related to development programming and environmental crisis management should feature working animal-inclusive language;
- Inclusion of working animal welfare and protection in the Livestock Emergency Guidelines Standards<sup>18</sup>;
- More robust provisions for the protection of animals in the Sendai Framework;
- Inclusion of reporting lines regarding working animal welfare activities related to its contribution to mitigate climate change in the Voluntary National Reviews (VNRs);
- Further research should be carried out to better assess the contribution of working animals to tackle climate change and to people's lives following environmental-related shocks;
- Governments should increase their financial investment in disaster risk reduction for resilience and establish funds towards the welfare and protection of working animals;
- Governments need to create and enforce effective biosecurity legislation for farming and transport of animals and animal products to prevent disease spread, working animals need to be included as a named species;
- Illegal trade in animals and animal products must be stopped, including the donkey skin trade;
- Investment in research into disease prevention and effective biosecurity measures;
- Management plans for refugee and IDP camps should include / solicit input from working animal experts, with a view to developing options and solutions other than de-stocking.





## CONCLUSION – HELPING ANIMALS MEANS HELPING PEOPLE

To better prepare and mitigate against the effects of climate change and, consequently, improve the lives of people, it is essential to improve the lives of working animals. Where entire communities are reliant on working animals for their subsistence, a healthy and well-protected workforce is a significant tool to quickly and effectively face the consequences of natural disasters.

Research seems to have taken a crucial turning, showing a strict connection between climate change and zoonotic diseases, suggesting that the consequent impacts should be taken into consideration when laying down national policies concerning animal health and human health provisions. The growing interface between humans and animals is therefore a pivotal element that requires constant surveillance and monitoring.

Many countries have made substantial progress; however, many more remain in a critical position.

Further investigation is also needed to study the patterns and causal relationships between zoonotic disease occurrences, pandemic crises and climate change.

Governments should acknowledge the invaluable contribution of working animals to alleviating poverty, ending hunger, preventing disease transmission and to managing environmental crises. Climate change adaptation and mitigation plans should include provisions regarding the health and welfare and protection of working animals which will in turn benefit communities' security and safety.

Collective participation in taking versatile and efficient approaches to critical issues such as climate change and health crises is vital to achieve sustainability for the planet and for all: helping animals means helping people.

## ABOUT THE DONKEY SANCTUARY

The Donkey Sanctuary has grown from a charity rescuing UK donkeys from neglect and abuse to a global animal welfare organisation. We advocate and promote sustainable equine welfare-related legislation, policies and good practice. Our aim is to transform the quality of life for donkeys,

mules and the people who depend on them for their livelihoods, through collaborating with intergovernmental organisations, international institutions, governments and like-minded parties.

Contact: [ian.cawsey@thedonkeysanctuary.org.uk](mailto:ian.cawsey@thedonkeysanctuary.org.uk)

## ABOUT WORLD HORSE WELFARE

World Horse Welfare is an international charity that has been improving the health and welfare of equids for more than 90 years. Our whole approach is practical, based on scientific evidence and our extensive experience, and focused on delivering lasting change, primarily through education and sharing of best practice. By working

in partnership with equine owners, communities, governments, NGOs, universities, sport regulators and other organisations, the charity successfully improves knowledge, standards, skills and policies affecting equids of all kinds.

Contact: [jessicastark@worldhorsewelfare.org](mailto:jessicastark@worldhorsewelfare.org)



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