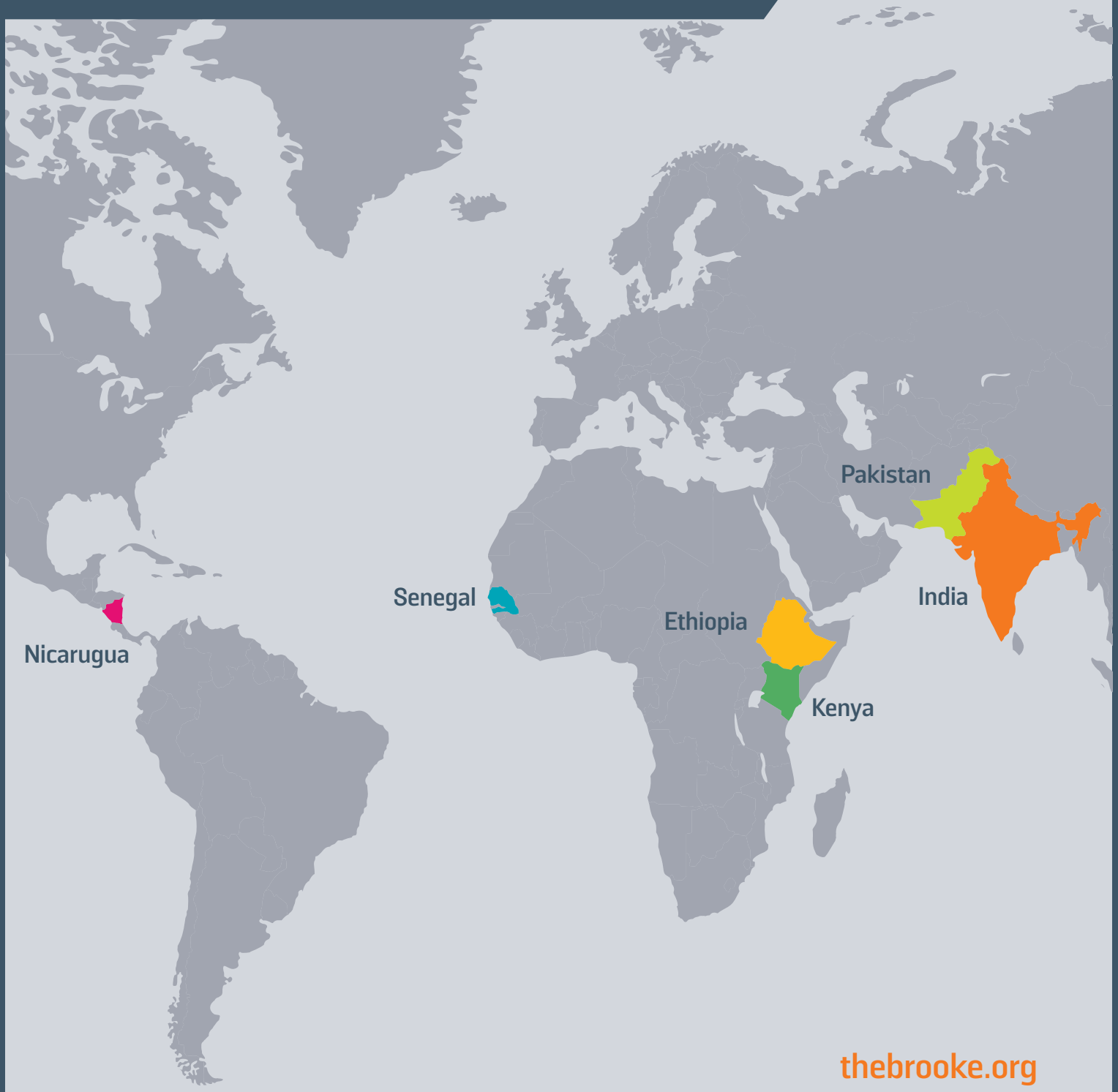
INTEGRATING WORKING ANIMALS INTO DISASTER RISK MANAGEMENT: INSIGHTS FROM SIX COUNTRIES

BROOKE
ACTION FOR WORKING HORSES AND DONKEYS

irma

Between 2024–2025, in collaboration with University College London, Brooke and Integrated Risk Management Associates (IRMA) conducted a study on how disaster risk management (DRM) and animal welfare are reflected in policy and practice across six countries: **Ethiopia**, **India**, **Kenya**, **Nicaragua**, **Pakistan**, and **Senegal**.

The study involved detailed policy reviews, in-depth interviews, and focus group discussions with government representatives and community members.



thebrooke.org

Research Questions

1. Policy review

How do DRM-related policies consider animal welfare, and good risk management, and what are the key factors that influence their effectiveness and implementation?

2. Decision makers

What additional information is needed to inform timely decision-making in animal risk management during disasters?

Global Findings at a Glance

Gaps in Policy and Awareness

In most countries, DRM policies mention animals but focus only on general livestock. Specific reference to working animals like equids is rare. Community-level awareness of these policies is often low. Many national plans do not include clear preparedness steps for different hazards – such as disease outbreaks, climate-related events, or technological emergencies.

Animal welfare measures typically focus on physical health and nutrition, but they overlook essential needs like appropriate shelter, social behaviour, and mental well-being. These gaps reduce the effectiveness of existing policies in protecting both animals and the communities that depend on them.

Implementation Challenges

Governments face several challenges when putting policies into practise:

- Limited political attention to working animals
- Unclear roles between agencies responsible for policy creation and implementation
- Inadequate funding
- Shortage of trained professi onals, including veterinarians

Coordination between decision-makers and local responders is often weak. Community participation is minimal, and the importance of working animals is frequently underestimated in emergency planning.

Data Limitations

Reliable and timely data is critical for effective disaster planning and response.

However, many countries lack:

- Accurate data on animal populations — especially working equids
- Early warning systems that include animal welfare indicators
- Risk maps and evacuation plans that account for animal needs
- Consistent post-disaster impact assessments

Government records are often more organized than community-level data, which tends to be informal. This weakens preparedness and reduces the ability to respond quickly during emergencies.

Focus group discussion in Pakistan, November 2024.

Key Enablers

Effective DRM for working animals requires:

- Early risk reduction and preparedness
- Active community engagement
- Clear coordination across sectors and institutions
- Integration of working animals into broader livestock strategies
- Policy implementation by the same body that develops the policy

Recommendations for Global Action

- Include working animals explicitly in DRM and climate resilience frameworks — not as an afterthought, but as a core component.
- Build a strong evidence base that shows the economic and social value of working animals in supporting resilience and recovery.
- Strengthen governance systems — including leadership, funding, and staffing — especially at local levels.
- Conduct animal censuses that include working equids and embed veterinary services into DRM and One Health approaches.
- Leverage global climate mechanisms — such as resilience funds, loss and damage finance, and climate data tools — to ensure working animals are addressed in planning and funding processes.

This study makes clear that turning policy into practise is essential. Working animals must be protected before, during, and after disasters — not only for their welfare, but because they are essential to the resilience of millions of people who rely on them for transport, income, and survival.

Ethiopia

Policy

Awareness and Understanding

Stakeholders across all levels are generally aware of disaster risk management (DRM) policies. Staff at the Ministry of Agriculture (MinAg) have a strong understanding, supported by formal training. The Ethiopian Disaster Risk Management Commission (EDRMC) is aware of the policies but often lacks clarity on the finer details. Communities, on the other hand, have only limited access to this information. They usually learn about policies through indirect channels such as local institutions and public messages.

Perceived Quality

Ethiopia's DRM policies offer a clear structure for managing disasters. However, several challenges reduce their effectiveness. Some stakeholders find the policies unclear or too general. The policies also struggle to adapt to changing situations. In addition, they are not updated often enough, which makes them less useful in fast-changing or complex disaster contexts.

Implementation

Policy implementation is uneven across different levels of government. While MinAg tries to apply policies in the field, their staff often lack the hands-on training needed for effective results. EDRMC faces coordination issues, which makes consistent application of policies difficult.
At the community level, direct involvement in implementation is minimal. This is due to limited awareness and a lack of tools or support to take action.

Data and Decisions

Available Data

The Ministry of Agriculture holds some agricultural and environmental data, but it is scattered and not always up to date. EDRMC collects data on natural hazards, such as floods or droughts.
At the local level, communities hold basic knowledge about their own conditions.

However, this information is not collected in a formal way or included in national systems.

Data Gaps

Important types of data are missing. MinAg does not have reliable systems for tracking animal health. EDRMC lacks data on the social effects of disasters, such as how families are affected by displacement or loss of income. Communities need more local data on key issues like water access, animal feed, and exposure to extreme heat. Without this, it's difficult for them to plan or respond effectively.

Data Needs

Government bodies need more structured and location-specific data.

This includes geo-referenced information on the environment and agriculture to guide planning. Disaster response also requires standardised, easy-to-access data on how disasters affect people's lives and livelihoods. At the community level, people need simple, useful data to help make decisions. Information such as where to find water, shelters, or veterinary services would make a real difference during a crisis.

India

Policy

Awareness and Understanding

Government officials are generally aware of disaster-related policies that include animal welfare components.

However, awareness at the community level is low. Most community members included in the study were unaware of existing benefits for animals until these were discussed in the course of the research. This disconnect limits access to support during emergencies.

Perceived Quality

While policies exist for key areas such as compensation, shelters, and veterinary aid, critical gaps remain. These include the lack of systems for fodder storage, carcass disposal, and reliable data collection. Community members also reported a lack of concrete action when they seek support, suggesting a gap between policy and implementation on the ground.

Implementation

Despite the presence of relevant policies, poor implementation remains a major barrier. A key issue is the lack of awareness at the community level — many do not know they are entitled to request support. Meanwhile, government officials often expect communities to initiate requests.

This misalignment contributes to ineffective policy execution during disaster events.

Data and Decisions

Available Data

Two key government bodies collect limited animal-related data. The Department of Animal Husbandry and Dairying (DAHD) tracks animal health and compensation schemes. The National Disaster Management Authority (NDMA) documents livestock mortality during disasters.

However, these datasets are event-driven and focus primarily on losses, not on preparedness or ongoing welfare.

Data Gaps

There are significant gaps in capturing comprehensive animal welfare needs. Data on fodder availability, animal shelter conditions, and long-term health impacts is often missing. At the community level, there are no formal data collection systems. Information is usually shared only when prompted by external actors, which delays response and limits access to entitlements.

Data Needs

Strengthening data systems is critical for inclusive and effective disaster risk reduction. Regular, detailed data on animal welfare — collected before, during, and after disasters — would support targeted planning and resource allocation. Institutional data should be complemented by community-based reporting mechanisms to ensure a fuller understanding of needs and improve responsiveness.

Kenya

Policy

Awareness and Understanding

Government officials, particularly those in the Ministry of Livestock and the National Disaster Management Unit (NDMU), are well informed about policies related to livestock and disaster management. Communities are generally aware of national animal welfare laws. However, they have little to no knowledge of specific policies that relate to donkeys, especially in the context of disaster response.

Perceived Quality

Both animal welfare and disaster management actors within the government recognise that policies exist but also agree there are gaps in how they are applied — particularly for animals like donkeys, which are often overlooked. From the community's point of view, there are no clear policies that protect donkeys during emergencies.

This leaves a critical gap in inclusive disaster planning.

Implementation

Government bodies are putting policies into practise in a range of ways.

However, they face challenges in doing so. These include limited resources and a lack of inclusive approaches that reach all animal owners. Communities often feel that policies for donkeys are either not applied or not taken seriously. As a result, support for donkey welfare during disasters remains weak or inconsistent.

Data and Decisions

Available Data

The Ministry of Livestock holds data related to livestock insurance, access to loans, and market interventions. The National Disaster Management Unit collects data on livestock health and government responses to disaster events. Communities, however, have limited access to or understanding of this data. Most are not aware of how data is used or where they can find it.

Data Gaps

There are important gaps in current data systems. The Ministry of Livestock lacks detailed information on donkeys and how climate events affect them. NDMU needs better data on livestock populations and how resources are shared during disasters. At the community level, there is a lack of information on how people view animal welfare, as well as specific data on donkey populations. These gaps limit the ability to design fair and effective interventions.

Data Needs

To improve disaster planning and response, government systems should include structured databases with up-to-date information on livestock numbers and animal health. For disaster management, data should be easy to map and track, helping to monitor risks and responses over time. At the community level, surveys could help gather both numbers and personal views on animal welfare.

This would ensure that donkeys and other often-neglected animals are properly considered in future policy and planning.

Nicaragua

Policy

Awareness and Understanding

SINAPRED, Nicaragua's national disaster management agency, is well-informed about official policies related to disaster risk management and animal welfare.

However, local communities are more familiar with informal practices and traditional ways of coping. They often lack knowledge of the formal legal frameworks that guide disaster response.

Perceived Quality

National policies are seen as important and well thought out, but they are often not backed by enough resources to put them into action. Awareness at the local level is low, which limits the impact of these policies. Notably, Nicaragua is the only country in this study that has a dedicated law in progress — the Protocol for the Intervention of Animals in Disasters — which aims to improve animal welfare during emergencies.

Implementation

At the national level, policies are clearly structured and available to relevant institutions.

However, at the local level, implementation is inadequate. In many cases, communities rely on their own knowledge, experience, and informal networks to manage risk. The gap between formal planning and local practise remains a major challenge.

Data and Decisions

Available Data

Nicaragua has well-organised datasets covering animal disease surveillance, risk assessments, and contingency planning. These are actively used by SINAPRED for national-level planning.

However, communities tend to rely on informal knowledge. They are rarely involved in data collection or analysis, which limits their ability to act on early warnings or official guidance.

Data Gaps

There is a lack of detailed data on animal populations, evacuation planning, and the effects of disasters after they occur. These gaps make it harder to plan responses or allocate resources fairly. Better data in these areas could lead to more timely and effective disaster responses for both people and animals.

Data Needs

Government agencies like SINAPRED need digital databases that are centralised, GIS-mapped, and linked with national disaster response systems.

This would support better planning and faster action. At the community level, people have asked for different tools depending on their needs and access. One group prefers visual tools like printed maps, guides, and mobile alerts. Another group relies more on radio messages, verbal training, and posters due to limited access to technology. These approaches should be included in future communication and preparedness plans.

Pakistan

Policy

Awareness and Understanding

Representatives from the Livestock & Fisheries Department (L&F) and the Provincial Disaster Management Authority (PDMA) in Sindh Province have a clear understanding of disaster risk management policies.

However, this knowledge is not effectively communicated to local communities. Both men and women in the community show limited awareness of the existing policies and organizations, with no clear understanding of the details of government programmes or how they can access support.

Perceived Quality

Government officials acknowledge the shortcomings in current policies and stress that efforts are underway to improve and develop better solutions. While there is some recognition of policy efforts, there is also clear room for improvement. From the community's perspective, policies are seen as insufficient and poorly executed, particularly in addressing their specific needs and challenges.

Implementation

While government representatives recognise the gaps in policy implementation and the ongoing development of solutions, the actual application of these policies in the community remains minimal and inconsistent. Many community members feel that policies are not effectively implemented, leading to a sense of neglect and exclusion from decision-making processes related to disaster preparedness and livestock care.

Data and Decisions

Available Data

The government, through the Livestock & Fisheries Department and PDMA, holds formal data on animal health, disaster risk mapping, and early warning systems.

However, communities lack structured data and often rely on local knowledge for managing livestock and responding to disasters.

This results in gaps in their ability to make informed decisions about disaster preparedness.

Data Gaps

Key missing data includes detailed livestock health records, flood risk mapping, real-time early warning systems, and comprehensive information on government policies. If this data were available, it could improve community decision-making, enhance disaster preparedness, and ensure better care for livestock during emergencies.

Data Needs

For more effective disaster management and livestock care, government agencies need detailed, structured data that can be easily analysed and integrated into response plans. Formats like databases or Geographic information system (GIS) would be ideal for managing animal health monitoring and coordinating disaster-related responses.

For DRM, real-time data is crucial, and it should be accessible in formats like GIS maps, reports, or mobile applications.This would help enable rapid responses, such as timely evacuations or relief efforts, especially during floods.

At the community level, both men and women would benefit from data presented in accessible formats. Men would prefer straightforward information in printed materials, radio broadcasts, or mobile apps that provide clear, actionable guidance on animal care and disaster management. Women, given their central role in household decision-making, would need information in simpler, more visual formats such as infographics, community meetings, or user-friendly mobile applications.

Senegal

Policy

Awareness and Understanding

Government representatives from both the Ministry of Agriculture and Livestock (MinAg) and the Ministry of the Interior are more familiar with disaster risk management policies.

However, they acknowledge there are gaps in policy implementation and full comprehension, particularly regarding the needs of local communities. The community is moderately aware of disaster-related policies but lacks a deeper understanding of them and does not have easy access to relevant information.

Perceived Quality

Representatives from the Ministry of Agriculture and Livestock, along with the Ministry of the Interior, recognise the importance of existing policies but note that significant improvements are needed. These include a more inclusive approach and stronger long-term strategies to address future challenges. The community values the policies but views them as inadequate in addressing specific needs, such as the inclusion of women and the protection of animals during disasters.

Implementation

While the Ministry of Agriculture and Livestock, as well as the Ministry of the Interior, acknowledge the gaps in implementation, they highlight issues with fragmented disaster preparedness and response systems. Additionally, there are missing frameworks for post-disaster recovery and financial protection for affected communities. Locally, the community feels policies are poorly implemented, with little government presence during disasters and limited local engagement in response efforts.

Data and Decisions

Available Data

The Ministry of Agriculture and Livestock maintains livestock census data and disease surveillance, but this information is not easily accessible to the community. Local communities often rely on informal knowledge and traditional practices to manage livestock and respond to disaster risks. The Ministry of the Interior uses this data for emergency planning but does not involve communities in the data collection or decision-making process.

Data Gaps

There are key missing data sets that could improve disaster response and support for local communities. These include data on disaster losses, financial protection, multi-risk disaster data, animal vulnerability, and recovery. With this data, it would be easier to provide targeted support to farmers and animals during and after disasters, improving overall disaster resilience.

Data Needs

The government needs data to be standardised and available in a comprehensive digital format.

This would allow for easier integration into national databases and more effective use by ministries like Agriculture, Livestock, and the Ministry of the Interior. For disaster risk management, data should be structured in a geospatial format with real-time updates, so it can be accessed and used by ministries like Civil Protection for rapid response coordination.

At the community level, data should be presented in simple, user-friendly formats, such as mobile apps or local registers. Clear visualisations and straightforward tools would ensure that communities can use the data directly during local disaster responses, helping them to take swift and effective action when needed.

These findings reflect the views of the people who took part in the research and may not apply to the wider population. We gratefully acknowledge University College London for their valuable input and guidance throughout this study.

These findings reflect the views of the people who took part in the research and may not apply to the wider population.

We gratefully acknowledge University College London for their valuable input and guidance throughout this study.

thebrooke.org