



WOAH Platform Action Plans' bridging workshop on Disaster Management and Risk Reduction

17 – 18 January 2024, Lisbon, Portugal

MEETING REPORT

Summary

The WOAH Platform Action Plans' bridging workshop on Disaster Management and Risk Reduction (DMRR) was held on 17 – 18 January 2024 in Lisbon, Portugal.

The event aimed at ensuring the continuity with the pilot project carried out in the Balkans from 2018 to 2021 by closely analysing challenges and achievements gained over the time by the WOAH Members involved, to increase their capacity to address animal welfare issues during natural disasters by developing Contingency Plans and operating on the basis protocols and procedures.

The event had the participation of more than 40 participants. On site, twenty-nine representatives from 14 WOAH members already involved in the previous workshops and selected European countries engaged in DMRR activities attended, namely Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia, Greece, Kosovo¹, Montenegro, Romania, and Serbia along with France, Portugal, Spain, Türkiye and Morocco.

The intense works allowed to take stock of the current WOAH Members' capacity to develop Veterinary Services contingency Plans (VS-CPs), by discussing the lessons learned during the triannual pilot project in the Balkans and rising the awareness on the importance of developing multi-hazard response frameworks addressing possible different scenarios (i.e., fires) in other areas of the region. Participants were also trained on how to develop and test operational protocols/procedures for the management of animal welfare issues during natural disasters and contributed to identify the objectives of the regional "Multi hazard workshop on contingency planning for animal welfare in natural disasters" to be organized in 2024 (Annex 1 - Agenda).

The event will pave the way to the implementation of the 4th Action Plan initiatives on DMRR and further contribute to strengthen the Veterinary Services' operational capacity to deal with animal welfare emergencies from an "One Health" perspective.

Acknowledgments

The World Organization for Animal Health is grateful to Spain the international Fund for Animal Welfare (IFAW) and France for having provided the financial support to the event. The WOAH is also thankful to Portugal for having hosted the event and provided substantial support to the organization.

¹ References to Kosovo shall be understood to be in the context of Security Council resolution 1244 (1999)

Background

Since 2014, the WOAAH Platform on Animal Welfare for Europe aims at supporting its European Members to strengthen their capacity to manage animal welfare emergencies according to the WOAAH Guidelines on disaster management and risk reduction in relation to animal health and welfare, and veterinary public health.

In this vein, a multiannual pilot program on disaster preparedness was launched in 2018 to build a culture of readiness among nine Balkan countries, and to encourage the development of Veterinary Services-Contingency Plans (VS-CPs) addressing animal welfare issues during catastrophic events.

In addition, the Platform started to work on a regional needs assessment on Veterinary Services' readiness to deal with animal welfare issues during veterinary emergencies. The online stakeholder consultation meeting on "The role of Veterinary Services on animal welfare in natural disasters" was therefore organised in March 2023. According to the participants, there is a need to support the WOAAH Members' activities to develop coordination mechanisms and to further increase the competencies of Veterinary Services.

The ***Platform Action Plans' bridging workshop on Disaster Management and Risk Reduction*** was organized in order to ensure the continuity with the pilot project, and to make profit out of the experiences gained over the time by selected WOAAH members from Europe and North Africa.

Objectives

The event aimed at ensuring the continuity with the pilot project by closely analysing challenges and opportunities and building upon the next Platform initiatives upon the experiences gained at regional level. The workshop results will pave the way to the implementation of the 4th Action Plan activities on DMRR and further contribute to strengthen the Veterinary Services' operational capacity to deal with animal welfare emergencies from an "One Health" perspective.

Key objectives were:

- To take stock of the Members' capacity to develop VS-CPs, including the lessons learned during the multiannual pilot project.
- To raise awareness on the importance of multi-hazard response frameworks and operational protocols in selected scenarios (i.e., fires) and different areas in the region.
- To identify the objectives and the desired outcomes of the "regional multi hazard workshop on contingency planning for animal welfare in natural disasters" (2024).
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Moreover, in the aftermath of the recent emergencies occurred in North Africa, it has been deemed opportune to involve the WOAAH SRR-NA (Sub Regional Representation for North Africa) in supporting the participation of other WOAAH Members (i.e., Libya, Morocco), currently engaged in the management of natural disasters, and offering them the opportunity to attend and contribute to the works, by sharing their own views and experiences in this field.

Participants

The workshop welcomed a total of 45 in person and on-line participants. The workshop targeted WOAAH members in Europe already involved in the previous initiatives on DMRR and selected countries engaged in DMRR activities, namely:

- The 9 countries participating to the multiannual pilot program on disaster preparedness for the Balkans (Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia, Greece, Kosovo², Montenegro, Romania, and Serbia)
- 4 WOAAH European members engaged in DMRR activities (France, Portugal, Spain and Türkiye)
- 2 WOAAH members currently involved in the management of natural disasters (Libya and Morocco) in North Africa

Numerous speakers contributed to the works, either at distance or in presence, from experts, including experts from WOAAH Network on Veterinary Emergencies (EmVetNet), the EU (European Union) Commission, the State Government of Victoria in Australia, several International NGOs, and WOAAH.

Content

The workshop covered different activities as:

- ✓ Understanding and addressing key issues in strengthening Veterinary Services' multi-hazard emergency management capacities and skills.
- ✓ Identifying common constraints and/or challenges experienced with implementing the WOAAH Guidelines on DMRR and in developing and testing VS-CPs.
- ✓ Sharing experience and lessons learned following the conclusion of the multiannual pilot program on disaster preparedness in the Balkans, and in reaction to or preparation for earlier or ongoing veterinary emergencies.
- ✓ Learning how to develop and test DMRR protocols/operating procedure.
- ✓ Discussing the objectives and the desired outcomes of the "regional multi hazard workshop on contingency planning for animal welfare in natural disasters" (2024).



Workshop programme

Wednesday, 17 January 2024 – Openings and morning session

The meeting was opened by the SRR Representative in BXL **Dr. Estelle Hamelin** who welcomed the participants, thanked the hosts and the donors, and gave the floor to **Dr. Susana Pombo**, WOAHA Delegate, Vice President of the WOAHA Council and Director General of the Directorate of Food and Veterinary (DGAV) at the Ministry of Agriculture, Forestry and Rural Development of Portugal. The Portuguese Delegate highlighted the importance of addressing the challenges posed by veterinary emergencies during natural disasters by adopting a collaborative and proactive approach to complex animal health and welfare risks. According to Dr. Pombo, the workshop represented an excellent opportunity to share knowledge and best practices to strengthen the Veterinary Services capacity to be prepared for, respond to and recover from veterinary emergencies, and most of all to operate in a united and coordinated manner, in accordance with the WOAHA standards on Disaster Management and Risk Reduction.

The morning session was chaired by Dr. Hamelin and started with a plenary lecture on "[Communication & social media during disasters](#)" given by **Daria Ortiz Suardy** from the European Commission's Directorate General for European Civil Protection and Humanitarian Aid Operations (DG ECHO), Digital communication team in Brussels. In her presentation, Ms Ortiz focused on the importance of providing real-time updates, ensuring the accuracy of information, and engaging with users to build a sense of community and trust, and to help fight disinformation. When disaster strikes, every minute counts: this is as relevant for first responders, as it is for communication officers and social media managers representing public institutions, local authorities, and international organisations. Compelling storytelling and visual content are key to generating interest and fostering a supportive and well-informed audience. However, successful online crisis communication campaigns take more than that. Ms Ortiz also shared best practices and made real-life examples, to illustrate how the DG ECHO creates narratives that resonate with the public and create a dynamic force influencing perceptions and inspiring actions.

Dr. Paolo Dalla Villa, Technical Officer - Disaster Management and Animal Welfare at the WOAHA Sub-Regional Representation in Brussels updated the participants about the [latest achievements and future plan of the WOAHA Platform Activities on Disaster management and Risk reduction \(DMRR\) in Europe](#). The first activity of the Platform was the multiannual pilot program on disaster preparedness launched in 2018 to build a culture of readiness among nine Balkan countries, and to encourage the development of VS-CPs addressing animal welfare issues during catastrophic events. In addition, the Platform started to work on a regional needs assessment on Veterinary Services' readiness to deal with animal welfare issues during veterinary emergencies and did an online stakeholder consultation meeting on "The role of Veterinary Services on animal welfare in natural disasters. Those activities led to a new Action Plan for 2024-2026, where regional collaboration should be boosted, along with communication and cooperation between authorities, actors, and stakeholders. The Platform should keep the broad scope (livestock, companion animals and wildlife), organize on-field simulation exercises, and offer additional opportunities to share experiences from past events.

Dr. Maria Teresa Villalba from the MAPA shared the ["Spanish experience and lessons learned in the development of a Contingency Plan for the management of veterinary emergencies during floods"](#) starting from the assumption that out that Spain still does not have any VS-CPs in place at national level and that animals have been only recently included in the planning of the legislation on civil protection. Only some regions already include animals in their legislation. To date, the Ministry of Ecological Transition (MITECO) is the competent authority for the management of flooding, being them the most frequent natural disaster in the Iberian Peninsula, along with Civil Protection (Home Affairs Ministry). In this vein, the DG Agua of MITECO has developed a set of guidelines on the adaptation of the farms to this risk. This document provides information for farmers and detailed instructions on how to evaluate their preparedness for the floodings and the measures to improve farms' resilience. To date, Spanish pig farmers (since 2020) and poultry farmers (since 2021) are obliged by law to have an animal welfare plan that should include the risk posed to animal welfare by natural disasters such as earthquakes or fires, according to the farm characteristics and location. The Royal Decree aims

at adapting the sector to the new challenges in terms of health, environment, and animal welfare. Still, it remains essential to ensure that everybody is well informed and prepared to operate in a unified manner. A template for the animal welfare plan has been created to help the farmers' veterinarian (the person in charge of creating the Plan), with a focus on the control of temperature and air quality, along with mortality production rates. **Dr. Marisa Fernandez**, President of the Veterinary Board of the Canary Islands, completed the presentation by reporting the experience made in the assistance of farm and companion animals during the volcanic eruption occurred in La Palma in 2021, and the wildfires that ravaged Tenerife in 2023. Once again, the contribution of private practitioners proved to be essential, thanks to the capacity to operate in a coordinated manner, according to specific procedures and by using appropriate equipment. Moreover, they facilitated access to the animal registers and prepared all the materials needed to quickly assist and relocate animals. Basic resources such as water, medicine, and feed/food, were also provided to 3780 animals for 23 distinct species. The Government of Canary Islands signed an agreement with the Veterinary College, and it will continue to promote the mobilization of professionals and to expand the volunteer list by strengthening its coordination activities.

Dr. Yolanda Vaz (General Directorate of Food and Veterinary – DGAV / Head of the Animal Protection Services) presented [the CASCADE simulation exercise \(SIMEX\) on floods and earthquakes](#) held in collaboration with the Portuguese national civil protection. More than 1000 operators were involved in response to different emergencies simulated in various parts of the Country. Veterinary Services participated as components of the civil protection mechanism and focused on preparedness. This initiative was held in the frame of the EU civil protection mechanism, and the support of other EU Member States. Dr. Vaz highlighted the importance of contingency planning to document how the system should be organized, who should be connected in advance and be contacted in case of need, in support to a flexible and reactive response mechanism. It is essential to build partnership networks in “peace time”, all the actors should get together in person and become familiar with the people involved, at national and international level. This will make everything much easier in terms of deploying the response and it will allow to know the availability and accessibility to basic resources (I.e., cages to capture the animals). Portuguese Veterinary Services have an essential role as they hold the animal databases, know the profile, distribution, and traceability of animal populations. Training and exercising are important, along with the functional inclusion in a strong and short chain of command. The availability of dedicated financial resources will allow to acquire whatever we need and even to pay people if needs be. A constructive and solid partnership with the NGOs will also increase the capacity to operate at best for animal containment, capture, evacuation, return to owners, relocation, and adoptions. The management of an animal shelter was chosen as a scenario and Veterinary Services were tasked to organize the animal triage, medical assistance for the injured animals, verification and electronic identification and registration of all the animals assisted. In some case, it was necessary to contact the neighbouring municipalities for the capture and accommodation of animals to be hosted in veterinary clinics and hospitals. Reporting proved to be fundamental to evaluate the strongest viewpoints at all levels. A key issue was the difficulty of communication due to weak Internet connection. WhatsApp for communication was not used prior to this exercise but it revealed to be a very quick and efficient tool to communicate, exchange information and images. Communication is key; press releases in emergency needs to be approved at central level and this sometimes takes time. This aspect should be improved to communicate to the public in a timely manner. The SIMEX undoubtedly changed the way Veterinary Services will evaluate, think, and operate during emergencies, and should be replicated with a multi-hazard approach.

The workshop session continued with **the Balkan countries representative's updates on the level of development of VS-CPs**, description of best practices on contingency planning for animal welfare during natural disasters, with particular attention to the lessons learned. The experience gained during the multi-annual pilot project has been significant in reinforcing the level of mutual understanding and agreement on the need for integrated operational frameworks to address veterinary emergencies. This approach might be scaled up to other areas in the region, since VSs must be flexible and ready to timely address different emergencies, from contagious disease outbreaks to natural disasters. So far, only three Countries have developed their VS-CPs ([Romania](#), [Bulgaria](#), and [Serbia](#)), with [Montenegro](#), [Kosovo](#), and [Greece](#) in development. To

streamline and standardize the country reports, WOAHA shared a suggested structured template ahead of the meeting. The presentations of the country reports can be accessed online through the following links.

The morning session was closed by **Dr. Milenko Simovikj** (Food and Veterinary Agency (FVA), Republic of North Macedonia) who took stock of the [progression in the development of the Veterinary Services Contingency Plan and related protocols in the Republic of North Macedonia](#) by pointing out the importance of five key elements that contributed to the progress achieved until now, namely: the FVA participation to the WOAHA multiannual pilot program; the institutional cooperation; the new decision of contingency planning; the digital transformations of the analog geographic hunting ground maps; and the revision of existing contingency plans. The legal basis leading to the decision to start with contingency planning was issued in 2021 and it contains three key topics: (a) the list of diseases according to the new EU animal health law, (b) regionalization (c) conditions that enables for planning during natural disasters. The National and Local Disease Control Centers (NDCC-LDCC) will operate as National/Local operation Centre for emergency (NOCES-LOCES) under the lead of different expert groups. In 2022, FVA started the project of digital transformation of analog geographic hunting ground maps and used the method of digital maps processing, to better define restriction zones and affected areas and to collect data in the case of both disease outbreaks and natural disasters which can endanger domestic and wild animals. Dr. Simovikj also recalled some experiences during the military conflict in 2001 and the catastrophic floods that occurred in 2016, when Veterinary Services promptly reacted by rescuing lost or endangered animals. Main difficulties were related to the recovery of missing animals, access to the flooded farms and the disposal of animal carcasses. Integration and coordination with authorized organizations and stakeholders operating on the ground were equally problematic, along with data collection and management, due to the level of updating of the IT systems. In this vein, the Agency has developed a dedicated App that integrates geographic information system and presents the distribution of animal farms, the density of domestic animals, geographic polygons of national parks and hunting grounds. This software will allow the VS to better understand what spatial, physical, and social conditions constitute the local vulnerabilities and to support the decision-making process. In October 2023, the FVA was involved in a SIMEX on first aid during earthquakes organized by the national Red Cross. This exercise highlighted the importance of a full integration between Competent Authorities and private organizations, including the possibility to activate contracts with private practitioners for veterinary first aid and rescue services. The FVA intends to promote common initiatives with the National Institute of earthquake engineering and seismology in Skopje as well as with the ICT Center Prilep for data protection and disaster recovery, to prevent and respond to cyber security attacks to Veterinary IT System. As for the future, it becomes evident that Artificial Intelligence will play a significant role in emergency management.

Wednesday, 17 January 2024 – Afternoon session

The afternoon session was **chaired by Dr. Dalla Villa** and started with a plenary lecture given by **Dr. Jimmy Tickel** - veterinarian at the Institute for Infectious Animal Diseases (IIAD) - on "[Climate Change-Disasters and Animals](#)", EmVetNet expert. Researchers have warned that Climate Change factors will impact Disasters resulting in increasing challenges to animal and human response. Dr. Tickel highlighted that planning and preparedness efforts can encounter the emerging hazards that require additional assessment and new ways of adaptation. Changes in weather-related-disaster events may result in impacts that are larger in scope, duration, magnitude, with an increased ability to cascade. Therefore, existing plans and protocols need to account for these unpredictable response challenges. Addressing this trend in preparedness efforts requires a comprehensive process based on strategic approaches and resource capacities estimation. In his presentation, Dr. Tickel discussed with participants on how to better address a step-by-step assessment according to basic Emergency Management concepts and the tools commonly used in developing contingency plans. This includes value chains/care networks, capacity readiness, the use of the Disaster Management Cycle and foresight planning with an all-hazard approach. Climate change is a global emergency and presents a myriad of potential challenges to Emergency and Disaster Management efforts. Rather than abandon existing approaches and tools that have proved their worth, Emergency Managers should look to incorporate an understanding of the potential challenges that climate change can bring to better mitigation, prevention, response, and recovery efforts.

Rodney Vile, Principal Officer Wildlife Emergencies for the State of Victoria's Department of Energy, Environment and Climate Action (DEECA) from Australia, shared the experiences and lessons learned on the [protection of wildlife during natural disasters and in particular wildfires in Australia](#). Within Victoria, emergencies, key roles and responsibilities are defined under two pieces of legislation and a State Emergency Management Plan (SEMP). The classification and governance of emergencies in the State, provide coordination procedures including shared priorities and operational structures. DEECA is identified as the lead agency for the management of wildlife emergencies affecting cetaceans or wildlife - in the case of marine and freshwater pollution - as well as wildlife welfare arising from a range of emergency events including fire, floods and extreme heat. Other responsibilities include managing emergencies posed by fire, energy, water, and biosecurity threats. For example, even though the Health Department is the lead agency for the management of extreme heat emergencies, management of impacts on flying-foxes - which are susceptible to heat – falls within the scope of DEECA. Such a system ensures an elevated level of coordination and operational response capacity, regardless of emergency type, animal species, and type of interventions. The operational framework is based on three core principles (1) to protect human safety (2) to minimise harm and suffering to wildlife and (3) to ensure that animals are treated humanely. The assessment of wildlife occurs at the individual animal level and is focused on the Five Domains of Animal Welfare. Field Assessment and Triage Teams operate in a coordinated manner to ensure the timely assessment and intervention of injured wildlife (field assessment, veterinary assessment and triage, euthanasia, or transferral for further care or release). This system has been tested by numerous devastating fires that ravaged vast areas of the Victoria State in 2019 and 2020. Hundreds of wildlife including kangaroos, koalas, birds and small mammals were assessed and treated as required. These experiences brought out the importance of a well-structured operational framework, based on a clear definition of roles and functions, capable to quickly react with clear purpose and objective, and jurisdictional authority over the implementation of hazard-specific contingency plans.

Dr. Maria Correia, from the Direção-Geral de Alimentação e Veterinária (DGAV) presented the [experience of the Portuguese Veterinary Services in assisting production and companion animals during wildfires](#). Forest fires occur every year in the Country with a major impact on animals (farms and others), as is the case of the fires occurred in 2017 and 2018. The coordination of the response is carried out by the National Authority of Emergency and Civil Protection (ANEPC), which relies on the collaboration of a range of entities such as the DGAV, municipal veterinarians, the Police, and the fire brigade. ANEPC can mobilize resources, equipment, and material to carry out effective and coordinated actions for animal rescue and assistance. Dr. Correia described the response mechanism, as well as the actions of the different organizations in responding to veterinary emergencies, particularly regarding rescuing, evacuating, treating, and

ethanizing or reuniting/rehousing the animals, transporting the carcasses, and distributing water and food. She finally described some points to take into consideration when responding to distinct types of fires, considering Portugal's experience in this type of disaster

Dr. Katerina Marinou (Head of the Directorate of animal welfare, Veterinary Medicines and Veterinary Applications of the Greek Ministry of Rural Development and Food) reported the [Greek experience in animal assistance during fires \(livestock, pet animals and wildlife\)](#). The catastrophic event occurred in the Dadia forest and other areas of Eastern Macedonia and Thrace was characterized as a mega-fire that lasted for 17 days (end summer 2023) and was recorded as Europe's largest fire at least since 2020. The fire did not have a normal flow; multiple arsons started fire at unrelated points and moving close to the wind. The Department of Veterinary Services of the Regional Unit of Evros was activated immediately from the onset of the phenomenon using a state vehicle to try and reach sheep and goat farms. The coordination of Public Services was assigned to the General Fire Department and the Hellenic Police. The evacuation of farms was not an easy task. Official Veterinarians had to cooperate with Fire Brigades that, in their turn, fought with a sudden event that started from an area with no farms and the fire changed direction continuously in an unpredicted way. Many farmers had to move their own animals on foot, due to the lack of authorized vehicles. Veterinary Services invited the farmers to relocate their animals in selected fire safe zones, since the primary concern of the fire brigade services was to protect the villages (and not necessarily the farms) from burning. Animals were also kept in football stadiums because there was a safe zone around; large spaces without dried grass, trees, or branches. Forced evacuations of settlements were also necessary in some cases. The Department of Veterinary Services ordered the doors of farm buildings to remain open so that the animals could escape. When possible, if time allowed, animals were transported with authorized livestock vehicles. Wild animals (jackal, turtles, etc.) were managed by the ecological organizations and private veterinarians with whom a public contract agent cooperated, and they managed strays and wild fauna (treatment of burns, etc.). Finally, both the Region and private operators secured a large amount of feed at their own expense to compensate the huge loss of feed stocks.

Dr. Sabine Didierlaurent from the French Ministry of Agriculture contributed with a presentation on the [“French experience in animal assistance during emergencies \(livestock, pet animals and wildlife\)”](#) and started with some examples of catastrophic events with progressive severity. Even if the civil security law includes animals in their regulation, it depends on the severity, the suddenness of the event and the adverse side effects. First, when an emergency is circumscribed, localized and short-lived, solutions can be found. Even if it is not completely written down or planned, everyone puts in their best efforts to find solutions. But this is not the case when circumstances worsen, or when the impact is such that all resources are overwhelmed. Many actors could be engaged in response. Solidarity and generosity are always a huge support, but coordination is particularly important in the field, in order to be efficient and to avoid side effects and over-accident. What should be important is: - To try to plan as much as we can, even if it is never the expected case: planning helps to have models, mechanisms. - but do not lose your creativity, adaptability, humanity, and common sense. In France, when a sudden event occurs, all services come under the command of a pilot (the “prefect of the department”) and contribute with their expertise. This organization is efficient, well approved in various kinds of crisis (especially on animal diseases) but animal welfare is still not considered in these contingency plans. The main difficulty sometimes is to advocate, engage political authority, and consider it in crisis management as other issues. What I would like to point out now is how we make partnerships and networks, and capacity building by training people and raising awareness. The French One Health Institute launched a program in 2023, aiming at gathering promote education, strengthening expertise and on human-animal-environment health. A training course will target public and private sectors, along with professionals potentially involved in crisis management. The main objective will be to get to know each other, to learn about the missions carried out by different public services, private companies, and civil society. However, it remains essential to maintain our creativity and open-mindedness to solve tricky problems. OH (One Health), mural is another tool to raise awareness about interconnected world and complex issues. The OH training and awareness approach is helping to overcome the obstacles posed by professional segregation and sectoral silos, needed to work efficiently together on crisis management. Finally, I would like to welcome the publication last December, on the Quadripartite initiative of developing a guide for

the implementation of the One Health Joint Action Plan at national level. France finds this document particularly useful, and it is in the process of adopting this step-by-step approach.

Dr. Dalla Villa opened the QA session by reminding that France was included as a model country in the EU report on veterinary preparedness for natural disasters in 20 EU Member States (2017) and the outcomes of the fact-finding mission to France and Italy in 2018. **Dr. Jimmy Tickel** took the floor and made his comments about the way WOAAH might further contribute to increase the DMRR capabilities of Veterinary Services, including by putting at disposal the technical resources and tools provided by Collaborating Centre Network on Veterinary Emergencies (EmVetNet³). According to Dr. Tickel, WOAAH is putting at disposal to its members, and to the veterinary services, a broad range of opportunities and tools, along with a wide network of experts that might play a fundamental role in spreading the high-level technical expertise that exist in different countries to aid one another in advancing planning preparedness. To this end, it has been crucial to shift from the initial sharing of information to the current sharing of expertise. Starting from the excellent relationships in this group, individual countries should start to share physical resources and even funding streams to complement what each other's are doing. A proposal is for WOAAH to facilitate a mechanism of interaction where country similarities should constitute the foundations on which to build a network of contact points and experts aiming at relating on a more frequent basis and sharing responsibilities and progress in the development of hazard specific contingency plans and protocols. In this vein, it will be essential to standardize the terminology and skills and then to be able to form mission ready packages and resources, to work out agreements, to leverage all that knowledge and resources developed over the time in response to emergencies. WOAAH should continue putting together the opportunities for countries to work with one another. Meetings and workshops could offer opportunities to set up and manage thematic working groups (i.e., wildfires, volcanic eruptions, earthquake) to start developing protocols. EmVetNet can address Members' needs by putting at disposal a wide network of technical Subject Matter Experts from 30 Countries. However, those competencies must be standardized, and this group should follow the same process until it is possible to merge the resources, talk the same language and operate according to the same standards and protocols. There is an intelligent way to ask for something and this cannot be *"I need help"* but *"I need a type 2 fire crew; they should be able to perform these tasks for 14 consecutive days without any external support as there are not any logistics available"*. The more Veterinary Services get into disaster management the more technical and standardized they should be, until highly trained mission and task forces could be deployed to assist country to country.

The day was fully dedicated to sharing experiences on contingency planning and in the running of simulation exercises. The role of communication and the power of social media, the impact of climate change on animal health and welfare and the assistance of wildlife during natural disasters has been also in interesting topics to be considered in the planning of future initiatives.

³ The EmVetNet was established in 2018, comprising the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G.Caporale' (IZSAM) in Italy, focused on veterinary training, epidemiology, food safety, and animal welfare; the Centro Nacional de Sanidad Agropecuaria (CENSA) in Cuba, focused on the reduction of the risk of disasters in animal health; and the Institute for Infectious Animal Diseases (IIAD) at Texas A&M University in the United States, focused on biological threat reduction.

Thursday, 18 January 2024 – Morning session

The morning session was chaired by Dr. Hamelin and started with a plenary lecture on ["One Health approach to emergency management"](#) given at distance by **Dr. Hayley Squance PhD (Emergency Management)**, who served as the Ministry for Primary Industries (NZ) national coordinator for animal welfare during disaster events for 5 years. Dr. Squance also led the development of the first Australasian Veterinary Emergency Response Team at Massey University and has deployed to over 50 emergency events. Dr Squance is an associate researcher for the Joint Centre for Disaster Research, Massey University, New Zealand. One Health (OH) and One Welfare (OW) concepts are rooted in the basic assumption that humans, animals, and the environment are interconnected and interdependent, and that these relationships often result from common sources and shared experiences. In emergency management, it is essential to recognize the important interrelationships between animal welfare, human well-being, and the physical and social environment. OW is a concept that describes these interrelationships with the aim of enhancing the understanding of, and response to more frequent and long-lasting impacts of natural disasters on animals and communities. OW is more holistic and best fitted to veterinary emergency management contexts, by encompassing social, economic, environmental, and cultural interdependencies, and not limited to health. Nevertheless, the management of animal welfare issues during emergencies remains overlooked by most emergency management systems, typically human-centered. This is often due to the tendency to work in silos and a lack of understanding the importance of human–animal–environment (h-a-e) interdependencies. By adopting an integrated emergency management framework, it will be possible to achieve a transdisciplinary approach to veterinary emergency management in which all stakeholders acknowledge the importance of these interdependencies and work together in a collaborative framework. Such a transformational change will not be easy and must be supported by sustainable and proactive strategies including legislation and policy changes, strengthening h-a-e interactions in “peace time”, improving knowledge through interprofessional education and training, rather than waiting until a crisis, which often put at stake mutual trust and understanding. This requires the adoption of transdisciplinary approach in which animals are fully integrated into emergency management systems, by involving diverse stakeholders, providing complementary perspectives, and seeking for ‘whole of society’ solutions. Engaging committed and skilled champions representative, among Veterinary Services, Competent Authorities, and stakeholders, will be key in all phases of the emergency management cycle. Finally, the human–animal bond should remain the mainstay for communication and engagement with communities and significant stakeholders when a disaster strikes.

This presentation was followed by the intervention of **Dr. Paolo Dalla Villa**, who briefly introduced the survey aiming at providing an overview of the [WOAH/LMU survey on Veterinary Services' preparedness to animal welfare emergencies during natural disasters and other non-epidemic events](#) in Europe. Specific objectives of the survey were to assess and quantify the level of the European WOA Members' capacity to respond to natural disasters in general with a focus on animal welfare issues, to determine the types of disasters encountered and the level of education, training, and exercising initiatives taken or available at regional level. The questionnaire also allowed to identify gaps in capacity and specific needs of participating countries. Forty-nine countries responded to the survey for a 92% completion rate. Floods, earthquakes, and fires were the three most common disasters. Fifty-two percent indicated they incorporated animal welfare into their disaster planning. Thirty-one percent indicated they had no or limited legal authority to manage animal emergencies in natural disasters. The species covered in the national response plan ranged from laboratory animals at 17% to livestock at 48%. Eighty-two percent had no or limited standard operating procedures and 73% had no training to respond to animal welfare in disasters. Budgets, trained personnel, equipment/supplies, and legal authority were the most frequently identified gaps. The survey results have been published in Disaster Medicine and Public Health Preparedness Journal.

The [National experience in animal assistance during emergencies \(livestock, pet animals and wildlife\) in North Africa](#) was subsequently described by **Dr. Faraj Bakkar**, Technical advisor of the CVO of Libya, National Centre for Animal Health. First, an overview of floods, their types and causes, and the need to prepare to confront them, with reference to the physical and service damages in both short and long terms, were provided. Secondly, the presentation gave

an overview of what happened in Libya in September 2023 during the floods - “Hurricane Daniel crisis”, with a focus on the city of Derna. High winds and heavy rains led to the collapse of two dams south of the city of Derna, and the subsequent catastrophic floods destroyed homes, hospitals, roads, and power lines. Livestock farming and agriculture were also severely affected with an important number of farms affected, fodders destroyed, grazing areas damaged and a lack of clean water resources, leading among other things to lack of meat for human consumption. Logistics services were also affected due to damaged roads, so movement possibility became minimal. Epidemiological situations of the most relevant animal diseases including LSD, RVF, FMD, WNV, BTV, PPR were assessed, in addition to other common diseases such as intestinal parasitic disease, black leg, plant poisoning, Botulism, leptospirosis, and other VBDs. Lastly, the key lessons learned were highlighted: Libya should prioritise zoonotic infectious diseases, performing risk assessment, preparing inventory lists for the important medication and vaccines, collaborating with relevant stakeholders, preparing the appropriate infrastructure, and most importantly, developing a national contingency plan to confront such situations, learning from the EU experience.

The module dedicated to present [the methodology and best practices for the development and testing of protocols/operating procedures](#) was coordinated by **Professor Gary Vroegindewey** (One Health Program at the Lincoln Memorial University College of Veterinary Medicine and Senior Fellow- Disaster Management, IIAD-Texas A&M University) with the support of Rodney Vile, Jimmy Tickel and Paolo Dalla Villa. Prof. Vroegindewey started with a general lecture on why and how to develop and test disaster management protocols/procedures by choosing the donning of Personal Protective Equipment as an example. Protocols/procedures are sometimes called Work Instructions (WI) or Standard Operating Procedures (SOP) and they are a documented set of directions or steps on how a defined task should be performed. They must contain clear instructions, often focused on safety, and have several clearly defined steps. Similar tasks will vary for different emergency situations. Protocols are developed when the activities to be undertaken are known and documented but can be adapted to other uses. Participants were also reminded that protocols/procedures must be formulated based on an agreed and standardized vocabulary to avoid misunderstandings. Following this introduction, participants were split into four working groups, dealing either with basic protocol development and focusing on a detailed understanding of the process, or aiming at developing more complex protocol. [The groups were provided with a worksheet and a PPT template to report the results.](#) The topics selected and finally discussed in plenary were (a) rescue, care and shelter for displaced sheep and goats during wildfires (b) carcass management (c) provision of feed and water to dairy cows in a flooding scenario (d) veterinary triage in flooded dairy farms.

Thursday, 18 January 2024 – Afternoon session

The afternoon session was chaired by Dr. Dalla Villa and started with the online contribution of **Cathy Watson** (Coordinator at LEGS, United Kingdom) on supporting [Livestock-Based Response in Emergency through the Livestock Emergency Guidelines and Standards \(LEGS\) Training Programme](#). The LEGS are a set of international guidelines for the assessment, design, implementation, and evaluation of livestock interventions in emergencies. LEGS aims to support the livelihoods of livestock keepers affected by crisis. The LEGS Handbook, first published in 2009, provides guidance and participatory tools for planning a livestock-based emergency response, drawing on evidence-based good practice from around the world. The LEGS Training Programme supports practitioners and decision makers to apply these standards and to coordinate and plan responses, using both in-person and online methodologies. To-date there are over 400 active LEGS Trainers around the world, who have delivered over 500 courses in 59 countries. As a result of the Handbook, training courses and other resources, LEGS is used as a key reference in different regions across the world by international organisations such as FAO (Food and Agriculture Organization), ICRC (International Committee of the Red Cross), the World Bank and BHA, national and international NGOs, and national governments. With a focus on preparedness planning and participatory emergency response planning, LEGS has the potential to provide coordinated frameworks and pathways to support livestock keepers affected by all types of disasters.

Dr. Maria Luisa Danzetta, IZS – Teramo presented at distance the preliminary results of the [IZS-Teramo project on the “Development of risk indicators for disasters impact assessment on animal health and welfare”](#). Non-epidemic emergencies caused by major adverse events, like earthquakes, can have immediate and long-term impacts on human as well as on animal health and welfare; therefore, estimating impacts induced by seismic events is a crucial point for planning and preparing mitigating actions. Literature is scarce regarding the existence of indicators aimed at estimating the allocation of resources for preserving animal health and welfare in a seismic risk scenario. Therefore, the pilot study we designed and developed has the aim of estimating the impact of an earthquake on animal health and welfare through the identification of all hazards related to, as prerequisite for targeting interventions and quantifying human, instrumental and financial resources and building relevant indicators for risk mitigation as relevant tools for Veterinary Authorities. 31 experts from research, Veterinary Public Health fields and Civil Protection were enrolled in an Expert Knowledge Elicitation (EKE) carried out according to the rules of the Appreciative Inquiry Summit, a model built on 4 phases that was applied in plenary elicitation sessions alternating with subgroups elicitation sessions. At the end of the EKE, each group of experts was tasked to build relevant indicators according to the hazards identified. Overall, 23 risk indicators were defined. Of these, 14 were classified as belonging to mitigation, prevention, and preparedness phases, that is in peacetime or defined as pre-earthquake indicators, 9 indicators were attributed to the response and recovery phases or defined as post-earthquake indicators. To the best of our knowledge, this is the first study aimed at identifying useful indicators for the management of earthquakes in the veterinary field to be included in the national contingency plan in accordance with the WOAHA “guidelines on disaster management and risk reduction in relation to animal health and welfare and veterinary public health”. Finally, the risk indicators represent a useful tool for the National Information System for non-epidemic veterinary emergencies (SIVENE) web GIS (Geographic Information System) implementation; namely for emergency planning, response, and recovery to facilitate decision-making process at local, regional, and national level. They could have potential applicability at national level being derived from a representative group of experts and most of them could be also extended to other type of disasters.

Dr. Anne Dubbink veterinarian that studied at Utrecht University in the Netherlands presented **an animal field triage protocol for livestock and horses caught in disasters**. Field triage systems are available to address mass casualty incidents involving humans, but lack for animals caught in disasters. This study aimed to develop a veterinary field triage protocol for livestock, horses and wildlife based on an existing human triage system. A literature review and an expert consultation resulted in a concept version, which was followed by a two-round Delphi-study to

evaluate and validate the concept triage protocol. The human Self-Assessment Lifesaving Interventions, Treatment/Transport (SALT) Mass Casualty triage algorithm was chosen as the starting point of the veterinary model because of its recent development, fair accuracy and the inclusion of an initial global sorting step. For livestock and horses, consensus was reached on the use of global sorting based on the criteria 'autonomously mobile without obvious major injuries', and on five of six appropriate physiological criteria applied for individual health state assessment. Triage animals were placed in one of four categories for applicable veterinary care, beyond saving (black), immediate/urgent (red), delayed (yellow) and minor (green). The expert panel agreed that the veterinary triage model is workable for livestock and horses and has added value in mass casualty incidents involving animals. Future work will focus on validating the protocol for livestock and horses with first responders during simulated mass casualty incidents and development of applicable protocols for wildlife. A serious game, the animal triage training game (ATTG), has been recently launched. It is developed to train first the newly developed protocol and provide them with the specific knowledge and skills that are needed to perform field triage on animals.

A session dedicated to the **role of the NGOs in disaster management** was opened by [Celine Sissler-Bienvenue \(IFAW\)](#), who reminded that disasters are increasing in frequency and intensity around the world. They cause significant financial damage and sometimes tragic human toll. But what about animals? Every year, billions of them, domestic or wild, suffer the destructive consequences of these disasters. However, these silent collateral victims remain forgotten by crisis management policies, thus raising numerous challenges. IFAW's presentation highlights the critical role, direct or indirect, that NGOs play in improving animal welfare before, during and after a disaster. Through its Disaster Response program, IFAW (the International Fund for Animal Welfare) supports local, regional, and national authorities and/or local NGOs in their efforts to include animals and their welfare in disaster management plans, dispatches, at their request, multidisciplinary teams to rescue animals in distress. IFAW also forms public or private partnerships to transmit its expertise or enable rapid and fluid intervention in times of crisis. Different examples such as the cooperation between IFAW and Polish VS after the war started in Ukraine or the field expertise provided in Greece to treat, rehabilitate and release the rescued tortoises from the 2023 wildfires illustrate the different facets of IFAW work.

According to [Adam Parascandola \(HSI\)](#), in all phases of the disaster response cycle partnering with NGOs can be a powerful tool to strengthen resources and provide expertise in areas outside of your own. However, there are many types of animal NGOs with a wide variety of experience, so sometimes it can be difficult to determine who to work with. This presentation seeks to provide an overview of the types of animal NGOs including spontaneous unaffiliated volunteers who may show up as well as provide tips on finding reliable partners and red flags to watch out for. In addition, the presentation provides some best practice tips for partnering with NGOs to maximize success.

The session was closed by [Jackson Zee \(Four Paws\)](#) who highlighted the Civil Society Organizations (CSOs) play vital role in Veterinary Disaster Management and Animal Health, particularly in the aftermath of disasters. Their deep understanding of local needs and strong grassroots presence enable them to effectively engage communities, provide veterinary care, and mitigate the impact of disasters on animal health. This presentation emphasizes the importance of veterinary medicine in disaster management and highlights the contributions of CSOs in supporting veterinary professionals and promoting disaster preparedness and resilience. CSOs' strengths lie in their grassroots reach, community engagement, and flexibility, making them essential partners in disaster response. By recognizing and supporting CSOs, we can strengthen disaster preparedness and response efforts, ensuring a safer future for animals and communities.

The last slot dedicated to the planning of the **“Regional multi hazard workshop on contingency planning for animal welfare in natural disasters” in 2024**, was coordinated by Dr. Dalla Villa using Wooclap survey system.

According to the participants the WOAHE Platform on Animal Welfare for Europe can further contribute countries in developing their VS-CP for disaster management by conducting a multi-sectoral risk profiling exercise and identify the high priority veterinary public health threats; establishing a network of national disaster management contact points engaged in cross-border

collaboration and disaster communication and by providing tailor made technical assistance and strengthen information sharing, surveillance, research, and training activities.

Strengthening coordination, improve response capabilities and risk communication were identified as CPs elements to be integrated in the national emergency management systems.

Participants also indicated the main topics to be selected for the organization of thematic meetings/workshops to be held in 2025 and 2026, namely:

- i. Development of guidelines, tools (for developing contingency plans, operational procedures, and instructions) and predefined template documents that will help to build a response plan.
- ii. Veterinary Services' integration in inclusive DMRR (Disaster Management and Risk Reduction) systems at national level.
- iii. Communication/cooperation between Competent Authorities, actors and stakeholders (country visits, mutual support agreements) at regional level.

Conclusions of the meeting

Participants recognized the workshop contributes to improving regional collaboration in DMRR. In addition, they pointed out the need:

- To further strengthen communication and collaboration between Competent Authorities and stakeholders.
- To develop specific protocols/procedures and harmonized templates related to technical and administrative aspects of DMRR, including process of verification, updates, and revisions.
- To organize additional networking and training events, in presence or online (I.e., risk analysis, data collection and the use of AI);
- To promote the development of digital information management applications to be used for training, to analyze the consequences of a disaster, and for tactical deployment of operational resources.
- To understand how Public-Private Partnership (PPP) could contribute to the management of veterinary emergencies.
- To value the role of NGOs and their complementarity to achieve shared objectives and goals of DMRR.

According to Dr. Tickel, the WOAHA could better engage and coordinate member countries by interacting with SME (Subject Matter Expert) representatives to build protocols/procedures to be adopted alone or in combination depending on the different situations. With minimal effort, much work could be done in a brief time limit.

Example of developed protocols can be found following this link:

[https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/emergency-management/carcass-management/carcass.](https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/emergency-management/carcass-management/carcass)

Prof Vroegindewey acknowledged the substantial progresses made since 2018, thanks to a constant critical analysis of what works and what can be done in a better way. The application of new technologies to DMRR (I.e., use of drones, AI) and the need to develop statistical models, combined with the improvement of human skills and the sharing of firsthand experiences, will allow to move forward and add solid competences to the various emergency management frameworks.

The Portuguese Delegate Dr. Susana Pombo closed the works by thanking organizers and participants and underlining the elevated level of commitment matched to the capacity to put on the floor when it's needed. Such an enriching event offered a unique opportunity for a valuable exchange of new ideas and perspectives, it made possible to identify innovative solutions and most of all strengthening the global collaboration in the protection of animal health and welfare during veterinary emergencies. By assessing the implementation level of the WOAHA standards on disaster management and risk reduction, we have recognized significant challenges but also

many opportunities for substantial improvements. However, it is now crucial to turn the discussion into action and make this workshop not just a starting point but a fresh boost for continuous improvement of systems, processes and protocols. The connections made and the ideas generated during these days of intense session will continue to echo through a solid network of global cooperation. We are now in a better position to make a lasting positive impact on disaster management and risk reduction around the world and in our Countries.

Next steps

Following the conclusions of the bridging workshop, further actions are proposed to ensure sustained progress and address the identified WOAHA members' needs:

- To disseminate the outcomes of the event (WOAHA Platform)
- To organize the online “Regional multi hazard workshop on contingency planning for animal welfare in natural disasters” in 2024 (WOAHA Platform)
- To explore the opportunity to create a formalized network of contact points aiming at promoting cross-border communication, collaboration and coordination in preparation or response to regional/sub-regional veterinary emergencies (WOAHA Members).
- For SRR North Africa to assess the opportunity to use the experience of the AW Platform for Europe to adapt it to their regional needs

Annex 1. Agenda

Day 1 – 17 th January 2024		
Time	Activity	Facilitator(s) and contributors
09:00	Registration of participants	
09:30-09:45	Welcome address and opening remarks	Estelle Hamelin (WOAH SRR Brussels) Susana Pombo (WOAH Delegate - Ministry of Agriculture, Forestry and Rural Development, Portugal)
	<i>Chair E. Hamelin</i>	
09:45 – 10.30	Plenary lecture on " Communication & social media during disasters "	Daria Ortiz Suardy (EU COM/DG ECHO)
10:30-10:45	The WOAHP Platform Activities on DMRR in Europe - Latest achievements and future plans	Paolo Dalla Villa (WOAH SRR Brussels)
10:45-11:00	Coffee break	
11:00-11:15	The Spanish experience on the development of a Contingency Plan for the management of veterinary emergencies during floods.	Maria Teresa Villalba (MAPA, Spain)
11:15-11:30	The CASCADE simulation exercise on floods and earthquakes in Portugal	Yolanda Vaz/ Maria Correia (Direção-Geral de Alimentação e Veterinária, Portugal)
11:30-13:15	State of the art on contingency planning for the management of animal welfare issues during floods (Bulgaria, Greece, Kosovo ⁴ , Montenegro, Romania, and Serbia)	Balkan countries' representatives
13:15-13:30	North Macedonia progress on the development of Veterinary Services - Contingency Plan + operational instruments (manuals/protocols/procedures)	Milenko Simovikj (Food Safety Agency, Rep of North Macedonia)
13:30 14:30	Lunch	
	<i>Chair P. Dalla Villa</i>	
14:30-15:15	Plenary lecture on " Climate Change-Disasters and Animals "	Jimmy Tickel (EmVetNet)
15:15-15:45	Wildlife management during fires	Rodney Vile (State of Victoria, Australia ⁹)

⁴ References to Kosovo shall be understood to be in the context of Security Council resolution 1244 (1999)

15:45-16:00	The Portuguese experience in livestock and pet animals' assistance during fires	Maria Correia (Direção-Geral de Alimentação e Veterinária - Portugal)
16:00-16:15	Coffee break	
16:15-16:30	The Greek experience in animal assistance during fires (livestock, pet animals and wildlife)	Katerina Marinou (WOAH Animal Welfare Focal Point, Greece)
16:30-16:45	The French experience in animal assistance during emergencies (livestock, pet animals and wildlife)	Sabine Didierlaurent (Ministry of Agriculture, France)
16:45-17:15	QA and panel discussion	All participants – moderator (TBD)
17:15	End of the day	
20:00	Dinner hosted by Portugal	

Day 2 – 18th January 2024		
Time	Activity	Facilitator(s) and contributors
	<i>Chair E. Hamelin</i>	
09.00- 09:45	Plenary lecture on " One Health approach to emergency management "	Hayley Squance (Joint Centre for Disaster Research, Massey University, New Zealand)
09:45-10:00	WOAH Members' capacity to deal with animal welfare emergencies during natural disasters in Europe	Paolo Dalla Villa (WOAH SRR Brussels)
10:00 –10:15	National experiences in animal assistance during emergencies (livestock, pet animals and wildlife) in North Africa	Faraj Bakkar (National Centre for Animal Health, Libya)
10.15-10:30	Coffee break	
10:30-11:00	Group exercise on how to develop and test DM protocols/operating procedures (Session I – Introduction to the methodology and best practices)	Gary Vroegindewey (LMU)
11:00-13:00	Group exercise on how to develop and test DM protocols/operating procedures (Session II: DM protocols/operating procedures development and testing +rapporteurs feedback and discussion)	Gary Vroegindewey and All participants (Rodney Vile + Jimmy Tickel + Paolo Dalla Villa as facilitators)
13:00 –14:00	Lunch	

	<i>Chair P. Dalla Villa</i>	
14:00 – 14:15	Supporting livestock-based response in emergency through the LEGS Training Programme	Cathy Watson (Coordinator at LEGS, United Kingdom)
14:15-14:30	Preliminary results of the IZS-Teramo project on the “ <i>Development of risk indicators for disasters impact assessment on animal health and welfare</i> ”	Maria Luisa Danzetta (IZS-Teramo)
14:30-15:15	Animal Field Triage Protocols for Livestock and Horses Caught in Disasters & Triage - Game presentation and play	Anne Dubbink (Utrecht University, the Netherlands)
15:15-15:30	Coffee break	
15:30-16:15	The role of the NGOs in disaster management	Celine Sissler - Bienvenue (IFAW) Adam Parascandola (HSI) Jackson Zee (Four Paws)
16:15- 16:30	Planning of the “Regional multi hazard workshop on contingency planning for animal welfare in natural disasters” (2024) with Woo Clap on next topics to be addressed by the Platform	Paolo Dalla Villa (WOAH SRR Brussels)
16:30-16:45	QA panel discussion and conclusions	All participants + WOAH
16:45	End of the day	