



AFRICAN FORESTRY AND WILDLIFE COMMISSION

TWENTY-SECOND SESSION

Forests and Wildlife: Africa's diversity for shared prosperity and security

Skukuza - Mpumalanga, South Africa, 9-13 March 2020

REPORT OF THE MULTISECTORAL DIALOGUE AND LEARNING EVENT ON HUMAN-WILDLIFE- LIVESTOCK-ECOSYSTEM INTERFACE

I. Background

1. Biodiversity and ecosystems feature prominently across many of the Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development (hereafter “the 2030 Agenda”). The SDGs also bring into sharper focus the many unprecedented and multi-faceted threats to health and well-being. Within the 2030 Agenda, there are a number of SDGs relating to the One Health (OH) approach, which constitutes a holistic vision to address complex challenges originating at the human-wildlife-livestock-ecosystem interface.

2. In Africa, the majority of the human population is directly dependent on natural resources for its livelihood, and many of the most vulnerable people depend directly on biodiversity to fulfil their food and nutrition, security and shelter needs. More than 1.2 billion people currently live in Africa, and the population will almost double to over 2 billion by 2050 (United Nations, 2019). As a result, competing interests for land use and conversion of natural ecosystems into crop cultivation systems have exacerbated deforestation, degradation and fragmentation of forests and other natural habitats.

3. Humans are also converting natural forests into grazing areas for livestock, or placing new farms near forests or natural habitats, or choosing to graze livestock near or on the protected areas, where there is an abundance of wildlife. This demonstrates how wildlife populations are essentially competing with humans for limited natural resources and habitat, and also highlights how encroachment and land-use choices are contributing significantly to human wildlife conflicts (HWC) and risk for disease transmission across sectors (human - wildlife - livestock).

4. In Africa, HWC is of major concern to wildlife conservation, rural development and human well-being. In general, the consequences of HWC include: destruction of crops, reduced farm productivity, competition for grazing lands and water, livestock predation, injury and death to farmers, damage to infrastructure, emergence of zoonotic diseases, and increased risk of transboundary disease transmission among wildlife and livestock, contributing to biodiversity conservation challenges and impacts to livelihoods and food security.

5. As many African countries increasingly grapple with this multi-faceted challenge, HWC is beginning to be taken into account in a number of national policies and strategies for wildlife, development and poverty alleviation. However, the current situation has shown that there is a pressing need for transferable interdisciplinary and holistic approaches and improved cross-sectoral collaboration across forestry, wildlife, agriculture, livestock, public health and other relevant sectors, at the national level and across countries' borders.

6. To address these complex issues, FAO utilizes, among other approaches, the One Health approach, which recognizes that humans, animals and the environment are inextricably connected through the ecological realities governing life, and that a collaborative effort of multiple disciplines working together locally, nationally, regionally and globally is necessary to ensure the health of people, livestock, wildlife and maintain biodiversity and ecosystem services.

7. In June 2018, the African Forestry and Wildlife Commission (AFWC), at its 21st Session held in Dakar, Senegal, acknowledged the efforts made by Member states in sustainable wildlife management (SWM), and requested FAO to: (i) provide a platform to exchange good practices and lessons learned from initiatives related to human-wildlife conflict (HWC) and illegal hunting; and (ii) facilitate capacity development on sustainable wildlife management, including the provision of technical assistance on transboundary and community-based wildlife management.

8. Furthermore, following a request made at the 40th Session of FAO Conference in July 2017, FAO and the Secretariat of the Convention on Biological Diversity (CBD) organized a Multi-stakeholder dialogue on biodiversity mainstreaming across agricultural sectors in May 2018, in Rome. This dialogue facilitated an inter-sectoral discussion on the mainstreaming of biodiversity in all agricultural sectors. In addition, FAO was asked to facilitate inter-sectoral dialogues in order to identify opportunities to implement processes for the development of related policies, legislation and research.

9. In December 2019, The FAO Council, at its 163rd Session, as mandated by the 41st Session of the FAO Conference, adopted the FAO Strategy on Biodiversity Mainstreaming across Agricultural Sectors and commended the inclusive consultation process conducted¹.

10. In response to the abovementioned AFWC's request and recognition of the importance of inter-sectoral collaboration, FAO organized a Multisectoral dialogue and learning event to address issues at the human-wildlife-livestock-ecosystem interface, in Accra, Ghana, in October 2019.

11. The dialogue has also shed light on the context of the transboundary nature of diseases readily transmitted among livestock, wildlife and people, and hence, the importance of enhancing the capacity of AFWC members to work in close collaboration with other sectors such as livestock, human and animal health in order to prevent and control outbreaks, and to mitigate the impact of diseases on wildlife, livestock and human populations.

II. Introduction

12. This report summarizes the Multisectoral dialogue and learning event to address issues at the human-wildlife-livestock-ecosystem interface (hereafter 'the Multisectoral Dialogue'), which was

¹ CL 163/REP, paragraph 10(g)

jointly organized by FAO's Forestry Department and the FAO Regional Office for Africa (RAF), from 30th September to 3rd October 2019. The event took place in the Alisa Hotel, in Accra, Ghana.

13. The Multisectoral Dialogue was attended by 45 participants, of which 20 were technical government experts from 11 AFWC Member Countries (i.e. Botswana, Cameroun, Côte d'Ivoire, Democratic Republic of the Congo (DRC), Ghana, Kenya, Senegal, Uganda, Tanzania, Zambia and Zimbabwe), 8 representatives from international and regional non-governmental and research organizations (World Wide Fund for Nature (WWF), BirdLife International, West Africa Biodiversity and Climate Change Programme (WABiCC), Nature and Development Foundation, National Disaster Management Organisation, the Veterinary Department of the University of Ghana, One Health Central and East Africa (OHCEA)), 8 coordinators of FAO's Emergency Centre for Transboundary Animal Diseases (ECTAD) from various country offices in Africa, and 9 FAO technical staff from the Regional Office in Africa and FAO Headquarters.

14. The technical government experts were officials from Ministries in charge of Natural Resources, Environment, Forestry, Wildlife, Agriculture, Livestock and Public Health, in their respective countries.

III. Objectives

15. The Multisectoral Dialogue had the following objectives:

- Take stock of the current efforts and experiences to address the main issues at the human-wildlife-livestock-ecosystem interface, inter alia, of transboundary nature, including HWC, and the conflict associated with livestock, emerging infectious diseases, and other relevant issues.
- Build and strengthen capacities of government officials and non-state-actors to address issues at the human-wildlife-livestock-ecosystem interface through enhanced cross-sectoral and inter-ministerial collaboration and the sharing of existing technical expertise from FAO and its partners.
- Facilitate One Health collaboration across relevant sectors in order to address risks, challenges and conflicts at the human-wildlife-livestock-ecosystem interface, in particular, those that affect wildlife species and populations, impact livestock trade and economies, agricultural livelihoods, and pose a global pandemic threat.
- Identify country-specific priority challenges and issues at the human-wildlife-livestock-ecosystem interface and develop "actionable steps" to address these priorities at a national level.

IV. Proceedings of the Multisectoral Dialogue

A. Opening session

16. The Multisectoral Dialogue was opened by Mr Abebe Haile-Gabriel, the FAO Assistant Director-General and Regional Representative for Africa. In his welcome remarks, Mr Haile-Gabriel highlighted that the human-wildlife-livestock-ecosystem interfaces, including conflicts, land-use and disease transmission, are amongst the most critical threats to the survival of many wildlife species, security and well-being of community livelihoods in Africa.

17. He also raised the concern that many One Health country platforms, steering committees and other mechanisms have been put in place by Ministries of Health, Livestock and Forestry, but they often have limited focus on zoonotic diseases, and that they could have a much greater impact if they addressed issues at the sectoral interface more broadly.

18. This is a particularly exciting moment for FAO, as we are aiming to apply a more inclusive, multi-disciplinary and interdisciplinary approach, and to greatly increase cross-sectoral collaboration

among forestry, wildlife, livestock, health and other relevant sectors to address these complex issues. Mr. Haile-Gabriel affirmed that FAO is well positioned to play a convener and connector role through facilitating dialogue between those that have knowledge and those that need it; and, furthermore, in identifying and mobilizing key partners of high-relevance.

19. In conclusion, he emphasized that this Dialogue comes at a critical juncture for the international community, as we approach a period in which progress will be assessed in regards to the Aichi Biodiversity Targets, and as preparations continue for the development of the Post-2020 Global Biodiversity Framework of the CBD. Mr. Haile-Gabriel reiterated FAO's continued commitment to be a significant part of the efforts being made to improve the sharing and transfer of knowledge, and to increase a coordinated approach between relevant sectors and partners.

B. Materials

20. In preparation of the Multisectoral Dialogue, FAO conducted two online surveys, namely:

- A Capacity Assessment Survey on Human-Wildlife Conflict in Africa. The survey aimed at assessing the enabling environment and current capacities of the AFWC Member countries to deal with HWC. The survey respondents included technical government officials from the Ministries in charge of Forestry and Wildlife, Health and Veterinary Services.
- A One Health Capacity Assessment Survey. The survey aimed at assessing the enabling environment, current capacities and efforts of the AFWC Members countries to address health challenges at the human-wildlife-livestock-ecosystem interface and to inform and facilitate FAO's work in supporting AFWC members in dealing with these issues.

21. The preliminary results of both surveys were presented at the Multisectoral Dialogue. The brief summary of the surveys' findings is presented in Annex 1 and 2, respectively.

C. Format

22. The Multisectoral Dialogue consisted of three components:

Presentations

23. During the event, various case studies and experiences regarding HWC, disease transmission and outbreaks, and other issues at the wildlife-livestock-ecosystem interface were presented by several countries, partners and FAO.

Working groups' sessions

- Session 1: State of affairs and understanding the issue (Day 1, 30th September). Participants were split into four sub-regional working groups: West Africa, East Africa, Central Africa, and Southern Africa. Each group shared their current efforts and experiences in addressing issues at the human-wildlife-livestock-ecosystem interface, as well as their understanding of the current sectoral and multi-sectoral response environments and challenges at the interface.
- Session 2: Country priorities, interventions and human behaviours mapped (Day 2, 1st October). Participants were split into eleven country working groups. Each group was encouraged to discuss country-specific examples and priorities, and to reflect on the sectoral and multisectoral coordination on HWC topics.
- Session 3: Gaps, opportunities and potential solutions (Day 3, 2nd October 2019). Participants stayed in the same country groups as for the Day 2 and discussed existing gaps in addressing issues at the human-wildlife-livestock-ecosystem interface, at a country level. Potential opportunities and solutions were laid out and mapped.
- Session 4: Cross-Sectoral Next Steps (Day 4, 3rd October 2019). Based on the results from sessions 2 and 3, participants developed specific and actionable steps to achieve pre-agreed

solutions in response to the human-wildlife-livestock-ecosystem related issues in their countries.

24. The sessions were facilitated by FAO technical staff and ECTAD country coordinators.

Report back sessions

25. At the report back plenary sessions, key outcomes from each group session were shared, discussed, and enriched by comments and suggestions from all participants.

V. Conclusions and key messages

26. The Dialogue took stock of current efforts to manage HWCs and diseases at the interface and practical experiences at different levels; identified country-specific priorities, including areas of cross-sectoral actions, and helped to design next steps at national and transboundary levels.

27. The Dialogue clearly demonstrated the great awareness of the African countries of the threats posed by HWCs, and the conflict associated with livestock, and diseases transmitted among livestock, wildlife and people as well as their strong determination and clear vision to address the related challenges.

28. The Dialogue also confirmed the timeliness and necessity of FAO to facilitate cross-sectoral dialogues among stakeholders at country, transboundary and regional levels, to address main issues at the human-wildlife-livestock-ecosystem interface.

A. Key messages

29. The following key messages were drawn at the Multisectoral Dialogue:

General

- There is a need for a multi-sectoral and multi-disciplinary approach to address issues at the human-wildlife-livestock-ecosystem interface (including human-wildlife conflicts, transboundary animal diseases and zoonotic diseases), in order to assure food security and sustainable livelihoods for the growing African population.
- The use of a multisectoral approach will significantly contribute towards achieving several SDGs, namely: SDG1 (No poverty), SDGs 2 (Zero Hunger), SDG 14 (Life below water) and SDG 15 (Life on land), and also the 2030 Agenda as a whole.
- Mainstreaming biodiversity across relevant policies and strategies, addressing all sectors of agriculture - crops, livestock, forestry, and wildlife - is indispensable in order to conserve and sustainably use the biodiversity for maintaining ecosystem services, achieving food security, and improving nutrition.
- The One Health approach is an effective collaborative instrument that takes advantage, in tandem, of multiple disciplines at local, national, regional and global levels, in order to safeguard the health of people, livestock, wildlife, protect the environment, and sustain biodiversity and ecosystem services.
- Climate change intensifies natural disasters, alters the functions and structure of terrestrial ecosystems, increases competition of wildlife and livestock for limited land and water resources, thus making human-wildlife-livestock-conflict inevitable in some regions of Africa.
- Globalization and the movement of livestock or wildlife food products and the migration of people, wildlife and livestock enable potential pathogens to move across borders, transcontinentally, and around the world, in a matter of days creating global threats.
- There is a lack of a shared narrative and terminology used by all relevant parties, that in turn hinders context-specific communications and collective action, as well as being an obstacle towards better addressing issues at the human-wildlife-livestock-ecosystem interface.

Human-wildlife conflict

- HWC should aim at promoting positive attitudes towards conflict wildlife species. Coexistence is possible if people inherently recognize the tangible value and benefits derived from wildlife, and if such a viewpoint becomes intrinsically cultural.
- The underlying tensions and issues at the root of HWC are frequently left unaddressed. Understanding the HWC implies knowing the hot spots and seasonality of a conflict, social-economic characteristics of the affected communities, community tolerance and perceived risk posed by wildlife, and severity of conflict in relation to the other community challenges.
- There are significant disparities in policy and legal frameworks of many African countries for tackling HWC. The lack of supportive national frameworks and standalone strategies to deal with HWC, poor enforcement, and inadequately well-defined responsibilities are primarily what hinder the implementation of an integrated response to HWC issues.
- Successful HWC management requires understanding of complex social, political and ecological processes and takes into account different significance and value distinct people attach to them. The most sensible approach in addressing HWC – and the conflict associated with livestock – is to implement a combination of short-term mitigation tools alongside long-term preventive strategies.
- A critically underdeveloped or (for certain species) missing piece of the HWC prevention and mitigation strategy is an effective early-warning or detection system. Creation of such systems gives those exposed to HWC a chance to prepare and respond in a way that prevents destruction of crops and property or loss of livestock or/and life.
- Of the various strategies discussed, the most sustainable ones are: community-based natural resources management (CBNRM), compensations and insurance programmes, community conservancies, and land-use planning.
- The effectiveness of compensation payments in mitigating and resolving HWC is disputed. Many countries highlighted the deficiency in the processes to assess damages and impacts of HWC. The core elements of what constitutes a sound compensation scheme are the promptness and accuracy in substantiating damages, in determining positive impacts on wildlife population and on the livelihood of local people, and existence of expeditious payment mechanisms.
- In general, HWC efforts must always be co-designed and co-owned by the community affected. Community participation in the decision making process and a thorough understanding of the issues, responsibilities and expectations of all stakeholders are critical to any successful strategy.
- The existing mechanisms for monitoring the performance of HWC management programmes are a weak point in all the countries that participated in the Dialogue. The bottlenecks include: the lack of reliable data to establish baselines; inadequate participation of local communities in the monitoring process; insufficient resources to properly collect, analyze and report data and findings.

Diseases

- The most significant zoonotic and non-zoonotic diseases identified by the countries are: anthrax; highly pathogenic avian influenza (HPAI); vector borne diseases (trypanosomiasis, tick borne diseases, Rift Valley fever (RVF)); tuberculosis brucellosis; Foot and mouth disease (FMD). Most of these diseases can infect wildlife and livestock species, and some are zoonotic.
- To manage disease risks, several countries that took part in the workshop have created control zones to prevent the spread of animal disease from an infected area to areas free of the disease.
- Frequently, national zoonotic and non-zoonotic diseases disease control plans exist, but are not being implemented due to a lack of resources. Existing national disease control plans need to be reviewed and updated, in order to better reflect the role or impact of these diseases on wildlife; to incorporate cross-border issues; and to align them with internationally accepted guidelines, standards, or control objectives and timeframes.

- In addition to causing human morbidity and mortality, zoonotic diseases hamper agricultural production, decrease availability of food and create barriers to international trade.
- While interactions between livestock, humans and wildlife are substantial and increasing, operationalization of One Health at a national level still lacks equivalent representation and technical focus on wildlife and ecology.
- Vaccination of animals may serve as a partial control strategy for some priority zoonotic and non-zoonotic diseases, but the technical and financial resources, and the necessary logistics to address the issue are still insufficient to carry out frequent vaccination campaigns, and vaccination of wildlife is not readily feasible.
- There is a need to further develop expertise and capacity in regards to wildlife health and diseases, in particular in the context of transboundary animal disease and zoonoses.
- Ministries of Forestry, Natural Resources and Wildlife, in many African countries, need to develop additional capacity to support wildlife health, to prevent impact of diseases on wildlife populations, to prevent disease transmission between livestock and wildlife.

Collaboration

- Cross-sectoral coordination was viewed as essential for advancing issues at the human-wildlife-livestock-ecosystem interface, at a national level. This can be further complemented by multi-stakeholder collaboration, at all levels, including civil society, the private sector, and governments.
- To simultaneously achieve a set of diverse but inter-related goals, such as HWC prevention, prevention of disease outbreaks and transmission, it is necessary that all related sectors come together and understand the underlying root causes of the problems, and furthermore figure out how they can collaboratively address them.
- Most governments are organized administratively within a framework of sector-based ministries and agencies with resource allocations and accountability managed accordingly. This arrangement, to a degree, is hindering actions that require working across sectors – such as forestry, wildlife, livestock, agriculture, health, to name a few.
- Coordination of efforts among sectors is still lacking. In situations where Ministries of Forests or Natural Resources are part of the One Health platforms or Steering committees, they do not have an equal voice with Ministries of Public Health and Ministry of Agriculture.
- Moving towards cross-sectoral collaboration does not mean starting with a blank slate, but rather building on existing processes and agreements that are already in place, including transboundary ones (e.g. Southern African Development Community, SADC; Kenya-Tanzania cross-border wildlife security collaboration) and taking ownership of the new approach.

Annex 1. Brief overview of the results of the Capacity Assessment Survey on Human-Wildlife-Conflict in Africa

Background

In response to the AFWC's request, FAO conducted a "Capacity Assessment Survey on Human Wildlife Conflict in Africa" with key technical government officials from the Member Countries in Africa to assess the enabling environment and current capacities of the member countries to deal with human wildlife conflicts (HWC).

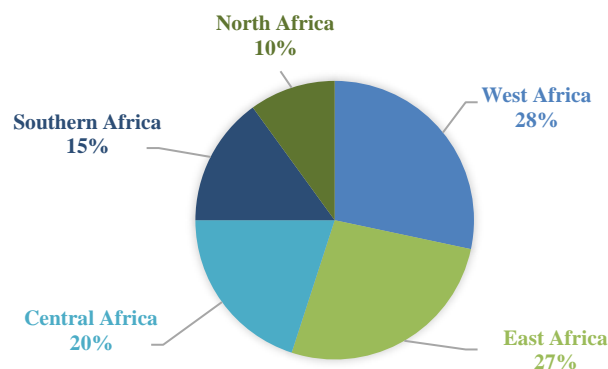
The survey consisted of 18 compulsory closed-and-opened ended questions presented in the form of a questionnaire and was prepared in the English and French versions and made available online through the web-based survey administration platform "Survey Monkey" from 16th August to 23rd September 2019.

The survey was made anonymous and was distributed via email to government officials from forestry and wildlife sectors, and veterinarian services² of the Member Countries in Africa to assure a multisectoral and interdisciplinary approach on HWC issues.

The results of the survey presented in this Annex do not claim to fully assess the situation in regards to HWC, but rather provides a snapshot of the current perception of the issue, current efforts and future needs at the national level, and also specifically for FAO. This baseline information will facilitate FAO's work in supporting Member Countries to address technical issues regarding HWC through a multi-stakeholder approach.

Respondents

In total, 63 responses from 31 AFWC countries were received, 49 of which were fully completed and analyzed. The geographical distribution of responses is presented below.



All respondents work at the national governmental level. Primarily, nearly 50% of respondents work at the Ministries of Environment, Natural Resources, Forestry or the Ministries with similar mandates, followed by 41% of respondents from the Ministries of Agriculture, Rural Development, Livestock and the Ministries with similar mandates; 6% of respondents from Wildlife Authorities³ and 4% from others agencies (e.g. Ministry of Interior and Ministry of Public Health).

65% of respondents are senior management staff, involved in oversight and decision making, while 35% work as technical-middle management staff, mainly in program delivery and management.

² In each particular country, these sectors belong to the different Ministries and/or Governmental Agencies.

³ *Wildlife Authority* refers to a semi or autonomous governmental agencies responsible to conserve and manage wildlife resources.

Overall, 41% of respondents are involved in formulation of policy processes and framework, followed by 36% of respondents responsible for technical implementation, and 23% in other issues such as monitoring and evaluation, budgeting and communication.

Enabling environment

The respondents ranked the following as the five most significant bottlenecks when dealing with HWC issues: (i) inadequate funding; (ii) capacity shortcomings, incl. people, technical capacity and knowledge; (iii) lack of law enforcement; (iv) lack of policy and legal framework; and (v) insufficient engagement and open dialogue.

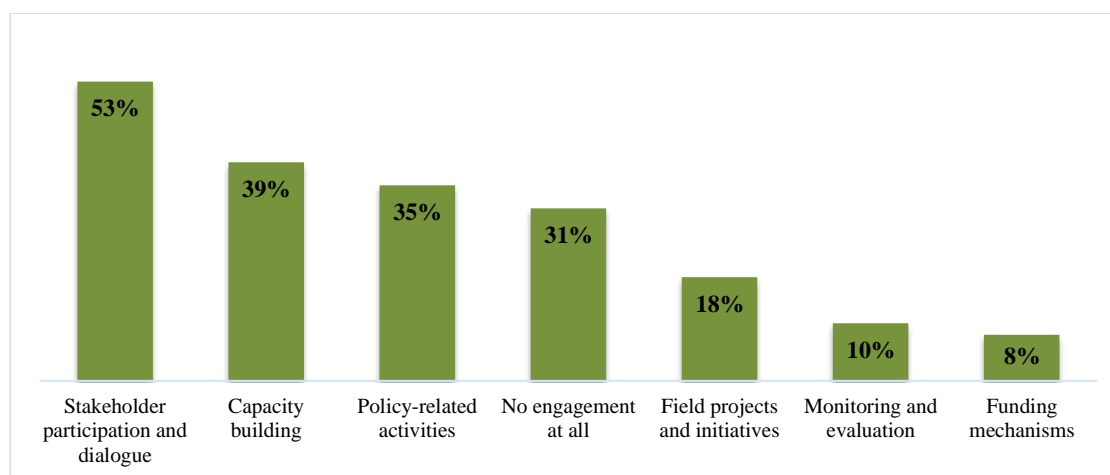
69% of respondents indicated that a clear mandate to deal with HWC issues has been given to a specific Ministry or Government Agency in their country. The mandate primarily relies on the Ministries of Environment, Natural Resources, Forest, Wildlife or the Ministries with similar focus (53%), followed by the Wildlife Authority (29%) and Ministries of Agriculture, Rural Development, Livestock or the Ministries with similar focus (18%).

Almost 70% of respondents stated they actively coordinate with other sectors when dealing with HWC. Of these, 30% of respondents states that coordination occurs mainly with the Ministry of Agriculture, Rural Development and Livestock, followed by the Ministry of Environment and Natural Resources (17%), Wildlife Authorities (13%) and the Ministry of Local and/ or Regional Government (11%).

More than 40% of respondents specified the Ministry / Government Agency they work for has developed supportive policies, strategies, actions plans or initiatives to address HWC. Out of these, 89 % are part of broader natural resource-management policies and frameworks⁴; and 11% are HWC stand-alone policies and strategies.

Over 70% of respondents stated that the implementation plans for the country's HWC specific strategy has not yet been put in place.

The below figure shows the three most HWC-related activities in which the Ministry / Government Agency was engaged over the past two years.



⁴ These refer to policies, strategies, actions plans or initiatives developed to cover issues related to conservation and management of forests, wildlife and other resources, protected areas management, community engagement, and where HWC issues are addressed as part of it.

Through written comments, respondents shared further details on the thematic topics, including, inter alia, monitoring of wildlife diseases; review of wildlife legislation; combating illegal wildlife trade; and bilateral dialogues between wildlife and livestock sectors.

A great diversity of examples were shared by the respondents in relation to the case studies and ongoing initiatives related to HWC in their country, including:

- Translocation of elephants and work on improving knowledge on human elephant conflicts, including the installation of GPS collars and electric and beehives fences; and elephant proof trenches;
- Multistakeholder and capacity building workshops to analyze the HWC and possible management methods;
- Initiatives for the development of a national wildlife disease surveillance network;
- Creation of community nature reserves and sanctuaries by local authorities or private individuals;
- Public education on ways to avoid conflicts with wildlife (incl. minimal human activities in the wildlife-livestock-human interface areas) and awareness campaigns in areas surrounding protected areas;
- Establishment of Rapid Response Teams (RRT) to handle any emergencies arising out of human wildlife conflicts.

Priorities

The respondents ranked the following as the three most relevant HWC topics for the Ministry / Government Agency they work for: i) stakeholder collaboration and engagement; ii) strengthening laws and policies; iii) participatory planning.

Respondents were asked to indicate what they considered should be the top priorities for the governments in their countries regarding the management of HWC. Results indicated the following three priority areas of work: i) capacity development and skills training; ii) design and implementation of field projects and iii) policy and regulatory support.

It is worth noting that apart from choosing trainings as the preferred means of improving knowledge and skills, the findings show that the second and third preferred means are case studies on HWC and knowledge exchange and expert forums.

In addition, expert exchange visits were also identified as very relevant means of improving knowledge and skills of government officials.

The importance of translation of awareness raising materials (e.g. brochures, poster and installation boards) into local languages was frequently referenced in the survey as a key factor towards ensuring the proper involvement of local communities in HWC management.

Conclusion

The following actionable insights are necessary to effectively manage HWC:

- Better understand HWC stakeholders at all levels (national, regional, local) and challenges of the cross-sectoral collaboration among Ministries and State agencies;
- Identify regional differences related to HWC, including underlying deep root causes and enabling environment and regulatory enforcement;
- Better understand mandates, role and responsibilities of Ministries in addressing HWC;
- Perform a gap analysis assessing the current HWC related policies;
- Consider establishing a regional network of experts and stakeholders in this area of work.

Annex 2. Brief overview of the preliminary results of the One Health Capacity Assessment Survey

In total, 44 responses to the survey were collected from all five African sub-regions: West Africa (30%), East Africa (24%), Central Africa (22%), Southern Africa (13%) and North Africa (11%).

Primarily respondents work at the Ministry of Agriculture, Rural Development, Livestock, Fisheries, or at the Ministries with similar mandates (55%), and Ministry of Environment, Natural Resources or similar (33%).

60% of respondents agree that the Ministry or Government Agency/Organization they work for has a full mandate to address diseases at the human-wildlife-livestock interface and that transboundary animal diseases are an important priority for them.

More than 90% of respondents indicated Inter-ministerial or One Health coordination mechanism is in place, but not applied to zoonotic diseases nor applied raising awareness of society on the value of ecosystems, behaviors and choices that can protect biodiversity, ecosystems, and the environment.

More than 50% of respondents indicated, capacity shortcomings and inadequate financial resources are the most highly significant bottlenecks when dealing with the issues at the human-wildlife-livestock interface.

More than 70% of respondents indicated the following priority issues regarding human-wildlife-livestock-ecosystem interface: i) raising awareness of society on the value of ecosystem; ii) diseases at the human-wildlife-livestock interface, iii) zoonotic diseases.

More than 70% of respondents indicated the Ministry / Government Agency they work for has policies, national strategies, actions plans or initiatives to deal with: i) food safety and security, ii) transboundary animal diseases and iii) One Health coordination.

According to respondents, the three most relevant tools to improve knowledge and skills to deal with human-wildlife-livestock-ecosystem interface are: i) training, conferences or workshops; ii) case studies in other African countries and iii) network or knowledge exchange/forums.

The most relevant FAO's means of actions towards supporting member states in dealing with human-wildlife-livestock-ecosystem issues are: i) facilitation of partnerships, ii) capacity development, iii) design and implementation of field projects and iv) development and dissemination of tools and guidelines.