EUROPEAN COMMISSION ON AGRICULTURE

FORTY-FIRST SESSION

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Progress made by the FAO Regional Office for Europe and Central Asia on the main recommendations of the Fortieth ECA

Executive summary

On antimicrobial resistance (AMR)

- The potential impact of AMR on food security, nutrition and human health in general is threatening the realization of FAO cross-cutting strategic objectives and several of the Sustainable Development Goals (for example, SDG 2, SDG 3, SDG 14 and SDG 15).
- Drugs that defend livestock against infectious diseases are becoming less effective due to growing AMR, thus compromising our ability to treat and control the spread of diseases.
- Any AMR action plan must encompass the prevention of infectious diseases (e.g. strengthened biosecurity, use of vaccinations and improved husbandry) and the responsible use of effective, safe and quality-assured drugs, avoiding their use as growth promoters or prophylactic treatments.
- Slowing the progression of AMR is a challenge that will be best achieved using the One Health approach through cooperation among governments and organizations; stakeholders in industry; and ministries for public health, animal health and agriculture, resulting in policy changes and improved governance.
- Most activities on AMR have been conducted in the framework of two projects: 1) the Russian Federation-funded project “Reducing the advance of AMR in food and agriculture” (GCP/RER/057/RUS), which targets Armenia, Belarus, Kazakhstan, Kyrgyzstan and Tajikistan; and 2) a Technical Cooperation Programme project in Ukraine aimed at improving AMR surveillance.
- Standardized legal assessments covering all relevant aspects (veterinary medicinal products, food safety, plant and animal health, environmental legislation and waste regulation) conducted in all countries.
- The FAO Assessment Tool for Laboratories and Antimicrobial resistance Surveillance Systems (FAO-ATLASS) implemented in most countries.
- A regional One Health event organized with the World Organisation for Animal Health (OIE) and the World Health Organization (WHO) to support the development of One Health action plans on 10–11 October 2018 in Almaty, Kazakhstan.
- Assistance and guidance provided to countries for the establishment of interdepartmental committees, or multisectoral working groups actively involved in the development of national action plans.

On transboundary animal diseases:
- **FAO** coordinates its work in the region through the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs), a joint initiative of FAO and OIE to achieve the prevention, detection and control of TADs and, in particular, to address their original and global dimensions. In the case of GF-TADs Europe, the European Commission is also a member.
- Within GF-TADS Europe, the Standing Group of Experts (SGE) has been set up to build closer cooperation among countries affected by specific animal diseases, namely African swine fever (ASF) and lumpy skin disease (LSD) and, thereby, to address the diseases in a more collaborative and harmonized manner across Europe.
- Field manuals on ASF and LSD have been produced, translated into multiple languages of the region, printed, and distributed to all affected and at-risk countries.
- Awareness materials on TADs (videos and editable leaflets and posters) have been produced, translated and distributed throughout the region.
- A two-level training of trainers/cascade training was implemented to reach official veterinarians from the veterinary services in Belarus, North Macedonia, Republic of Moldova and Ukraine. A similar training on ASF is currently ongoing in the Balkans.
- A set of complementary documents/guides were produced to aid veterinary services in their preparedness against LSD.
- Assessment missions and simulation exercises for LSD preparedness were conducted in Belarus, Republic of Moldova and Ukraine.
- A regional workshop on ASF management in wild boar was organized in Belgrade, Serbia, on 21–23 May 2019.
- A methodology was developed that allows for the development of accurate and detailed maps on wild boar distribution and abundance.
- A regional workshop on foot-and-mouth disease (FMD) and other TADs, co-organized by the All-Russian Research Institute for Animal Health, took place in Vladimir, Russian Federation, on 29 November 2017.
I. Introduction

1. The Fortieth Session of the European Commission on Agriculture was held on 27–28 September 2017. The main theme of the session was “Effect of climate change on transboundary animal diseases (TADs),” covering various aspects of animal health in different sessions and with relevant background papers. Specific emphasis was given to the effects of climate change on animal disease, trade and food security; antimicrobial resistance (AMR); disease occurrence tracking; strategic response to transboundary animal diseases (TADs); and informed decision-making in the region. Based on the recommendations in these areas, this document outlines the key results achieved during 2018 and 2019 in each of the areas – each in its own section – and then outlines conclusions in the last section.

II. Antimicrobial resistance

2. FAO efforts to tackle the urgency of AMR have yielded results, mostly through two projects: 1) the Russian Federation-funded project “Reducing the advance of AMR in food and agriculture,” which targets Armenia, Belarus, Kazakhstan, Kyrgyzstan and Tajikistan, and 2) a Technical Cooperation Programme project in Ukraine aimed at improving AMR surveillance.

3. Through both projects, the beneficiary countries and FAO gained an understanding of the capacity of each country to conduct effective surveillance on AMR. This baseline understanding starts from available legislation and its relevance to AMR surveillance and prevention and continues through laboratory and field capacity to detect the presence of AMR using the FAO-developed tool ATLASS (Assessment Tool for Laboratories and Antimicrobial resistance Surveillance Systems). Results from the legislation review and ATLASS analyses strongly suggest that all countries lack the basic capacity to assess the dimension of AMR threat. This is reflected by the lack of relevant legislation and the lack of laboratory capacity in terms of equipment, reagents and technical staff to assess AMR. The surveillance of AMR in the field is totally absent in these countries, and it is safe to assume that the same applies to the entire region (other than European Union countries). Furthermore, government officials have very basic knowledge and awareness of the AMR threat, and hence awareness activities on this threat and the importance of reducing antimicrobial use in the agriculture sector are close to non-existing. Similarly, the coordination, sharing of information and collaboration among the ministries of agriculture and ministries of health on these aspects are only in their initial stages, thanks to FAO’s direct involvement and encouragement. Following on the relevant legislation analysis and its recommendations, the Government of Kyrgyzstan has expressed interest in getting additional FAO support for the revision of that country’s animal feed legislation.

4. The capacity of countries for laboratory testing and compilation of surveillance data has been improved through trainings organized based on the ATLASS findings and recommendations as well as the provision of reagents and equipment for all countries, allowing them to initiate surveillance during the course of the project.

5. The epidemiology capacity of countries has been increased through trainings conducted in Belarus and Tajikistan, covering various sources of antimicrobial use data (sales, prescriptions, farm level) as well as different types of antimicrobial use data (qualitative, quantitative) and the pros and cons of each.

6. Awareness of AMR in recipient countries has been increased through a number of mechanisms, including: 1) awareness-raising workshops with farmers and veterinary inspectors; 2) the adaptation,
translation, printing and distribution of fliers, booklets and other communication materials for farmers and veterinarians; 3) meetings arranged with veterinary and medical faculties; 4) TV clips broadcast through local channels; 5) newspaper articles and press releases; and 6) other means, such as photo exhibitions and marathons. Several of these efforts have taken place in the context of the World Antibiotic Awareness Week (WAAW) 2018, often in close coordination with the World Health Organization (WHO).

7. Governance improvement in the context of AMR prevention was done through the establishment of national interdepartmental committees and multisectoral working groups, with FAO’s technical assistance and guidance. These committees are actively involved in: 1) the development of the national action plans on AMR; 2) the establishment of national/regional laboratory networks on AMR surveillance; 3) the development of integrated surveillance systems in human–animal interface on AMR; or 4) the exchange and compilation of harmonized and standardized data at national, regional and global levels and among relevant sectors.

8. The development of such (One Health) action plans was further assisted in ten countries through a regional One Health event organized with the World Organisation for Animal Health (OIE) and WHO on 10–11 October 2018 in Almaty, Kazakhstan. This tripartite meeting (also including Codex Alimentarius) reviewed several challenges in the region: 1) issues with communication (regional and cross-sectoral and with the public sector); 2) lack of regulation of antimicrobial sales; 3) limited resources and needs for capacity building; and 4) residue concerns (most specifically within the dairy industry).

9. Tajikistan was a pilot country for the Progressive Management Pathway (PMP) on AMR, which is a tool developed by FAO to assist the food and agriculture production sectors – public or private – with developing and operationalizing a multi-sector “One Health” national action plan to combat AMR. The goal is that, by applying the PMP, countries and specific sectors can make improvements, step-by-step across technical and other areas, to achieve an optimal and sustainable use of antimicrobials.

10. The progress of AMR work in the region will be further assessed through an international conference planned for 17–18 December 2019 in Moscow. Keynote speakers from within the region and beyond will present successful examples, international initiatives and more.

III. Disease occurrence tracking, strategic response to transboundary animal diseases (TADs), and informed decision-making

11. FAO coordinates its work in the region through the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs). It is a joint initiative of FAO and the World Organisation for Animal Health (OIE), with the expected participation of the World Health Organization (WHO) for the zoonoses, to achieve the prevention, detection and control of transboundary animal diseases and, in particular, to address their original and global dimensions. In the case of GF-TADs Europe, the European Commission is also a member. Within GF-TADs Europe, a new initiative called the Standing Group of Experts (SGE) has been set up to build closer cooperation among countries affected by specific animal diseases, namely African swine fever (ASF) and lumpy skin disease (LSD) and, thereby, to address the diseases in a more collaborative and harmonized manner across Europe. The Standing Group of Experts is a unique opportunity to engage affected countries in a fruitful regional dialogue and in increased transparency. The GF-TADs offers the ideal framework to discuss common/harmonized mitigation measures based on scientific and technical grounds only. The groups
meet three to four times per year, with the participation of affected countries, FAO, OIE, the European Commission and experts.

**Lumpy skin disease**

12. Since 2015, outbreaks of a viral infectious disease in cattle known as lumpy skin disease (LSD) were reported in most Balkan countries, the Caucasus and the Russian Federation. The disease was threatening to spread into unaffected countries. Three combined projects aimed to strengthen veterinary services in the region:

- OSRO/RER/601/HUN (25 November 2016 to 31 August 2017) and TCP/RER/3602/C1 (1 January 2017 to 30 November 2018), both focusing on the Balkans.

- TCP/RER/3605 on strengthening the regional preparedness, prevention and response against LSD in Belarus, Republic of Moldova and Ukraine.

The main activities delivered under LSD are listed below:

**Capacity building**

13. The capacity of private and official field veterinarians, paraprofessionals and laboratory diagnosticians has been significantly improved though a series of trainings conducted on the recognition and management of LSD in Belarus, North Macedonia, Republic of Moldova and Ukraine. Most field veterinarians were trained through a two-level training of trainers/cascade training, in which a group of core or master trainers are trained and then replicate trainings at region/oblast level. This capacity was further enhanced with the publication of a field manual\(^2\) that compiles all the information needed for the detection and diagnosis of LSD. This practical manual provides numerous pictures and diagrams and is available in Albanian, English, Macedonian, Romanian, Russian, Serbian, Turkish and Ukrainian. Copies have been printed and distributed to the veterinary services of all countries in the region. Additionally, addressing the capacity to cope with mass culling during disease emergencies, the FAO document “Carcass management for small- and medium-scale livestock farms”\(^3\) was translated into Romanian, Russian, Serbian and Ukrainian.

**Situation analysis and lessons learned**

14. The epidemiological situation of LSD was analysed. The work was conducted jointly with researchers from the University of Barcelona. Data from affected LSD countries in the Balkans, the Caucasus and the Near East were retrieved and analysed. The results showed big differences in the odds of being LSD-positive due to the type of land cover and cattle density or subject to climatic variables. The resulting model was utilized to predict several areas with high risk of spread. Results from this study provided useful information for the design of surveillance and awareness systems and of preventive measures such as vaccination programmes. The results were published as a peer-reviewed paper: “Spatial analysis of lumpy skin disease (LSD) in Eurasia – Predicting areas at risk for further spread within the region.”\(^4\)

15. The knowledge developed throughout the course of the LSD epidemic in the Balkans has been captured through the production and wide dissemination of two reports: 1) a position paper on the sustainable prevention, control and elimination of lumpy skin disease in Eastern Europe and the

\(^2\) [http://www.fao.org/3/a-i7330e.pdf](http://www.fao.org/3/a-i7330e.pdf)


Balkans,\(^5\) which describes the various strategies and approaches for LSD control; and 2) a monograph on LSD (EMPRES 360),\(^6\) which includes detailed reports on the situation in affected countries.

**Awareness raising**

16. The awareness of farmers and other stakeholders has been raised through the production and dissemination of videos\(^7\) on the emergence and re-emergence of vector-borne diseases, namely LSD and bluetongue. The videos are available in Albanian, Bosnian, English, Macedonian, Romanian, Russian and Ukrainian and have been disseminated in each country with the help of veterinary services, national associations and academic institutions.

**Preparedness and contingency planning**

17. Enhancing the capacities of national veterinary services on LSD outbreak preparedness was undertaken though the development of a set of complementary documents/guides that provide pertinent information, including on LSD planning, risk assessment, emergency vaccination, surveillance, early detection and prevention measures. Further, following several preparedness assessment missions to Belarus, Republic of Moldova and Ukraine, countries proceeded to update their LSD contingency plans and shared them with FAO for further assessment.

18. Preparedness was further assessed and improved through desktop simulation exercises to test contingency plans in Belarus, Republic of Moldova and Ukraine. The exercises were carried out in an informal setting, with key personnel discussing various simulated scenarios to improve their knowledge and to validate the national LSD contingency plans and LSD emergency vaccination plans.

**African swine fever**

19. African swine fever (ASF) is a contagious viral disease of pigs and wild boar that causes severe economic losses to the pig sector. Originally restricted to Africa, ASF was introduced into Georgia in 2007, from where it progressively spread westward (reaching Eastern and Central Europe) and eastward. The disease was reported in Bulgaria, Hungary and Romania in 2018, seriously threatening the Balkans. Should ASF enter the Balkans, it is predicted to rapidly spread throughout the region. The Balkan territories have not been exposed to the disease, which implies that: the level of awareness among all stakeholders is low (from the veterinarians to the pig farmers and others along the value chain); technical knowledge of the disease (laboratory diagnosis and epidemiology) among veterinary services is also low; and there are neither contingency nor surveillance plans in place. To assist the region, two parallel emergency regional projects were launched to improve the preparedness of the Balkan region against ASF: TCP/RER/3704 (Albania, Bosnia and Herzegovina, North Macedonia, Montenegro and Serbia) and TCP/KOS/3703 (Kosovo).\(^8\)

**Assessment missions and workshops at the national level**

20. The preparedness of each country in the Balkan region is being assessed through expert missions, which have already been conducted in Serbia, Bosnia and Herzegovina, Montenegro and Kosovo. The rest of the countries are following during September and October 2019.

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\(^5\) [http://www.fao.org/3/a-i7827e.pdf](http://www.fao.org/3/a-i7827e.pdf)

\(^6\) [http://www.fao.org/3/a-i7982e.pdf](http://www.fao.org/3/a-i7982e.pdf)


\(^8\) References to Kosovo shall be understood to be in the context of Security Council Resolution 1244 (1999).
Awareness raising

21. A series of awareness materials on priority diseases of the region were developed. Both leaflets and posters have been produced so far for LSD and ASF in a fully editable format (PowerPoint), which allows users to quickly adapt, translate, add logos, change pictures, etc. when faced with an animal health emergency. The materials are now available online in English and some other languages of the region. Additional languages and formats will be uploaded as they become available.

Capacity building

22. The FAO Manual “African Swine Fever: Detection and Diagnosis”\(^9\) has been translated, printed and distributed within the region. The manual is now available in Albanian, Lithuanian, Macedonian, Russian and Serbian. The purpose of this manual is to provide veterinary professionals, paraprofessionals and laboratory diagnosticians with the information they need to promptly diagnose and react to an outbreak or case of ASF.

23. The GF-TADs Handbook on ASF in wild boar and biosecurity during hunting\(^10\) is now available as a joint publication, produced through a joint initiative of the European Commission, FAO and OIE. This is a technical – but, at the same time, practical – document containing a compendium of information about hunting management, biosecurity and wild boar carcass disposal. The purpose of this document is to provide a fact-based overview of ASF ecology in the Northern and Eastern European populations of wild boar and to briefly describe a range of practical management and biosecurity measures or interventions. It is a living document and will be updated as often as necessary.

24. All field veterinarians in the Balkans have been trained on the detection, prevention and management of ASF through training of trainers workshops. The core trainers will replicate the trainings in the different provinces/regions within their countries. Participants received the PowerPoint presentations, handouts (for the taking of notes) and additional materials necessary to cascade the ASF training. All materials were translated into Serbian and Russian. The training of trainers consists of seven modules and requires a full day.

25. The management of wild boar and how to adapt available tools and strategies to each country’s particularities is being achieved through workshops on wild boar and hunting biosecurity. These round-table discussions bring together representatives from the state veterinary services (central and regional veterinarians), hunters’ associations, academia and national agencies regulating hunting, allowing them to discuss how to precisely design the management strategy for the disease in wild boar, ensuring all major stakeholders are on board.

\(^9\) [http://www.fao.org/3/a-i7228e.pdf](http://www.fao.org/3/a-i7228e.pdf)
IV. Conclusions and Recommendations for future consideration

ANTIMICROBIAL RESISTANCE

26. The ECA is invited to consider the following possible actions for Members:

1) **Raise awareness** on transboundary animal diseases (TADs), climate change and antimicrobial resistance (AMR) and promote behavioural change through public communication programmes that target different audiences in human health, animal health and the agricultural sector, as well as consumers. Promote the inclusion of AMR as a core component of professional education, training, certification, continuing education and development in the public and veterinary health sectors and agricultural practice.

2) **Improve** surveillance and monitoring – including data on incidence, prevalence and trends – to better understand and respond to AMR patterns and their drivers. There are significant gaps in the information available on the development and global economic implications of antimicrobial resistance. National governments, intergovernmental organizations, agencies, professional organizations, non-governmental organizations, industry and academia should pursue research on the causes and impacts of AMR. Global emphasis on surveillance and evidence-based research will inform policies and actions that Member Countries in Europe and Central Asia and intergovernmental agencies can take to address the growing health security challenges of AMR. In addition, more information on AMR can assist in the research and development of medical and agricultural alternatives to antimicrobials.

3) **Strengthen** governance for stronger hygiene and infection prevention measures, including animal vaccination, that limit the spread of resistant micro-organisms and reduce antimicrobial misuse and overuse. Infection prevention measures, such as cleaning and disinfection, farm biosecurity, improved husbandry practices and vaccination, can curtail the spread of micro-organisms resistant to antimicrobial medicines. By preventing infectious diseases, whose treatment would (wrongly) trigger the prescription of antibiotic medicines to treat viral infections, the global community can better steward these essential medicines. Sustainable antimicrobial use extends beyond human well-being to animal production. Antibiotics are frequently used to stimulate livestock growth and prevent infection on farms and in slaughterhouses. Sustainable animal husbandry practices can reduce the risk of resistant bacteria spreading through the food chain to livestock and humans.

4) **Promote** good practices to increase the longevity and efficacy of antimicrobials. Veterinary practices must eliminate the unnecessary dispensing of antimicrobials. Evidence-based prescribing through effective, rapid, low-cost diagnostic tools is needed to optimize the use of antimicrobials for humans and animals. In addition to better prescribing practices, the global community must adjust patients’ and the agricultural industry’s inappropriate and unregulated use of antimicrobial agents. Stronger compliance with antibiotic treatment regimes and restrictions on non-therapeutic use of antibiotics within agriculture will provide a foundation for antimicrobial stewardship. Regulations for antibiotic distribution, quality and use could preserve the effectiveness of antibiotics as a public good. Members also should share best practices in the prudent use of antibiotics in both intensive and extensive livestock production systems by EU countries and explore approaches for reducing the antimicrobial use in livestock that often are a feature of intensive livestock systems.

5) To better understand the level of use of antimicrobials in the region, **improve** data collection and sharing on levels of imports and exports and use across the various sectors.
6) **Invest** in research and development on new antimicrobial medicines, diagnostic tools, vaccines and alternative interventions. The majority of pharmaceutical companies are located in the region, but they no longer carry out research on new antibiotics. This is of concern globally for human and animal health. Research and development are therefore needed to produce new treatments that can be deployed against multidrug-resistant infections, and governments should promote the development and production of affordable and accessible new drugs, diagnostic tools, vaccines and alternatives.

27. Future possible actions to be considered by FAO:

1) **Reinforce** AMR regional interventions through new dedicated results under the new 2018–2019 work plans for the FAO Regional Office for Europe and Central Asia’s Strategic Programme of Work, including its Regional Initiatives.

2) **Support** Member Countries in developing a multisectoral approach and in implementing national action plans on AMR.

3) In Europe and Central Asia, create mechanisms and models of cooperation for animal production, pharmaceutical companies, the animal feed sector and farmer organizations to address AMR.

4) Continue to support the development and use of tools such as ATLASS and the Progressive Management Pathway on AMR.

5) Coordinate a study, possibly in cooperation with WHO and OIE, on the potential impacts of changes in climate and the environment – in particular in Europe and Central Asia – on the development and spread of antimicrobial resistance, to improve the understanding of these interactions.

6) Continue support in the engagement of the private sector and find models to cooperate with different stakeholders, including veterinary and public health authorities, livestock producers, pharmaceutical companies, the animal feed sector and consumer and farmer organizations.

7) Develop a strong mobilization exercise to enhance responses to slow down the development of AMR.

**TRANSCONTINENTAL ANIMAL DISEASES**

28. The ECA is invited to consider the following possible actions for Members:

1) Invest in the research and development of diagnostic tools and data-sharing platforms and encourage the regional community to invest in new medicines, diagnostic tools, vaccines and alternative interventions.

2) Increase the involvement of the scientific research community on emerging animal health threats, epidemiology and host pathogen environment interactions into national and regional decision-making and responses to transboundary animal diseases.

3) Facilitate the establishment of a regional data-mining centre to support the development of high-tech disease management applications focused on risk modelling, early warning, early response and provision of contextualized information and knowledge on infectious diseases of animals and humans.

4) Establish a sub-committee, to be convened once a year, aiming at providing FAO a timely guidance and input on its work on animal health.
29. Future possible actions to be considered by FAO:

1) **Support** the development of regional networks and collaboration for data collection, risk assessment, disease risk models, enhanced data sharing, early warning systems and emergency preparedness/response. This should include analysis of the interlinkages among climate change and the environment, transboundary animal diseases (TADs), food security and other issues, such as trade.

2) **Promote** regional mechanisms to manage outbreaks of TADs – through surveillance, early warning, detection and response – that ensure the coordination, communication and participation of all stakeholders.

3) **Build** on the example of the European Commission for the Control of Foot-and-Mouth Disease (EuFMD) in developing regional approaches to surveillance, diagnosis and control of other emerging TADs.

4) **Promote** new technologies for sharing knowledge and developing expertise, including web-based platforms and mobile phone apps for disease surveillance and data sharing.

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**THE EFFECT OF CLIMATE CHANGE ON ANIMAL DISEASES, TRADE AND FOOD SECURITY IN THE EUROPE AND CENTRAL ASIA REGION**

30. The ECA is invited to consider the following possible actions for Members:

1) **Raise awareness** of sustainable agricultural systems under climate change and create public communication programmes, in particular on transboundary animal disease (TAD) issues, to ensure behavioural change and active participation of all stakeholders in risk mitigation and management.

2) **Support** efforts to empower smallholders and family farms in rural economies and help them address issues and barriers to improve their livelihoods, in particular in improving access to information and services needed to deal with TADs.

3) **Support** capacity-building and training, the preparation of materials and manuals, and conduct simulation exercises to promote practical implementation of One Health and animal informatics.

4) **Invite** Europe and Central Asia countries to consider building cooperation with the European Commission for the Control of Foot-and-Mouth Disease (EuFMD) or joining it.

31. Future possible actions to be considered by FAO:

1) Through the new FAO Regional Office for Europe and Central Asia Regional Initiative 3, **strengthen** support mechanisms for developing regional plans, improving policies and building capacity in addressing TADs.

2) **Support** the development capacity of Europe and Central Asia Member Countries in World Trade Organization Sanitary and Phytosanitary Measures (WTO-SPS), in particular for compliance with TAD prevention and control measures.

3) **Promote** a One Health approach in Europe and Central Asia and strengthen support mechanisms to Member Countries on issues related to early warning and responses to emerging and re-
emerging transboundary animal diseases, involving multidisciplinary teams from FAO and its partners from GF-TADs Europe, Crisis Management Centre – Animal Health (CMC-AH), and OFFLU, the OIE/FAO network of expertise on animal influenza.

4) **Support** the development of capacities for regional analysis and modelling/mapping on the impact of climate change on TADs and wildlife and vector ecology. Develop predictive tools for emerging diseases, identifying regional differences in disease impacts.