



Scientific Network Secretariat Enhancing Research for Africa Network

ACTIVITY REPORT YEAR 2020





Index

INTRODUCTION	3
CONTEXT	4
ACTIVITIES YEAR 2020	5
Progress Report OIE	5
Communication	5
I° Meeting online	5
II° Meeting online	9
II° Meeting online in 2021	10
Training days	10
ERFAN Information Days	11
OIE questionnaire 'Stray dog population control-Northern Africa'. August 2020	12
Participation in events as speaker	13
Participation in events as auditor	14
Project hypotheses; Support to the presentation	14
Support to partners	14
PhD	15
Publications	15
Scouting of call for proposals, grant and procurement	15



Introduction

The ERFAN (*Enhancing Research for Africa Network*), created as a project in 2017 on the initiative of the Italian Ministry of Health and supported by the OIE, aims to strengthen scientific cooperation between Africa and Italy through networking activities in the development and implementation of appropriate projects in veterinary public health. The network was born based on the experience gained by IZSAM in the field of international cooperation in Africa. The project, of which IZSAM (Teramo) is lead partner, foresees other Italian IZS (IZS del Mezzogiorno-IZSM, IZS del Piemonte, Liguria and Valle D'Aosta-IZSPLV, IZS della Puglia e Basilicata-IZSPB and IZS della Sicilia-IZSSI) providing specific expertise. In addition to the Italian scientific partners, 16 African countries have joined the network (8 in Northwest Africa and 8 in South Africa) for 32 Veterinary Institutes, including Central Laboratories and Faculties of Veterinary Medicine.

The specific objective of ERFAN is to support the competent authorities to provide solutions in the areas of animal/human health, food safety and hygiene, and environmental protection. By linking projects at a regional level, this platform will serve to create a bridge between scientific research and central veterinary services and enable the availability of applied research in the face of everyday challenges in the field of veterinary public health. Thus, this network will be a catalyst for improving research activities and the systematic dissemination of results.

The ERFAN project operates primarily in two geographical areas of the African continent; specifically:

- the SADC Region (which includes Angola, Botswana, Mozambique, Namibia, South Africa, Tanzania, Zambia, Zimbabwe) where IZSAM through the ERFAN project is consolidating, increasing and strengthening the scientific collaborations and relations had over the years with the countries;
- the MAGHREB Region (which includes Algeria, Mauritania, Morocco, Libya and Tunisia) where the ERFAN project is supporting the animal health program of REMESA (*REseau MEditerranéen de Santé Animale*), a program that operates under the aegis of the OIE secretariat and FAO in the Mediterranean area.

Other countries, such as Senegal, Egypt and Sudan, have joined the network through national veterinary institutions in the various working groups.

The ERFAN network has an organizational structure that includes: the Scientific Committee, the Steering Committee and the Working Groups on specific issues (in detail 7 WGs in the SADC area and 7 WGs in MAGHREB).



CONTEXT

The Covid-19 pandemic, which has characterised the year 2020 since its beginning, has forced a complete rethink of how the ERFAN *network* operates, representing a challenge for international cooperation.

Despite the rapidity of the spread of the pandemic and the systemic change it has brought about in international cooperation, ERFAN has worked decisively to strengthen the tools and resources needed to ensure the continuation of scientific cooperation activities.

The ERFAN project, established with the aim of sharing opportunities and knowledge through meetings and conferences, did not lose sight of the overall objective: the strengthening of scientific cooperation between Europe and Africa in the field of human and animal health, food safety and environmental protection. Training and information were the main assets.

Given the *partner* countries specific needs, numerous training courses and scientific information events were organised on specific topics online and through innovative platforms. During 2020, due to the global pandemic restrictions, the Secretariat and the working groups organised 21 online meetings and eight information days on specific topics. ERFAN's dedicated *social networks* and *website* have enabled the dissemination of results, standard operating procedures, good practice, and knowledge, ensuring equal access to partners' development and growth opportunities. The engagement potential of the social networks used has increased over the years, with an average Facebook post coverage of 350 people and an average Facebook page view of 400 people. The website entirely dedicated to ERFAN has, to date, 31813 visitors, reaching 35 countries. An official YOUTUBE channel has been opened and is wholly devoted to presenting ERFAN's scientific activities. The production of the network's official video traces the history of ERFAN through the description of its objectives and the results obtained. The importance of communication through printed material has certainly not been forgotten; the production, and updating, of presentation brochures and leaflets, has been a constant.

These choices are also the result of the numerous and constant contacts with the OIE Sub-Regional Offices in Tunis and Gaborone with the obvious aim of constantly sharing the activities carried out or to be carried out by ERFAN.

During 2020, three new institutions applied to join the international network:

- Ecole normale supérieure d'Ouargla (Algeria);
- *Istituto Superiore di Sanità* Dipartimento di Sicurezza Alimentare, Nutrizione e Sanità Pubblica Veterinaria (Italy);
- Central Veterinary Research Laboratory (Sudan).

To date, there are 32 ERFAN partner institutions from 17 different countries.



ACTIVITIES YEAR 2020

Progress Report OIE

Preparation and sending of the first progress report, including the descriptive report and the financial-accounting report. May 2020.

Following report approval, the OIE disbursed the first annual payment to the IZSAM. December 2020.

Communication

- Website: Creation, implementation and management . www.erfan.it.
- **Official video:** Preparation of photographic and descriptive material and its realisation
- **YOUTUBE**: Opening and managing the official ERFAN4Africa channel and management of the same.
- **Facebook**: Opening and managing the official page: ERFAN -Enhancing Research for Africa Network.
- **Instagram**: Opening and managing the profile: ERFAN -Enhancing Research for Africa Network and management of the same.
- Newsletter: Restyling.
- Informative videos
 - Realisation and publication on ERFAN social channels of the video on "Detection of Listeria spp. and Listeria monocytogenes, in food matrices, food-producing environments and animals, according to ISO 11920-1:2017";
 - Production and publication on ERFAN social channels of the video on "Animal Welfare; First pill".
- Preparation of ERFAN presentation letter addressed to International Organisations (FAO, AU-IBAR, IAEA) and the CVOs of African countries, upon request of the Ministry of Health.
- ERFAN network presentation sheets in Italian, French and English.

I° Meeting online

The main objective of the meetings was the reprogramming of WG activities given the Covid-19 pandemic.

The ERFAN Secretariat provided full technical and administrative support in planning specific research projects at all meetings.



In particular, during the past year, the secretariat organised and carried out the meetings of the following Working Groups (WGs), preparing the agenda and the follow-up report of the events themselves:

- July 2020. WG "Mycoplasmoses des petits ruminants" Nord-ouest Afrique. Five countries are participating: Libya, Morocco, Mauritania, Tunisia and Italy. In line with the 3 pillars of ERFAN, the OIE Reference Laboratory (LR) for Contagious Agalactia at the Istituto Zooprofilattico Sperimentale della Sicilia (IZSSI), shared Standard Operating Procedures (SOPs) with partners through the ERFAN website and offered technical support for Lamp Test, Mycoplasma Isolation and Elisa Test. Training periods were planned for technicians from each WG member country. This activity will be organised at the OIE Reference Laboratories of IZSSI and IZSAM once the pandemic is over. A basic course on mycoplasmosis in small ruminants has been planned for next April.
- <u>July 2020</u>. WG "Fièvre charbonneuse" Nord-ouest Afrique. The Italian Reference Laboratory for Anthrax at the Istituto Zooprofilattico Sperimentale della Puglia e della Basilicata (IZSPB) shared the following: SOPs on the ERFAN website, making them available to all ERFAN partners. A basic training course on the disease, to be held online, was requested for ERFAN partners in North-West Africa in 2020. A similar course was planned for the SADC Region next April.
- <u>July 2020.</u> WG "Tuberculose bovine" Nord-ouest Africa. Four countries are participating: Algeria, Italy, Mauritania and Tunisia. In line with the 3 pillars of ERFAN, the Istituto Zooprofilattico del Mezzogiorno (IZSM) expressed its willingness to share SOPs and laboratory equipment with ERFAN partners; the organisation of a training period at the IZSAM for a technician chosen for each WG country at the end of the pandemic was evaluated with the participants at the meeting. A basic course on Bovine Tuberculosis was then planned for 2021.
- <u>July 2020</u>. WG "Sécurité sanitaire des aliments" Nord-ouest Afrique. Five countries are participating: Italy, Morocco, Mauritania, Senegal and Tunisia. The OIE Collaborating Centre (CC) for Food Hygiene and the National Laboratory for *Listeriamonocytogenes* at IZSAM reiterated their willingness to support African partners in sequencing nucleic acids microorganisms isolated and related to food poisoning. In addition to planning specific online courses on subjects of interest, it will be scheduled a training period at the IZSAM for a technician for each WG country at the end of the pandemic.
- <u>July 2020</u>. WG "Maladies à transmission vectorielle" Nord-ouest Afrique. Seven countries participated: Algeria, Italy, Libya, Morocco, Mauritania, Senegal and Tunisia. In line with the three pillars of ERFAN, the OIE Blue Tongue and West Nile Disease RL at IZSAM provided technical and logistical support for the organisation and performance of *Proficiency Tests* and the sharing of SOPs with ERFAN partners; the organisation of a training period at IZSAM for a technician chosen for each WG country, to be carried out at the end of the pandemic, was discussed. Besides, given the demand received, an online training course in this area will be organised in 2021. A research project was also proposed by the participants at the meeting, involving the ERFAN partners of



- Northwest Africa and IZSAM in vector-borne diseases, specifically RVF, and entomological surveillance.
- <u>July 2020</u>. WG "Encéphalopathies spongiformes transmissibles" Nord-ouest Afrique. Participants: Eight members, from Italy, Morocco and Tunisia. The OIE RL for TSEs at the Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle D'Aosta (IZSTO) expressed willingness to share SOPs and to collect the training needs of African partners through the administration of a questionnaire. It was planned the organisation of a specific webinar on the disease and a training period at IZSTO at the end of the pandemic by a technician chosen; the ERFAN Secretariat reiterated its technical, scientific and administrative support in the planning of specific research projects.
- <u>July 2020</u>. WG "Brucelloses" Nord-ouest Afrique. Four countries are participating: Italy, Libya, Senegal and Tunisia. The OIE LR for Brucellosis at IZSAM expressed the willingness to share SOPs with partners and collect African ones' participation in the Ring Trials and Proficiency Test. It was scheduled the organisation of a training period at IZSAM for a technician selected from each WG country. The IZSAM was then available to subject the Brucella strains to biomolecular analysis, including wholegenome sequencing. The data will be useful to ERFAN partners for biomolecular epidemiology studies.
- <u>July 2020</u>. WG "ONE HEALTH: Anthrax and Bovine Tuberculosis" SADC Region. Participants: Three members from Italy and the Republic of South Africa. ERFAN partners requested the Italian Reference Laboratory for Anthrax at IZSPB to share technical SOPs through the ERFAN website. Participants expressed their willingness to organise a basic course on field sampling of biological samples, including soil samples for Bacillus anthracis spores, diagnostic procedures concerning Bacillus anthracis isolation and PCR diagnostics with the procedures established by the OIE. Concerning TB, the possibility of organising a basic course on collecting biological material at the abattoir, on the isolation of Mycobacterium spp. and on PCR diagnosis, performed following the OIE manual, was discussed. The IZSM offered all partners the possibility to examine the DNA of Mycobacterium spp. Strains, to be able to type and characterise the genome.
- July 2020. WG "Food Hygiene", SADC Region. Three countries participated: Italy, Mozambique and Zambia. The OIE Collaborating Centre for Food Hygiene and the National Laboratory for Listeria spp. At IZSAM provided support for the organisation of Proficiency Tests and Validation Tests. Besides, the African partners were given the opportunity to sequence the DNA of bacterial strains isolated and related to food poisoning; ERFAN will fund this activity. Besides specific online courses on subjects of interest, it was planned the organisation of a training period at the IZSAM for a technician chosen for each WG country, at the end of the pandemic
- August 2020. WG-Satellite "Brucellosis" SADC Region. Six countries participated: Italy, Tanzania, Mozambique, Zambia, Zimbabwe, and South Africa. In line with the three pillars of ERFAN, the OIE LR for Brucellosis and the Central Veterinary Laboratory in



Harare, Zimbabwe (CVL) were requested by the partners to share technical SOPs to be used for Brucellosis diagnosis. The African partners also raised the need to organise a regional Brucellosis Proficiency Test. The CVL representatives reiterated that such an activity would be in 2021, with the support of ERFAN. The WG discussed the state of the art of research at each institution. It was discussed the organisation of the training course organised by BNVL in Gaborone on "Proficiency Test; organisation and management" rescheduled for 2021 due to pandemic. Reiterated also the priority of having a master's or doctoral student researching the different SADC countries, with the central veterinary laboratories' support.

- August 2020. WG "CBPP and Small Ruminants Mycoplasmosis" SADC Region. Five countries participated: Angola, Botswana, Italy, Namibia, Zambia. In line with the three pillars of ERFAN, the OIE LR for Contagious Agalactia at IZSSI and the OIE LR for CBPP at IZSAM defined the activities. The importance of organising Ring Trials on complement fixation testing and PCR was reiterated. The rescheduling of the training course by BNVL in Gaborone on "PT: Organisation and Management" for the current year was also discussed. For research projects, two proposals for Master's degrees were discussed, "Antimicrobial resistance in Mmm" and "NGS study on Mmm strains isolated in Africa".
- <u>August 2020</u>. WG "TSE", SADC Region. Four countries participated: Botswana, Italy, Republic of South Africa and Zambia. The OIE RL for TSEs at IZSTO expressed willingness to share SOPs and gather training needs. SOPs, concerning "Prion encephalopathies in animals", in particular Scrapie, BSE in cattle, sheep and goats, written according to the OIE manual, were defined as fundamental for the WG. It was discussed the organisation of a specific webinar on the disease and the possibility of a training period at IZSTO at the end of the pandemic for a technician chosen for each country
- <u>August 2020</u>. WG "Animal Welfare", SADC Region. Africa". Three countries participated: Italy, Namibia and the Republic of South Africa. In line with the three pillars of ERFAN, were defined the training needs to be carried out remotely. The project "Utilising a participatory approach in international collaboration to facilitate the implementation of OIE animal welfare standards in Southern Africa" was discussed. The ERFAN Secretariat reiterated its technical, scientific and administrative support in planning this activity.
- <u>August 2020</u>. WG "VBD-RVF", SADC Region. Participants: eight members from Italy, Mozambique and the Republic of South Africa. The online course on Rift Valley Fever planned for December 2020 and co-organised with the "Faculty of Veterinary Science, Pretoria-South Africa" was discussed. The online system offers an overview of the disease's various aspects and the risk of its introduction in the Mediterranean basin. For research projects, the sponsorship by ERFAN of a scholarship for a master's degree and the IZSAM study on Ecoregions, modelling system applied to vector-borne diseases, were discussed.



II° Meeting online

Organisation including preparation of the agenda and follow-up report, of the meetings of the following WGs:

- November 2020. WG "Anthrax", SADC Region. Three countries participated: the Republic of South Africa, Italy and Zimbabwe. The organisation of Ring Trials and the planning of topics for the "ERFAN Information Days" on Anthrax, which will take place in December 2020, were discussed. The ERFAN Secretariat reiterated its logistical and administrative support for this activity.
- <u>November 2020</u>. WG "CBPP and Small Ruminants Mycoplasmosis", SADC Region, 3 i paesi partecipanti: Botswana, Italia, Tanzania. In linea con i tre pilastri di ERFAN è stata discussa l'organizzazione dei Ring Trials e la pianificazione degli "ERFAN Information Days" su CBPP e su "PT; Organizzazione e gestione", organizzato da BNVL a Gaborone.
- December 2020. WG "Brucelloses" Nord-ouest Afrique. Three countries participated: Italy, Morocco and Tunisia. It was underlined the importance of applying standard procedures in African partners' participation in Ring Trials and Proficiency Tests. In this regard, the sharing of DNA samples and the OIE LR support for Brucellosis at IZSAM for typing or strain identification was planned. For training needs, details were defined for the organisation of an 'ERFAN Information Days' on Brucellosis.
- December 2020. WG "Mycoplasmoses des petits ruminants" Nord-ouest Afrique. Six countries participated: Algeria, Italy, Morocco, Mauritania, Senegal and Tunisia. The importance of having standard SOPs was reiterated. In this regard, the OIE LR for Contagious Agalactia at IZSSI and CBPP at IZSAM shared the SOPs with the partners through the ERFAN website. For training needs, details were defined for the organisation of "ERFAN Information Days" on Mycoplasmosis of small ruminants.
- December 2020. WG "Tuberculose bovine" Nord-ouest Afrique. Participating Countries: Italy, Mauritania, Senegal and Tunisia. The importance of having standard SOPs was reiterated. Tuberculosis ERFAN Information Days were discussed in detail. Concerning research projects, some topics were proposed, such as the gamma interferon test and the tuberculin test using the new, latest generation antigen methodology to improve the test's sensitivity and specificity in the fields.
- December 2020. WG "Brucellosis", SADC Region. Four countries participated: Italy, Mozambique, Tanzania and Zambia. The SOPs shared by the CVL in Harare, through the ERFAN website, were discussed. The possibility of sending, free of charge, DNA samples of Brucella spp. to the OIE RL in Teramo, where biomolecular typing and/or sequencing will be carried out, was reiterated, in order to allow the partners to undertake biomolecular epidemiology studies of Brucella infections in their countries. For training needs, details were defined for the organisation of the "ERFAN Information Days" on Brucellosis. The ERFAN Secretariat reiterated its technical, scientific and administrative support in the planning of specific research projects.



December 2020. WG "Animal Welfare", SADC Region. Participants: from Italy and the Republic of South Africa. In line with the three pillars of ERFAN, the organisation of the online course "Applying OIE animal welfare standards in Africa", scheduled from 1 February to 30 April 2021, was discussed. This will be a "blended" course, including both live sessions and self-study activities.

II° Meeting online in 2021

Organisation of online meetings concerning the following WGs, to be held in the first quarter of 2021:

- WG "Sécurité sanitaire des aliments" Nord-ouest Afrique.
- WG "Maladies à transmission vectorielle" Nord-ouest Afrique.
- WG "Encéphalopathies spongiformes transmissibles" Nord-ouest Afrique.
- WG "Fièvre charbonneuse" Nord-ouest Afrique.
- WG "Food Hygiene", SADC Region.
- WG "TSE", SADC Region.
- WG "VBD-RVF", SADC Region.

Training days

- July 2020 (1-15 July) "Virtual Learning Rift Valley Fever and other mosquito-borne Arboviroses: entomological surveillance".
 - Context: Rift Valley fever (RVF) is a mosquito-borne zoonosis that can cause significant losses to the livestock sector and have profound public health implications. RVF is endemic in most sub-Saharan countries and first appeared in Libya on 12 December 2019, causing several outbreaks. In response to this threat and as part of the REMESA priorities, EuFMD, ERFAN and the Competent Libyan Authorities have agreed on some entomological training activities.
 - Training objective: The main objective of the training was to train the staff of Libyan research institutes and universities on the species of mosquitoes present, their epidemiological role in the transmission of the various arboviruses and methods of sample collection and analysis, to be followed, in a second phase, by a field activity. Given the pandemic situation due to COVID-19, the training activity was delivered using innovative methodologies to ensure participants' same level of effectiveness. Participants were able to study and apply vector species identification techniques remotely through synchronous interaction tools between participants and experts.
 - Results: 4 Libyan experts from public research institutes and local universities were trained. An "ePoster" was presented at the EuFMD 2020 OPEN SESSION on 10 December 2020. Participants developed presentation reports of their field exercise,



presented at the final meetings scheduled in 2021. Evaluation tests of the acquired competences and preliminary (and last) surveys on the self-assessment of the competencies possessed and resulting from the training were administered.

- 22 October to 30 November 2020. "Animal Welfare; Recognition of pain, suffering and distress and its application in the evaluation of the severity of the procedures". Online course organised by IZSAM with the primary objective of acquiring specific knowledge on the topic.
- December 2020. Online Course on Rift Valley Fever. Seventy-eight participants. Coorganised with the Faculty of Veterinary Science, Pretoria-South Africa, the online course, addressed ERFAN partners from both the North and South of Africa, IZS partners and colleagues from the Italian Ministry of Health and the Istituto Superiore di Sanità. The course provided an overview of the disease's various aspects and the risk of its introduction into the Mediterranean basin.

Planned in 2021

- "Rift Valley Fever and other mosquito-borne Arboviroses: entomological surveillance". Corso eLearning, for Nord-West Africa partner. Co-organised with IZSAM.
- Online Course on Rift Valley Fever. Co-organised with Faculty of Veterinary Science, Pretoria-South Africa.

ERFAN Information Days

Vocational meetings. Activities: organisation and execution of the sessions, including preparation of the agenda, certificates of attendance and publicity of the event:

- October November 2020 "Transmissible Spongiform Encephalopathies". Fifteen participants. IZSTO and the University of Pretoria organised the course for the WG TSE SADC; it aimed to provide the basis for studying the disease.
- December 2020. "Anthrax: aetiology, epidemiology, diagnosis and management". In collaboration with the WG "Fièvre charbonneuse" Nord-Ouest Afrique. The course, aimed at African partners from veterinary schools in North Africa such as Algeria, Libya, Mauritania, Senegal and Tunisia and the Italian IZSPB- LR for Anthrax, had the primary objective of providing laboratory scientists with information on the identification of Bacillus anthracis, the recognition of suspected outbreaks, the correct collection of samples for analysis to implement appropriate control measures and avoid or contain the spread of the disease.
- October 2020-February 2021 "Detection of Listeria spp. and Listeria monocytogenes, in food matrices, food-producing environments and animals, according to ISO 11920-1:2017". Twenty-three participants. In collaboration with the WG "Food Hygiene" Nord-Ouest Afrique and SADC Region. The course's main objective for ERFAN network



- partners was to present how to isolate micro-organisms using ISO standards and their typing.
- December 2020. "Project design for international cooperation: Tools and Good Practices". Seventeen participants. Managed by the ERFAN Secretariat, addressed ERFAN partners. The main objective was to provide advice and guidance on how to write a successful proposal and how to apply the grant implementation procedures correctly.

Planned in 2021

- February/March 2021"Présentation sur le diagnostic clinique et différentiel de la maladie à prions". In collaboration with WG "TSE"- Nord-ouest Afrique.
- "Brucellosis Diagnosis". In collaboration with WG "Brucellosis" SADC Region.
- "Animal welfare". In collaboration with WG "Animal Welfare"- SADC Region.
- "Food Hygiene; Detection of Salmonella spp in food matrices food-producing environments and animals". In collaboration with WG "Food Hygiene" Nord-ouest Afrique and SADC Region.
- "Mycoplasmosis in North West Africa". In collaboration with WG "Mycoplasmoses des petits ruminants"- Nord-ouest Afrique.
- "CBPP". In collaboration with WG "CBPP and Small Ruminants Mycoplasmosis"- SADC Region and Nord-ouest Afrique.
- "Proficiency tests; Organization and Management". In collaboration with WG "Brucellosis" and "CBPP and Small Ruminants Mycoplasmosis"-SADC Region and IAEA, Austria.

OIE questionnaire 'Stray dog population control-Northern Africa'. August 2020

- Context: A global strategic plan "Zero by 30" has been developed by WHO, OIE, FAO and NGO "Global Alliance for Rabies Control" (GARC) to eliminate human deaths due to canine rabies by 2030. Rabies is a disease present in North Africa and is a priority disease of the REMESA programme. As part of the specific initiatives undertaken in North Africa on rabies, the OIE Sub regional Representation for North Africa (as co-secretariat of REMESA) commissioned the ERFAN project to develop and submit a questionnaire. The questionnaire was submitted to six North African countries (Algeria, Egypt, Libya, Mauritania, Morocco and Tunisia) to survey - in line with OIE standards - the state of stray dogs' art rabies control and, thus, formulate appropriate recommendations. ERFAN (through the OIE Collaborating Centre for Animal Welfare based in Teramo) carried out this activity in collaboration with the OIE Representation in Brussels and the OIE Subregional Representation for North Africa.



- **Objective:**The main objective of the activity was to carry out a survey in the North African region and thus be able to define the state of the art of stray dog population control in the area. The information collected is provided to the countries' competent authorities concerned to plan further activities for sustainable control.

Results:

- 1. Questionnaire (conducted on online platform)
- 2. Final report: 'Regional report of the ERFAN survey on stray dog control and rabies conducted in North Africa'.

ERFAN presented the final report's main findings to the countries during the Webinar "Round Table on the way forward towards ZeroBy30 goal" organised on 28 September 2020 by IZS delle Venezie (In collaboration with the REMESA Secretariat) on the occasion of World Rabies Day.

The ERFAN Secretariat sent the final report to the Heads of Veterinary Services of the countries that responded to the questionnaire (Algeria, Morocco, Egypt and Tunisia) on 23 October 2020.

Participation in events as speaker

- 28 September 2020Webinar organised by REMESA "Round Table on the way forward towards ZeroBy30 goal". Presentation "Regional report of the ERFAN survey on stray dog control and rabies conducted in North Africa", in collaboration with "OIE CC for Animal Welfare"-IZSAM.
- 10 November 2020. Webinar "North African Regional online meeting for strategy to fight on Rabies", organised by the OIE Sub-Regional Office for North Africa.
 - The webinar opened by the Representative of the OIE Sub regional Office for North Africa, who presented the ongoing activities on rabies in North Africa. Several aspects related to rabies management in North African countries were discussed, with particular reference to the activities and initiatives implemented to achieve the ambitious goal, set by OIE, FAO and WHO, of having zero deaths due to rabies by 2030. IZSAM intervened as OIE Multinational Collaborating Centre for Animal Welfare and representing the ERFAN network with a presentation on "Management of stray dogs concerning animal welfare and relations with the OIE Twinning on animal welfare between Italy and Tunisia". The presentation highlighted the importance of managing dog populations, respecting animal welfare, to prevent rabies effectively. The meeting was also an opportunity to introduce the new OIE Twinning on animal welfare between IZSAM and the Faculty of Veterinary Medicine of Tunis (ENMV).
- 3 December 2020. Regional online meeting "Vector-borne diseases in North Africa", organised by the OIE Sub-Regional Office for North Africa.
 - The webinar aimed to share the latest epidemiological information on the main vector-borne diseases occurring in North Africa (e.g. RVF, Bluetongue, West Nile) and the



activities/projects being conducted in the region. The ERFAN Secretariat participated by presenting the ERFAN Working Group "Maladies À Transmission Vectorielle" in the development of strategies for entomological surveillance in the North African region organisation of Ring tests for Bluetongue and WND. The importance of the institutional relations between ERFAN and ESA to use satellite data to assess climate change impacts was highlighted.

Participation in events as auditor

- Participation of the ERFAN Secretariat to the conference "Africa 2020 Political and Economic Perspectives" organised in Rome by Africa e Affari/InfoAfrica In collaboration with CRA, the Italian Geographic Society's Centre for Relations with Africa.
- 27 November 2020 Participation of the ERFAN Secretariat in the event "MED-Dialogues", organised by the Ministry of Foreign Affairs and International Cooperation, in collaboration with CIHEAM in Bari.

Project hypotheses; Support to the presentation

- Support to the drafting of the project proposal "Recherche sur la Cameline Prion Disease-C.Pr.D au Maghreb" prepared by Prof. Amara (Tunisia) In collaboration with IZS Torino, ISS Roma, Morocco, Algeria and France.
- Support to the project draft "Improvement of Rabies diagnostic capacities in the UMA Region", presented by IZS delle Venezie in the framework of ERFAN. Project sent to the Director of the Italian Veterinary Services.

Support to partners

- Support to the drafting of the MOU between the IZSPB and the University of Pretoria to activate a PhD within the ERFAN WG Anthrax.
- Support to the University of Pretoria for the organisation of the "RVF online course", November 2020.
- Support to the *Botswana National Veterinary Laboratory* and the *Central Veterinary Laboratory in Harare*, Zimbabwe (CVL) to produce reference materials. Specifically, standard positive sera for CBPP and Brucellosis.
- Support to the CVL in Harare for the organisation of "Proficiency Test on Brucellosis diagnostic tests", December 2020.
- Translation into English and French of the technical standardised operating procedures provided by the various WGs and their distribution through the website



- Preparation adhesion letter to ERFAN of the *Animal Resources Research Corporation* (ARRC)- Central Veterinary Research Laboratory (CVRL), Sudan.
- Preparation adhesion letter to the ERFAN network of the Department of Food Safety, Nutrition and Veterinary Public Health (ISS).

PhD

Logistic and technical-scientific support within the framework of IZSAM-funded research doctorates for African colleagues:

- Dr Leruo Tego Keokilwe, veterinary doctor, from the *Botswana National Veterinary Laboratory in Gaborone*, Botswana. Research on CBPP and PPCC
- Dr. Ziba Maureen, biotechnologist, from the *Central Veterinary Research Institute in Lusaka*, Zambia: Research into Listeria and other pathogens involved in food poisoning.

Publications

Support for the drafting of the poster "Modelling Virtual Training Methods To Enhance Entomological Surveillance For Rift Valley Fever And Other Mosquito-Borne Arboviroses In Libya:A Transferable Approach" In collaboration with European Commission for the control of Food-and-mouth disease—FAO, December 2020.

Scouting di call for proposals, grant and procurement

- Scouting and mapping of opportunities through research on the leading international and national call publication platforms.
- Drafting of the monitoring plan of calls for proposals and grants weekly.
- Weekly updating of the "Call for proposal" section within the ERFAN website.