



Strengthening veterinary services in Africa

A summary of the Strengthening Veterinary Services
in Developing Countries (SVSDC) Project, 2016 – 2019

IMPLEMENTED BY THE WORLD ORGANISATION FOR ANIMAL HEALTH (OIE) AND FUNDED BY
THE EUROPEAN UNION, EUROPEAN PARLIAMENT AND THE EUROPEAN COMMISSION



WORLD ORGANISATION FOR ANIMAL HEALTH
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Foreword



Diseases know no boundaries, and global disease crises such as the current devastating African Swine Fever outbreak clearly demonstrate the importance of protecting the health of national herds through effective and efficient Veterinary Services. The World Organisation for Animal Health (OIE) has always been at the forefront of assisting national Veterinary Services to improve their capacity and to be better prepared to fight emerging and re-emerging diseases.

To do this important work, OIE counts on many technical and funding partners who provide the necessary expertise and funds to support the OIE's 182 Member Countries.

In Africa, where many of the infectious diseases which affect international trade are endemic, disease control is particularly important in order to prevent them spreading to other countries, such as happened with Lumpy Skin Disease, African Swine Fever or West Nile Fever. Many different partners have supported OIE's work and projects in Africa, but here I would like to highlight one particular project that I believe has made a substantial difference – the **Strengthening Veterinary Services in Developing Countries (SVSDC)** project.

The SVSDC project is a 3.5 million Euro, four-year OIE project funded by the European Union, European Parliament and the European Commission, which aims to strengthen African Veterinary Services so that they can ensure better governance, health safety, food security and food safety for both animals and people in Africa.

In many African countries, Veterinary Services have been weakened by years of under-investment, lack of legislative frameworks governing the animal

health sector, decentralisation or political conflict and instability. This environment is often not conducive to Veterinary Services being given sufficient priority or funding. As a result, the OIE has developed tools such as its flagship "Performance of Veterinary Services" (PVS Pathway tool) to identify changes that need to be made to make Veterinary Services more efficient and to put a price tag on the measures to be taken, so that realistic budgets can be proposed to authorities.

In addition to economically important infectious diseases such as Foot and Mouth Disease and Peste des Petits Ruminants, zoonotic diseases (diseases that spread from animals to man) such as rabies also impact human health, particularly in rural livestock husbandry settings where there is a close relationship between humans and animals. The World Health Organisation estimates that 61% of all human diseases are zoonotic in origin, while 75% of new diseases discovered in the last decade have been zoonotic. The links between animal and human health have never been more important, especially with climate change and growing competition for land and resources. We need to strengthen strategies for promoting the health and well-being of both.

This SVSDC project has been a catalyst for change and led to many improvements in African Veterinary Services. Building upon another EU-funded project, "VetGov", implemented by the OIE, Food and Agriculture Organisation of the United Nations (FAO) and the African Union Inter-African Bureau for Animal Resources (AU-IBAR) from 2012-2017, I believe the SVSDC project and associated efforts in the region have already led to stronger political will, ownership

and involvement in many African countries keen to strengthen their Veterinary Services. It has also resulted in a growing awareness of the importance of doing so – not only for animal health, but also human health, as well as for trade and economic prosperity.

Unlike many single-purpose projects, SVSDC funded a number of inter-related and overlapping activities, building on previous programmes and partnerships to strengthen Veterinary Services and rabies control efforts in Africa using different approaches. As this report demonstrates, the project funded specific activities and co-funded larger initiatives, creating a pull-effect on both national and other donor support.

This SVSDC project has been a catalyst for change and led to many improvements in African Veterinary Services. I believe the SVSDC project has already led to stronger political will, ownership and involvement in many African countries keen to strengthen their Veterinary Services. It has also resulted in a growing awareness of the importance of doing so – not only for animal health, but also human health, as well as for trade and economic prosperity.

There is still a long way to go, but in just four years this project has demonstrated that strategically-targeted funding can make a big impact. It is a start – but not the end. This is part of a continuing process aimed at promoting best practices, and it needs to be continued.

Dr Monique Eloit, Director General of the World Organisation for Animal Health (OIE)



Executive summary

Strong Veterinary Services are crucial if a country is going to be able to carry out effective early detection, surveillance and reporting of animal diseases, including zoonoses which can spread rapidly from animals to humans. They are also vital when it comes to rapid response to and control of animal disease outbreaks and emergencies, as well as ensuring the safety of animal food products, animal welfare and certification of animals and their products for safe import and export. With increasing global trade, climate change and the speed of transportation of people, animals and goods across borders, the need for strong and effective Veterinary Services at the national level has never been greater.

The **Strengthening Veterinary Services in Developing Countries** (SVSDC) project has provided specific and focused support to Veterinary Services in Africa. This project ran for four years from December 2015 to December 2019 with a budget of 3.5 million Euros funded by the European Union, European Parliament and the European Commission. Its aim has been to strengthen and improve the contributions made by livestock to food security and safety, economic growth and poverty reduction in Africa. The activities implemented under this project can be broadly put into two categories:

LEFT
Many Veterinary Services in Africa face challenges.

RIGHT
Teaching children about responsible dog ownership is one of the best ways to fight rabies.

- The **strengthening and development of Veterinary Services in Africa** by conducting OIE Performance of Veterinary Services (PVS) missions to assess competencies, identify weaknesses and propose corrective actions; developing the regulatory and legislative framework for Veterinary Services and developing a data base of the material gathered from these PVS assessments; extensive training and regional seminars for veterinary Focal Points in African countries and engagement in WHO's Joint External Evaluations (JEE).
- **Strengthening rabies control programmes and eradication efforts** in Kenya and North Africa (Tunisia, Morocco, Algeria) and furthering the use of donations from the OIE rabies Vaccine Bank to these countries, and others in Africa that request assistance.

The SVSDC project is part of OIE's multifaceted processes aimed at promoting best practice. As a result, some of the activities that the project funded were sometimes complementary to and overlapping with other programmes or the product of co-funding, so some outcomes are difficult to attribute to one project only.

This report provides an overview and details some of the activities funded by this pioneering project and illustrates that strategically directed investment can have a big impact on both animal and human health.



M. MUTURI

Background

An introduction to the OIE

The OIE's mandate is to improve animal health and welfare throughout the world. Its core function is to provide its Member Countries with continuously updated animal health standards and diagnostic testing methods that are recognised by the World Trade Organisation and can be used to facilitate international trade. To strengthen these core functions, the OIE also cooperates with international donors and partners such as the Food and Agriculture Organisation of the United Nations (FAO) and the World Health Organisation (WHO) to respond to the needs of its members. These are discussed in inclusive, consultative processes at national and regional levels, and implemented through OIE's Strategic Plans.

At national level, OIE's main partners are Veterinary Services, which are the custodians of national animal health, animal welfare and public health issues. However, many Veterinary Services in developing countries face challenges as animal health and welfare services are often under-funded and have to compete for scarce resources, despite the fact that up to 80% of the population may work in the agriculture sector. During the 1990s combined policies of austerity, decentralisation and privatisation have reduced the ability of developing countries to control economically important infectious diseases. Through its core programmes and donor-supported projects the OIE helps Member Countries to face these challenges.



The underlying philosophy of working with donor support is to match donor objectives and strategic needs with those of OIE's Member Countries and to design projects that are well-planned, executed and evaluated.

The SVSDC project is a good example of this philosophy in action.

ABOVE

Vaccination campaigns to prevent infectious diseases such as foot and mouth.

What is the SVSDC project?

The OIE's **Strengthening Veterinary Services in Developing Countries** project is a 3.5 million Euro, four-year project funded by the European Union, European Parliament and the European Commission. It is aimed at building better African Veterinary Services that deliver effective governance, health safety, food security and food safety for their citizens.

The project has two main components, which will be described in more detail in subsequent pages of this report:

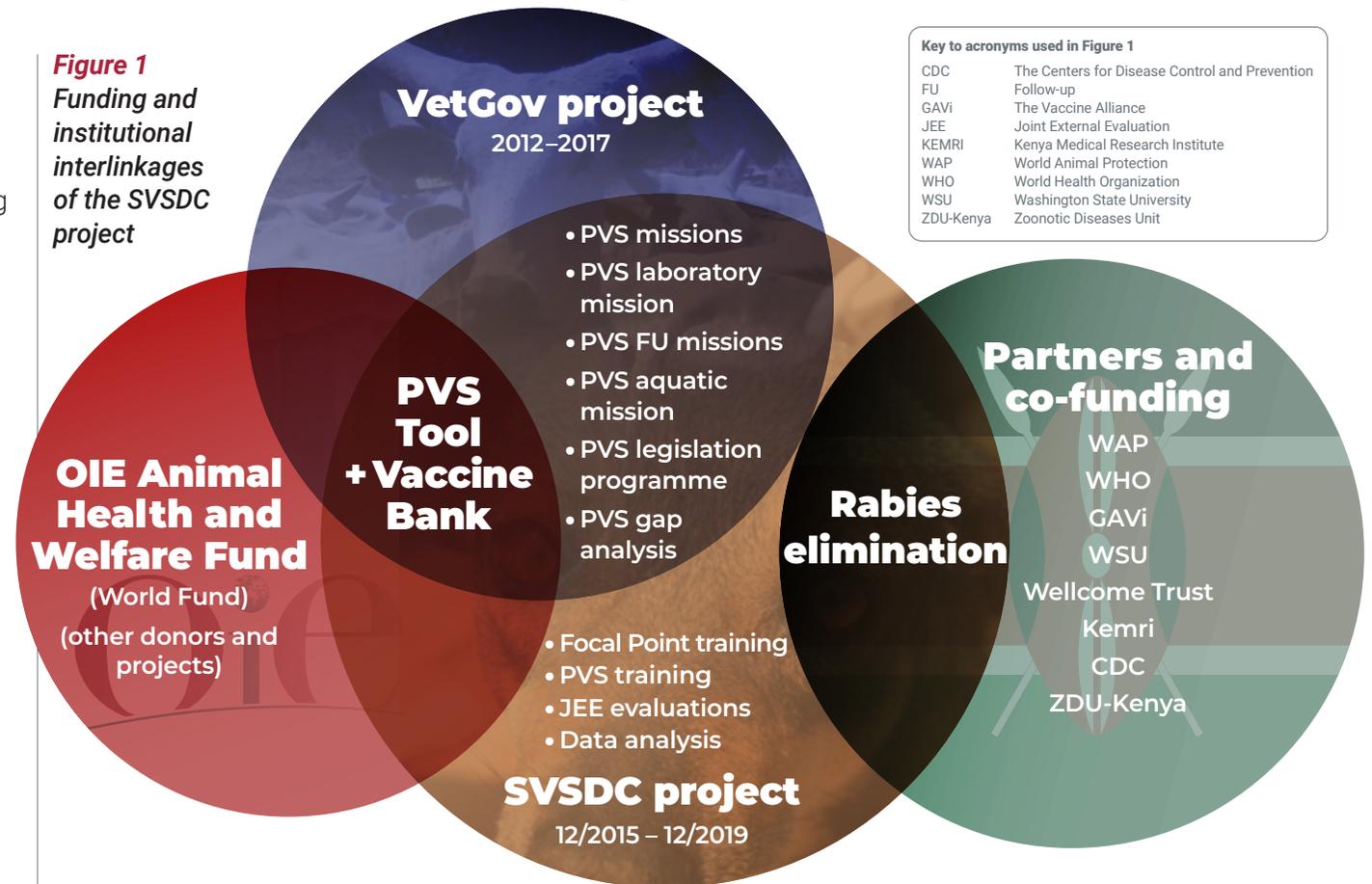
- **Strengthening Veterinary Services**

The **SVSDC** project funding has been a catalyst for the further promotion of OIE's flagship Performance of Veterinary Services (PVS) Pathway and its support tools, such as national Focal Point trainings, Laboratory missions and Veterinary Legislation Support Programme (VLSP) missions.

- **Rabies control**

The EU project funding complements existing funding to the OIE World Animal Health and Welfare Fund (the OIE World Fund) and has also attracted additional funding for rabies control. The OIE World Fund receives grants from various public and private donors. It should be distinguished from funds derived from the statutory contributions of the OIE's 182 Member Countries, which are notably used to prepare and publish international standards. This co-funding approach successfully helps to fill identified funding gaps, while at the same time enhancing

Figure 1
Funding and institutional interlinkages of the SVSDC project



collaboration with other stakeholders and donors to strengthen Veterinary Services. The funding in the SVSDC project for rabies has been especially useful in allowing numerous countries in Africa to receive free donations of OIE-compliant rabies vaccines.

The SVSDC project provides specific support to two pilot rabies elimination campaigns in Kenya (in line with

Kenya's Strategic Plan for the Elimination of Human Rabies 2014 – 2030) and in the North Africa region, particularly in Tunisia. It also provides general support to any interested African country via the Rabies Vaccine Bank.

The SVSDC project also complements other OIE programmes and partnerships as summarised in the diagram above.

Strengthening veterinary services

The aim of the SVSDC project is to strengthen Veterinary Services in Africa through a number of interrelated and overlapping initiatives as illustrated in the venn diagram on page 7.

These include missions to analyse and improve existing Veterinary Services and practices, strengthening the legal and regulatory framework, on-going training of experts and collecting comparative data.

Performance of Veterinary Services missions

In the last four years, **SVSDC** funding has enabled OIE to build on and expand its flagship Performance of Veterinary Services (PVS) Pathway to analyse the strengths and weaknesses of Veterinary Services in Member Countries, and develop and refine further support tools, such as the training of national Focal Points, legislative and regulatory support and laboratory missions.

RIGHT
Protect your best companion against diseases!



N. BASTIAENSEN

PVS explained

Since 2006 OIE has offered its Member Countries the possibility of undergoing a voluntary external evaluation of their Veterinary Services, which assesses a range of critical competencies and comes up with recommendations for problems identified. The aim is to help OIE Member Countries to improve their Veterinary Services in a sustainable way, benchmarked against rigorous OIE international standards. All OIE interventions must be at the invitation of the Member Countries, and the reports are confidential unless a country gives permission for the information to be shared publicly or restricted to donors and partners.

PVS has become OIE's flagship programme in the last 13 years and, based on expert and Member Country feedback and OIE's drive for excellence, the PVS "tool" has constantly evolved and been adapted (in 2019, it is on its 7th iteration). The PVS Pathway now encompasses a comprehensive "tool box" – composed of evaluation, targeted support, recommendations, training and planning. These can be adapted and customised according to the specific needs of a particular country.

"We have to be mindful that the tool box has to constantly evolve and use modern approaches to training, communication and evaluation," says **Matthew Stone**, OIE's Deputy General for International Standards and Science. "It's about processes and what we believe to be best practice."

On the occasion of PVS' 10th anniversary, a Think Tank Forum meeting was organised that brought together a wide range of stakeholders. Critical issues were identified and remedied. Some highlights of the changes made are:

- Veterinary Services' staff can now receive in-country training prior to a PVS mission
- Veterinary Services can receive training to do in-country self-evaluation
- During regional PVS training sessions national experts have been selected to go on PVS missions as "expert trainees", with a view to becoming certified experts
- New elements have been added to the PVS "tool box" – such as the evaluation of specific disease situations for *peste de petits ruminants* (PPR) or rabies, elaborated as annexes to the PVS report; workshops to enhance public-private-partnerships and strategic planning workshops.

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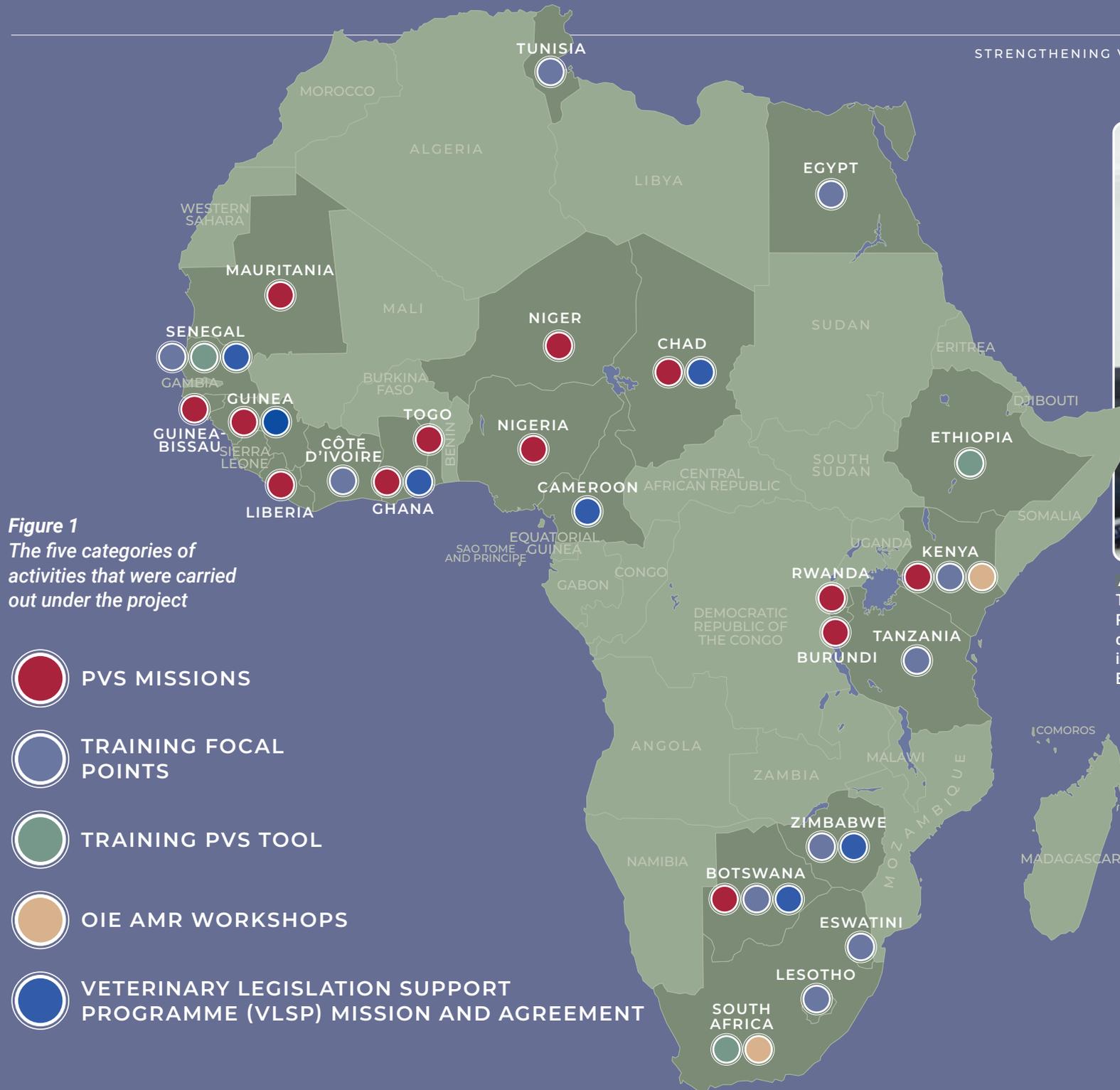


Figure 1
The five categories of activities that were carried out under the project

-  PVS MISSIONS
-  TRAINING FOCAL POINTS
-  TRAINING PVS TOOL
-  OIE AMR WORKSHOPS
-  VETERINARY LEGISLATION SUPPORT PROGRAMME (VLSP) MISSION AND AGREEMENT



ABOVE
Training of Focal Points for animal disease notification in Sharm el Sheik, Egypt, in 2016.

P. BASTIAENSEN

Figure 2 The Performance of Veterinary Services tool kit



The evolution of the PVS tool kit, together with SVSDC-supported training of selected government staff to eventually become PVS experts, has led to a more diverse pool of experts being available and greater engagement by countries when preparing for a PVS mission. The inclusion of staff actively working in African Veterinary Services in PVS missions to other countries gives them an opportunity to compare strengths and weaknesses and to familiarise themselves with other Veterinary Services.

The application of the PVS tool kit is a good example of OIE’s multi-donor strategy, managed by the World Fund, and demonstrates the impact that strategically targeted financial support can have to achieve bigger goals through co-funding. Although relatively few PVS missions were directly funded by the SVSDC project in the first years of its implementation (primarily due to the prioritisation of funding from the sister project “VetGov”, another EU-funded project implemented by OIE, FAO and the African Union Inter-African Bureau for Animal Resources, AU-IBAR, from 2012-2017) the project allowed for at least 15 missions to be carried out by the end of implementation period. These are listed in Table 1.

Table 1 Different PVS missions funded or co-funded by SVSDC

Year	Country	PVS tool
2017	Chad	Gap Analysis
2018	Ghana	PVS Aquatic
2019	Burundi	PVS follow-up and PPR
	Nigeria	PVS follow-up and PPR
	Liberia	PVS follow-up and PPR
	Chad	PVS follow-up
	Togo	PVS follow-up
	Niger	PVS follow-up
	Kenya	PVS follow-up
	Botswana	PVS follow-up
	Rwanda	PVS follow-up
	Mauritania	PVS follow-up
	Guinea	PVS follow-up
Guinea Bissau	Gap analysis	
Senegal	PVS Laboratory mission	



LEFT
Cover of the World Health Organization Joint Evaluation Tool report.

RIGHT
Training of Focal Points for veterinary communication, held in Mombasa, Kenya in 2016.



P. BASTIAENSEN (OIE) 2016

Joint External Evaluations with partners

With growing recognition of the strong overlap between animal and human health, the expertise developed through PVS missions has also increasingly been incorporated into **Joint External Evaluations (JEE)**, which are voluntary assessments, adopted by WHO in 2016, of countries' capacity to implement International Health Regulations (IHR). OIE's PVS experts are invited as members of a multi-sectoral team to contribute to these external evaluations.

The SVSDC project funded experts to support JEE missions in the Central African Republic, Malawi, Djibouti and Botswana.

Once a country has had a JEE, it can request a **National Bridging Workshop** via either the regional OIE representation or the relevant WHO country office to align the results of IHR assessment and PVS evaluation and to identify gaps in cooperation between public health, animal health and environmental services.

Training of national Focal Points

Using SVSDC funding, OIE has also helped to implement trainings for **national Focal Points (NPF)**. National Focal Points support Chief Veterinary Officers (CVO) in the implementation of OIE standards. Countries are encouraged to nominate eight different people who specialise in communication, disease notification in OIE's World Animal Health Information System (WAHIS), wildlife, laboratories, animal welfare, veterinary medicinal products, food safety and aquatic diseases. These national Focal Points have clear terms of reference for their tasks and they are under the authority of the OIE Delegate.

The eight national specialists receive training from OIE on standard-setting and reporting procedures so that they can give expert support to their CVO in these areas. Ideally, national Focal Points attend a cycle of regional or continental training sessions, with refresher courses held every two years.

In recent years the topic of antimicrobial resistance (AMR) has gained increasing importance, and this has been reflected in OIE's training offer for veterinary medicinal products Focal Points. However,

the topic's importance goes way beyond the Focal Points and as a consequence SVSDC funding also supported two sub-regional workshops on the topic, one in Mombasa, Kenya (October 2019) on *The*

database on antimicrobial agents intended for use in animals in Eastern and Southern Africa and one in Durban, South Africa (November 2019) on *AMR in Aquaculture Setting*.

Table 2 Focal point training courses held in Africa with funding/co-funding from SVSDC, 2016–19

Outreach	Focal points	Location	Dates	No. of countries participating
Pan-African 54 countries	Animal Welfare	Lesotho	10/19	42
	Aquatic	Tanzania	12/18	41
	Communication	Tunisia	06/18	36
	Laboratory	Zimbabwe	11/16	31
English speaking 26 countries	Wildlife	Botswana	11/18	18
	Veterinary medicinal products (VMP)	Eswatini	12/17	18
	Communication	Kenya	09/16	25
	WAHIS/ Animal disease notification	Egypt	11/16	23
	Wildlife	Kenya	11/16	16
French speaking 27 countries	Veterinary medicinal products (VMP)	Cote d'Ivoire	01/18	23

Table 3 National and group trainings on PVS methodology

Outreach	Location	Date	No. of countries participating
English speaking	South Africa	06/18	17
French speaking	Senegal	07/18	15
National	Ethiopia	03/18	Ethiopia
National	South Africa	05/19	South Africa



P. BASTIAENSEN (OIE) 2018

ABOVE
National PVS training in Ethiopia.

Training on PVS methodology

The SVSDC project has also funded training for Member Countries on how to use the PVS tool kit for self-evaluation. This enables a country to have more continuous evaluation than is available from OIE missions, which tend to take place in a country roughly every five years. The training makes use of all the OIE manuals and PVS guidelines, which are developed and improved continuously.

OIE experts conducted training sessions on PVS methodology at national level in Ethiopia and South Africa, and also for groups of English and French speaking countries (see Table 3). The three-day training sessions included an overview of PVS methodology and an introduction to the PVS *Critical Competencies* to be evaluated, followed by

a simulation of a fictitious evaluation in “Tryland” with role playing allowing participants to get hands-on practical experience on how to conduct such evaluations. Preparation, management, team work and work to be done after a mission are also presented and included in practical exercises.

“This training was very successful, practical and an eye-opener on PVS methodology,” said participant **Dr Asmamaw Duressa Reje**, from Ethiopia’s Department of Disease Prevention and Control.

Experience as a “PVS expert trainee”

After participating in two training sessions on PVS methodology in her home country in 2018, **Dr Grietje de Klerk**, South Africa’s Deputy Director Animal Health, was invited to be part of the OIE PVS team carrying out an external evaluation in Nigeria in January 2019.

She describes her experience of this evaluation mission, which was partially funded by the SVSDC project, as “very intense, interesting and challenging, requiring a lot of time to prepare with background reading on the political, agricultural and land-use systems.”

Dr de Klerk says she particularly benefited from the experience because she was able to compare another “African giant economy” with the Veterinary Services in South Africa, where she will play a major coordination role in the forthcoming PVS self-evaluation, planned for February 2020.

During these training sessions, promising participants were selected to become “PVS trainees” to be invited to accompany and understudy experienced OIE PVS experts on external evaluation missions and to see the method being applied in practice. The ultimate aim is for these “trainees” to become OIE PVS experts themselves, which will both diversify the pool of experts available for PVS missions, and hopefully ensure that the lessons learned from these missions can also be applied in the trainee’s home country.



S. MÜNSTERMANN

ABOVE
Dr de Klerk (left) and the CVO of South Africa, Dr Modisane, in his office in Pretoria.

Ethiopia embraces self-evaluation of their Veterinary Services

A long-awaited OIE PVS training workshop took place in Addis Ababa in March 2018, with 36 veterinary staff from federal institutions and the nine regions and the two Chartered Cities of Addis Ababa and Dire Dawa participating to learn about PVS methodology for self-evaluation. This was a long-standing project of the Veterinary Services, finally brought to fruition.

Following the workshop, Ethiopia has quickly moved to implement further measures.

According to **Dr Alemayehu Mekonnen Anbessie**, Ethiopia's Director of Disease Prevention and Control and the OIE Delegate, a team of trained experts



ABOVE

Ethiopia – first country in Africa to benefit from international OIE PVS training for its veterinary workforce.

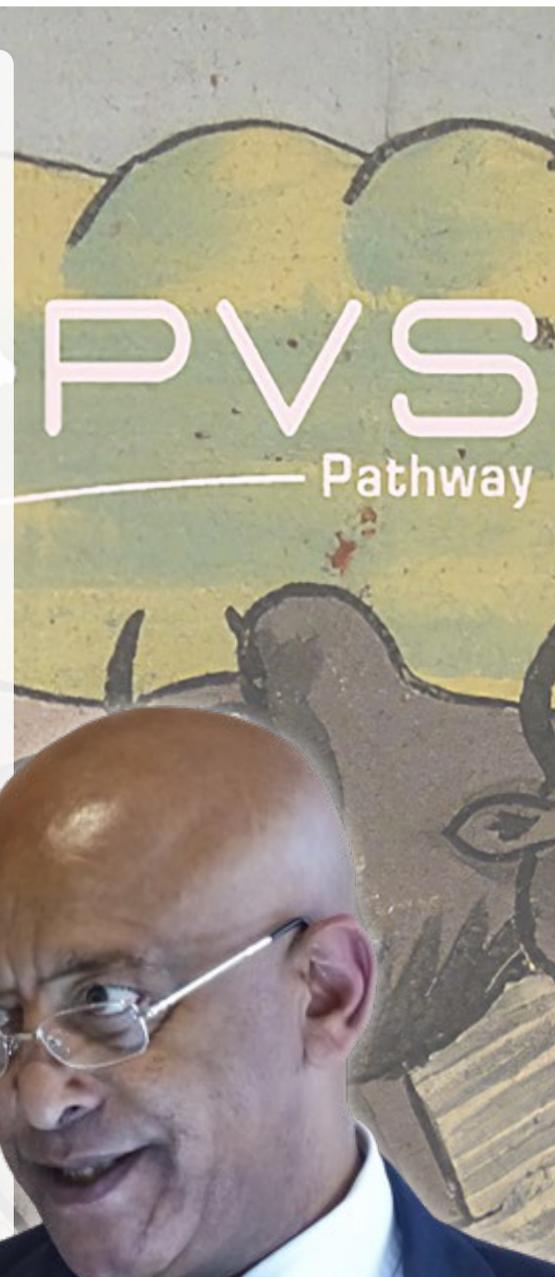
drawn from the Federal Ministry of Agriculture has already been deployed to four regions (Afara, Benghangul Gumuz, Gambella and Harare) and the cities of Addis Ababa and Dire Dawa to conduct the self-evaluation. The team has already submitted its report. Oromia and Amhara regions have also just completed the self-evaluation exercise and the CVO expects that the remaining regions will be assessed before the end of the year.

Dr Anbessie says that the PVS toolbox has been adapted to the Ethiopian context and, in order to take maximum advantage of available funds, the PVS self-evaluation was conducted in combination with another resource-mapping exercise.

Conducting this self-evaluation exercise across all regions will, he says, allow the country's Veterinary Services to engage with the regions and federal institutes on all issues concerning animal health and food safety and to obtain a good understanding of existing strengths and weaknesses. Unlike South Africa (see below), Ethiopia wishes to validate its findings by requesting an external OIE external PVS follow-up mission in the very near future.

RIGHT

Dr Alemayehu Mekonnen Anbessie addressing the PVS training workshop in Addis Ababa.



South Africa is using the PVS as a self-evaluation tool

The South African Veterinary Services volunteered to host two PVS training events: one for English-speaking African countries in June 2018 and one for a planned national PVS self-evaluation in May 2019 (see table 3). Both events were co-funded by the SVSDC project.

The very positive outcomes of these two training sessions convinced the South African Veterinary Services to conduct, following a consultative process with all of the country's provinces, a comprehensive self-assessment in all nine provinces – starting with Gauteng, the most densely populated province (Johannesburg and Pretoria metropolitan area), and followed by Mpumalanga.

This makes South Africa the first country and a pioneer on the continent to use the PVS in a self-evaluation approach. To ensure that the process is sustainable and fully-embraced, the costs of the self-evaluation will be shared between the government and provincial authorities, and the results disseminated through on-going reports and briefings.

Staff from all provinces will be actively involved in the evaluation process through a rotation system, and observe the process in neighbouring provinces, while a few national Veterinary Department staff will be regulars on the evaluation team. Each province will be evaluated by a different team, to give as many provincial staff as possible a chance to be involved in this comprehensive, inter-active exercise.



LEFT

Participant from Nigeria (right) being awarded a PVS Orientation Training certificate by the OIE Delegate of the host country South Africa (left).

P. BASTIAENSEN (OIE) 2018

What does Gauteng expect to achieve from self-evaluation?

Given that many animals and animal products are transported in large numbers to Gauteng for further processing and/or export – and as a result the province can be susceptible to potential disease outbreaks – **Dr Wynton Rabolao**, the province's Director of Veterinary Public Health (VPH) and Export Facilitation, hopes that the self-evaluation process will lead to greater harmonisation of veterinary health standards and certification procedures between South Africa's provinces.

He believes that better harmonisation will lead to greater consumer confidence in the industry, since the same standards would be applied to both export products and products for local consumption.

Gauteng's Director of Quality Management, **Dr Charles Katsande**, points out that some of the recommendations from the previous, external OIE PVS mission in 2012 have already proved very valuable for the province. These include the introduction of a nationally-accredited VPH system,

which involves closer collaboration with the meat producing industry and a pilot scheme of independent meat inspection carried out by industry-employed meat inspectors on behalf of the Veterinary Services. Dr Katsande and team hope that this type of pilot, standard-improving initiative can be expanded to other provinces, particularly those that deliver animal products to Gauteng. Clearly Gauteng Province is starting the task of self-evaluation with a very positive attitude.

Whilst acknowledging that ongoing audit and quality assurance activities already exist in Gauteng's Veterinary Services, **Dr Shepherd Kamudyairwa**, a State Veterinarian points out that the PVS self-evaluation is much broader and better suited to shine a light on other, transversal as well as province-specific issues – such as a lack of proper infrastructure or suitable office space.

RIGHT
Gauteng Veterinary Services (left to right): Drs Theo Pienaar, Duma Mpofu, Adri Gobler, Alan Kalake, Wynton Rabolao, Nouvuyo Magadla, Vanessa Clarke, Primrose Mini, Charles Katsande and Shepherd Kamudyariwa.

“We have no doubts about the positive impact of this exercise and no reservations about talking to each other across the provinces.”

DR ALAN KALAKE, GAUTENG'S DIRECTOR OF EPIDEMIOLOGY, BIOSECURITY, LABORATORY AND QUALITY MANAGEMENT



Beefing up South African exports in line with OIE standards



S. MÜNSTERMANN

ABOVE
Dr Modisane, in his office in Pretoria, South Africa.

As a result, the Cabinet has requested that industry-specific master plans be drawn up, for example for poultry meat, pork and beef. "This is where the PVS toolbox comes in very handy," says Dr Modisane, since "it fills in gaps when formulating these master plans that we have not been able to fill with our *Veterinary Strategy*, developed in 2016." He also points out that when new or current trading partners such as the EU, China and others come to evaluate South Africa, the PVS self-evaluation provides further evidence of the Government's intention of beefing up exports, both within and outside Africa, in line with OIE standards.

Dr Botlhe Mike Modisane, South Africa's Chief Veterinary Officer and a former OIE President (2016 – 2018 included), points out that this self-evaluation exercise is taking place in the wider context of the Government's plan to strengthen the economy through meat exports. As a



S. MÜNSTERMANN

ABOVE
Healthy cattle reared in extensive pasture systems, fattened up in feedlots, boost the export potential of Southern African countries (here: Botswana).



S. MÜNSTERMANN

RIGHT
IT systems in Botswana ensure traceability of animals from farm to feedlot.



S. MÜNSTERMANN

ABOVE
Animals can be traced from farm to the abattoir in Gaborone.

He also thinks that it is valuable for certain provinces to set an example for others to learn from, by taking the lead in some areas such as the VPH pilot project in Gauteng, or Western Cape's animal identification and food traceability pilot project. If such initiatives are properly documented and assessed, the lessons learned could be applied in other provinces to improve processes and standards across the country.

How will the information generated by the PVS self-evaluation be used?

The self-evaluation reports will remain property of the nine Provinces and serve primarily as a reference point for revision of strategies and work plans. They will also provide Veterinary Services with better evidence which can be used for lobbying government for improved funding and political support.

A task-force at national level will extract common problems, solutions and recommendations from the nine reports, as well as any outstanding province-specific issues. These will then be summarised in a further report, which will make recommendations for strengthening the overall Veterinary Services, as well as highlighting important issues (such as sanitary and phytosanitary measures/trade, biosecurity) at provincial level. The report will be channelled through the central coordination mechanism of the Ministry of Agriculture's



S. MÜNSTERMANN

Department for Agriculture, Forestry and Fisheries and the Provincial Directors of Veterinary Services for final approval and wider distribution.

Industry will be engaged in the process from the start and will also be beneficiaries of these reports. The Regional (SADC) and Continental Economic Communities (African Union) will also be informed about South Africa's pioneering self-evaluation of its Veterinary Services and encouraged to pay attention to the outcomes, with a view to promoting this approach.

ABOVE

A typical ending of a PVS external mission, in Botswana.

Data analysis and setting up a database

Between 2006 and 2019 a total of 165 PVS missions of all types were carried out in 54 African countries. These missions have generated a wealth of information that has been collected from reports on all of the PVS Pathway support tools. The OIE wishes to capitalise on this information and to make it available for use by regional economic communities to support them in their efforts to harmonise veterinary and trade regulations in their regions. This information would be shared in a politically sensitive way, recognising any country confidentiality concerns.

The SVSDC project funded a consultancy to provide a first set of analyses of the data generated from PVS reports in Africa (*Independent review of PVS Pathway reports from African Member Countries, OIE 2019*). Data from all reports other than those classified as confidential were analysed. This

“There has been a huge increase in activity in Africa. There is stronger ownership and involvement, and also stronger use of the PVS by countries. Some have forged ahead, and others have lagged behind, depending on factors such as disease outbreaks and governance.”

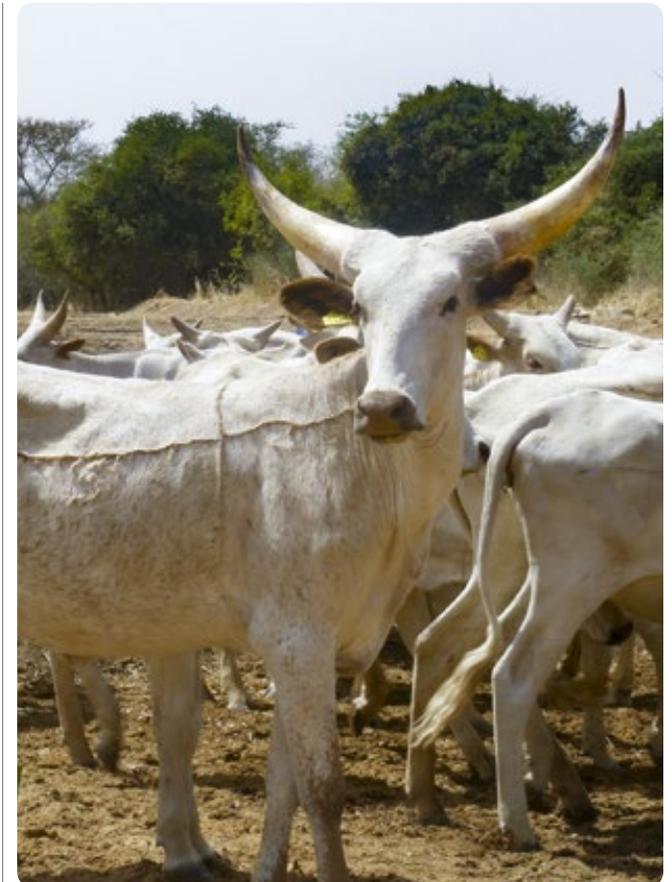
JOHN STRATTON, DEPUTY HEAD OF THE OIE REGIONAL ACTIVITIES DEPARTMENT

data analysis approach will provide a pilot and a baseline for a larger OIE database to be set up in the future.

This was the first such analysis done since the start of the PVS programme; no comparable information source on Veterinary Services exists that provides such comprehensive and detailed information as the PVS Pathway reports. As a source of retrospective data on the status and performance of Veterinary Services and

Table 4 Status of PVS Pathway missions for Africa

Report status	PVS Pathway report type				
	PVS Evaluation	PVS Gap Analysis	PVS Evaluation Follow-Up	Veterinary Legislation Support	Laboratories
Public	11	16	7	6	0
Partners & donors	32	23	2	2	1
No decision	3	8	9	17	5
Confidential	6	2	4	11	0
Total	52	49	22	36	6





S. MUNSTERMANN

their development over time, the information contained in PVS Pathway reports is considered invaluable.

While a lot of detailed information on the progress or lack of progress in specific areas of Veterinary Services such as animal welfare for different countries and regions is now available, a full analysis

was only possible for 18 countries which followed the PVS Pathway, including at least an initial PVS evaluation and a follow-up mission. Given the low number of such countries, a regional stratification within Africa was not considered to be meaningful.

However, it is encouraging to note that this analysis reveals that significant improvements

ABOVE

Donkeys are often the main means of transport for rural people and animal welfare is an important issue.

“We are committed to establishing a database in the future, and it is in OIE’s draft 7th Strategic Plan. This is a clear statement that there is a need for a database and the idea remains very important.”

ALAIN DEHOVE, OIE DIRECTOR OF FINANCE

are being made in Veterinary Services across Africa, particularly in the technical competence of veterinarians, communication and coordination with the private sector and in emergency preparedness and disease control. However, major challenges remain, especially in the areas of laboratory reliability and quality assurance, risk analysis and epidemiology, food safety, animal/animal product identification and traceability, the control of veterinary medicines and animal welfare. On balance, however, overall Veterinary Services performance across the 18 countries included in this analysis was static, with no marked improvements.

The SVSDC project also facilitated constructive discussions on the functions of a **database** to store PVS data, how it should be used, issues of data protection and ownership, as well as the use of other non-PVS data by OIE. The outcome of this preparatory work has led to the inclusion of the need to build an OIE database for Veterinary Services in the draft of the 7th OIE Strategic Plan, currently under development.

RIGHT

A sound veterinary legislative framework facilitates trade in animals and their products.



T. HUNT (OIE) 2012

Strengthening the legal framework

PVS evaluation missions have frequently highlighted the absence of quality veterinary legislation and regulation as a weakness in many countries. To address this problem, an important component of the PVS tool box is the **Veterinary Services Legislative Programme (VLSP)**, which aims to help countries improve the legislative and regulatory framework of their Veterinary Services. The programme was created in 2008 and its purpose is to assist Member Countries who request:

- An analysis of the current state of country legislation (VLSP Identification mission)
- Support to correct deficiencies or weaknesses in legislation (VLSP Agreement)

The VLSP consists of an identification mission as a first stage and, if the country wishes to receive continuous support for the improvement of its legislative framework, a signed agreement between the country and OIE as a second stage. OIE will then provide experts to support the process, usually over the period of one year. Some missions and agreements are more successful than others, depending on political will and a country’s willingness/ability to pass legislation, but the process is still useful because it raises awareness and improves knowledge on formulating legislation, and it engages veterinarians and lawyers to work together in the process.

The SVSDC project has helped to fund an upsurge in VLSP Agreements between OIE and a number of African countries (Senegal, Zimbabwe, Guinea, Mauritius, Cameroon, Chad and Botswana), as well as funding a VLSP Identification mission to Ghana.

A woman wearing a white lab coat, a black hijab, a white face mask, and white gloves is leaning forward, holding a syringe. She is standing in front of a brick wall. She is also wearing black pants and tan rubber boots. The background is a brick wall made of reddish-brown bricks. The ground is dirt and gravel.

Rabies control and vaccine banks



RABIES ENDS HERE

OIE COMMUNICATION UNIT

Rabies is one of the oldest and most terrifying diseases known to man. According to WHO, it is still endemic in more than 150 countries around the world and kills an estimated 59,000 people annually. About 40% of these victims are children in Asia and Africa. Nearly all of these human cases are acquired as a result of a bite of an infected dog. In recent years, great progress has been made in strengthening rabies control efforts and reducing or eliminating rabies deaths globally. Scaling up dog vaccination programmes, making human post-exposure and pre-exposure prophylaxis more accessible, and engaging communities on rabies has been shown to work.

However, despite this success, the global response to rabies has often been fragmented and uncoordinated. As a result, in 2018 OIE, along with WHO, FAO and the Global Alliance for Rabies Control (GARC), decided to join forces to develop a **Global strategic plan to end human deaths from dog-mediated rabies by 2030** and support countries as they seek to accelerate their actions towards the elimination of dog-mediated rabies by 2030 ("Zero-by-30").

WHO estimates that vaccinating 70% of the dog population for seven consecutive years would eliminate human rabies. However, one size does not fit all, and



several studies to prove the concept have shown that in-depth understanding of dog ecology, dog-human interaction and the social and cultural determinants of vaccine acceptability, effective deployment of vaccine and a sensitive surveillance system are required. Using the One Health approach has proved to be successful, as shown in studies in Kwa-Zulu Natal, South Africa, Tanzania and the Philippines in drastically reducing human rabies prevalence.

This ambitious Global Strategic Plan has set three objectives for affected countries, development partners, and key stakeholders:

- to use vaccines, medicines, tools, and technologies effectively that will stop dog rabies transmission and reduce the risk of human rabies deaths;
- to generate evidence-based guidance and high-quality data to measure impact and inform policy decisions; and
- to harness multi-stakeholder engagement to sustain commitment and resources.

This new rabies-focused partnership between WHO, FAO, OIE and GARC – known as **United Against Rabies (UAR)** – provides a platform to mobilise resources and leverage existing tools and expertise in a coordinated

way. The four organisations are intensifying their collaboration to combat critical health risks, bringing together human and animal health, as well as environmental factors under the One Health approach.

According to the first UAR annual report¹, released on World Rabies Day in September 2019, in 2018/19 the initiative delivered more than two million doses of rabies vaccine worldwide through the OIE Rabies Vaccine Bank and trained more than 450 health professionals in 70 of the 89 countries where human rabies occurs. The UAR collaboration has also supported harmonisation of clear guidance, policies and monitoring tools, based on the OIE’s standards and manuals.

As part of this coordinated UAR initiative, OIE’s SVSDC project has contributed 885,000 of the two million doses of rabies vaccines through the OIE Vaccine Bank - another practical example of the synergistic nature of SVSDC.

SVSDC funding for rabies vaccines in Africa

In Africa the SVSDC project funding from the EU has complemented other funding to the OIE Rabies Vaccine Bank and has helped to attract additional funding for rabies control. This co-funding approach has successfully filled identified funding gaps, while at the same time enhancing collaboration with other stakeholders and donors in support of strengthening Veterinary Services. The project also allowed numerous African countries to receive donations of rabies vaccines under the auspices of the SVSDC project.

The SVSDC project also provided specific support to two pilot rabies elimination campaigns in Kenya (in

line with Kenya’s *Strategic Plan for the Elimination of Human Rabies 2014 – 2030*) and in the North Africa region, primarily in Tunisia. It also provided general support to any interested country in Africa via the Rabies Vaccine Bank.

Figure 3 Infographic on distribution of vaccines from the Rabies Vaccine Bank in 2016 to 2017.



¹ <https://www.who.int/publications-detail/WHO-CDS-NTD-NZD-2019.04>

For updated figures up to 2019 under the SVSDC, see Table 5.

What is the Vaccine Bank?



TODAY'S VETERINARY BUSINESS

The term “Vaccine Bank” might conjure up an image of a large cold store somewhere in the OIE’s Paris headquarters, but it is in fact a mechanism that OIE set up in 2006 during the Bird Flu crisis to help Member Countries to obtain high quality vaccines quickly. Since then, this mechanism has been used to provide OIE Member Countries with access to a “virtual store” of vaccines against foot and mouth disease, peste de petits ruminants and - since 2012- rabies.

Under the SVSDC project, some 400,000 Euros of the total 3.5 million Euro budget have been spent on Vaccine Bank donations to two pilot countries - Kenya and North Africa (specifically Tunisia). A further 400,000 Euros has been allocated to fulfil requests from other countries in Africa.

The selling points and big advantages

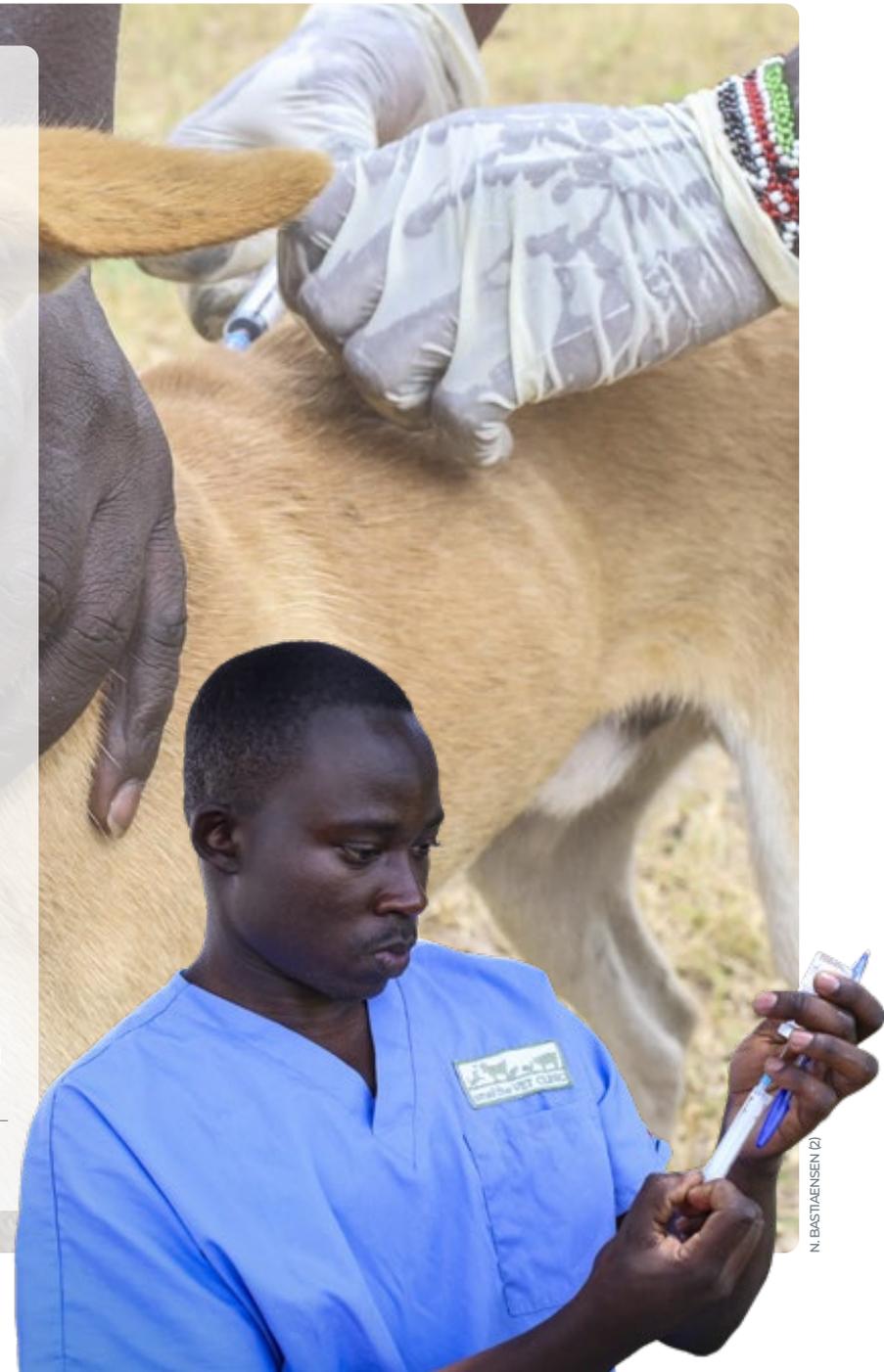
for OIE members of obtaining vaccines from the OIE Vaccine Bank, rather than purchasing them directly, are:

- Guaranteed high quality in line with OIE Manual guidelines for manufacture
- Immediate availability
- Delivery to in-country airport
- No need for cumbersome tender procedures.

The funding from the SVSDC project has also enabled OIE to open a second round of tender negotiations with vaccine manufacturers. “It is a process,” says **Stéphane Renaudin**, the World Fund Project Officer who manages the money from donors and coordinates the rabies Vaccine Bank. “The existence of the Rabies Vaccine Bank has had a snowball effect on vaccine demand and improved quality of vaccination campaigns.”

The Vaccine bank policy², developed under SVSDC, provides member countries with useful information on the basic guidelines and conditions for vaccine procurement and deliveries.

² https://www.oie.int/fileadmin/Home/eng/Links/docs/pdf/Policy-Paper-VB-final-EN_Oct-2018_01.pdf



N. BASTIAENSEN (2)

The SVSDC project has so far funded 2.5 million doses of vaccine from the Vaccine Bank to 11 countries - mostly to the key countries of the project, but also to other African countries in need. This represents the largest request for rabies vaccines since rabies was included in the Vaccine Bank mechanism.

With assistance from the SVSDC project, countries have not only received more vaccines from the Vaccine Bank, they have also been

able to make better and more effective use of them. Whereas in the past countries would simply make a request to the OIE for vaccines, the project has enabled greater emphasis to be placed on linking the provision of vaccines to a country's rabies control or elimination plan. It also encourages the country to find additional funds for vaccination campaigns, as happened for example in Angola where German development cooperation funded by BMZ paid for the

campaign to use rabies vaccines from the OIE Vaccine Bank.

New request forms and new reporting formats have also been developed that allow vaccine delivery to be linked to the wider context of all the activities necessary for rabies control. Regional and national workshops and specific training activities on all aspects of rabies control were also provided under SVSDC.

Table 5 OIE vaccine bank deliveries for rabies immunisation funded by SVSDC

County	No of doses				Total
	2016	2017	2018	2019	
Kenya	200,000		200,000	400,000	800,000
North Africa					
Tunisia		199,900	300,000	300,000	799,900
Algeria				500,000	500,000
Other countries					
Eritrea			75,000	75,000	150,000
Benin			100,000		100,000
Togo				50,000	50,000
Lesotho				50,000	50,000
Zimbabwe				110,000	110,000
Madagascar				100,000	100,000
Angola				140,000	140,000
Mali				100,000	100,000
Total	200,000	199,900	675,000	1,825,000	2,899,900

“By encouraging access to the vaccine, OIE does not solve the problem, but we encourage countries to plan their approaches. We guide the planning process for disease control programmes and help them to scale up campaigns through capacity-building and training and helping them identify the problem and solutions.”

STÉPHANE RENAUDIN, THE WORLD FUND PROJECT MANAGER WHO MANAGES ORDERS TO THE VACCINE BANK

MAIN IMAGE

World Rabies Day, celebrated in Nairobi with free rabies vaccinations.



Taking the bite out of rabies in Kenya

Kenya was one of two pilot African countries (along with Tunisia, see page 31) chosen by the SVSDC project for rolling out rabies vaccines.

Kenya was selected because after privatisation of the Veterinary Services under the structural adjustment programmes of the 1970s, annual compulsory rabies vaccine campaigns were discontinued, leading to a rapid increase in the number of confirmed rabies cases and deaths. By the mid-1970s, rabies had spread to more than 85% of counties, with a four-fold increase in positive samples and number of confirmed rabies cases.

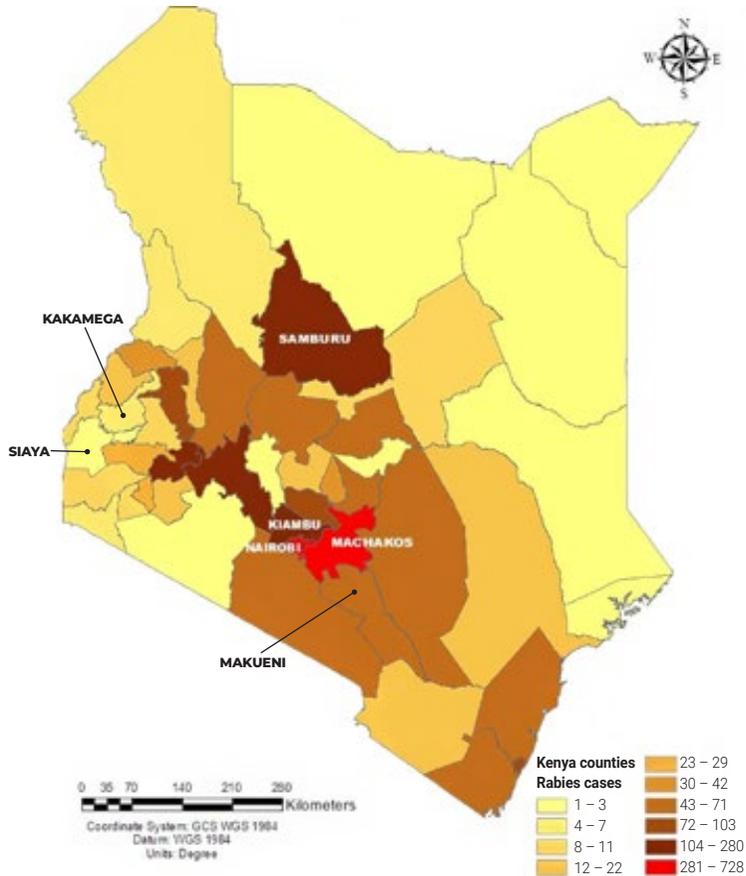
To address this growing problem in Kenya, the SVSDC project assumed a path-finding or catalytic role, by engaging with other important parties from the public health sector, such as the Ministry of Health (MoH), the Zoonotic Disease Unit (ZDU), county hospitals, the Kenya Medical Research Institute and Centre for Disease Control (KEMRI-CDC) and Washington State University, to name just a few, supported by an alliance of different donors³ in rolling out vaccination campaigns.

The ZDU, set up jointly by the Ministry of Health and the Ministry of Agriculture, Livestock and Fisheries in 2011, is tasked with tackling namely neglected zoonoses, of which rabies is one, in accordance with Kenya's One Health strategy. The Unit also assisted in developing the country's National Rabies Eradication Strategy, launched in 2014.

³Gavi – The Vaccine Alternative; WHO – World Health Organization; Wellcome Trust; World Animal Protection; Washington State University; CDC- Centre for Disease Control, USA; Kemri – Kenya Medical Research Institute

The work focused on counties such as Siaya, Makueni and Machakos that had a high incidence of human rabies and already had a *County Rabies Elimination Strategy* in place, but where little or no rabies control had been done previously. The collaboration increased the impact right from the beginning, as evidence-based, field tested methodologies and data collection were part of the approach.

Figure 4 Spatial Distribution of Rabies in Kenya, 1958 to 2015



Source: Central Veterinary Laboratory of Kenya

Outcomes

- The vaccines purchased from the OIE Vaccine Bank with funding from the SVSDC project are distributed through the Zoonotic Disease Unit and in 2017 ZDU created a vaccine pool that other donors and NGOs (such as the “Sharon Live On” NGO - set up in memory of a child that died in 2003 after being bitten by a rabid dog) can also contribute to. The aim is to discourage NGOs from making direct donations to counties but to contribute instead to the national eradication strategy.
- Other counties have come to ZDU to learn about best practices, and others (such as Laikipia, Machakos, Bomet, Nandi, Kwale, Lamu, Kutui and Kisumu) have also requested vaccines and these have been provided on submission of a justification and a work plan.
- The project has demonstrated what can be achieved under the One Health approach: what has been done for rabies can also be done for other diseases.

Careful pre-evaluation of possible approaches to carrying out mass vaccinations led to the decision to collaborate with the Ministry of Education and county schools. After awareness-raising campaigns aimed at the general public, teachers and school children, during each of the three annual school holiday periods, sub-counties or wards were selected, vaccination sites (primary schools and



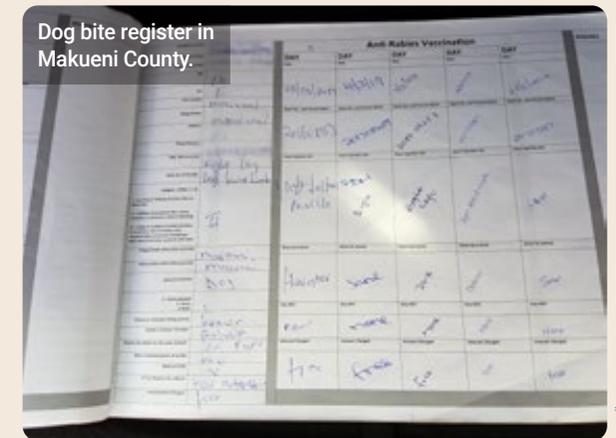
LEFT Kenya's National Rabies Eradication Strategy.

market places) determined and dogs were brought for vaccination and the owners, mainly children, proudly received vaccination cards for their animals.

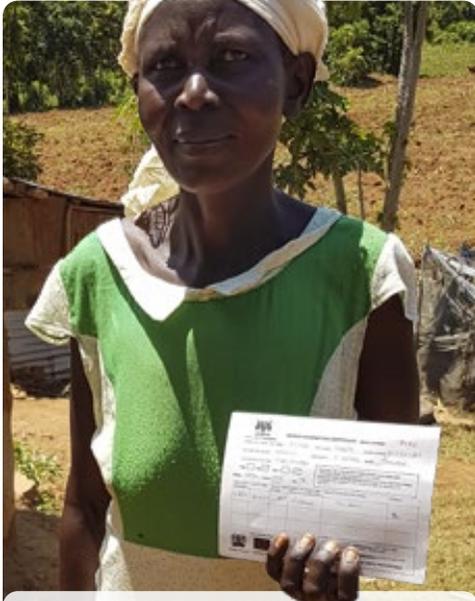
In addition, public health officers or community disease reporters carry out weekly community-based and health facility surveillance to collect and report information on dog bites and patients seeking treatment. The introduction of a 'dog bite register' has greatly improved data collection.

The 'dog bite register'

The dog bite register – an innovative approach to ensuring timely and effective post exposure treatment for patients who have been bitten by a dog. Patients receive reminders by SMS to come for the full set of five injections at regular intervals. Information from the register allows public health workers to assess the effectiveness of their treatments and communication efforts.



S. MUNSTERMANN



Mary Goreti Atimba's story

"In 2016 my sister was bitten by her own dog which then started behaving strangely. But she did not seek medical attention as she thought no danger would come from her own dog. She eventually died a horrible death of rabies. When I learnt about the vaccination campaign, I immediately took my two dogs there. I hope that the Veterinary Services will continue these campaigns and I would be willing to pay between 50 and 100 Kenyan Shillings for the vaccination."

S. MÜNSTERMANN

The things that Veterinary Services can do when rabies vaccines are readily available

In July 2019 in Misori village, Siaya County, a cow was reported sick and after investigations the Animal Health Assistant suspected rabies. The animal died a few days later and the Veterinary Services carried out a "ring vaccination" of all dogs around the cow's homestead. People immediately understood the possible connection between the cow and dogs and were very keen on this vaccination campaign.



M. MUTURI

Innovations launched by the project

- **A toll-free telephone number has been set up so that the public can report dog bites in Siaya and Makueni counties**

This has led to better surveillance and data on possible rabies cases in humans, with callers asked about the circumstances of the dog bite, allowing for the dog to be identified, captured and observed. The bitten person is encouraged to take at least the first post-exposure prophylaxis (PEP) injection, but the full course of treatment is only recommended if the captured dog starts to show clinical signs of rabies.

- **Subsidised costs of post-exposure prophylaxis**

After being convinced about the success of the project, the Siaya County Governor decided to reduce the costs of a dose of PEP from 1,500 to 500 Ksh (from 14 to 4 Euros) through subsidies. Similarly, Makueni County integrated PEP into the Universal Health Care system which gives free access to the drugs to members of the scheme.

During the course of the project a delegation from the Veterinary Services of Mozambique and Namibia came to visit Kenya to learn from the experience and the methods used.

Changes and improvements

- There has been a significant change in attitude of dog and cat owners – they now demand regular vaccination campaigns and are willing to pay for it
- Improved collaboration between Veterinary Services and public health authorities
- Rabies was not previously a priority for the counties; it has now been added to the priority list like malaria, HIV and TB
- A sustainable supply of PEP is now available.

Remaining challenges

- Data collection by Public Health staff of reported dog bites has improved, however, dog bites cannot as yet be related to number of PEP treatments given and to numbers of confirmed dog and human positive rabies cases. The impact of dog vaccination on reduction of human cases is not yet directly measurable
- Sustained employment of public health workers undertaking surveillance
- Integration of a budget line on rabies control into the County Integrated Development Plan (CIDP, 5 years with annual budgets)
- Ministry of Environment & Forestry, Municipalities need to be brought on board to deal with waste management that attract dogs
- Coordinate efforts with neighbouring counties to safeguard gains.

Facts and Figures Siaya

- Six sub-counties (working unit)
- 300,000 dog population (estimate)
- Started in July 2016 with launch of county strategy
- Since December 2016 vaccination campaigns during school holidays
- Three years of consecutive vaccinations
- Post vaccination surveys to determine coverage rate
- Dog bite follow up lead to checking 27 dog samples of which 22 were positive for rabies
- PEP subsidised by County.

Facts and Figures Makueni

- Six sub-counties; 30 wards (working unit)
- 130,000 dog population (estimate)
- Started in September 2014 with launch of National Strategy
- Since August 2015 vaccination campaigns during school holidays
- Four years of consecutive vaccinations
- Dog bite follow up lead to checking 37 dog samples of which 32 were positive for rabies
- PEP included in Universal Health Care system – provided free for members.

Facts and Figures Kakamega

- Twelve sub-counties (working unit)
- 400,000 dog population (estimate)
- Free annual county vaccination campaign since 2014
- About 35,000 vaccinations per year
- Dog bites common amongst children while going to school
- Rabies cases reported in humans and bovines.

World Rabies Day

World Rabies Day is a global day of action and awareness for rabies prevention.

September 28th 2019 was the 13th World Rabies Day, and this year's theme focused on vaccinating to eliminate rabies. The day was marked by events throughout the world to help raise awareness about the problem and ensure that:

- **Dogs are kept vaccinated** – as a reminder to dog owners, animal health professionals and local governments
- **People seek help after being bitten and receive PEP** – through human health professionals and educators
- **Governments commit to eliminating rabies deaths by 2030** – and put resources into rabies elimination.
- **World Rabies Day** was marked by a series of events in the SVSDC pilot countries of Kenya and Tunisia, and those in Tunisia are described in detail opposite.

Figure 5 Map showing locations of events held on World Rabies Day



Source: <https://rabiesalliance.org/world-rabies-day>

World Rabies Day in Tunisia

Saturday 28th September is World Rabies Day, and in Tunisia it is celebrated with gusto and enthusiasm. On a blisteringly hot morning, crowds of people gather around a white tent at a busy intersection in the El Mourouj suburb in the south of Tunis. There's a party atmosphere as music pumps out from loudspeakers and the Tunisian flag and banners adorn the tent. Leaflets are handed out by a team of volunteers, most of them young veterinary students in white coats or wearing T-shirts printed with the logo "rabies ends here".

Throughout the day, people come with all shapes, sizes and breeds of dogs and cats – some small, some big, muzzled, some in cages, some carried in canvas shopping bags – to have their pets vaccinated for free against rabies. One fluffy white cat makes a run for it, some howl in protest, others sit passively whilst one-by-one they are vaccinated by the volunteers.





A. RIPANI (OIE) 2019

IMAGES ON THIS PAGE

The busy suburb El Mourouj on World Rabies Day.

World Rabies Day is taken very seriously in Tunisia, where rabies is an endemic disease. Dogs are the main vectors of the disease, which results in huge economic loss for the country.



R. EVANS



R. EVANS

“ We spend US\$ 1.5 million annually on PEP, which is given to around 40,000 people every year – but we only spend US\$ 200,000 on vaccines for animals. So if we refocus our budget to tackle vaccinations of animals that are the source of rabies, it would be more economical and efficient.”

DR KAOUTHER OUKAILI, REGIONAL INSPECTOR FOR VETERINARY HEALTH AT TUNISIA'S CENTRAL VETERINARY SERVICES



A. RIPANI (OIE) 2019

ABOVE
Tunisia's Minister of Agriculture (centre) visits a World Rabies Day vaccination.

The SVSDC project has given eradication efforts a huge push

Tunisia has had a plan to control rabies since 1981 when the National Control Strategy was first introduced, and since 1993 mass vaccination campaigns of dogs have been carried out in 200 centres all over the country. An average of 420,000 dogs are vaccinated every year, out of an estimated total of around one million dogs and another million cats – although nobody knows the real numbers.

Prior to the SVSDC project, World Rabies day was not widely recognised in Tunisia, but the project has given eradication efforts a huge push. Tunisia has received annual donations of vaccines since 2016 totalling nearly 800,000 doses from the OIE Vaccine Bank, making it one of the biggest recipients of vaccines.

All vaccinations, whether on World Rabies Day or routine vaccinations, are given for free. Tunisia also buys around 500,000 doses of vaccine in addition to the free donations it has received from the OIE Vaccine Bank – costing the country around US\$ 200,000 annually. In total 1.5 million vaccinations would be needed to conduct a 100% campaign for an estimated 1.2 million dogs (the additional doses are needed for management of outbreaks – so that animals can be vaccinated in response.)

Adopting a One Health strategy against rabies

The television cameras are out in force as the Minister of Agriculture, Water Resources and

Fisheries, **H.E. Samir Taieb** visits the World Rabies Day tent at El Mourouj and says “The vaccination donations have been very important at a time of economic and financial constraint in Tunisia after the Revolution [of 2011], and they have allowed us to continue and expand this important work.”

Tunisia's *National Strategy for Rabies Eradication* involves a coordinated “One Health” approach involving different ministries. Three main ministries are involved in the campaign – the Ministry of Agriculture, Water Resources and Fisheries, the Ministry of Public Health and the Ministry of Environment and Local Affairs. The main pillars of the strategy are epidemiological surveillance, education and communication and control of stray dogs.

Figure 6 Tunisia's national strategy for rabies eradication involves a coordinated approach by different Ministries

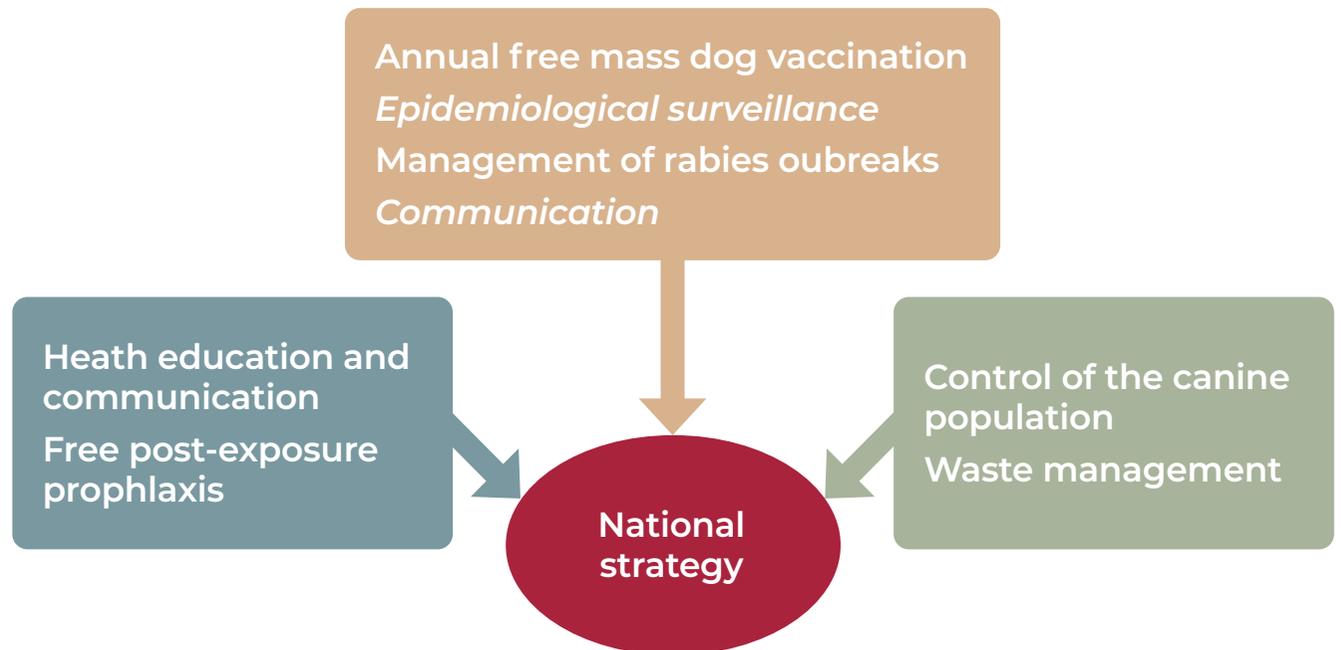
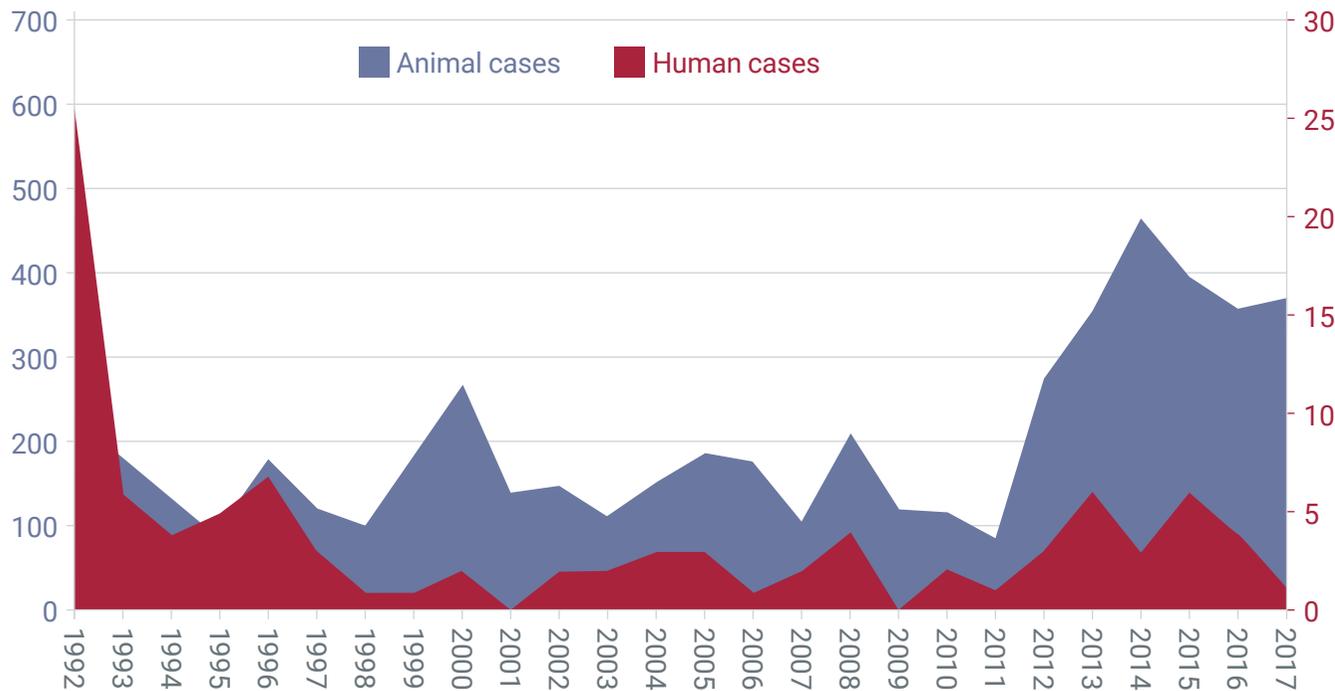


Figure 7 Rabies cases in animals and humans in Tunisia, 1992 to 2017

Source: General Directorate of Veterinary Services, Ministry of Agriculture, Tunisia

Until the 2011 revolution there had been a steady decline of rabies cases in both animals and humans, but the numbers jumped again after 2011 due to disorganisation and insecurity in the country. In 2013 there were 776 cases amongst dogs, and Tunisia asked the OIE for help with a vaccination campaign.

However, vaccines themselves are only part of the costs – the biggest costs are logistics and personnel. There are around 1,300 qualified veterinarians in the country, both private and official. Most of the routine vaccination work is done through official veterinarians, but the private sector also has a role to

play. Private veterinarians are paid by the government to use their own logistics for free vaccinations – around 15% of all vaccinations are done this way.



ABOVE

A banner advertising World Rabies Day in Tunis.

Vaccinate to eliminate “la rage” (rabies)

Using funding from the SVSDC project, OIE has assisted Tunisia in implementing a communications campaign to make decision makers aware of the importance of vaccinating to fight rabies, as well as informing the public through schools campaigns, a website (www.rage.tn), posters, press releases, social media, and regular radio and TV programmes and slots to raise awareness. The Facebook group ‘Tunisia Against Rabies’ won a World Rabies Day award in recognition of its pioneering approach.

These activities culminate in the annual celebration of World Rabies Day in all 24 governorates in Tunisia under the slogan “Vaccinate to eliminate” – but vaccination campaigns also run throughout the year.

Volunteering for World Rabies Day

Veterinary students have given up their weekend to work on the World Rabies day campaign. They say the event is much bigger this year than in previous years. In the lead-up to the campaign, they have given talks in schools about the dangers of rabies and encouraged children to bring their family pets along for the free annual vaccination. There have also been press releases, posters and banners, radio programmes and TV slots to inform people that free vaccinations are available.

“One of the biggest effects of donations from the OIE Vaccine Bank is that veterinarians are now really engaged and motivated and there is greater mobilisation.” says **Dr Kaouther Oukaili**, the Regional Inspector for Veterinary Health at Tunisia’s Central Veterinary Services. She says this annual event is important for raising awareness and increasing motivation to get to “Zero cases by 2030”. Throughout the day she receives instant updates on her



R. EVANS



ABOVE
Dr Kaouther Oukaili wants to see Tunisia eradicate rabies by 2030.

LEFT
Poster showing how many puppies an unsterilised dog can have.

phone about the numbers of dogs and cats being vaccinated at the 200 or so different centres throughout the country: at La Marsa north of Tunis, for instance, some 300 dogs and cats have been vaccinated in the course of the morning, and at Sukra a further 200.

There are now a few rabies-free zones in the country – for example in the south in the Sahara and also four areas on the border with Libya. The next step will be to expand them.



MAIN IMAGE
Stray dogs are more difficult to capture and control.

INSET IMAGE RIGHT
Vaccination and sterilisation of stray dogs are the key to rabies eradication.

OIE TUNIS (2)

Vaccination of stray dogs is the key to eradication

Previously vaccination campaigns only targeted dogs with owners, whereas the real problem lies with stray dogs, which are much more difficult and dangerous to capture and control. Tunisia is now working on an Action Plan and revising its National Strategy on eradicating rabies. When it was first drawn up, the strategy was to shoot stray animals – but this is no longer acceptable and the focus is solidly on

immunisation. A major problem is that stray dog numbers are increasing and an efficient method is needed to control the situation: Vaccination and sterilisation of stray dogs is the key to eradication.

The free vaccines received from the OIE Vaccine Bank with SVSDC funding have allowed Tunisia to use the money saved from what it would have

“The momentum is sustainable here – people are very engaged. Tunis is also an example to other countries in the region... Our aim is to have zero cases of rabies by 2030 and this project has helped with motivation and helped us maximise opportunities as it has shown people what can be done. It has been a good initiative, but it’s the beginning, not the end.”

ALESSANDRO RIPANI, OIE PROGRAMME OFFICER FOR THE NORTH AFRICAN SUB-REGION



OIE workshop on handling aggressive stray dogs held in May 2017.

spent on buying vaccination to focus on additional actions, such as training and logistics. Centres for vaccinations have been set up, for example at the main veterinary school, the École Nationale de Médecine Vétérinaire de Sidi Thabet, and a pioneering Centre of Sterilisation of Stray Dogs was set up in the municipality of Tunis in 2017. This has so far sterilised around 500 stray dogs and immunised over 1,500 in a successful pilot project. Animals in tourist areas, such as camels and horses, have also been vaccinated.

The Central Veterinary Services Directorate requested the OIE’s help with running two SVSDC-funded workshops on catching and vaccinating difficult stray dogs. Around 50 participants attended the courses which were held in May and September 2017. The next challenge will be to train veterinarians to operate in the field, especially to deal with stray dogs, plus transportation and protective equipment for working in rural areas where dogs are largely free-roaming.

These sterilisation centres are “very new in North Africa and very important,” says **Dr Rachid Bouguedour**, the OIE Sub-Regional Representative for North Africa.

The SVSDC rabies project is the beginning not the end

“Tunis has the political motivation and human resources. The SVSDC project has given us a push,” says **Dr Kaouther Oukaili**. She is also keen to have the outcomes properly evaluated and monitored so that it can provide evidence for future actions. “The momentum is good and should be continued,” she says. “The challenge will be to sustain the political commitment once the project comes to an end.”

Table 6 OIE regional and national rabies workshops and specialised training sessions in North Africa

Type of event	Location	Time	Title of event
Regional workshop for North Africa	Tunis	July 2019	OIE rabies meeting – “Towards effective rabies elimination strategies in North Africa.”
National workshop for Tunisia	Tunis	September 2017	Rabies National Control Programme of the Ministry of Agriculture
Training workshop, first course	Tunis	May 2017	Stray dog or aggressive dog handling on the field
Training workshop, follow-up course	Tunis	September, 2017	Capture and tagging of difficult dogs

SVSDC as a catalyst for change

The SVSDC project has had a very positive impact on Tunisia’s anti-rabies campaign and led to lots of activities – not just more vaccines on World Rabies Day and throughout the year, but other activities too, such as training for the new initiative of working with stray dogs.

The project also stimulated revision of the Rabies National Control Programme. In September 2017, a workshop on the Tunisia’s National Control Programme brought together all field staff involved in the fight against rabies to review, based on the feedback from field vaccinator teams, the current rabies control strategy and consider improvements for the future.

“The Vaccine Bank donations have enabled Tunis to scale up its efforts and, with OIE, become a catalyst for other initiatives...Tunisia is the first country in North Africa to take such action – we hope it will be an example to neighbouring countries. It’s a small country, and for rabies, Tunis is a good laboratory – it is a small country with a motivated population, so it is possible to get good results here.”

DR RACHID BOUGUEDOUR, OIE SUB REGIONAL REPRESENTATIVE

A regional workshop held in Tunis in July 2019, which was attended by Algeria, Morocco and Tunisia also discussed coordinated control efforts across the sub-region and compared different strategies and lessons learnt.

Although the SVSDC project covers Tunisia, Algeria and Morocco – only Tunisia has so far been very active in implementation. The other countries have their own programmes to control rabies and so far have been slow to take up the offer of free vaccines - although Algeria is due to receive 500,000 doses from the Vaccine Bank by the end of 2019, to complement the vaccines that it purchases itself.

BELOW

On 7th September 2019 Tunis signed the World Health Organization’s “United Against Rabies” collaboration, committing the country to global rabies strategies.



Conclusion

The SVSDC project is a good example of OIE's philosophy of matching donor objectives and countries' needs, to co-design well-planned, well-executed and well-monitored interventions. This 3.5 million Euro, four-year OIE project funded by the European Union, European Parliament and the European Commission, has helped to build better African Veterinary Services that deliver effective governance, health safety, food security and food safety for people in Africa.

As detailed in this report, the SVSDC project funded specific activities, co-funded larger initiatives, and created a pull-effect for national and other donor support, as clearly evidenced by working hand-in-hand with the VetGov project on PVS pathway implementation and in attracting support from other donors, national as well as international, to contribute to rabies control in Kenya.

Funding from the SVSDC project has also been a catalyst for change in the OIE's policies – such as the development of the OIE Vaccine Bank Policy Paper; and OIE engagement with the United Against Rabies initiative, with support from the OIE Vaccine Bank. At country level, the SVSDC funding has facilitated the national rabies control strategy in Tunisia and the engagement of the Zoonotic Disease Unit in rabies control in Kenya.

There is always room for improvement when it comes to building stronger Veterinary Services, but the SVSDC project has demonstrated that strategically-targeted funding can make a big impact,



Projects like SVSDC are highly appreciated and valued by beneficiaries.

GIZ/LIGHT IN CAPTIVITY

by attracting additional funds and stimulating the release of national funding (as demonstrated in the PVS self-evaluation exercises ongoing in Ethiopia and South Africa). The project is part of a continuing process facilitated by OIE aimed at promoting best

practices, transparency and capacity of Veterinary Services to address animal health and welfare and food safety issues. Projects like the SVSDC are highly appreciated and valued by the beneficiaries and similar efforts need to be continued.



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The OIE is an intergovernmental organisation created in 1924. Its 182 Member Countries have given it a mandate to improve the health and welfare of animals worldwide. It is supported in its activities by 301 centres of scientific expertise and 12 regional offices spread across every continent.

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