



A generic template for developing a national strategic plan to eliminate rabies

January 2023





Foreword

Over the past decades more and more solid evidence has mounted that by taking a One Health approach that is multisectoral and multidisciplinary human rabies death from dog-mediated rabies can be eliminated by fighting the disease at the animal source. A One Health approach secured by high level political commitment is required to effectively prepare for, detect, assess, report and respond to rabies. Strategic planning is a fundamental principle for efficient rabies prevention and control both in humans and dogs in a country, over a given period of time.

However, International Health Regulations (IHR) and Performance of Veterinary Services (PVS) assessment continue to identify major gaps in capacity to implement a true multisectoral and multidisciplinary approach. Particularly, it seems that despite a flood of information for many countries getting started to build binding national mechanisms for coordination, communication, and collaboration to address rabies related health threats at the human-animal interface is the greatest challenge.

A first step to overcome this issue is to create a National Strategic Plan (NSP) for the control and elimination of dog-mediated rabies. Considered a key instrument it is therefore a condition sine qua non for strategic planning of intervention measures. This is a response of the United Against Rabies (UAR) Forum to countries requests. This generic template will help and guide countries to develop their own country tailored NSP. This template has been designed and reviewed by experts of the international scientific rabies community.



Using this document

Either the Ministry of Agriculture or the Ministry of Health (whatever these ministries are called in individual countries) should take a lead in preparing the NSP. To strongly promote the One Health concept ideally the document would be a Bipartite initiative, of course.

In any case, a transparent approach at all levels gives credibility to the NSP and increases the chances of wide acceptance and political endorsement by government and partners alike. Therefore, it is important to identify all relevant stakeholders and involve them in the planning and decision-making process.

The design of a rabies specific NSP should follow international (WHO, WOA) guidelines and standards on disease control, rabies surveillance, rabies diagnosis, vaccination, and animal welfare. Its implementation should also be guided by established facts and the wealth of experience gathered by countries working successfully on preventing and controlling both rabies in humans and dogs. Compiling evidence that a rabies specific NSP complies with the requirements of international standards will facilitate communication with governments and policy makers, create societal responsibility and demand governmental support to progressively prevent and control the disease at a country level.

In accordance with the with [Global Strategic Plan \(GSP\) to end human deaths from dog-mediated rabies by 2030](#), the template addresses the essential key components a Rabies NSP should encompass. The design follows in parts modules of the WOA questionnaire developed to provide countries with guidelines on how to prepare an application if they seek official WOA endorsement of their dog rabies elimination program at a later stage, which in turn will offer further numerous benefits in terms of dog rabies control for a country. It also takes concepts and experience of already

successfully implemented NSPs into account.

Generally, the document should consist of a core document and a flexible part (addenda). While the core part covers the extensive program description, the overall goal, objectives and agreed common strategic plan, the flexible part provides the detailed budget and action plan including indicators for monitoring and evaluation of strategic interventions. This document structure allows flexibility to adjust budget and action plans according to changing conditions if necessary without the need to change the entire document and obtain subsequent permission from the leading competent authorities.

This generic template provides a basic structure for an NSP as well as clear user instructions. Following those instructions is by no means prescriptive but are rather meant to give you an idea how different sections of the template can be filled with country-specific rabies related information and key facts. In consideration of different country baselines and starting points in terms of canine rabies control the user instructions emphasize optimal requirements for 'beginner' countries but leave options for more or well-advanced countries to expanded on specific issues whenever necessary to generate a more comprehensive NSP. Sample texts and example tables will help you to start phrasing text and obtain data. Apart from the user instructions other sources of information including The Blueprint for Canine Rabies Prevention and Control (<https://caninerabiesblueprint.org>), online available NSPs for rabies and National One Health Strategic Plans for Zoonotic Diseases from other countries and the Stepwise Approach towards Rabies Elimination (SARE - <https://rabiesalliance.org/capacity-building/blueprint-sare>) tool can be considered for additional information and guidance.

It is important to note that an NSP should be thoroughly reviewed at regular intervals, so do not forget to define the interval for regular revision and who will be responsible for this.

Please, keep in mind that the main document can and should be brief and concise if societal attention is demanded and political commitment sought. Avoid redundant information.

This template has been designed and reviewed by experts of the international scientific rabies community.


Acknowledgements


- Thomas Müller, Friedrich-Loeffler-Institut
- Conrad Freuling, Friedrich-Loeffler-Institut
- Andre Coetzer, Global Alliance for Rabies Control
- Johann Kotze, MSD Animal Health
- Natia Kartskhia, National Food Agency, Georgia



The global strategic vision at a glance

Driven by an annual death toll which is entirely avoidable and a global response that has been fragmented and uncoordinated, in 2015 with unprecedented unity the world called for action to bring rabies out of the shadows of neglect and end human dog-mediated rabies deaths by 2030, worldwide. Aware that we have the knowledge, tools, and technology to eliminate rabies and only need to come together with a common will and an achievable goal, the tripartite (WHO, WOAH, FAO) and its international partners developed a universal plan to reach this ambitious goal. The Global Strategic Plan (Zero by 30) consisting of five pillars (see below) places countries with renewed international support at the focus to act by keeping flexibility and considering different contexts and capacities. An NSP should ideally reflect these issues.



GLOBAL FRAMEWORK FOR THE ELIMINATION OF DOG-MEDIATED HUMAN RABIES

Dog-mediated human rabies kills tens of thousands of people every year worldwide. Freedom from dog-mediated human rabies is a global public good and is feasible with currently available tools.

In accordance with the consensus of the Global Conference (Geneva, 10-11 December 2015), this framework provides a coordinated approach and vision for the global elimination of dog-mediated human rabies. It is intended to harmonize actions and provide adaptable, achievable guidance for country and regional strategies.

The five pillars of rabies elimination (STOP-R)

1 SOCIO-CULTURAL	2 TECHNICAL	3 ORGANIZATION	4 POLITICAL	5 RESOURCES
<p>Rabies control involves a wide range of stakeholders including the general public. The socio-cultural context influences rabies perceptions and dog-keeping practices of at-risk populations. Understanding the context guides approaches to motivate behavioural change and plan feasible delivery of services.</p> <p>Includes activities for:</p> <ul style="list-style-type: none"> • Awareness: build awareness of dog-mediated rabies as a preventable global public health problem including through participation in initiatives such as World Rabies Day and the EndRabiesNow campaign • Responsible dog ownership: promote responsible dog ownership and dog population management practices, including dog vaccination, in accordance with OIE standards • Bite prevention and treatment: develop and implement education programmes on both children and adults • Post-exposure prophylaxis: increase awareness and understanding of post-exposure prophylaxis (PEP) imperatives and options including intradermal administration • Community engagement: encourage community involvement and engagement in activities to eliminate dog-mediated rabies 	<p>Effective animal health and public health systems are required to eliminate dog-mediated human rabies. These systems must be strengthened and resourced appropriately, and gaps identified and filled.</p> <p>Includes activities for:</p> <ul style="list-style-type: none"> • Vaccination: ensure safe, efficacious and accessible dog and human vaccines and immunoglobulins, and promote and implement mass dog vaccination as the most cost-effective intervention to achieve dog-mediated human rabies elimination • Logistics: collect data on needs forecasts to inform the vaccine procurement system and to create and sustain the logistics and infrastructure required for effective delivery and implementation of mass dog vaccination programmes and PEP administration • Diagnostics: ensure capacity and capability for rapid and accurate rabies diagnosis through accessible, well equipped laboratories and trained personnel • Surveillance: support improved surveillance, sampling, reporting, and data-sharing • Technical support: provide guidance and technical support for the development and tailoring of regional and national plans, including promoting the use of existing tools • Proof of concept: support proof-of-concept programmes, and then scale up through leveraging of success 	<p>The One Health approach of close collaboration is applied. Leadership, partnership and coordination for rabies elimination activities arise from the human health and animal health sectors and other stakeholders.</p> <p>Includes activities for:</p> <ul style="list-style-type: none"> • One Health: promote the One Health approach and intersectoral coordination through national and regional networks • Good governance: establish good governance, including clear roles, chain of command, measurable outcomes and timelines • Harmonization: align work plans and activities with national and regional priorities and approaches fostering synergies among sectors • Coordination: coordinate and combine human resources, logistics and infrastructure of other programmes and initiatives, as appropriate and feasible • Indicators and performance: identify targets and their indicators to support performance measurement, including surveillance and validation data, to identify areas requiring attention or extra support • Monitoring and evaluation: support monitoring and evaluation of national plans to ensure timely and cost effective delivery 	<p>Success depends on political will and support for elimination of dog-mediated human rabies. Political will results from recognition of rabies elimination as a national, regional and global public good.</p> <p>Includes activities for:</p> <ul style="list-style-type: none"> • Political support: political support is essential and most relevant during and following country instability (political upheaval, natural disasters, etc.) • International support: encourage countries to request a resolution on dog-mediated human rabies elimination through the World Health Assembly (WHO) and the General Assembly of Delegates (OIE) • Legal frameworks: establish and enforce appropriate legal frameworks for rabies notification and elimination • Demonstrating impacts: demonstrate the compelling case for mass dog vaccination programmes and their impact on protecting and saving human lives • Regional engagement: support active national and regional engagement and cooperation to commit to a rabies elimination programme and promote the exchange of lessons learnt and experiences to leverage resources and engagement 	<p>Rabies elimination activities frequently span several years and therefore require sustained, long-term support.</p> <p>Includes activities for:</p> <ul style="list-style-type: none"> • Case for investment: promote the case for investment in dog-mediated human rabies elimination to persuade countries, policy makers and donors of the feasibility, merit and value of investing in rabies elimination strategies • Business plans: prepare business plans based on the Global Framework for Dog-mediated Human Rabies Elimination • Investment: encourage different forms of investment and partnerships (private and public investment) to leverage resources and engagement

STRATEGIC VISION: zero human deaths from dog-mediated rabies by 2030 in participating countries

CRITICAL SUCCESS FACTORS

- 🕒 Long term political and social commitment
- 👥 Community engagement
- 📊 Sustainable vaccination of 70% of the at-risk dog population
- 🏗️ Proof of concept: start small, scale up
- 🛠️ Sufficient resources, logistics and infrastructure
- 📄 Promote vaccine banks and other strategies for acquisition of rabies immunoglobulins to ensure sufficient supply of quality-assured rabies vaccines and human immunoglobulins
- 🏠 Reach remote, rural and at-risk populations
- 📈 Conduct performance measurement at all levels
- 👨‍🎓 Maintain trained and motivated implementation personnel



A national strategic plan to eliminate rabies in 'country X'

The title page is the work's first page and an important part of the National Strategic Plan. It can be considered an advertisement for the competence of the governmental authorities. It shows the title of the document, the main governmental bodies responsible for its political and intellectual content, and the imprint containing the name and address of the publisher and the date the document was released.

It has primarily the function to promote the specific message of the document. Although it is not a priority per se the design of a cover page can underpin the great professionalism of all bodies and parties involved and proclaim the political commitment towards elimination of dog-mediated rabies in your country at a glance.

To help conveying this message and attract attention to the reader consider to have:

- the national emblem*
- a catchy photograph and/or*
- the logos of the leading bodies on the outside.*

Acknowledgements

Acknowledge all officials and partners that helped creating this National Strategic Plan (NSP) to end dog mediated human rabies in your country. It will strengthen the sense of community, so do not risk to forget someone.

Table of contents

Use a numbering system to follow throughout the document for consistency as exemplified below. Such a structuring will provide greater clarity and an unambiguous assignment. It will also enable cross-referencing of sections and tables and facilitate better reading.

List of tables

List of figures

List of addenda/annexes

Provide a list of tables, figures and addenda/annexes presented in the text including table, addenda headers and figure captures. Refer to page numbers to guarantee fast orientation.

Acronyms

An acronym is a pronounceable word formed from the first letter (or first few letters) of each word in a phrase or title. The combined letters create a 'new word' that is used in every day's life. Using acronyms can speed up communication. Provide a list of acronyms presented in the text.

Foreword

Here is where you make your case and show your commitment! Briefly, cover the promise of the NSP and any necessary definitions or methodology that are necessary to its understanding.

Here is where you want to explain what the NSP is about by touching on the main message and what the readers are going to get out of reading it. Establish context to the global rabies situation and international efforts to eliminate human dog-mediated rabies. Make sure the rabies NSP is in line with the national health vision and policy of your country.

Ideally, the foreword should be written either by the Minister of Agriculture or the Minister of Health or heads of subordinate departments on their behalf if it is a joint strategy plan. In some countries, a Foreword by both Ministers may be preferred. If deemed appropriate, consider the foreword of the NSP to be signed by the responsible personalities to add more weight to this important document. Signatures can provide an important stimulus, increase attention and responsibilities alike.

You may also consider to have this part covered or supported by a high-ranked politician in form of a strong political statement.

Executive summary

Summarize the key points of the NSP. It should restate the purpose of the report, highlight the major points of the NSP, and describe any conclusions, recommendations and prospects.

1.0. Introduction

In 1-2 paragraphs briefly explain to the reader what rabies is, the threat it poses to public health and establish context to the global burden of disease and mention general prevention and control aspects.

International policy documents and papers can be helpful.

The following text could be used as an example:

“Dog-transmitted rabies is a zoonotic disease that causes the completely preventable death of an estimated 59,000 people every year. Rabies also kills livestock and affect livelihoods as the fear of rabies keeps farmers from tending their fields and traders from going to markets....

The vast majority of human rabies deaths are attributed to bites from rabid dogs, with children and vulnerable, rural communities being disproportionately affected. Rabies deaths can be prevented by increasing awareness, vaccinating dogs to prevent the disease at its source and administrating life-saving treatment after people have been bitten. The tools and mechanisms required for preventing deaths from rabies are already available and for a relatively low cost it is possible to break the disease cycle, avoid economic losses and save lives.....

In line with the United Nations Sustainable Development Goals, the leadership of the Tripartite (FAO, WOA, WHO) has developed a Global Strategic Plan and has announce the formation of a new United Against Rabies Forum to provide an enabling environment for worldwide elimination of human dog-mediated rabies by 2030”

This “National Strategic Plan for Elimination of Dog-Mediated Human Rabies in Country X ” provides an indicator-based indicator activities and was developed in line with a “Global Strategic Plan to eliminate dog-mediated human rabies deaths by 2030”.

1.1. Demographics

Briefly describe your country's human demographics (provide maps if possible) in terms of

- the population distribution, census, growth trends,*
- socio-economic and cultural features,*
- rural and urban developments, and*
- consider any other important information (e.g. migration, cross-border traffic, ...)*

that might be relevant to the spread of rabies virus in dogs. Also, specify whether the rabies problem includes any non-contiguous territories (see 1.2.).

1.2. Rabies situation, epidemiology and burden of disease

An important aspect of an NSP is to make the economic and ethical case against rabies in your country, which is the burden of disease.

Therefore, briefly describe the burden of dog-mediated rabies in recent years as best as you can by detailing or addressing for example:

- ❖ the current rabies situation in the country,
- ❖ the general epidemiology (e.g. dog-mediated and/or wildlife-mediated rabies),
- ❖ the spatio-temporal rabies situation of the past 2 years at least (ideally 5 years),
- ❖ key indicators on the overall rabies associated public health burden, e.g. mortality rate, infant mortality, trend of life expectancy (disability adjusted life years -DALY), livelihood, HIV/AIDS situation and its effect on rabies, etc., over the most recent decade,
- ❖ the current post-exposure prophylaxis provisioning, availability and accessibility to rabies biologicals (human vaccines and immunoglobulins)
- ❖ the economic impact meaning the financial burden caused by rabies, e.g. livestock losses, cost of PEP, etc.. Figures for your country can be obtained from the Hampson et al (2015) paper, in which the rabies burden for individual countries across the world were calculated using a modelling approach. Check if those figures are still valid and update as you see fit.

Try to be as precise as possible as any vague presumption may reduce its information value. However, if no hard facts or data are available reasonable estimations are better than nothing. Indicate, whether the data could be negatively impacted by poor surveillance (see section 1.3.3.). In such a case, obtaining more solid evidence on the overall burden can be an important activity under a specific objective (see section 3 and addendum 2).

Either fill the table below or show appropriate charts for features mentioned above or provide text where applicable.

Example for a table compiling country specific information on the burden of rabies.					
Indicator	Time period				
	-4y	-3y	-2y	-1y	current year
cases in humans					
cases in dogs					
cases in other animals					
N° of PEP administered					
Costs for PEP					
Livestock losses					
Avoidable costs (livestock losses, inability to work due to seeking PEP)					
Overall financial burden in USD					

1.3. Current canine rabies control policy

As kind of an introductory text to this main section, in a few sentences describe the state of play of rabies control in your country, e.g. whether or not and since when rabies prevention and control measures have been in place and at what level.

Mentioning of a Stepwise Approach towards Rabies Elimination (SARE) assessment if conducted is highly recommended.

More detailed information should and can be provided in the following subsections.

1.3.1. Legal framework and legislation

Briefly describe:

- the legislative framework, i.e. laws and by-laws in ensuring rabies prevention in humans and control of rabies in animals at a national/regional level, successful implementation of a dog rabies control programme,*
- notifiability of rabies both in humans and animals,*
- rabies specific import regulations (quarantine, pet travel schemes),*
- governance of any policies,*
- present infrastructure and interventions in place,*
- mechanisms to monitor and ensure compliance with the legislation,*
- any intersectoral collaborations, mechanisms or platforms, including national rabies coordination teams,*

A brief list of rabies related laws and by-laws is helpful.

1.3.2. Competent authorities and other stakeholders

Briefly identify all Competent Authorities involved in rabies prevention and control in your country according to the legislative framework in place. Indicate the specific roles and responsibilities of:

- central authorities, e.g. MoA, MoH, MoE, ... in general,*
- Veterinary services & Public health authorities/services in particular,*
- local and other competent authorities (if applicable) including municipalities or other organisations,*
- other stakeholders, e.g. NGOs, donors and private sector,*
- dog-owners.*

1.3.3. Rabies surveillance

Briefly describe

- how rabies surveillance is implemented (separately for humans and animals), and on what grounds rabies is diagnosed (clinically, laboratory confirmed)*
- human and animal case definitions if available [see WHO TRS 1012 (2008) for more detailed information],*
- notifiability of rabies both in humans and animals (if not covered in section 1.3.1.),*
- role of competent authorities,*
- notification of rabies cases, the chain of reporting (by whom to whom),*
- data management and assessment and intersectoral exchange of data.*

Note: It is of utmost importance to come up with an honest assessment of the quality of your rabies surveillance system, i.e. whether it is adequate meaning meeting international criteria or not.

Rabies surveillance plays a key role in any rabies elimination program as it puts and maintains the disease on the agenda of public and veterinary health authorities. In regions of the world where rabies is still a neglected disease it is the key link in a chain what is called the "circle of neglect". So, in your own interest, please, indicate any possibility of underreporting of rabies cases both in humans and animals. In such a case, improving surveillance can be an important activity under a specific objective (see section 3 and addendum I).

1.3.4. Laboratory capacities

Provide a brief list of

- laboratories performing rabies diagnosis in humans and animals in the country,
- established national reference laboratories (NRL) for rabies in human and veterinary medicine,
- Provide a short overview on
- the sampling and submission procedures for rabies surveillance and diagnosis,
- diagnostic test established and if applicable,
- characterization of virus isolates,
- participation in proficiency testing.
- Either fill the table below or show appropriate charts for features mentioned above or provide text where applicable.

Please, refer to the general quality assessment of your surveillance system (see section 1.3.3.)

Example for table showing results of laboratory testing of rabies suspect samples broken down by different categories.

N° of laboratory investigations	Time period									
	-4y		-3y		-2y		-1y		current year	
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
Humans										
Dogs										
Other animals										
.....										
total										

Example for tables showing results of laboratory testing of rabies suspect samples broken down by region.

N° of laboratory investigations	Time period									
	-4y		-3y		-2y		-1y		current year	
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
District 1										
District 2										
District 3										

.....										
total										

1.3.5. Awareness and education

Briefly describe in 2-3 short paragraphs the strengths, achievements and opportunities in terms of rabies awareness, e.g.

- ❖ what activities are conducted to raise awareness about rabies,
- ❖ how you are working with communities, and
- ❖ what educational materials are available

to change the way people act to prevent the disease from personal to local to national level.

Please, note that children are a particular type of audience; they are especially vulnerable to the disease because of their close contacts to dogs, livestock and other pet animals. So how do you specifically target this group?

1.3.6. Integrated bite case management

Integrated Bite Case Management (IBCM) is a procedure to assess the risk of rabies among patients being bitten by animals and facilitate PEP decision making by directly and formally linking public health and veterinary sectors. Among others the 10 days observation period is a key component of this procedure.

Briefly describe whether, where and when IBCM has been implemented and whether it is integral part of your intervention measures.

1.3.7. Mass dog vaccination campaigns

Briefly describe in 2-3 paragraphs whether mass dog vaccination campaigns (MDV) have been conducted in the recent past and their success.

Provide information on:

- ❖ dog demographics (estimated dog population size, urban vs rural) if available,
- ❖ where and when MDVs campaign have been carried out,
- ❖ vaccination strategy (static point, door-to-door, combinations thereof, oral vaccination, other approaches),
- ❖ stakeholders involved and their role,
- ❖ type of vaccine used,
- ❖ number of dogs vaccinated,
- ❖ the estimated vaccination coverage, and
- ❖ complementary measures implemented to control or eliminate rabies in dogs

Please, keep in mind that dog population estimations are fundamental for planning purposes of mass dog vaccination campaigns. So, if such data is not available obtaining reliable dog populations estimates should be considered one of the future activities to focus on first (see addendum I - action plan).

1.3.8. Gaps and challenges

Include 2-3 paragraphs describing existing strategy gaps and country specific challenges in canine rabies control. You can use results from SARE, Joint External Evaluations (JEE), Pathway of Veterinary Services (PVS) or other assessment tools, if available.

To get a better overview, key results of this section can be listed in a table and compared to current achievements and opportunities. The latter are factors (beyond the scope of the rabies control programme but may have a significant influence for rabies control.

Example table shown a comparison of achievement and opportunities on the one hand and gaps and challenges on the other hand. The bullet points under each heading are examples reflecting numerous fictitious situations that might or might not apply to a country specific situation. If a specific issue is missing, please, formulate text yourself.

Achievements	Gaps
<ul style="list-style-type: none"> • Growing societal awareness on rabies • Burden of rabies known and acknowledged • Necessary stakeholders for a dog rabies elimination program identified • Growing political commitment that has translated into increasing funding from the government • Availability of appropriate laboratory capacities • Adequate rabies surveillance and reporting established • Periodic analysis of epidemiological data and multisectoral information exchange in place • SARE assessment successfully conducted • Knowledge, attitude and practice (KAP) surveys conducted • Regular rabies awareness and education campaigns implemented • Mass dog vaccination campaigns in pilot areas or in regions implemented • IBCM in place • 	<ul style="list-style-type: none"> • inadequate data on burden of rabies • Inadequate regional rabies surveillance • Shortage of rabies biologicals to prevent rabies in humans (RIG, vaccines) • Lacking supervision and inadequate monitoring and evaluation of rabies program activities • Absent coordination between the Ministry of Health and the Ministry of Agriculture/Livestock • Insufficient involvement of other competent authorities and stakeholders • Lack of awareness among people in various regions of the country • Lack of national KAP studies • Inadequate mass dog vaccination campaigns • IBCM not yet implemented • Insufficient laboratory equipment • Need for continued training of lab staff •
Opportunities	Challenges
<ul style="list-style-type: none"> • The health sector reform is likely to create appropriate conditions to establish sound linkages with the health sectors operating outside the NRP • Official role of the MoH and MoA in establishing norms and standards for rabies prevention and control services • Development of a national surveillance system that covers all the health sectors and includes rabies • Integration of Rabies into a national One Health Strategy Plan • Increased general visibility that may transform into increased national/international support • Easier access to the GAVI and WOA vaccine banks • 	<ul style="list-style-type: none"> • Decentralized management of public services, including health services, that may result in poor management capacities in rabies prevention • Suboptimal infrastructure that may limit access to health services • Limited staff resources • Unstable power supply for laboratories • Vast spread out areas /regions that hamper implementation • Unforeseeable budgetary constraints •

2.0. Rational and justification for rabies prevention and control

Provide the rational for rabies prevention and control. Keep in mind that this is a kind of justification that must convey to the reader and other stakeholders why the following control program is important and must be carried out under all circumstances.

List 3-5 justifying statements why your country needs to control canine rabies and what the countries opportunities and benefits for rabies elimination are.

Try to get issues such as:

- ❖ socio-economic and societal importance,*
- ❖ the health policy significance, and*
- ❖ cost effectiveness of rabies control and elimination*

to the point if you want to be persuasive.

The paper 'Rabies: rationale for investing in the global elimination of dog-mediated human rabies' published in 2015 is a useful tool to assist in this section. **The following rationale could be used as an example:**

- ❖ Rabies imposes a heavy economic burden, particularly on vulnerable rural communities, through lost income or livestock. An estimated (#) people are exposed to rabies virus each year in Country X, with (#) people dying annually. An estimated (#) of livestock are lost each year due to rabies.*
- ❖ Rabies is preventable through vaccination of dogs and dog population management. Additionally, rabies is prevented through community awareness and engagement; appropriate wound management and access to post-exposure immunization. Investing in these preventive measures will save up to (#) lives in Country X each year and reduce the economic impact of this disease.*
- ❖ The infrastructure required to build effective rabies programmes is the same infrastructure required to provide essential medicines, vaccines and health care to vulnerable populations. By investing in rabies elimination programmes, Country X will strengthen the human and veterinary health systems, improve healthcare access and maximize the impact of each invested dollar.*
- ❖ Evidence from around the globe shows that elimination of dog-mediated rabies is cost-effective and feasible with strong and sustained commitment from the human and animal health sectors.*
- ❖ Momentum has been generated globally to promote action and investment for rabies elimination with mechanisms and support in place to engage countries in rabies elimination. This time is now for Country X to harness the support of the global community to establish effective and sustainable National programmes.*

3.0. Overall goal

Describe your countries short, medium and long-term goals towards elimination of dog-mediated rabies [see also WHO TRS 1012 (2008) for more information].

The following text could be used as an example for defining an overall goal:

Through the implementation of National elimination plans and the fostering of collaboration across ministries and communities, 'Country X' aims to:

- ❖ (Short term): decrease human deaths from dog-mediated rabies.
- ❖ (Medium term): eliminate human deaths from dog-mediated rabies by (year). This is in line with the Sustainable Development Goals and the global commitment to eliminate human deaths from dog-mediated rabies, worldwide, by 2030.
- ❖ (Long term): eliminate dog-mediated rabies at a national level by (year) and maintain freedom from disease.

4.0. Objectives

Describe 3-5 overarching objectives through which your country aims to achieve the goal described in section 3. Avoid being overambitious; the objectives should be feasible and achievable within 1 – 5 years. Make sure the objectives match in one or the other way with those of the Global Strategic Plan (GSP – see ‘The global strategic vision at a glance’). If available, link with a more detailed action plan specifying activities to achieve each of the objectives and time frames in addendum I.

Objectives according to the Global Strategic Plan could be:

- Objective 1: to effectively use vaccines, medicines, tools and technologies
- Objective 2: to generate, innovate and measure impact by providing effective policies, guidance, governance and ensuring reliable data management system
- Objective 3: to sustain commitment and resources

Other examples could be:

- To reduce human rabies risk
- To generate, innovate and measure impact by:
- To enhance partnerships and coordination

5.0. Program implementation strategy

This is the most important part of the document as it forms the basis for the future political action and governance of the dog rabies elimination program.

Clearly define the key strategy to achieve the overall country goal (section 3) and objectives (section 4) as described in terms of

- prevention of rabies in humans,*
- prevention and control of rabies in dogs,*
- advocacy, communication and social mobilization.*

For this purpose, it is useful to assign 1-4 strategic interventions to each defined objective as exemplified in the table below. Also describe, how those strategic interventions will be monitored and evaluated. Monitoring and evaluation are iterative governance tools that give the National Rabies Committee information it needs to take decisions and about the changes that are necessary for rapid adaptation of the implementation strategy. These issues form the basis for the planning of specific activities and should therefore, linked with the action plan (addendum I).

A clear (ideally signed) statement that the main bodies/ministries (MoA , MoH,) agreed to allocate sufficient funding to the program is essential and underpins their commitment (see addendum II: budget).

Also, clearly state the organizational setup and the roles and responsibilities of

- 1. National Rabies Committee*
- 2. Technical Rabies Committee*
- 3. Regional/Local Rabies Committees*

as well as the mode of communication, information exchange and coordination as well as the frequency of meetings. Note: These committee including its defined members should already be established before the endorsement of the NSP by higher authorities.

Define a time period after which the NSP has to be revised and indicate how the NSP and action plan can be adapted to changing conditions and who is responsible.

The table below provides examples how objective related planned strategic interventions (see section 4) could be summarized at a glance.

Objective	Strategic intervention
Objective 1: to effectively use vaccines, medicines, tools and technologies	1.1. Advocacy and communication to increase awareness and improving education 1.2. Prevention and control of rabies in dogs 1.3. Prevention of rabies in human 1.4. 1.5.
Objective 2: to generate, innovate and measure impact by providing effective policies, guidance, governance and ensuring reliable data management system	2.1. Provision of effective polices and guidelines 2.2. Strengthening/establishment of a robust rabies surveillance system 2.3. Strengthening disease outbreak response 2.4. Harmonization of cross-border activities with neighboring countries 2.5. Establishment of a comprehensive monitoring and reporting system of the activities 2.6. 2.7.

Objective 3: to sustain commitment and resources	3.1. Engagement of key stakeholders and partners 3.2. Sustainable resource mobilization and financing of rabies elimination efforts 3.3. 3.4.
Objective 4:	4.1. 4.2. 4.3.

6.0. Addendum I – Action Plan

List specific activities, linked to milestones (time-line objectives e.g. Using GANTT chart) and including performance indicators and who is responsible. For clarity define simple and logic activities by using the gap and challenge analysis for orientation.

There are numerous examples for specific activities that could be implemented. Below are some examples:

- ❖ Increasing awareness and improving education
- ❖ Strengthen and enhance rabies surveillance
- ❖ Implementing/scaling up effective dog vaccination campaigns
- ❖ Ensuring equitable, affordable, and timely access to healthcare, medicines and vaccines
- ❖ Strengthening disease outbreak response
- ❖ Providing effective policies and guidelines
- ❖ Ensuring appropriate technology and innovation are made available
- ❖ Constantly and comprehensively monitoring and reporting progress
- ❖ Engaging key stakeholders
- ❖ Effectively using finances and other resources

More example activities for your perusal are listed in the table below:

Example of a fictitious country action plan (Using SARE or other assessment tools) using example objectives from section 4.

Objective	Strategic intervention	Planned activities	Responsible authority	Timeline	Expected outcome	Indicator/target
Objective 1: to effectively use vaccines, medicines, tools and technologies	Advocacy and communication to increase awareness	Develop/provide educational material	MoA/MoH	Y 1	Rabies educational material designed	Rabies educational material to all schools and communities delivered
		Assess state of knowledge on rabies among the general public	MoH, MoA	Y 1	Rabies-related knowledge and awareness gaps identified	Knowledge, attitude and practice (KAP) surveys conducted in all districts Awareness and education campaigns prepared
		Increase general rabies awareness	MoH	Y 2-3	Improved knowledge, attitude and practice towards rabies	Awareness campaigns conducted in all regions/districts
		Implement rabies education in the school curriculum	MoE	Y 3-5	Rabies specific program curriculum for elementary and secondary schools developed	Rabies specific program implemented in 80% of schools
		Gain international visibility	MoA, MoH, MoE	Y 1-5	Participation in World Rabies Day	Annual organization of 2-3 community-driven WRD events
	

	Prevention of rabies in human	Update national guidelines for PEP	MoH	Y 1	PEP guidelines follow WHO recommendations	PEP guidelines have been approved and are implemented
		Long-term procurement of immunoglobulins and rabies vaccines	MoH	Y 1-2	sufficient supply of rabies biologicals	stock-outs in health facilities prevented by%
		Ensure increased access to PEP	MoH	Y 1-5	permanent supply and storage	Annual report on delivery of rabies biologicals
		Improve optimal use of rabies vaccines	MoH	Y 1-5	Introduction ID regimen for PEP	...% of physicians and health care workers have been trained in ID application
		Strengthening of inter-sectoral communication in PEP decision taking	MoH, MoA	Y 2-3	Integrated Bite Case management (IBCM) implemented	Pilot IBCM program in two districts running
	
	Prevention and control of rabies in dogs	Conduct targeted field studies to estimate national dog density	MoA	Y 1	Overall dog density is known to optimally plan mass dog vaccination campaigns	Human:dog ratio has been determined for urban and rural areas using different methods
		Map out vaccine demand and ensure long-term procurement of inactivated rabies vaccines	MoA	Y 1-2	sufficient and constant supply rabies vaccines for dogs is guaranteed at a national level	Exact annual number of vaccines to reach 70-80% coverage in dogs has been forecasted for each year, to be updated yearly

		Increase vaccination coverage in dogs	MoA	Y 1-5	Annual mass dog vaccination campaigns	Vaccination coverage in dogs increases to 30%, 40%, 50%, 60% and 70% in y 1, 2, 3, 4 and 5, respectively
		Conduct post-vaccination monitoring	MoA	Y 2-5	Roll out of dog rabies elimination program	...,, ... % of provinces and cities reached during y 2-5
		Promote responsible dog ownership	MoA, MoH	Y 1-5	Registration of dogs is implemented% of dogs are registered countrywide
		Dog population management	MoA	Y 2 -3	A concept for management of stray dogs is available	Pilot program for management of stray dogs implemented in three districts
	
Objective 2: to generate, innovate and measure impact by providing effective policies, guidance, governance and ensuring reliable data management system	Provision of effective policies and guidelines	adjustment of the statutory frameworks	MoA, MoH, MoJ	Y 1-2	guidelines in support to program implementation (zoning, dog registration, risk-based vaccination, etc) formulated or revised	No. (...) of policies developed per year
		Review and develop guidelines/standard operating procedures	MoA, MoH	Y 1-2	Updated guidelines and SOPs available	Guidelines on PEP, adequate dog vaccination, monitoring and evaluation updated by Y 2
	Strengthening/establishment of a robust rabies surveillance system	Enhance diagnostic capacities	MoA	Y 1-3	Comprehensive diagnostic coverage	National reference/regional laboratory for rabies, diagnostic hierarchy

						and related tasks identified
		strengthen laboratory diagnostic facilities	MoA, MoH	Y 1-5	Basic primary rabies diagnostic tests established in all labs	Lab training / workshops conducted
		Improve rabies diagnostics	MoA, MOH	Y 3-5	Quality management available	Accreditation process initiated, participation in proficiency testing
		Training of responsible veterinary staff on surveillance and adequate sampling	MoA	Y 1-2	Improved rabies surveillance	Number of submissions has increased
	
	Strengthening disease outbreak response	Establish Rabies task force	MoA, MoH	Y1	identify and tackle underlying causes of regional setbacks and repeated resurgence of rabies	Task force operational by Y1
MoA, MoH			Y 2-5	program implementation checked	Yearly reporting to the National Rabies Committee	
MoH		Y 2-5	Health care and PEP in areas with increased rabies incidence secured	Yearly reporting to the National Rabies Committee		
.....			
	Harmonization of cross-border activities with neighboring countries	Establish contacts to counterparts of neighbouring countries	MoA, MoH	Y 1	Mutual exchange of information initiated	Formal procedure for information exchange implemented

		Joint meetings with neighbouring countries	MoH	Y 2-5	Supra-regional collaboration in place	Annual joint meetings and biannual workshops on strategic interventions established
	
	Monitoring and evaluation of program activities	Establishment of a comprehensive M&E system	MoA, MoH	Y1-2	Quality of program implementation and readjusting of activities guaranteed	Yearly assessment and readjustment of action plan through National Rabies Committee
	
Objective 3: to sustain commitment and resources	Engagement of key stakeholders and partners	Seek broader national and societal support by engaging stakeholders	MoA/MoH	Y 1	Additional stakeholders identified	New stakeholders introduced and included in National Rabies Committee and activities assigned
		Ensure national and international scientific partnership	MoA, MoH	Y 1-2	Continuous scientific advice available	Scientific advisory board established
				Y 1-2	International support and technical assistance	Long-term technical assistance with country "Y" formally established Lab Twinning project established
		Seek international recognition of the dog rabies elimination program	MoA	Y 4-5	The dog rabies elimination program meets WOH standards	Application for WOH endorsement of the dog rabies elimination program finalized and submitted

	
	Sustainable resource mobilization and financing of rabies elimination efforts	Approach GAVI	MoH	Y1	conditional funding of post-exposure rabies vaccine	Additional ... PEP vaccines for the next 5 years available
		Procurement of vaccines via the WOAH vaccine bank	MoA	Y1	Low cost and high-quality vaccines	...% of the annual vaccine demand covered by WOAH vaccine bank or additional dog vaccines for emergencies available
		Allocation of additional long-term funding	MoA, MoH	Y 1-5	Financial constraints prevented by additional funding	International donors approached (annual reports)
	
Objective 4

7.0. Addendum II – Budget

Provide an estimation of costs for implementing objective related strategic interventions and activities (see section 5) and listed in the action plan indicating the main source of funding (national budget/external budget) for at least 3 years (ideally 5 years).

Refer to the statement on sufficient allocation of funds to the program in section 5. For clarity, the budget could be broken down by objective and year as exemplified in the table below.

Alternatively, you may also consider combining tables provided in addendum I and II in one table. This, however, can get complex.

The following text could be used as an example of a long-term goal:

Upon prior agreement with all program partners involved 'country X' will spend an estimated [#] million USD in the next 3-5 years for rabies prevention and control at a national level (see section 1.2.).

Investing [#] million USD will save the lives of children and the livelihoods of adults, reduce the heavy economic burden imposed from lost income and livestock and strengthen health systems. According to the defined objectives and the planned strategic interventions the budget for the next ... y is detailed as follows:

Example for a table detailing the budget broken down by program partners and objectives.

Stakeholder	Objective	Category	Budget for year I	Budget for year II	Budget for year III	Budget for year IV	Budget for year V
Ministry of Agriculture	Objective 1....	Resources					
		Capacity Building					
		Workforce					
	Objective 2....	Resources					
		Capacity Building					
		Workforce					
	Objective 3....	Resources					
		Capacity Building					
		Workforce					
	subtotal						
Ministry of Health	Objective 1....	Resources					
		Capacity Building					
		Workforce					
	Objective 2....	Resources					
		Capacity Building					
		Workforce					

	Objective 3....	Resources					
		Capacity Building					
		Workforce					
subtotal							
.....	Resources					
		Capacity Building					
		Workforce					
subtotal							
total							